THE INFLUENCE OF ELECTRONIC TAX FILING SYSTEM ON TAX COMPLIANCE: THE CASE OF LARGE TAXPAYERS' BRANCH OFFICE [LTO]

BY

ABERA TATEK G/WOLD

A RESEARCH THESIS SUBMITTED TO THE DEPARTMENT OF ACCOUNTING AND FINANCE, COLLEGE OF BUSINESS AND ECONOMICS, IN PARTIAL FULFILLMENT OF THE REQUIREMENT OF MASTER OF SCIENCE (MSC) IN ACCOUNTING AND FINANCE

ADDIS ABABA, ETHIOPIA
JANUARY 2019

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ADDIS ABABA, ETHIOPIA
JANUARY 2019

Certification

We certify that this research work in titled “The influence of electronic tax filing system on tax compliance in the case of large tax payers’ branch office’’ was undertaken and completed by Mr. Abera Tatek G/wold and that the research work was supervised by us and submitted to the department of accounting and finance, school of Business And Economics, Addis Ababa University, Ethiopia

Approved by:

_____	_____
Advisor	**Signature**
_____	_____
Internal Examiner	**Signature**
_____	_____
External Examiner	**Signature**

Declaration

I declare that:

This thesis is based on a study undertaken by me, Abera Tatek G/wold, of the department of Accounting and finance, Faculty of Business and Economics, Addis Ababa University, Ethiopia

The research work is based on my desire to investigate the influence of electronic tax filing system on tax compliance in the case of large taxpayers' branch office [LTO].

This research work is my original work and to the best of my knowledge, it has not been submitted elsewhere for academic achievement in any of degree or diploma

The ideas and views of other researchers, authors and scholars expressed in the work are duly acknowledged.

Declared by:

Name_____

Sign_____

Date_____

Acknowledgements

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I am grateful to my respected supervisor Dr. Abebaw Kassie for the advice, directions and precious guidance he constantly gave to me when I needed it.

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Dedication

This thesis is honestly dedicated to my loving wife Elizabeth Shemlse and our Daughters Janya, Sipara & Hldana for patient me to spend most of their time out of the normal outing schedules to contribution the same to library and my parents and siblings for the unquantifiable support they also offered. I could not have completed this research without constant encouragement from my colleagues and friends even if time may not allow me to mention you by names.

May the Lord Jehovah God bless you all!!

Contents

List of Acronyms and Abbreviation

ASYCUDA	Automated System for Customs Data
EOU	Ease of Use
ERCA	Ethiopian Revenue and Customs Authority
ESRM	Electronic Sales Registry Machine
ETS	Electronic Tax System
ICF	Investment Climate Facility for Africa
IS	Information System
LTO	Large Taxpayers Office
PU	Perceived Usefulness
SIGTAS	Standard Integrated Government Tax Administration System
TAM	Technology Acceptance Model
TPB	Theory of Planned Behavior
TRA	Theory of Reasoned Action
UTAUT	United Theory of Acceptance and Use of Technology
VIF	Variance Inflation Factor

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Abstract

This study is conducted to determine the influence of Electronic tax filing system on tax compliance in large tax payers' branch office. The specific objectives of the study include examination of the impact of network connectivity and technical skills of filing concerns of e-tax filing on Tax Compliance among large taxpayers. The study used survey explanatory research design in which quantitative data had been collected. Both primary and secondary data had been used. Primary data had been obtained by use of structured questionnaire contained both open-ended and close-ended questions. Respondents of this study were large taxpayers who had been registered in large taxpayers' branch office. A sample size of 150 respondents had been selected from registered large taxpayers at LTO. Results of the research variables had been described, correlation and regression analysis had been conducted, Hypothesis and Data validity, and goodness of fit had been tested with composite reliability. Results interpreted from Regression Table using STATA Software. This study reveals that e- tax filing system and technical skill of filing had a statistical significant effect on taxpayer compliance. But the network connectivity had not able to statistically significant influence on taxpayer compliance. The overall implication of the strength of association which is indicated by the coefficient of determination (R-Square) 33.34% of the variance in tax compliance can be predicted from the variables E-tax filing, network connectivity & technical skills of filing.

Key words: E- tax filing system, tax compliance, Network connectivity, Technical skills of filing and LTO

Chapter One

Introduction

1.1. Background of the study

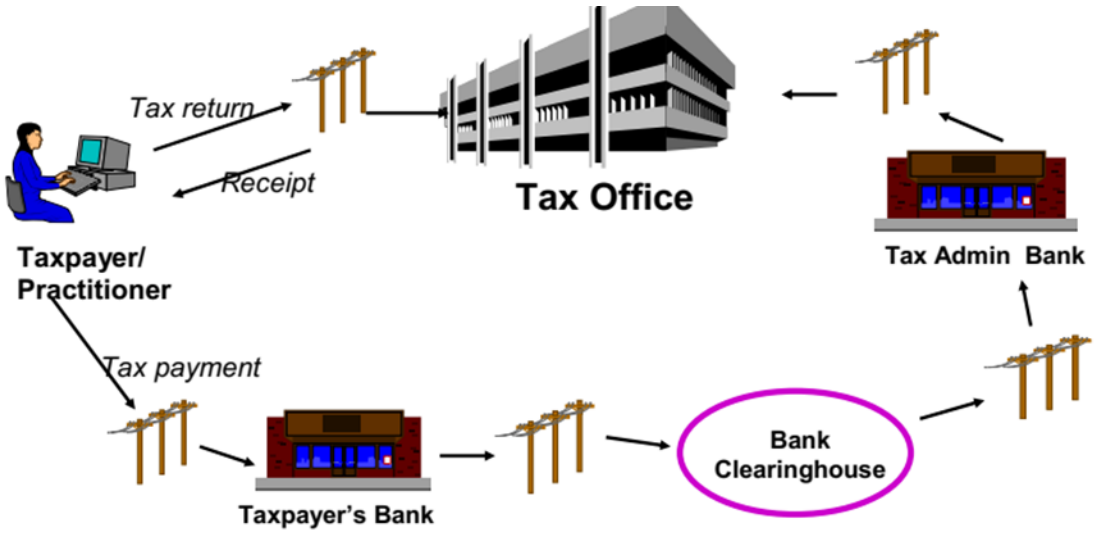
The main purpose of taxation is to generate sufficient revenue to finance public sector activities in a non-inflationary way. No one likes taxes. People do not like to pay them. (Bird & Zolt, 2003). According to Bank (2013) Well-designed electronic systems can lower corruption by reducing face to face interactions. Taxpayers' voluntary compliance with the tax system is influenced by economical, institutional, social, individual and demographic variables (Adimassu & Jerene, 2015). Tax compliance has been shown to be strongly influenced by personal ethics, and research has shown that ethics are situation-specific. There may be enough difference between a traditional paper tax return filing situation and an e-filing situation to impact tax filer ethics (Becker & Lacktorin-Revier , 2008)

According to Geetha & Sekar (2012) benefits of E-filing are: (i). Convenience – returns can be filed at any time (day or night); (ii). Certainty of delivery and quick confirmation – provides immediate confirmation from tax administration that returns has been received (iii). Fast refunds – allows taxpayers receiving refunds to get them sooner, (iv). Taxpayer privacy and security is assured, (v). Use of online commercial tax preparation software, (vi).Eliminates error notices from tax administrations caused by data entry errors, (vii). The transactions can be done electronically with a click of a button, (viii). Accessibility is allowed 24x7x365, (ix). Documents handling and storing is made easy.

There is a need to understand the acceptance by the users of the electronic tax-filing systems and identify the factors that can affect their decision to use or not to use these electronic tax-filing systems (Wang, 2003). One element of the e-file situation that may impact tax compliance is the electronic transfer of information. E-file may seem less real to the taxpayer because they see the return being filed only through a computer printout. (Becker & Lacktorin-Revier , 2008)

According to Edwards-Dowe (2008) E-filing can be defined as the transmission of tax information directly to the tax administration using the internet. Electronic filing may take place at the taxpayers' home, a volunteer site, the library, a financial institution, the workplace, malls and stores, or a tax professional's place of business. Taxation agencies will see themselves as being forced to rely increasingly heavily on surveillance as a means of pressuring people and companies into keeping their activities visible, so that they can be made to pay taxes (Wondwossen & Tsegai, 2005). Automation facilitates the clearance of legitimate trade, improves the efficiency of taxation controls and secures revenue collection (Mativo, Muturi & Nyang'au, 2015).

Figure 1: An ideal Paperless Filing and Payment System [A]



Adapted from (Edwards-Dowe , 2008)

Electronic taxation differs among countries hence the name of the system differs from country to country (Wasao, 2014). Electronic tax filing, or e-filing, is a system for submitting tax documents to a revenue service electronically, often without the need to submit any paper documents (Lukwata, 2011).The perceived usefulness factor and perceived ease of use factors are major factors in computer use behaviours based on Technology acceptance model. TAM has been widely used to scrutinize individual technology acceptance behaviour in various types of information systems (Davis, 1989).

Attitudes were measured, prevailing social norms captured and lay theories explored, which people have in mind when brooding over their annual tax declarations for an overview see (Kirchler, 2007). Compliance decision depends on (i) the level of actual income, (ii) tax rates, (iii) audit probabilities and (iv) the magnitude of fines (Kirchler, et al., 2010).

According to Tambun and Kopong (2017) Understanding compliance in terminology means compliant, obedient, and discipline towards the command / rule and so forth. Obedient taxpayer is a compliant taxpayer in fulfilling and carrying out taxation obligations in accordance with the provisions applicable in the tax law. The same thing is stated by (Rahman, 2009) that tax compliance is a situation where the taxpayer meets all tax obligations and exercising his taxation rights. There are two kinds of compliance, namely:

1. Formal Compliance is a justice in which the taxpayer meets the tax obligations formally in accordance with the tax law.
2. Material Compliance is in accordance with the contents of the tax law. Material compliance may include formal compliance.

Taxation is one of the important elements in managing national income. The tax contribution to GDP remained consistently low and is relatively shrinking due to low tax compliance (Akalu, 2016). According to November 2016 e-tax training manual of the branch office the authority uses many technologies in order to make its system secure and also for satisfying its customers. Projects like ASYCUDA++, SIGTAS, ORACLE, Cash register Machine, Cargo scanning machine, And E -Tax have been implemented.

One of the recent projects which are started Implementation according to the bilateral agreement made with Investment Climate Facilities for Africa Trust (ICF) is E-Tax. The E-Tax is a large public application designed to work with the Standard Integrated Government Tax Administration System (SIGTAS). It is a user friendly product which allows taxpayers to file electronically and to see and print their declarations on line. This paper examines whether e-filing system has an impact on tax compliance. The Internal Revenue Service of America defines Tax compliance as a taxpayers filing, reporting, and

payment of income taxes (www.irs.gov). And tax compliance has been defined by the Harvard law school (2000) as paying taxes on time and timely reporting of correct tax information.

1.2. Statement of the problem

During the last decades, different e-government services have been proposed by the public sector to citizens. E-government services which are defined as "the selection, implementation, and use of information and communication technologies in government to provide public services" (Luna-Reyes, Gil-Garcia, & Romero, 2012). The online tax services are often internet based platforms and basic knowledge of the usage of the internet is required (Azmi & Bee, 2010).

Past researches in examining the continuance usage intention have acknowledged various factors that affect technology adoption and its continued usage such as usefulness, ease of use, self-efficacy, quality, loyalty, voluntariness and subjective norm in either e-commerce or e-government environment. Studies have found linkages between technology adoption and optimism bias (Carter, et al., 2012; Schaupp, et al., 2010; Schaupp and Carter, 2010; Carter et al., 2008). The TAM theory argues that perceived usefulness and perceived ease of use influences the computer user's intention and actual usage of anew information system (Hussein et al., 2010;Davis, 1989). There are varied thoughts among the scholars on whether the perceived usefulness or the perceived ease of use is the primary determinant in the usage of a new information system (Azmi & Bee, 2011)

The lack of the appropriate computer literacy levels therefore makes online tax filing expensive (Osebe, 2013). Lack of the ability to use the e-filing system quickly and efficiently or lack of understanding the type of information required by the online tax filing system forces taxpayers to engage third parties (Mandola, 2013) there are challenges associated with the online filing including taxpayers' perception, challenges associated with learning the electronic filing system from service provider, limited accessibility of internet infrastructure and electronic filing system down times (Azmi & Bee, 2011).

Local studies were conducted by (YOSEPH, 2017) regarding assessing of E-tax filing system in selected branch offices of Ethiopian Revenues and customs Authority (ERCA). Findings revealed challenges like taxpayers' attitude, taxpayers' fault and governmental problems and benefits which include data handling, accuracy, job performance and tax compliance. In addition, the study found out that E-tax filing system and tax compliance has a positive relationship. (Wondwossen & Tsegai, 2005) study on e-payment practices in developed countries, Africa and Ethiopia reveals that the major challenges of e-payment in Ethiopia include poor telecommunication infrastructure, frequent power disruption, people are resistant to new payment mechanisms , lack of skilled manpower and unavailability of payment laws, and regulations particularly for e-payment.

Does technology assist taxpayers to be more compliance if tax return is filed electronically? Technology acceptance is a crucial determinant in knowing the level of technology usage. (Fu, Farn & Chao, 2006) Defined technology acceptance as an individual's psychological state with regard to his or her voluntary, intended use of a technology, taxpayers' motivation to file tax returns on time and correctly highly depends on their willingness to cooperate (Kirchler, Niemirowski & Wearing, 2006). This is supported by The Compliance Model (Braithwaite, 2003) where supportive relationship from tax officers would be the pushing factor for taxpayers to comply with the rules, regulations and procedures outlines by the tax authorities.

Despite technology on tax filing system importance, E-tax filing system in Ethiopia unexplored so far. As to the researcher knowledge, there is no empirical research on the influence of electronic tax filing system on tax compliance regarding on technology acceptance and assistance in ethiopia. Thus, examining the impact of electronic tax filing on tax compliance which has not been extensively studied yet in developing countries especially in Ethiopia can contribute to address the gap in the literature. This research would endeavor to bridge the gap between technology assistance and acceptance among tax preparers

A need to explore tax compliance and network connectivity as well as technical skills of filing behaviour of the self-employed is very important. Tax payers offend and upset when system stability disturbed due to extra cost and effort requesting which is manual

tax filing system. (Kiring'a & Jagongo, 2017) study shows the knowledge of taxation system, internet familiarity, professionals' assistance and website ease of use of tax payers are also the other factors that tax payers to be compliance.

Little is known about the influence of e-tax filing system, network connectivity aspects and technical skills of filing returns on tax compliance. This research attempts to examine the influence of the electronic tax filing system on tax compliance of large taxpayers' branch office and develop further understanding on the impact of network connectivity and technical skills of filing returns aspects of e-tax filing on tax compliance. Based on this description, the researcher set the title of this study as: "The influence of e-tax filing system on tax compliance:-The case of large taxpayers' branch office (LTO)".

1.3. Objectives of the study

1.3.1. General Objective

The objective of the study was to examine the influence of the electronic tax filing system on tax compliance of large taxpayers' branch office.

1.3.2. Specific Objectives

The specific objectives of the study:

1. To determine the impact of the e-tax filing system on tax compliance among large taxpayers.
2. To establish the impact of the network connectivity aspects of e-tax filing on tax compliance among large taxpayers.
3. To examine the Impact of technical skills of filing concerns of e-tax filing on Tax Compliance among large taxpayers.

1.4. Significance and Implications of the Study

Ethiopian Revenue and customs Authority will be able to use the findings from this study to critically assess the influence of the electronic tax filing system and take any corrective measures to counter any weaknesses identified. This will help in elevation of large

taxpayers' development in the country as well as ensuring adequate financial resources for the government.

Ethiopian Revenue and customs Authority will be able to use the findings from this study to improve the internet network connectivity and interruption of e-tax database and to take awareness on the opportunities that technology can provide as well as the challenges that may -emerge as the users are phasing in the change over time.

The findings will contribute to gain understanding on the gap existed in the e-filing system among the taxpayers and the enhancement is certainly assists in understanding the determinant of tax e-filing. The research will also contribute to other researchers benefit from the findings in that the study will provide information or can be a base to all future researchers interested in the area of electronic tax filing system and tax compliance.

1.5. Scope of the study

According to Addis fortune 26 August 2018, Businesses with annual turnover of half a million Birr are categorized under micro and are served at the 116 wereda offices in the city. Annual turnovers between half a million Birr and five million Birr is allotted for the small taxpayers and are served at the district level. Businesses with annual turnover of five million Birr to 40 million Br are settling their taxes at the city's four middle taxpayers' offices. Businesses with annual revenue of 40 million Br or more settle their taxes at large taxpayers' branch office.

The federal income tax proclamation classifies taxpayers into three categories: Those who have an annual turnover below half a million Birr, listed under category C; businesses with annual turnovers between half a million and one million Birr, category B; and taxpayers with annual gross income of more than one million Birr are categorized as Category-A.

In the time of this research had been conducted , Businesses with annual revenue of 40 million or more Ethiopian birr, which is big share of tax revenue of the authority, were using the e-filing system. The study will cover only the large tax payers who are customers of large tax payers' branch office (LTO) but which doesn't concern micro,

small and middle tax payers. The research considered compliance levels, attitudes of tax payers towards electronic tax filing system, network connectivity, as well as taxpayers' technical skills of filing returns in the case of large taxpayers' branch office.

1.6. Limitations of the study

The researcher experienced some limitations while carrying out this study. First the population of the study was so big at a time of the research were conducted (1,143 taxpayers) while the sample size was only 150. Therefore, if proper measures are not taken, the results obtained in a way may not reflect the accurate position on the ground since tax matters are personal and sometimes generalizing them may not yield an objective conclusion.

The study will not consider other variables included taxpayer awareness, peer attitude, taxpayers' understanding of a tax system, motivation such as rewards and punishment, cost of compliance, enforcement efforts such as audit; probability of detection, perceived behavioural control, ethics/ morality of the taxpayer and tax collector, equity of the tax systems, image of the government in achieving the tax objectives under prescribed principles of taxation. In addition, there were also demographic factors such as sex, age, education and size of income and use of informants, which will affect the tax payer's compliance behaviour for the sake of simplicity. The variables to this research will focuses e-tax filing system, network connectivity aspects of e-tax filing and taxpayers' technical skills of filing concerns of e-tax filing and the study will not consider micro, small and middle tax payer's compliance behaviour as well as it will not consider the impact of manual filing on tax compliance.

Chapter Two

Literature review

2.1. Introduction

This chapter highlights the views of different academicians, researchers and scholars that have been advanced in the field of tax compliance, Electronic tax filing systems, tax payer's attitudes towards technology acceptance, network connectivity of e-tax filling, technical skills of filing and automation in organizations for improved efficiency and service delivery.

Tax evasion is an important social-economic problem in all societies of the world, regardless of the type of tax system or the country's economic development level, therefore deception using tax incentives or tax evasion should be analyzed in a wider context, as the key aspect of shadow economy. The question of what tax and other social-economic factor changes need to be made to reduce the scope of shadow economy or people's involvement in illegal activities is particularly relevant in current situation of global economic growth. Tax evasion is violation of social norms in a wide context and includes inner and outer sides of infringement.

According to Marandu, Mbekomize & Ifezue (2015) review of the factors that determine taxpayer compliance too many and different explanatory factors have been proposed in the literature making comparison of findings across several studies difficult & several Researchers proceed without a theoretical framework to help guide the selection of independent factors. Since the use of theory enhances understanding of the major factors that affect a phenomenon, this deficiency has left the tax literature without a meaningful convergence on the key determinants and aggregate analysis showed that attitudinal, normative and subjective control variables were on the overall good predictors of tax compliance.

Based on Marandu, Mbekomize & Ifezue (2015) Findings suggest that implications for research and policy action. First, it is recommended that future studies should seek to

develop a few theory based set of relevant determinants of tax compliance that can yield accurate predictions. Second, tax policy makers are advised to desist from exclusive use of the conventional coercive methods (subjective control factors) normally used to compel tax compliance; instead they should take a balanced approach to tax enforcement that will also encourage voluntary compliance through change of attitudes and norms.

The tax declaration decision is a decision under uncertainty. The reason for this is that failure to report one's full income to the tax authorities does not automatically provoke a reaction in the form of a penalty. The taxpayer has the choice between two main strategies: (1) He may declare his actual income. (2) He may declare less than his actual income. If he chooses the latter strategy his payoff will depend on whether or not he is investigated by the tax authorities. If he is not, he is clearly better off than under strategy (1). If he is, he is worse off. The choice of a strategy is therefore a non-trivial one (Allingham & Sandmo, 1972).

According to Kapranova, et al. (2017) study governments seek to reduce the level of tax evasion in society and shape public tax awareness, what constitutes tax evasion, (tax evasion as a violation of social norms) "inner" side? A simple tax system and full information about activity of agents can reduce tax evasion. Increased knowledge of tax evasion opportunities has a negative influence on tax compliance as it assists non-compliance. Wage and salary income subject to withholding (e.g., services employment income) is another important curb on tax evasion. In addition, perceptions that tax policy is fair are associated with reduced levels of tax evasion. Finally, where tax morale is high, lower levels of tax evasion can be expected (Redae & shailinder, 2017). These specific insights should allow government policy-makers to gain a better understanding of the key variables that are significantly associated.

The growing use of internet had made e-government possible for many countries, even for developing countries. Government around the world is investing in the development of government services. One of the e-government services that are gaining importance is the e-tax filing system.

2.2. Theoretical Literature review

2.2.1. Theory of taxation

Taxation is essential for sustainable economic development, and tax administration is a basic function of a successful state. Taxation also helps make a government accountable to its citizens. When governments spend taxpayers' money, they are more accountable to make budget decisions transparent and accessible (Bank, 2013).

(Smith & Seminar, 1903) The father of modem political economy has laid down four principles or cannons of taxation in his famous book "Wealth of Nations". These principles are still considered to be the starting point of sound public finance. Adam Smith's celebrated cannons of taxation are: Cannon of equality or ability, Cannon of certainty, Cannon of economy and Cannon of convenience means that the tax should be levied at the time and the manner which is most convenient for the contributor to pay it.

(1) Canon of equality or ability: Canon of equality or ability is considered to be a very important canon of taxation. By equality we do not mean that people should pay equal amount by way of taxes to the government. By equality is meant equality of sacrifice that is people should pay taxes in proportion to their incomes. This principle points to progressive taxation. It states that the rate or percentage of taxation should increase with the increase in income and decrease with the decrease in income. In the words of Adam Smith:

"The subject of every state ought to contribute towards the support of the government as early as possible in proportion to their respective abilities that is in proportion to the revenue which they respectively enjoy under the protection of the State".

(2) Canon of certainty: The Canon of certainty implies that there should be certainty with regard to the amount which taxpayer is called upon to pay during the financial year. If the taxpayer is definite and certain about the amount of the tax and its time of payment, he can adjust his income to his expenditure.

The state also benefits from this principle, because it will be able to know roughly in advance the total amount which it is going to obtain and the time when it will be at its

disposal. If there is an element of arbitrariness in a tax, it will then encourage misuse of power and corruption Adam smith in this connection remarks:

"The tax which each individual is bound to pay ought to be certain and not arbitrary. The time of payment, the manner of payment, the quantity to be paid all ought to be clear and plain to the contributor and to every other person".

(3) Canon of convenience: By this canon, Adam smith the tax should be levied at the time and the manner which is most convenient for the contributor to pay it. For instance, if the tax on agricultural land is collected in instalments after the crop is harvested, it will be very convenient for the agriculturists to pay it. Similarly, property tax, house tax, income tax, etc., should be realized at a time when the taxpayer is expected to receive income. The manner of payment of tax should also be convenient. If the tax is payable by cheques, the contributor will be saved from much inconvenience. In the Words of Adam Smith:

"Every tax ought to be levied at the time or in the manner in which it is most likely to be convenient for the contributor to pay it".

(4) Canon of Economy: The canon of economy implies that the expenses of collection of taxes should not be excessive. They should be kept as little as possible, consistent with administration efficiency. If the government appoints highly salaried, staff and absorbs major portion of the yield, the tax will be considered uneconomical. Tax will also to regard as uneconomical if it checks the growth of capital or causes it to immigrate to other countries, in the words of Adam Smith:

"Every tax is to be so contrived as both to take out and keep out of the pockets of the people as little as possible over and above what it brings into the public treasury of the state".

According to Mwansa, (2013) taxes help in reducing the gap between the rich and the poor (Inequality).Taxes also play a critical role in encouraging economic growth (Economic growth-reducing poverty). Furthermore, (Todaro, 2009) noted that tax revenue is currently the only reliable and sustainable source of government revenue

unlike other sources such as debt, aid and remittances, which are not reliable as they are unpredictable and can thus be unsustainable (Sources of revenue).

According to the AICPA (2001), the taxation system is to be judged by the standards of equity, efficiency and administrative convenience. Tax system means the set of taxes that are used by a government. Hence tax policy is a government program for setting taxes. In other words it is the way a Country chooses to allocate tax burdens among its people. According to (Alison, 2008) similarly situated taxpayers should be taxed similarly. The principle of taxing similar taxpayers similarly is typically described in terms of equity.

2.2.2. Tax Compliance Theory

During the 1980s structured research into tax evasion and non-compliance became widespread following the political concerns in the United States of an increasing "tax gap (Tanzi & Shome, 1994) Initially, the literature which emerged from the United States had a strong focus on economic theory. Utility theory, developed by (Allingham & Sandmo, 1972) assumed taxpayers to be 'utility minimisers' in decisions of tax reporting and compliance, where tax evasion was viewed as worthwhile if the financial gains purely outweighed the financial costs.

More recently, however, tax compliance studies (Murphy, 2004;Tan, 1998;Hite, 1997) and (Torgler & Murphy, 2004) have been based on social and psychological theories. Research studies in this field have argued that the human element plays a vital role in individual taxpayer compliance decisions. However, while the tax compliance literature has emerged from a wide variety of disciplines, there has been a lack of consensus and agreement as to why people do or do not pay their taxes. Indeed the tax compliance literature indicates that there are still many research gaps that need to be filled with respect to issues concerning tax morals, tax fairness and deterrence measures, for the likely improvement in overall taxpayer compliance.

The main theoretical approaches to tax compliance have commonly been divided into the 'economic deterrence' approach, and the wider behavioural approach which incorporates both social and fiscal psychological approaches. The economic deterrence model has been commonly used to examine tax evasion and compliance from a theoretical

perspective (Jackson & Milliron, 1986). Factors that have been examined in the economic deterrence model include: Complexity of the tax system, Level of revenue information services, Withholding and information reporting, Preparer responsibilities and penalties, Probability of receiving audit coverage, Progressive and actual level of tax rates, and Penalties for non-compliance. The social/fiscal psychological model on the other hand, focuses on psychological variables which include moral values and the perception of fairness of the tax system and the tax authorities. This approach has often been used in empirical research (Ajzen & Fishbein, 1980).

The economic definition of taxpayer compliance views taxpayers as 'perfectly moral, risk-neutral or risk-averse individuals who seek to maximise their utility, and chose to evade tax whenever the expected gain exceeded the cost. (Milliron & Toy, 1988) Thus, a pure 'cost-benefit' approach is given for why or why not taxpayers may comply with the tax laws. Some researchers propose that individuals are expected to weigh 'the uncertain benefits of successful evasion against the risk of detection and punishment. (Fischer, Wartick & Mark, 1992) Consequently, a penalty structure forms part of the punishment, and is a critical factor in an individuals' choice to evade tax.

Despite the positive effect of increased sanction levels on taxpayer compliance having been found to hold where relatively low (and realistic) penalty levels are used, (Carnes & Englebrecht, 1995) their overall impact has been questionable. Consequently, traditional economic deterrence models which draw upon expected utility theory and deterrence, mainly in the form of sanctions, have been found wanting. Little empirical evidence to support the predictions of economic deterrence models as a whole has surfaced. Researchers (Roth & Scholz, 1989).have, therefore, summarised the effect of factors that determine the monetary cost of compliance as including the tax rate, detection probability, the level of income and the penalty structure and suggest that, for all of them, existing empirical evidence provides no firm conclusions (Hasseldine, 2000). Fiscal psychology models blend together aspects of economic deterrence models and social psychology models. The essential thrust of this approach is that individuals are not simply independent utility maximises rather individuals are recognised to contain an array of attitudes and beliefs which interact and respond to social norms. Social

psychology models inductively examine the attitudes and beliefs of taxpayers in order to understand and predict human behaviour.

2.2.3. Technology Acceptance Model (TAM)

The technology acceptance model has been a theory that is most widely used to explain an individual's acceptance of an information system. In the area of research to investigate the individual acceptance behavior on Information technology and Information systems, many models were suggested by the researchers. These include the Theory of Reasoned action (TRA), Theory of planned behavior (TPB), Technology Acceptance Model (TAM) and Unified Theory of Acceptance and Use of Technology (UTAUT).

Technology Acceptance Model has been developed by Davis (1989) is one of the most popular research models to predict use and acceptance of information systems and technology by individual users. TAM has been widely studied and verified by different studies that examine the individual technology acceptance behavior in different information systems constructs.

In TAM model, there are two factors perceived usefulness and perceived ease of use is relevant in computer use behaviors. Davis defines perceived usefulness (PU) as the prospective user's subjective probability that using a specific application system will enhance his or her job or life performance. Perceive ease of use (EOU) can be defined as the degree to which the prospective user expects the target system to be free of effort. According to TAM, ease of use and perceived usefulness are the most important determinants of actual system use. These two factors are influenced by external variables. The main external factors that are usually manifested are social factors, cultural factors and political factors. Social factors include language, skills and facilitating conditions. Political factors are mainly the impact of using technology in politics and political crisis. The attitude to use is concerned with the user's evaluation of the desirability of employing a particular information system application. Behavioral intention is the measure of the likelihood of a person employing the application.

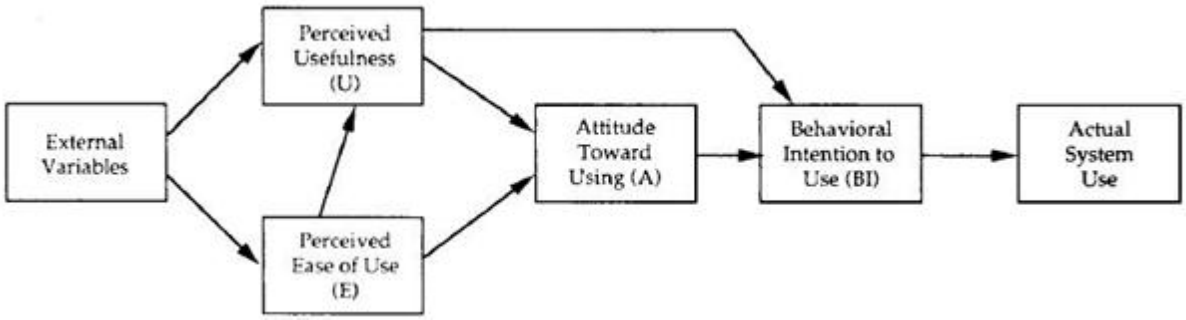


Figure 2: Technology acceptance Model (TAM) Adapted from Davis (1989)

2.3. Empirical Review

According to (Ali, et al., 2013) an increase in the perception of individuals about the difficulty of evading taxes is found to increase the likelihood of tax compliant attitude and evidence that individuals who are more satisfied with public service provision are more likely to have a tax compliant. (Tilahun, & Yidersal, 2014) Conclude that attitude perception on government spending; perception on equity and fairness of the tax system; penalties; personal financial constraint; changes on current government policies; and referral group (friends, relatives etc.) are factors that significantly affect tax compliance behaviour.

E-tax filing is a new channel to pay taxes via electronic medium such as the Internet. Although it is convenient, easy, flexible and available 24/7, the innovation might cause some problems to consumers. (Kamarulzaman & Azmi, 2010) many factors impacting tax compliance have been studied, including attitude of tax payers (Lukwata, 2011) Age and occupation (Islam, Yusuf & Bhuiyan, 2015) Trust of the government and web-based service quality (Hussein, et al., 2010, April;Chen, et al., 2015; Schaupp, Carter & Hobbs, 2009) age, sex, penalty, audit, simplicity, fairness and government perception were found to affect tax compliance (Amina & Saniya, 2015 ; Helhel & Ahmed, 2014) Race Gender and education were not significant factors engaging user satisfaction on e-filing (Islam, Yusuf & Bhuiyan, 2015).

(Engida, & Baisa, 2014; Akalu, 2016; Trang, Nga, & Quang, 2015) identify the most important determinants are: economic factors as the level of income, audit probabilities,

tax audit, tax rate, tax benefits, penalties, fines and other non- economic factors as attitudes toward taxes, personal, social and national norms, perceived fairness etc. Tax knowledge, simplicity of tax returns and administration, perception on fairness and equity, perception on government spending, probability of auditing, and the influence of referral group were determinant factors that influence voluntary compliance behaviour of tax payers (Adimassu & Jerene, 2015; Ali, et al., 2013) e-filing is generally perceived as an exciting and positive development for taxpayers, tax administrations must partner with third parties and continuously market the program to achieve success.

Akalu (2016) conclude in his study Business size, business age and tax psychological cost consistently influence the likelihood of tax non-compliance behaviour in the areas of under reporting income, over-claiming expenses and overall non-compliance. Nonetheless, business sector, tax complexity, fairness in the tax rate/ tax system and tax deterrence sanctions have an insignificant relationship with the non-compliance behaviour of corporate taxpayers. Tax liability, compliance cost and tax rate structure are significant determinants in at least one type of non-compliance behaviour (Korir, 2011) point out Inability to understand tax laws, a feeling that they are not paying a fair share of tax, Positive peer attitude and Rewarding as the factors for tax non-compliance.

According to Chen, et al. (2015) trust in technology, trust in government, and prior experience directly affected the trust in e-government websites, which in turn directly influenced all three IS quality dimensions. Of these three dimensions, information quality was found to be the most consistently and significantly influence perceptions of usefulness and satisfaction, implying that this dimension is the most critical one beyond the service quality and system quality for taxpayers to use the system.

According to (Becker & Lacktorin-Revier , 2008) studies the relationship between e-filing and tax compliance is of interest due to the popularity of tax e-filing. Substantial prior research has shown that ethics are situation-specific, and tax compliance has been shown to be strongly influenced by personal ethics. There may be enough difference between a traditional paper tax return filing situation and an e-filing situation to impact

tax filer ethics. (YOSEPH, 2017)Assessed E-tax filing system challenges like taxpayers' attitude, taxpayers fault and governmental problems and benefits which include data handling, accuracy, job performance and tax compliance In addition, the study found out that E-tax filing system and tax compliance has a positive relationship.

According to Dorasamy, et al.(2010) study suggestion that taxpayers have intention to use the e-filing systems as they perceive that tax submission method via internet is more convenient than submission by post or by hand and that perceived readiness towards using this technology is paramount to their belief for using e-filing systems. According to (Muturi & Kiarie, 2015) online tax system does affect tax compliance level among small taxpayers. Whereas (Gwaro, et al., 2016) concluded that online tax returns system stability did not have significant influence on tax compliance levels. And computer literacy levels have significant influence on tax compliance levels.

Geetha & Sekar (2012) Study shows that users are satisfied with the e-filing facilities but most of the individual tax payers are not awareness of the e-filing and e-payment procedures. (Schaupp, Carter & Hobbs, 2009) Study result indicates performance expectancy, social influence, facilitating conditions, and optimism bias all have a significant impact on e-file intention. (Arora, 2017) Examine the satisfaction level of taxpayers age-wise, education-wise and occupation-wise, a significant difference has been observed for the satisfaction on various aspects of e-filing system. According to (Korir, 2011) Taxpayers' attitude towards tax system attitude is influenced by the factors, which eventually influence taxpayers' behaviour that encourages tax compliance

(Ndayisenga & drshukla, 2016) Conclude that both electronic tax management system which consist of Tax Payment System, Mobile Tax Payment System and electronic Billing Machine System contributes to timely tax payment and reduced operational cost for both Revenue Authority staffs and clients. (Bank, 2013) Conclude based on Malaysia's experience that has shown the opportunities that technology can provide as well as the challenges that may emerge as the users are phasing in the change over time.

Wondwossen & Tsegai (2005) find out in his study that the major challenges of e-payment in Ethiopia include Poor telecommunication infrastructure, frequent power disruption, People are resistant to new payment mechanisms, lack of skilled manpower and Unavailability of payment laws, and regulations particularly for e-payment. According to (Ali, et al.,2015) Electronics Tax System (ETS) resulted in a large and significant increase in tax payments. And also find evidence that the effect is driven primarily by firms that are more likely to evade taxes prior to the ETS adoption, suggesting that the ETS has minimized tax evasion.

An empirical study of Wang (2003) Considering both the simplicity of TAM and the uniqueness of an electronic tax-filing system and the groups that use it, the extended TAM can be used with confidence as a theoretical framework to examine the effect of individual differences (i.e., computer self-efficacy) on users' acceptance of electronic tax-filing systems through three beliefs— perceived usefulness, perceived ease of use, and perceived credibility.

According to Kamarulzaman & Azmi (2010) Perceived ease of use influences the performance risk of the e-filing system. Having an e-filing system that is not too complicated will also minimize the performance risk. Performance risk will be lowered only when taxpayers feel that the system is easy to use. This will also lower the perceived risk that taxpayers feel towards the system.

According to Yusup, et al (2015) there was a significant effect of perceived ease of use, subjective norm, perceived usefulness, facilitating condition of the attitude, toward the attitude and the intention to use. Thus, it is evidence that e-billing based services may be one way to improve service of government agencies to facilitate the payment of taxes

Bett, Osodo & Tanui (2017) Concluded that online taxpayer registration and online tax return processing have a significant contribution on revenue collection (Wasao, 2014) concludes under his study online tax registration, online tax filing and online tax remittances are affected by online system in order to enhance compliance and there is a

positive correlation between online system and tax compliance among taxpayers. (De Castro, et al., 2015) Investigated Perceived benefits on using the Electronic Filing and Payment System (EFPS) and the respondents' intention to use the system are usually affected by their perceived risks and problems.

2.4. Research Hypotheses

After related literatures were extensively reviewed on electronic tax filing system, network connectivity and taxpayers' technical skills of filing, the following directional research hypotheses were developed.

H1: There is a significant influence of e-tax filing system on taxpayers' compliance.

H2: There is a significant influence of network connectivity on taxpayers' compliance.

H3: There is a significant influence of taxpayers' technical skills of filing returns on taxpayers' compliance.

2.5. Justification of gap analysis

The taxpayers' attitude on compliance may be influenced by many factors, which eventually influence taxpayers' behaviour. Those factors which influence tax compliance and/or non- compliance behaviour are differing from one country to another and also from one individual to another (Kirchler, 2007).

The relationship between e-filing and tax compliance is of interest due to the popularity of tax e-filing. Substantial prior research has shown that ethics are situation-specific, and tax compliance has been shown to be strongly influenced by personal ethics. There may be enough difference between a traditional paper tax return filing situation and an e-filing situation to impact tax filer ethics (Becker & Lacktorin-Revier , 2008). Is tax compliance is lower when a tax return is to be filed electronically than when a return is to be filed in paper? , is there any effect on tax compliance if tax is filled electronically? Does technology assist taxpayers to be more compliance if tax return is filed electronically?

Those questions enhance the researcher to focuses the study on the impact of e-tax filing on tax compliance which endeavour to link the gap between technology acceptances

among tax preparers and technology assistances to taxpayers which is mainly the network connectivity related with e-tax filing. Although a wide variety of factors have been identified as influential in Information Technology (IT) acceptance, little is known about the relative influence of each of these factors on tax preparers' acceptance, particularly, in the area of taxation or on tax compliance. (Aziz & Idris, 2014) Thus, the main question of this study is how could we explain such impact?

2.6. Conceptual framework

The study conceptualized that the level of attitude of the taxpayers towards e-tax return filing system, network connectivity aspects of e-tax filing and technical skills of filing concerns of e-tax filing. (Independent variables) had a direct and positive influence on the taxpayers' compliance (dependent variable). The more positive the attitude of the taxpayers towards the e-tax return filing system, network connectivity aspects of e-tax filing and technical skills of filing returns concerns of e-tax filing system, the more the tax compliance behavior of the taxpayers will be; while more negative the attitude of the taxpayers towards those variables, the less the tax compliance behavior of the taxpayers will be.

In other words, the outcome of positive views was tax compliance and negative views were tax non-compliance. But the extent to which the attitude towards tax system influenced the level of tax compliance depended on a number of variables. These variables (see under section 1.8) either facilitated or reversed the expected relationship between the independent and dependent variables and were controlled by being incorporated into the study and studied alongside the independent and dependent variables. This was done in order to isolate and assess their independent influence on the dependent variable in the study.

Figure 3: Conceptual framework

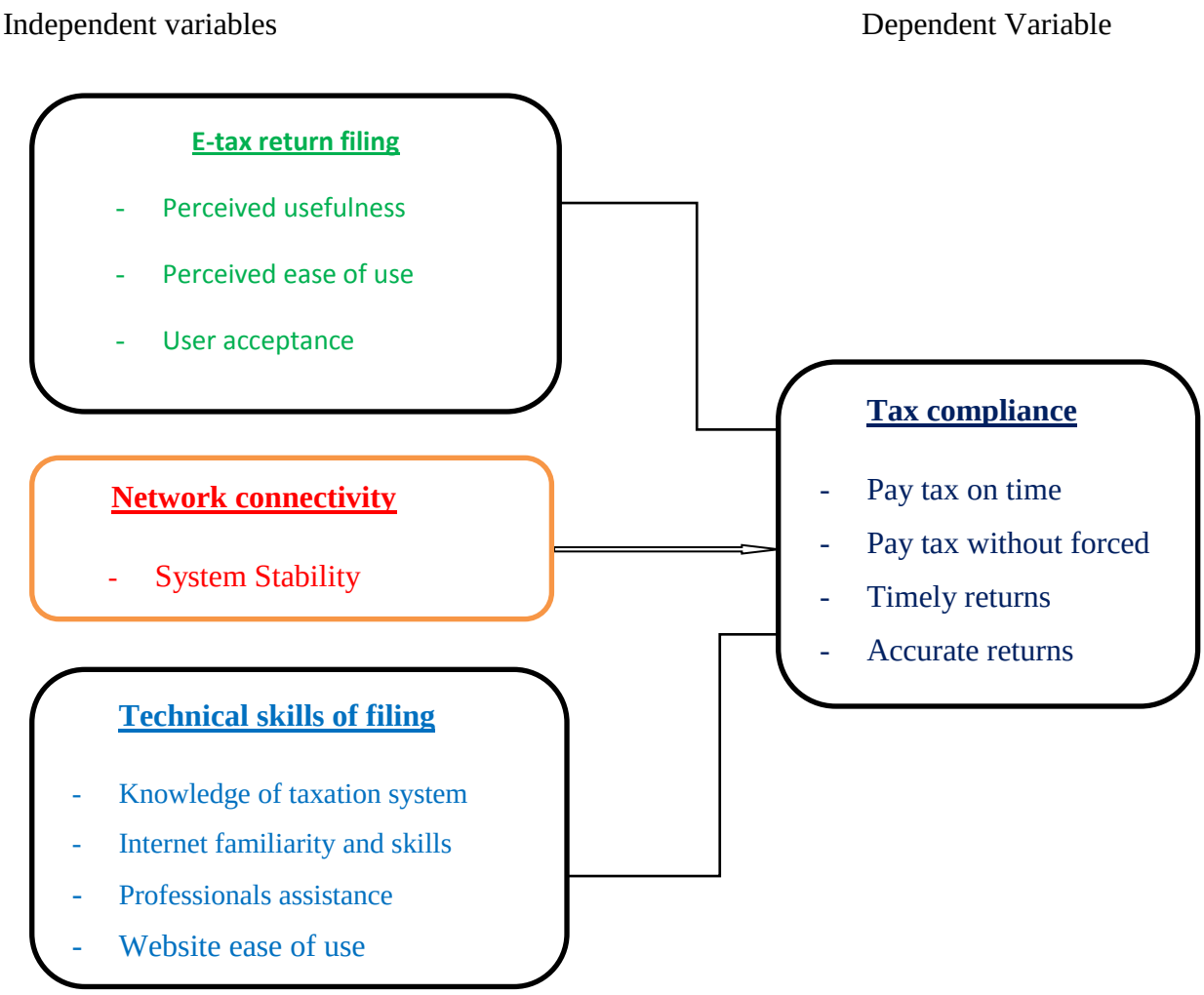


Figure 4: Conceptual framework

Adapted from (Tambun and Kopong, 2017; Davis, 1989; Gwaro, et al., 2016 and Kiring'a & Jagongo, 2017)

Chapter Three

Research Methodology and Research Design

3.1. Methodology

This chapter discusses the research methodology that had been used in the study. The chapter includes the research approach, design, study population, sample design, data collection instrument and conclude with data collection procedures and data analysis techniques.

3.2. Research Approach

The research chooses is a deductive research approach which goes from theory to data. A deductive approach is concerned with developing a hypothesis (or hypotheses) based on existing theory, and then designing a research strategy to test the hypothesis. It has been stated that deductive means reasoning from the particular to the general. If a causal relationship or link seems to be implied by a particular theory or case example, it might be true in many cases. A deductive design might test to see if this relationship or link did obtain on more general circumstances.

Deductive approach can be explained by the means of hypotheses, which can be derived from the propositions of the theory. In other words, deductive approach is concerned with deducting conclusions from premises or propositions. Deductive approach advantages are: Possibility to explain causal relationships between concepts and variables, Possibility to measure concepts quantitatively & Possibility to generalize research findings to a certain extent.

The research problem had been solved using explanatory study design sometime referred to as analytical study. The main aim of explanatory research is to identify any causal links between the factors or variables that pertain to the research problem. This design enables to establish causal relationship between e-tax return filing system, network connectivity as well as technical skills of filing returns along with levels of tax

compliance. Explanatory study technique with self-administered questionnaires as the survey instrument had been considered as appropriate for the study.

3.2.1. Sample

Population in this research is individual large taxpayer owning business, registered in large taxpayers' branch office Addis Ababa, Ethiopia. According to year 2010 E.C the tax authority report's, the number of individual large taxpayers who run their business in the area and registered in the authority office is about 1, 143 Taxpayers. The sample was part of the number and characteristics possessed by that population. Respondents had been selected based on the criteria that the individual taxpayers those already using e-filing in their tax reporting. The other criterion is that the respondent is willing to fill out this research questionnaire.

Ideally, it would have been preferable to collect data from all the 1, 143 Tax Payers. A representative sample size of 150 large tax payers were selected using non-random sampling technique in which convenience sampling methods were used in the study. Stratification was done for the taxpayers based on their sectors, i.e. (Agriculture, Chemical, Defense, Direct selling, Education, Energy, Entertainment, Financial service, Health care, Information, Manufacturing, Mining and Minerals, Telecommunication and other sectors) resulting in Fifteen strata. Further analysis of the impact of e-tax return filing system, network connectivity and Technical skills of filing returns had been then done based on tax returns filed and major challenges experience with interaction with technology and taxation. This study used (Rose & Canhoto, 2014) equation formula to calculate the sample size based on the sample required estimating a proportion with an approximate 95% confidence level; we can use the following formula:

$$n = \frac{(1.96)^2\, p\, q}{D^2}$$

Where: n = required sample size

p = proportion of the population having the characteristic (0.5)
q = 1-p and d = the degree of precision (0.08)

Note that a proportion of 50% indicates a greater level of variability than either 20% or 80%. This is because 20% and 80% indicate that a large majority do not or do, respectively, have the attribute of interest. Because a proportion of 0.5 indicates the maximum variability in a population, it is often used in determining a more conservative sample size that is, the sample size may be larger than if the true variability of the population attribute were used. (Israel, 1992)

Substituting these values in the equation, estimated sample size (n) is:

n = [(1.96) ^2 (0.5) (0.5)] / (0.08) ^2

n = 150.06 that is rounded to 150 respondents

3.2.2. Procedures

Primary data had been collected by distributing research questionnaires which is modified from (Braithwaite, 2003) questionnaires to get information about [Pay taxes on time, Pay taxes without forced, Timely return and Accurate returns] targeting tax compliance variable, from (Davis, 1989) questionnaires to get information about (Perceived usefulness, Perceived ease of use and user acceptance) targeting the impact of e-tax return filing system variable , from (Gwaro, et al., 2016) questionnaires to get information about System Stability targeting the impact of network connectivity. And from (Kamarulzaman & Azmi, 2010) questionnaires to get information about (Knowledge of taxation system, Internet familiarity and skills, Professionals assistance and website ease of use) targeting the impact of Technical skills of filing returns.

In this study, data collection and analysis like use of structured questionnaire containing both open and close-ended questions, Correlation and regression analysis, F and T tests to enhance data validity and reliability were used. In carrying out the collection of data and information needed as the basis of research writing, the authors will make a questionnaire that contains the questions of each variable. This study used Likert scale in collecting the answers of the respondents. The research had quantitative research design which enables to collect, organize and analyze numerical data.

Data had been summarized from research questionnaires in accordance with research variables to be studied then data had been presented in descriptive statistics, to know the description of research data, both maximum and minimum research data, or average or standard deviation. Multiple regression models had been formulated and analysis had been used to test the effect of e-tax on tax compliance among the large taxpayers in the tax authority. In interpreting the data, the steps used in multiple regression analysis STATA interpreted output for the primary data are interpretation using regression table, overall model fit and parameter estimates. The following violation of the assumptions of classical linear regressions had been tested using the corresponding violation test tools:-

1. Heteroscedasticity
2. Specification error
3. Multicollinearity
4. Test of Normality
5. Joint test (F-test)

3.2.3. Dataset

Data to test the model were drawn from a cross-sectional field study of large taxpayers' office of current year. The study used both primary and secondary data. Primary data had been obtained by use of structured questionnaire containing both open-ended and close-ended questions. The questionnaire had been administered to the sampled large taxpayers. Secondary data to support the growth of tax compliance behavior in Ethiopia among large taxpayers had been obtained from large taxpayers' office of current year company report. Data collection and analysis like use of structured questionnaire containing opened and close-ended questions, Correlation and regression analysis, F and T tests to enhance data validity and reliability had been used.

3.2.4. Instruments

The primary data of the study had been collected using a structured self-administered five point Likert scale questionnaire. The questionnaire had had five sections. The first section comprises questions which ask about the general information (demographic information) of the respondents. The remaining sections include close-ended questions to determine

the level of agreement or disagreement of large taxpayers about the different issues related to e-tax filing's benefits, challenges and it's relation with tax compliance. Descriptive statistics, such as means, standard deviations, Skewness and kurtosis, had been followed by detailed analysis of the research questions

3.2.5. Measures

Variable operational is an explanation of the definition and indicator of the measurement of variables which had been studied. The following are indicators of the measurement of the variables:

1. Taxpayer compliance variable as the dependent variable. The Indicators used on Taxpayer compliance according to (Tambun and Kopong, 2017) where
    1.1.Pay taxes on time,
    1.2.Pay taxes without being forced
    1.3.Timely returns
    1.4.Accurate returns
2. The e-filing variable as the first independent variable. According to (Davis, 1989) The indicators used in the e-filing system contained
    2.1. Taxpayers' perceived Usefulness
        A. Work more quickly
        B. Job Performance
        C. Effectiveness on the job
        D. Makes job easier and
        E. Useful to do the job
    2.2. Taxpayers' perceived ease of use
        A. Ease to learn
        B. Controllable
        C. Clear and understandable
        D. Flexible
        E. Ease to use

2.3. User acceptance of e-tax filing system

3. Network connectivity variable as a second independent variable. According to (Gwaro, et al., 2016) The indicators used in network connectivity was
    3.1.System Stability
4. Technical skills of filing returns variable as a third independent variable. According to (Kiring'a & Jagongo, 2017)The indicators used in Technical skills of filing returns were
    4.1.Knowledge of taxation system
    4.2.Internet Familiarity and skills
    4.3.Professionals assistance
    4.4.Website ease of use

The explanatory variables E-tax filling system, Network connectivity and Technical skills of filing that measured as "1" when taxpayers select (Agree/Strongly agree) to indicate that taxpayers agreed and "0" when taxpayers select (Disagree/Strongly disagree) to indicate that taxpayers disagreed.

3.2.6. Data-Analysis

The method of analysis was multiple regression analysis method. In analyzing the data, the steps which had been used in multiple regression analysis for the primary data were as follows:

a. Recapped data from research questionnaires that had been collected in accordance with research variables to be studied.
b. Presentation of data in descriptive statistics, to know the description of research data, both maximum and minimum research data, or average or standard deviation. The presentation of this data used ***STATA*** software.
c. The data feasibility test had been done by validity test. Furthermore, reliability test data had been done by testing composite reliability.
d. Hypotheses test had been done by using **STATA** output from parameter estimate table.

Regression analysis had been used by adapting (Wasao, 2014; Yan, 2009) research model as the model is multiple regression model and used similar dependent as well as e-tax return filing independent variables to test the effect of e-tax on tax compliance among the large taxpayers in the tax authority. The explanatory variables had been used to fit in a linear regression model as show below.

$$\mathbf{Y=\beta 0+\beta 1X1+\beta 2X2+\beta 3X3+\varepsilon}$$

Where

Y => Dependent Variable (Compliance)

X1 => Independent Variable (E-Tax Return Filing system)

X2 => Independent Variable (Network connectivity)

X3 => Independent Variable (Technical skills of filing)

β0 => Constant

β0, B1 B2, B3 => Regression Coefficients

ε => Error term

Compliance had been measured based on a percent

$$\text{Compliance} = \frac{\text{No. of correct study fields}}{\text{Total study fields}}$$

To determine if any of the independent variables influenced behavior or outcome of the dependent variable (tax compliance) an F test carried out on the model assuming a 95% confidence interval. Correlation analysis had been done in order to eliminate for multi-collinearity.

Chapter Four

Data analysis, results and discussion

4.1. Introduction

This chapter provides a description of the results of data analyses in narrative and tabulated manners. First, demographic information for the respondents is reported such as gender, age, level of education, major industry type and type of business ownership. Second, descriptive statistics, such as means, standard deviations, Skewness and kurtosis, followed by detailed analysis of the research questions and result interpretations. Finally, the chapter discusses the research objective.

4.1 Data Collection and Response Rate

In total, 170 questionnaires were distributed to the sampled respondents and 150 were received back which is the responses representing a response rate of around 88%.The researcher considered the response adequate since respondents from all the taxpayers' strata as per the sample design responded. According to Mugenda (2003) a response rate of over 60% of the respondents is considered adequate but if unresponsive rate is high, the researcher is required to do a follow up study to check the factors behind the lack of response since it can be a relevant factor in the study. High response rates reduce the risk of bias in the responses.

4.2 Demographic Information

As per the table shown below this study was gathered that the respondents were aged between 18 and 60 years of age (M = 84 & F=66). Male constituted 56 % while female were 44%. This describes a gender-balanced response considering Gender. The level of education of the respondents was as follows; 7.33% of the respondents were Primary school graduate, 2.67% of the respondents were Secondary, 16% were College graduate, 72.67% were university graduate and 1 respondent has no educational level which is 0.67% while 1 respondent didn't respond in this regard which is 0.67%. Most of the

respondents were manufacturing company which is 28.67% and from sole proprietorships owner which is also 28.67% as presented in Table 1 & 2 below. This implies that Businesses with annual revenue of 40 million or more Ethiopian birr are using the e-filing system which is big share of tax revenue of the authority and it shows majority are privet owners seems like to use e-filing system due to ease of use and its usefulness.

Table 4.1: Two way Frequency Table of Gender and Age

	Age						
Gender	18-24	31-35	41-45	25-30	36-40	46 & above	Total
Female	11	16	3	24	10	2	66
Male	11	17	4	29	8	15	84
Total	22	33	7	53	18	17	150

Table 4.2: Profile of Respondents

		Obs.No. (= 150)	Freq.	Percent	Cum.
Gender	female		66	44	44
	male		84	56	100
Total			150	100	
Age	18-24		22	14.67	14.67
	25-30		53	35.33	50
	31-35		33	22	72
	36-40		18	12	84
	41-45		7	4.67	88.67
	46 & above		17	11.33	100
Total			150	100	
Education level	primary		11	7.33	7.33
	secondary		4	2.67	10
	college		24	16	26
	university		109	72.67	98.67
	none		2	1.33	100
Total			150	100	
Industry type	Agriculture		9	6	6

	Chemical	2	1.33	7.33
	Direct selling	14	9.33	16.66
	Education	5	3.33	19.99
	Financial service	27	18	37.99
	Health care	2	1.33	39.32
	Information	2	1.33	40.65
	Manufacturing	43	28.67	69.32
	Mining & Minerals	1	0.67	69.99
	Telecommunication	3	2	71.99
	Transport	1	0.67	72.66
	Others	27	18	90.66
	Not respond	14	9.34	100
Total		150	100	
Ownership	Sole Proprietorship	43	28.67	28.67
	Partnership	34	22.67	51.34
	Corporation	34	22.67	74.01
	Other	35	23.33	97.34
	Not respond	4	2.66	100
Total		150	100	

4.3 Descriptive results of the research variables

The study pursued to establish the impact of electronic tax system on tax compliance among large taxpayers in large taxpayers' branch office. Four main questions were framed and the same given to the respondents i.e. tax compliance, electronic tax filing system, network connectivity and technical skills of filing of the respondents. Each question had several components tested in order to realize the objectives of the study In order to present the descriptive results of the variables of the study, an analysis of the number of responses, Means, Standard Deviations, Standard error of means, Maximums, Skewness and Kurtosis was done.

Table 3 provides the number of responses, Means, Standard Deviations, Standard error of means, Maximums, Skewness and Kurtosis for the variables of interest. For Information for personal data, Tax compliance, electronic tax filing system, Network connectivity and

Technical skills of filing had average of around a statistics of mean [(3.7), (4.2), (3.9), (3.4) & (3.6)], statistics of Standard Deviations [(1.80),(1.16),(1.24),(1.32),&(1.30)] and Statistics of Standard error of means [(0.15),(0.10),(0.10),(0.11), & (0.11)] respectively. Since this study employs quantitative data analysis, two statistical values were checked to assess the normality of the distribution of the variables: Skewness and kurtosis. Skewness is a measure of how responses are distributed, while kurtosis is a measure of how responses cluster around a central point for a standard distribution (Stern, 1977) A criterion from the literature is that a Skewness statistic bigger than 3.0 or a kurtosis statistic bigger than 8.0 would imply that the distribution is non-normal (Kline, 2005). The Skewness and kurtosis statistics for all variables in this study were within these acceptable ranges of normality as shown on Table 3 below

Table 4.3: compactable summary Statistics

variable	*count Statistic*	*mean Statistic*	*median Statistic*	*SD Statistic*	*sd error Statistic*	*max Statistic*	*skewness Statistic*	*Kurtosis Statistic*
General Information								
1. gender	150	0.5600	1.0000	0.4980	0.0407	1.0000	-0.2417	1.0584
2. Age	150	3.4200	4.0000	1.5812	0.1291	6.0000	-0.0571	1.9026
3. education	150	3.5467	4.0000	0.9166	0.0748	5.0000	-2.0271	6.2707
4. industry	150	8.6067	10.5000	4.8257	0.3940	15.0000	-0.4178	2.0749
5. ownership	150	2.3533	2.0000	1.1992	0.0979	4.0000	0.0205	1.7339
Average		3.6973		1.8041	0.1473			
Tax compliance								
1. Paying tax is the right thing to do	150	4.4067	5.0000	0.9769	0.0798	5.0000	-2.0988	7.2293
2. Paying tax is a responsibility that should be willingly accepted by all society	150	4.3067	5.0000	1.0865	0.0887	5.0000	-1.8908	6.1826
3. I feel a moral obligation to pay my tax	150	4.1333	5.0000	1.2352	0.1009	5.0000	-1.6911	5.4047
4. Paying my tax finally advantages everyone	150	4.1800	5.0000	1.1648	0.0951	5.0000	-1.6323	4.9754
5. I think of tax paying as helping the government do worthwhile things	150	4.0330	4.0000	1.2975	0.1059	5.0000	-1.7267	5.4071
6. I accept responsibility for paying my fair share of tax	150	4.1533	4.5000	1.1686	0.0954	5.0000	-1.7433	5.7810
7. Overall, I pay my tax with good will	150	4.1400	5.0000	1.1930	0.0974	5.0000	-1.6280	5.0430

Average		4.1933		1.1604	0.0947			
Electronic Tax filing system								
8. Using e-filing in my job would enable me to accomplish tasks more quickly	150	4.0800	4.0000	1.1616	0.0948	5.0000	-1.4451	4.3270
9. Using e-filing would improve my job performance	150	4.0600	4.0000	1.1828	0.0966	5.0000	-1.6055	5.2992
10. Using e-filing would enhance my effectiveness on the job	150	4.0200	4.0000	1.1497	0.0939	5.0000	-1.5014	4.9953
11. Using e-filing would make it easier to do my job	150	4.0400	4.0000	1.2472	0.1018	5.0000	-1.3879	4.1380
12. I would find it easy to get e-filing system to do what I want it to do	150	3.6733	4.0000	1.3733	0.1121	5.0000	-1.0203	3.0750
13. I would find e-filing easy to use	150	3.7867	4.0000	1.3340	0.1089	5.0000	-1.0688	3.1181
Average		3.9433		1.2414	0.1014			
Network connectivity								
14. System hang-ups leads to delay in tax submission	150	3.6267	4.0000	1.3187	0.1077	5.0000	-0.8047	2.6528
15. System hang ups leads to unwillingness to file tax returns	150	3.2667	3.5000	1.3345	0.1090	5.0000	-0.3602	2.1170
16. System hang ups leads to inability to file tax returns without assistance	150	3.2800	4.0000	1.3114	0.1071	5.0000	-0.5629	2.5717
17. System hang ups leads to incurrence of costs to pay third parties to file tax returns on my behalf	150	3.1200	3.0000	1.3507	0.1103	5.0000	-0.2681	2.2360
18. System hang ups leads to compromise of tax information to be submitted	150	3.4600	4.0000	1.2882	0.1052	5.0000	-0.5822	2.6459
Average		3.3507		1.3207	0.1079			
Technical Skills of Filing								
19. I Can accurately determine my tax obligations and file returns on time using the online tax system	150	3.6733	4.0000	1.3082	0.1068	5.0000	0.7696	2.4354
20. I can file tax returns without anybody's help	150	3.6333	4.0000	1.3129	0.1072	5.0000	-0.7293	2.4460
21. The technical competence of filing tax returns influences my use of electronics Tax system	150	3.3200	4.0000	1.3966	0.1140	5.0000	-0.6425	2.5190
22. The information on online tax declaration is easy to comprehend	150	3.7733	4.0000	1.1709	0.0956	5.0000	-1.0374	3.5666

23.	*I have ability to navigate the e- filing system quickly and efficiently*	150	3.6000	4.0000	1.2691	0.1036	5.0000	-0.7787	2.8112
24.	*I can use the self-help menus available in the website*	150	3.4200	4.0000	1.3673	0.1116	5.0000	-0.7405	2.6637
Average			3.5700		1.3042	0.1065			

4.4.1. Compactable Summery statistics of Variables

This section shows and discusses the output of the different statistical measures on variables. Table 4 shows all variables with its corresponding dimension in one table along with statistical measures mean and standard deviation (SD). According to the first section of the questionnaire (Q1-Q7) which examines taxpayers commitment to pay tax on time, without forced, timely and accurate tax returns which measure tax compliance level. Commitment reflects beliefs about the desirability of tax systems and feelings of moral obligation to act in the interest of the collective and pay one's tax with good will (Braithwaite, 2003). The highest mean of 4.41 respond is paying tax is the right thing to do and the highest SD 1.30 responds is paying tax as helping the government do worthwhile things. The average mean and SD (M=4.19, SD=1.16) which is a slight difference on Braithwaite study which is (M = 3.85, SD = 0.54). The implication that on average the respondents tended to agree that timeliness of tax returns filing, without forced, accuracy of the filed information and the timely payment of the tax due to the mean and standardization affected by the challenges of the electronic tax filing system.

Table 4 also exhibits that the means and SD of the perceived usefulness, perceive ease of use and user acceptance constructs were 3.94 and 1.24 respectively. This could possibly indicate that taxpayers perceived the electronic tax-filing system as easy to use and useful. In addition to that, the Table shows that these respondents have a positive intention to adopt the e-filing system. With regard to perceived ease of use, the more an individual feels that a particular filing method is easier to use, the more likely they are to use (Boone, M., 2012).

The means and standard deviations of challenges of the electronics tax returns of network stability were also examined. The respondents on average tended to agree that the system

hang ups lead to delay in submission of tax returns, unwillingness to file returns, inability to file returns without assistance, incurrence of costs to pay third parties to file and compromise of information submitted due to a mean of 3.35 and a standard deviation of 1.32. This implies that delays leads to taxpayers postponing on the scheduled times to do their tax returns, the system unwillingness to file returns due to frustration when there are incidences of system challenges, inability to file returns without assistance from third parties in view of the time expenditure making large taxpayers to outsource the services to specialized cyber cafes and compromise of information submitted due to passing of the information to the third parties to assist in filing of returns. Similar results (M = 3.94, SD = 0.95) had been obtained by (Gwaro, et al., 2016).

In regard to technical skills of filing the mean and standard deviation were 3.57 and 1.31 respectively. This implies that electronics tax system based on the knowledge of taxation system, internet familiarity, professional's assistance and website of use assist taxpayers to be more compliance. The study done by Ming Ling & Hidayah (2010) came up with similar results and found that one must not ignore the mandatory skills users of the system need to have. Failure to consider such skills may make the intention of the system not to be realized (Meade & Presley, 2002). Therefore, the more one has technical skills of filing tax returns will lead to increased tax compliance.

Table 4.4: Summery Statistics of Variables

Variable Dimension	Obs	mean	SD
4.1. Tax Compliance			
4.1.1. Paying tax is the right thing to do	150	4.41	0.98
4.1.2. Paying tax is a responsibility that should be willingly accepted by all society	150	4.31	1.09
4.1.3. I feel a moral obligation to pay my tax	150	4.13	1.24
4.1.4. Paying my tax finally advantages everyone	150	4.18	1.16
4.1.5. I think of tax paying as helping the government do worthwhile things	150	4.03	1.3
4.1.6. I accept responsibility for paying my fair share of tax	150	4.15	1.17
4.1.7. Overall, I pay my tax with good will	150	4.14	1.19
Average		4.19	1.16
4.2. Electronic tax filing system			

4.2.1. Using e-filing in my job would enable me to accomplish tasks more quickly	150	4.08	1.16
4.2.2. Using e-filing would improve my job performance	150	4.06	1.18
4.2.3. Using e-filing would enhance my effectiveness on the job	150	4.02	1.15
4.2.4. Using e-filing would make it easier to do my job	150	4.04	1.25
4.2.5. I would find it easy to get e-filing system to do what I want it to do	150	3.67	1.37
4.2.6. I would find e-filing easy to use	150	3.79	1.33
Average		3.94	1.24
4.3. Network connectivity			
4.3.1. System hang-ups leads to delay in tax submission	150	3.63	1.32
4.3.2. System hang ups leads to unwillingness to file tax returns	150	3.27	1.33
4.3.3. System hang ups leads to inability to file tax returns without assistance	150	3.28	1.31
4.3.4. System hang ups leads to incurrence of costs to pay third parties to file tax returns on my behalf	150	3.12	1.35
4.3.5. System hang ups leads to compromise of tax information to be submitted	150	3.46	1.29
Average		3.35	1.32
4.4. Technical skills of filing			
4.4.1. I Can accurately determine my tax obligations and file returns on time using the online tax system	150	3.67	1.31
4.4.2. I can file tax returns without anybody's help	150	3.63	1.31
4.4.3. The technical competence of filing tax returns influences my use of electronics Tax system	150	3.32	1.4
4.4.4. The information on online tax declaration is easy to comprehend	150	3.77	1.17
4.4.5. I have ability to navigate the e- filing system quickly and efficiently	150	3.6	1.27
4.4.6. I can use the self-help menus available in the website	150	3.42	1.37
Average		3.57	1.31

From Table 5 below, Tax compliance has the highest mean among the variables at 4.19 followed by E-tax filing system at 3.94. Network connectivity and Technical skills of filing have the least mean at 3.35 and 3.57 respectively. Network connectivity had the highest standard deviation at 1.32 indicating that it has a high dispersion from the mean. Tax compliance had the least dispersion from the mean with the lowest standard deviation of 1.16. All variables had more than 25% variation using the values of the

Coefficient of Variation. Network connectivity was the most affected variable with a variation of about 39%. All variables were negatively skewed. However, the values Network connectivity is closer to zero, thereby indicating a possibility of normality in these variables. All variables are Leptokurtic indicating that they have a narrow distribution that is peaked at the top.

Table 4.5: Descriptive Statistics for Variables

Variable	obs.	mean	sd	cv	skewness	kurtosis
Tax compliance	150	4.19	1.16	0.28	(1.76)	5.71
E-tax filing system	150	3.94	1.24	0.32	(1.33)	4.15
Network connectivity	150	3.35	1.32	0.39	(0.51)	2.44
Technical skills of filing	150	3.57	1.31	0.37	(0.78)	2.62

Key: Obs.=Number of observations, Sd=Standard Deviation, CV= Coefficient of Variation

4.4.7. Result of Electronic Tax filing system

Under E- tax filing system (First independent variable) respondents are asked six Likert Scale Questions to measure their perceived Usefulness to state either e-tax filing system are contributed on their job performance, work quickness, effectiveness on their job and make their job easier and useful or not as well as on respondents perceived ease of use to state either e- tax filing system is easy to learn, controllable, celerity and understandability, flexibility and ease to use and finally they are asked whether they accept the e-tax filing system or not.

Table 4.6: Frequency Distribution of E-tax filing system

Diverse challenges in electronic tax filing system have affected the following dimensions of tax compliance levels	SA Freq. (%)	A Freq. (%)	U Freq. (%)	D Freq. (%)	SD Freq . (%)	Missed Freq. (%)
1. Using e-filing in my job would enable me to accomplish tasks more quickly	68 45.34	54 36	11 7.33	6 4	11 7.33	0 0
2. Using e-filing would improve my job performance	66 44	55 36.66	13 8.67	7 4.67	0 4%	3 2
3. Using e-filing would enhance my effectiveness on the job	60 40	60 40	14 9.33	7 4.67	7 4.67	2 1.33
4. Using e-filing would make it easier to do my job	72 48	45 30	12 8	11 7.34	8 5.33	2 1.33
5. I would find it easy to get e-filing system to do what I want it to do	48 32	57 38	13 8.67	16 10.67	12 8	4 2.66
6. I would find e-filing easy to use	55 36.67	54 36	12 8	14 9.33	13 8.67	2 1.33

1. Using e-filing in my job would enable me to accomplish tasks more quickly

The First Likert scale question was either using e-filing in their job would enable them to accomplish tasks more quickly or not. Respondents were required to answer either strongly disagree, disagree, undecided, agree or strongly agree as to whether they have been quickly filing tax returns online or not.

As results shown on the table 6 above around 68 respondents or 45% strongly agree, around 54 respondents or 36% agree, around 11 respondents or 7% strongly disagree or Undecided on the other hand and only 6 respondents or 4% are disagree using e-filing in their job would enable them to accomplish their tasks more quickly.

2. Using e-filing system would improve my job performance

Respondents were asked in the second Likert scale question to state wither using e-filing system would improve their job performance or not. As results shown on the table below around 66 respondents or 44% Strongly agree, around 55 respondents or 37% Agree, around 13 respondents or 9% Undecided, 7 respondents or 5% disagree, 6 respondents or 4% are strongly disagree using e-filing would improve their job performance. There are 3 respondents which is about 2% were not respond for this question.

3. Using e-filing would enhance my effectiveness on the job

Respondents were asked in the third Likert scale question to state wither using e-filing system would enhance their effectiveness on the job or not. The table below show results of around 60 respondents or 40% agree, again around 60 respondents or 40% Strongly Agree, around 14 respondents or 9% Undecided, 7 respondents or 5% Strongly Disagree, again around 7 respondents or 5% are Disagree using e-filing would enhance their effectiveness on job. There are 2 respondents which is about 1% were not respond for this question.

4. Using e-filing would make it easier to do my job

Respondents were also asked in the fourth Likert scale question to state wither using e-filing system would make it easier to do their job or not. Table 6 above show results of around 72 respondents or 48% Strongly agree, around 45 respondents or 30% Agree,

around 12 respondents or 8% Undecided, 11 respondents or 7% disagree, around 8 respondents or 6% are strongly disagree using e-filing would make easier to do their job. There are 2 respondents which is about 1% were not respond the fourth question.

5. I would find it easy to get e-filing system to do what I want it to do

Respondents were also asked in the fifth Likert scale question to state if they would find it easy to get e-filing system to do what they want to do or not. The table below show results of around 57 respondents or 38% agree, around 48 respondents or 32% Strongly Agree, around 16 respondents or 11% Disagree, 13 respondents or 9% undecided, around 12 respondents or 8% are strongly disagree as to whether Using e-filing would make easier to do their job. There are 4 respondents which is about 2% were not respond the fifth question.

6. I would find e-filing easy to use

Respondents were also asked in the last Likert scale question for E-tax filing system variable to state if they found e-filing system easy to use or not. The table below show results of around 55 respondents or 37% strongly agree, around 54 respondents or 36% agree, around 14 respondents or 9% disagree, 13 respondents or 9% strongly disagree, around 12 respondents or 8% are Undecided were found e-filing easy to use. There are 2 respondents which is about 1% were not respond the last question.

4.4.8. Result of Network connectivity

Under Network connectivity (Second independent variable) respondents are asked Five Likert type Questions to state whether their businesses had network connectivity or not. The question had checked respondents' opinion by measuring their business internet connectivity in regard of system stability. The frequency distribution of online tax returns system stability was examined using Table 7.

Table 4.7: Frequency Distribution of Network connectivity						
Diverse challenges in electronic tax filing system have affected the following dimensions of tax compliance levels	SA Freq. (%)	A Freq. (%)	U Freq. (%)	D Freq. (%)	SD Freq. (%)	Missed Freq. (%)
7. System hang-ups leads to delay in tax submission	46 30.67	49 32.67	26 17.33	12 8	16 10.67	1 0.66
8. System hang ups leads to unwillingness to file tax returns	31 20.67	44 29.33	28 18.67	30 20	15 10	2 1.33
9. System hang ups leads to inability to file tax returns without assistance	27 18	49 32.67	34 22.67	23 15.33	13 8.67	4 2.66
10. System hang ups leads to incurrence of costs to pay third parties to file tax returns on my behalf	28 18.67	35 23.33	37 24.67	31 20.67	15 10	4 2.66
11. System hang ups leads to compromise of tax information to be submitted	38 25.33	42 28	36 24	22 14.67	9 6	3

7. System hang-ups lead to delay in tax submission

Respondents were asked whether their business faced on system hang-ups which lead to delay in tax submission. As the result shown on table 7 above, a majority 49 respondents of 33% agreed that the system hang ups led to delay in submission of tax returns. This is attributable to the fact that such delays leads to taxpayers postponing on the scheduled times to do their tax returns, other respondents of 46 or 31% Strongly Agree, respondents of 26 or 17% undecided, respondents of 16 or 11% Strongly disagree, respondents of 12 or 8% disagree that the system hang ups led to delay in submission of tax returns. One respondent or 0.66% didn't respond in this regard.

8. System hang ups lead to unwillingness to file tax returns

Respondents were asked whether their business encountered on system hang-ups which leads to unwillingness to file tax returns. As the result shown on table 7 above, a majority of 44 respondents or 29% of the respondents indicated that the system hang ups lead to unwillingness to file returns. This is due to the frustration experienced when there are incidences of system challenges. This contrasted to a small percentage of 10% which were 15 respondents who strongly disagreed that system hang ups lead to unwillingness to file returns. Other respondents of 31 or 21% strongly agree respondents of 30 or 20% Disagree, respondents of 28 or 19% undecided that the system hang ups lead to unwillingness to file returns. Two respondents or 1% didn't respond in this regard.

9. System hang ups lead to inability to file tax returns without assistance

Respondents were asked whether their business confronted on system hang-ups which leads to inability to file tax returns without assistance. As per table 7 above result shown that majority of 33% of the respondents which is 49 respondents strongly agreed that system hang ups led to inability to file returns without assistance from third parties. This is in view of the time expenditure making large taxpayers business owners to outsource the services to specialized cyber cafes. This contrasted to a small percentage of 9% or 13 respondents who strongly disagreed that the system hang ups led to seeking of assistance from third parties. Other respondents of 34 or 23% undecided, respondents of 27 or 18% strongly agree, respondents of 23 or 15% disagree that the system hang ups lead to unwillingness to file returns. Four respondents or around 2% didn't respond in this regard.

10. System hang ups lead to incurrence of costs to pay third parties to file tax returns on my behalf

Respondents were asked whether their business encountered on system hang-ups which leads to incurrence of costs to pay third parties to file tax returns. As the result shown on table 7 above In relations to system hang ups leading to incurrence of costs to pay third parties to file on their behalf, around 37 of the respondents that is 25% of the respondents undecided to the statement. On the other hand 10% or 15 of the respondents who strongly disagreed. Other respondents of 35 or 23% Agree, respondents of 31 or 21% Disagree, respondents of 28 or 19% strongly agree that the system hang-ups leads to incurrence of costs to pay third parties to file tax returns. Four respondents or around 2% didn't respond in this regard.

11. System hang ups leads to compromise of tax information to be submitted

Respondents were asked whether their business confronted on system hang-ups which leads to compromise of tax information to be submitted. As the result shown on table 7 above in relations to system hang ups leading to compromise of tax information to be submitted a majority of 42 or 28% of the respondents agreed that the system hang ups led to compromise of information submitted. This can be attributed to passing of the

information to the third parties to assist in filing of returns. This is contrasted to only 6% or 9 of the respondents who strongly disagreed. Other respondents of 38 or 25% strongly agree, respondents of 36 or 24% undecided, respondents of 22 or 15% disagree that the system hangs ups led to confrontation of information submitted. Three respondents or around 2% didn't respond in this regard.

4.4.9. Result of Technical skills of filing

Azmi and Kamarulzaman (2010) in their study of the Malaysian e-filing system also point out the technical aspect of the filing process as a challenge facing taxpayers with regard to its use. It is in this regard that this research sought to investigate the technical skills of filing tax returns as a factor that influences tax compliance. The results are presented in Table 8.

Table 4.8: Frequency Distribution of Technical skills of filing

Diverse challenges in electronic tax filing system have affected the following dimensions of tax compliance levels	SA Freq. (%)	A Freq. (%)	U Freq. (%)	D Freq. (%)	SD Freq. (%)	Missed Freq. (%)
12. I Can accurately determine my tax obligations and file returns on time using the online tax system	49 32.67	50 33.33	19 12.67	17 11.33	15 10	0 0
13. I can file tax returns without anybody's help	47 31.33	50 33.33	18 12	22 14.67	12 8	1 0.67
14. The technical competence of filing tax returns influences my use of electronics Tax system	32 21.33	51 34	24 16	25 16.67	12 8	6 4
15. The information on online tax declaration is easy to comprehend	44 29.33	60 40	26 17.33	9 6	10 6.67	1 0.67
16. I have ability to navigate the e- filing system quickly and efficiently	41 27.33	53 35.33	25 16.67	19 12.67	10 6.67	2 1.33
17. I can use the self-help menus available in the website	35 23.33	51 34	30 20	14 9.33	16 10.67	4 2.67

12. I can accurately determine my tax obligations and file returns on time using the online tax system

On the 19*th* question, as to whether the respondents can accurately determine their tax obligations and file returns on time using the online tax system, around 33% or 49 and 33% or 50 respondents strongly agreed and agreed respectively, only 13% or 19

respondents were not sure (undecided) with another 11% or 17 respondents who disagreed with the statement while 10% or 15 respondents arguing on the contrary strongly disagreed that they can accurately determine their tax obligation and file a return on time using the online tax system. Perhaps those who were not sure have never embraced online tax filing and are not using it so they could not take a stand on it.

13. I can file tax returns without anybody's help

On the question as to whether the respondents can file a return without anybody's help, majority 33% or 50 respondents agree and 31% or 47 respondents strongly agreed, meaning the respondents can file online return without help. While 15% or 22 respondent disagreed 8% or 12 respondents strongly disagree meaning the respondents cannot file online return without help.12% or 18 respondents were not sure can or cannot file online return without help. One respondent or around 1% didn't respond in this regard.

14. The technical competence of filing tax returns influences my use of electronics Tax system

Respondents when asked as to whether the technical competence of filing tax returns influences their use of e-Tax filing system, the findings were as follows, 34% or 51 respondents agreed with the statement while 21% or 32 respondents strongly agreed. Further 17% or 25 respondents disagreed with the statement while 8% or 12 respondents strongly disagreed. The finding of the study also revealed that 16% or 24 respondents were not sure as to whether the technical competence of filing tax return influences the use of electronics tax system. It can be deduced that while majority of the respondents agreed that technical competence of filing a tax return influences the use of electronics tax system. Six respondent or around 4% didn't respond in this regard.

15. The information on online tax declaration is easy to comprehend

Respondents when asked as to whether the information on online tax declaration is easy to understand, 6% or 9 respondents did not support the idea thus they disagreed while 7% or 10 respondents strongly disagreed with the statement. On the same note 40% or 60 respondents accounted for those who agreed while 29% or 44 respondents strongly

agreed. The finding of the study also revealed that 17% or 26 respondents were not sure as to whether the information on online tax declaration is easy to comprehend. One respondent or around 1% didn't respond in this regard.

16. I have ability to navigate the e- filing system quickly and efficiently

Respondents when asked as to whether they have ability to navigate the e-filing system quickly and efficiently which is attributable to the fact that the online tax returns is a self-help and self-navigation module in which the user is needs to have little technical know-how in trouble shooting in times of challenges. In this regard a majority of 35% or 53 of the respondents agreed and 27% or 41 respondents strongly agree that they have ability to navigate the e-filing system menus on the e-tax platform quickly and efficiently which affects positively the tax compliance. This high percentage is attributed to the module of online tax returns which is self-navigated at the e-tax platform with no site help from the tax authority officials. On the other hand 13% or 19 respondents disagree and 7% or 10 respondents strongly disagree indicate they were helped by the tax authority officials to navigate the e-filing system. The finding of the study also revealed that 17% or 25 respondents were not sure as to whether they have ability to navigate. Two respondents or around 1% didn't respond in this situation.

17. I can use the self-help menus available in the website

Respondents when asked as to whether they can use the self- help menus available in the website. which is also attributable to the fact that the online tax returns is a self-help and self-navigation module in which the user is needs to have little technical know-how in trouble shooting in times of challenges. As the result shown on table 8 above in relations to ability to use self – help menus (51 and 35) respondents or (34% and 23%) agree or strongly agree respectively that they can use the self-menus available in the website. In contrast (16 and 14) respondents or (11% and 9%) strongly disagree & disagree respectively that they can't use the self-menus available in the website. In fact 30 respondents or 20% were not sure as to whether they technical know-how about the self-help menus available in the website. Four respondents or around 3% didn't respond in this condition.

4.5. Correlation analysis

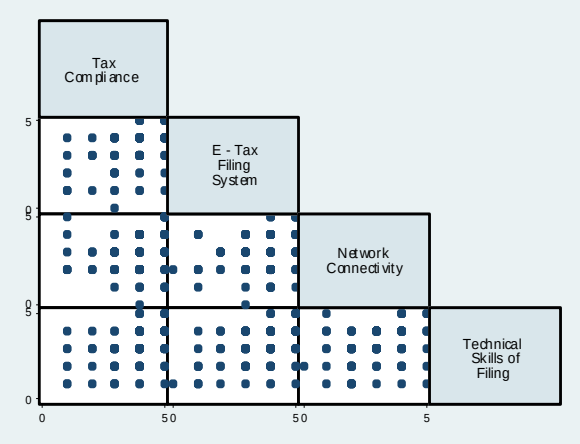
Correlation analysis as aforesaid measures the degree of association between variables. It is formally represented as *r* and its values range between negative one and positive one ($-1 \leq r \leq 1$). A value of -1 or close to it indicates a strong negative relationship while a value of 1 or close to it indicates a strong positive relationship. (Gujarati & Porter, 2009) This study uses Pearson's Correlation to test the relationship of variables at 5% level of significance. Results are as follows:

Table 4.9: Correlation Results for Nominal Variables

Variable	Tax compliance	E-tax filing system	Network connectivity	Technical skills of filing
Tax compliance	1.0000			
E-tax filing system	0.5340*	1.0000		
Network connectivity	0.2291*	0.2265*	1.0000	
Technical skills of filing	0.4263*	0.4380*	0.3219*	1.0000

Key: Asterisk (*) indicates 5% level of significance

Figure 4: Graphical representation of the correlation matrix



There is a positive significant correlation between variables as shown in Table 9. This can be concluded that these relationships have a magnitude less than 0.8 which indicate relationship of variables free from multicollinearity. The rule of the thumb is that a correlation of more than 0.8 indicates the possibility of high dependence among variables which leads to multicollinearity (Gujarati & Porter, 2009)

4.6. Regression Analysis

Regression analysis extends the discussion of correlation analysis by reviewing the relationship between one variable, dependent variable, and one or more variables, independent variables (Greene, 2012 ; Gujarati & Porter, 2009). Therefore, the main interest of regression analysis is to predict the average value of one variable on the basis of the fixed values of other variables. This relationship is done in a set-up of a model which follows a certain distribution that has to adhere to certain assumptions. As a result, a Classical Linear Regression Model used in this study has five main assumptions. First, it is assumed that there is a linear relationship between dependent and independent variables. Second, the assumption of full ranks which rules out possibility of an exact linear relationship among independent variables (no multicollinearity). Third, the assumption of spherical disturbances that assumes the variance of the error term is constant (homoscedastic) and uncorrelated. Fourth, strict erogeneity in which the expected value (mean) of the error term given an independent variable(s) is zero fifth, the assumption of normality of the error term

The general purpose of multiple linear regressions is to seek for the linear relationship between a dependent variable and several independent variables. Multiple regressions allow researchers to examine the effect of more than one independent variable on response at the same time. For some research questions, regression can be used to examine how much a particular set of independent variables can explain sufficiently the outcome. In other cases, multiple regressions are used to examine the effect of outcome while accounting for more than one factor that could influence the outcome. (Yan, 2009)

5.2.1. Classical linear model

How good the model is will depend on how well it predicts *Y*, the linearity of the model and the behavior of the residuals. Testing model predictions is a critical step in science. Scatter plots of predicted vs. observed (or vice versa) values is one of the most common alternatives to evaluate model predictions (Piñeiro et al., 2008)

The model for multiple linear regressions is: (Yan, 2009)

$$y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + \beta_3 x_3 + \varepsilon \text{ ………………………………………………} \textit{Equation 1}$$

Where: y = dependent variable – Tax compliance

X1 = independent variable – E-tax return filing system

X2= independent variable – Network connectivity

X3= independent variable – Technical skills of filing

ε = random error in prediction, that is variance that cannot be accurately predicted by the model. Also known as residuals

B0 = y-intercept

B1 = regression coefficient that measures a unit change in the dependent variable when X1 changes – change in tax compliance when e-tax filing system change

B2 = coefficient value that measures a unit change in the dependent variable when X2 changes – change in tax compliance when network connectivity change

B2 = coefficient value that measures a unit change in the dependent variable when X3 changes – change in tax compliance when Technical skills of filing change

The least squares estimates, B_0, B_1; B_2 & B_3 are computed by STATA statistical software. The multiple regression models allow a researcher to predict an outcome based on information provided on multiple explanatory variables. Still, the model is not always perfectly accurate as each data point can differ slightly from the outcome predicted by the model. The residual value, ε, which is the difference between the actual outcome and the predicted outcome, is included in the model to account for such slight variations.

5.2.2. Regression: Heteroscedasticity tests

Heteroscedasticity is a violation of the CLRM assumption that has a non-constant variance in the error term (Greene, 2012).Heteroscedasticity is a problem because it makes the estimators to be unbiased. To test heteroscedasticity we use Breusch–

Pagan/Cook Weisberg test which is used for linear forms of heteroscedasticity. If Breusch–Pagan statistics is greater than the chi-square values then we conclude that there is heteroscedasticity and the null hypothesis is rejected. Conversely, we conclude that there is homoscedasticity if the calculated value is less than the critical value and therefore we fail to reject the null hypothesis. Results of the Breusch-Pagan-Godfrey Test are presented below.

Figure 5: Breusch-Pagan / Cook-Weisberg test for heteroscedasticity
Ho: Constant variance
Variables: fitted values of tax compliance
chi2(1) = 14.41
Prob> chi2 = 0.0001

The *p*-value should be bigger than 0.05 to not reject the null of homoscedasticity at the 5% level. As we have seen from the table the Breusch-Pagan test is less than 0.05 the null hypothesis of homoscedasticity is rejected and concludes that there is heteroscedasticity. There are two ways to deal with this problem, one is using heteroscedasticity-robust standard errors, the other one is using weighted least squares (Stock & Watson, 2008) WLS requires knowledge of the conditional variance on which the weights are based, if this is known (rarely the case) then use WLS. In practice it is recommended to use heteroscedasticity-robust standard errors to deal with heteroscedasticity. By default Stata assumes homoscedastic standard errors, so we need to adjust our model to account for heteroscedasticity. To do this we use the option robust in the regress command. This test is an asymptotic test in that it is only valid for large samples. To correct for heteroscedasticity, we run a robust regression model (Greene, 2012).

5.2.3. Regression: specification error

How do we know we have included all variables we need to explain Y? Testing for omitted variable bias is important for our model since it is related to the assumption that the error term and the independent variables in the model are not correlated (E (e|X) = 0) If we are missing variables in our model and "is correlated with the included regresses"

and, “the omitted variable is a determinant of the dependent variable” (Stock and Watson, 2003, p.144) then our regression coefficients are inconsistent.

Moreover utilizing the Ramsey RESET Test [Regression equation specification error test] by running a regression in STATA and typing the command “estatovtest” The null hypothesis is that the no omitted variables. Rejection of the null hypothesis implies that there are possible missing variables and the model suffers from endogeneity, causing biased coefficient estimates.

Figure 6: Ramsey RESET test
. estatovtest
Ramsey RESET test using powers of the fitted values of tax compliance
Ho: model has no omitted variables
F(3, 143) = 0.04
Prob> F = 0.9894

As per Figure 6 Ramsey RESET test, the p-value is higher than the usual threshold of 0.05 (95% significance), so we fail to reject the null and conclude that we do not need more variables or we should accept the null Hypothesis that the model has no omitted variables at the 5% level. This indicates that our model most likely free from endogeneity and unbiased coefficient estimates.

5.2.4. Regression: multicollinearity test

An important assumption for the multiple regression models is that independent variables are not perfectly multicollinearity. One regression should not be a linear function of another. When multicollinearity is present standard errors may be inflated. Multicollinearity can be detected using the Variance inflation factor (VIF). The rule of the thumb is that a VIF of more than 10 indicates presence of multicollinearity. Conversely, Tolerance (which is the ratio of 1 over VIF) can also be used to test for multicollinearity. Therefore, a value that equals to or less than 0.1 signals presence of multicollinearity.

Table 4.10: Multicollinearity test (VIF)

Dependent Variable = Tax compliance		
Independent Variables	VIF	Tolerance
Technical skills of filing	1.32	0.755914
E-tax Filing System	1.25	0.800047
Network connectivity	1.13	0.887338
Mean VIF	1.23	

Key: VIF- Variance Inflation Factor

As it can be seen from the Table that all independent variables have a VIF of below 10 and their Tolerance (1/VIF) values are above 0.1 hence there is no multicollinearity.

5.2.5. Regression: testing for normality

Statistical methods are based on various underlying assumptions. One common assumption is that a random variable is normally distributed. In many statistical analyses, normality is often conveniently assumed without any empirical evidence or test. But normality is critical in many statistical methods. When this assumption is violated, interpretation and inference may not be reliable or valid.

Using the tax compliance dataset out put on Table 11 below, we will test whether the variables E-tax filing system, Network connectivity and Technical skills of filing are normally distributed. Skewness is a measure of the asymmetry of the probability distribution of a random variable about its mean. It represents the amount and the direction of skew. On the other hand, Kurtosis represents the height and sharpness of the central peak relative to that of a standard bell curve. The figure below shows the results obtained after performing Skewness and Kurtosis test for normality in STATA.

Table 4.11: Skewness/Kurtosis tests for Normality

Joint ------Variable	Obs	Pr(Skewness)	Pr(Kurtosis)	adj chi2(2)	Prob>chi2
E-tax filing system	150	0.0000	0.1016	17.3800	0.0002
Network connectivity	150	0.3931	0.3559	1.6100	0.4480
Technical skills of filing	150	0.0392	0.7290	4.4500	0.1082
Residuals [uhat]	150	0.0001	0.0039	18.6100	0.0010

The null and alternative hypotheses for the normality test are:

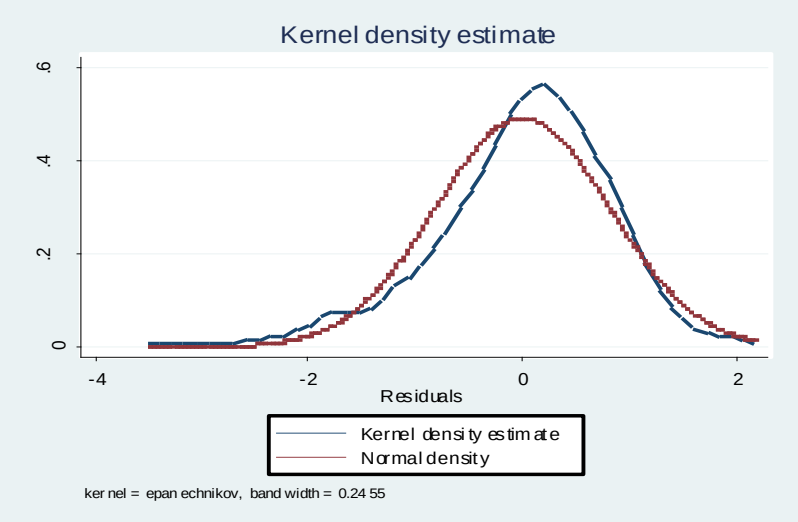
- Null hypothesis: The data follows a normal distribution.
- Alternative hypothesis: The data does not follow a normal distribution.

'Sktest' shows the number of observations (which is 150 here) and the probability of skewness of Network connectivity which is 0.3931 implying that skewness is asymptotically normally distributed (p-value of skewness > 0.05). Similarly, Pr (Kurtosis) indicates that kurtosis is also asymptotically distributed (p-value of kurtosis > 0.05). Finally, chi (2) is 0.4480 and 0.1082 for network connectivity and technical skills of filing respectively which is greater than 0.05 implying its significance at 5% level. Consequently, the null hypothesis cannot be rejected.

The p-value of kurtosis 0.1016 & 0.0039 of E-tax filing system & Residuals shown in the table 11 above indicates that it is significantly different from the kurtosis of a normal distribution at the 5% significance level. However, on the basis of skewness alone, we cannot reject the hypothesis that e-tax filing system and Residuals are normally distributed. Remember this test is only valid asymptotically, so it relies on having a large sample size or in practice normality does not represent much of a problem when dealing with really big samples.

Another assumption of the regression model (OLS) that impact the validity of all tests (p, t and F) is that residuals behave 'normal'. Residuals (here indicated by the letter "e") are the difference between the observed values (Y) and the predicted values (Yhat): e = Y – Yhat. Below A kernel density plot produces a kind of histogram for the residuals, the option normal overlays a normal distribution to compare. Here residuals seem to follow a normal distribution.

Figure 7: Normality Kernel density estimate for Residuals



5.2.6. Regression: joint test (F-test)

We use the F-test to evaluate hypotheses that involved multiple parameters. Let's use a simple setup:

$$y = \beta 0 + \beta 1 x_1 + \beta 2 x_2 + \beta 3 x_3 + \varepsilon$$

Suppose we wanted to test the null hypothesis that all of the slopes are zero. That is, our null hypothesis would be

H_0: $\beta_1 = 0$, $\beta_2 = 0$, and $\beta_3 = 0$.

We often write this more compactly as H_0: $\beta_1 = \beta_2 = \beta_3 = 0$. Note that this implies the following alternative hypothesis:

H_1: $\beta_1 \neq 0$, $\beta_2 \neq 0$ or $\beta_3 \neq 0$.

This is a test of the null that none of the independent variables have predictive power. We could use another null such as H_0: $\beta_1 = \beta_3 = 0$ to see if either X_1 or X_3 has predictive power, when controlling for X_2.

These are often basically interesting hypotheses that wanted to know how e-tax filing system, network connectivity and technical skills of filing affects Tax compliance and see

if all of those variables are jointly significant (Blackwell, 2008). To test whether coefficients are jointly different from 0 use the command test (Hamilton & Dearing, 2006).

(1) E taxes filing = 0

(2) N connectivity = 0

(3) Technical skill = 0

F (3, 146) = 19.27

Prob > F = 0.0000

The p-value is 0.0000; we reject the null and conclude that *both* variables have indeed a significant effect on Tax compliance.

5.2.7. Interpreting regression output

Table 4.12: Regression analysis output

Source	SS	df	MS	Number of obs	= 150
				F(3, 146)	= 24.45
Model	50.77	3	16.92	Prob > F	= 0.0000
Residual	101.07	146	0.69	R-squared	= 0.3344
				Adj R-squared	= 0.3207
Total	151.84	149	1.02	Root MSE	= 0.832

Tax Compliance (y)	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
_cons	1.552	0.299	5.187	0.000	0.961	2.144
E-tax filing (X_1)	0.386	0.069	5.605	0.000	0.250	0.523
Network connectivity (X_2)	0.061	0.070	0.868	0.387	-0.078	0.200
Technical skills of filing (X_3)	0.229	0.080	2.846	0.005	0.070	0.387

In the above statistical model, the researcher regress 'Tax compliance' which is denoted by 'Y' on three independent variables. Tax compliance is a composite variable that measures taxpayers' perceptions towards Pay taxes on time, Pay taxes without forced, tax

filed timely and accurately. The 'E-tax filing system' (denoted by 'X_1') variable measures the degree to which taxpayers are towards perceived usefulness, ease of use and acceptability of e-tax filing, the 'Network connectivity' (denoted by 'X_2') variable which measures the system stability, and the 'Technical skills of filing' (denoted by 'X_3') variable measures the amount of Knowledge of taxation system, familiarity and skills, Professionalize and ease of use of website. The following stata result explaining the output

Table 4.13: Overall Model Fit

Number of obs	=	150
F(3, 146)	=	24.45
Prob > F	=	0.0000
R-squared	=	0.3344
Adj R-squared	=	0.3207
Root MSE	=	0.832

A. ***Number of obs*** – This is the number of observations used in the regression analysis that is 150 respondents.

B. ***F and Prob > F*** – The F-value is the Mean Square Model (16.92) divided by the Mean Square Residual (0.69), yielding around F=24.45. The p-value associated with this F value is very small (0.0000). These values are used to answer the question "Do the E-tax filing, network connectivity & technical skills of filing variables reliably predict the tax compliance variable?" Since the p-value (0.0000) compared to our alpha level (0.05) is smaller; we can conclude the E-tax filing, network connectivity & technical skills of filing variables reliably predict the tax compliance. As the p-value was less than 0.05, we can say that the group of E-tax filing, network connectivity & technical skills of filing variables statistically significant relationship with the tax compliance variable, or that the group of independent variables reliably predict the dependent variable together. Note that this is an overall significance test assessing whether the group of independent variables when used together reliably predict the dependent variable, and does not address the ability of any of the particular independent

variables to predict the dependent variable. The ability of each individual independent variable to predict the dependent variable is addressed in the table below where each of the individual variables is listed.

C. ***R-squared*** – R-Squared is the proportion of variance in the dependent variable (tax compliance) which can be predicted from the independent variables (E-tax filing, network connectivity & technical skills of filing). This value indicates that 33.34% of the variance in tax compliance can be predicted from the variables E-tax filing, network connectivity & technical skills of filing. Note that this is an overall measure of the strength of association, and does not reflect the extent to which any particular independent variable is associated with the dependent variable.

D. ***Adj R-squared*** – Adjusted R-square. As predictors are added to the model, each predictor will explain some of the variance in the dependent variable simply due to chance. One could continue to add predictors to the model which would continue to improve the ability of the predictors to explain the dependent variable, although some of this increase in R-square would be simply due to chance variation in that particular sample. The adjusted R-square attempts to yield a more honest value to estimate the R-squared for the population (Bruin, J., 2006). The value of R-square was 0.3344, while the value of Adjusted R-square was 0.3207.

E. ***Root MSE*** – Root MSE is the standard deviation of the error term, and is the square root of the Mean Square Residual (or Error) (Bruin, J., 2006).

Table 4.14: Parameter Estimates

Tax Compliance (y)	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
_cons	1.552	0.299	5.187	0.000	0.961	2.144
E-tax filing (X_1)	0.386	0.069	5.605	0.000	0.250	0.523
Network connectivity (X_2)	0.061	0.070	0.868	0.387	-0.078	0.200
Technical skills of filing (X_3)	0.229	0.080	2.846	0.005	0.070	0.387

F. ***Tax compliance(Y)*** – This column shows the dependent variable at the top (tax compliance) with the predictor variables below it (E-tax filing system, network connectivity & technical skills of filing and _cons). The First variable in the table (_cons) represents the constant, also referred to as the Y intercept, the height of the regression line when it crosses the Y axis. In other words, this is the predicted value of tax compliance when all other variables are 0.

G. ***Coef.*** – These are the values for the regression equation for predicting the dependent variable from the independent variable. The regression equation is:-

$$Y = 1.55 + 0.39x_1 + 0.06x_2 + 0.23x_3$$

These estimates tell us the amount of increase in tax compliance that would be predicted by a 1 unit increase in the predictor. For the independent variables which are not significant, the coefficients are not significantly influence on taxpayers' compliance, which should be taken into account when interpreting the coefficients. (See the columns with the t-value and p-value about testing whether the coefficients are significant).

E-tax filing system (X_1) – The coefficient (parameter estimate) is 0.39. So, for every unit (i.e., taxpayers Perception which are measured by e-tax filing system usefulness, ease of use & system acceptability) increase in E-tax filing system, a 0.39 unit increase in tax compliance is predicted, holding all other variables constant. (It does not matter at what value we hold the other variables constant, because it is a linear model.) Or, for every increase of one unit on the E-tax filing

system, the tax compliance is predicted to be higher by 0.39 units. That is there is a 0.39 unit significant influence of e-tax filing system on taxpayers' compliance.

There is a statistical significant influence of electronic tax filing system on tax compliance of large taxpayers at 5% significance level. The possible reason for the significant influence were using e-tax filing system might helped taxpayers to accomplish their task more quickly with high performance, its effectiveness on their job and makes their job to be easier and useful. In addition to this the ease to learn, the controllability, the flexibility, the clarity and understandability of e-tax filing system makes taxpayers ease to use. Those reasons could make taxpayers to accept the e-tax filing system and to be compliance. The results of this study can complement the previous research that has been done by (Tambun and Kopong , 2017)

Network connectivity (X_2) – For every unit (i.e., taxpayers' system stability) increase in network connectivity, there is only 0.06 unit increase to influence in the predicted tax compliance, holding all other variables constant. The variable Network connectivity is not able statistically significantly influence on taxpayers compliance. Why? Because the p-value, 0.387 is greater than 0.05 or [0.387 > /0.05/]. The possible reason that network connectivity be insignificant to taxpayers complains were system hang- ups might leads interruption of tax submission, unwillingness to file tax, tax payers might need assistance to file tax, incurrence of costs to pay third parties on behalf of them and System hang ups leads to compromise of tax information to be submitted. Internet interruption at time of due date of tax filing in which the Interruption of e-tax database due to less server capacity and lack of upgrade the e-tax servers to calm down the pressure on the current servers might be the other reason. The inability of the system to handle huge information during the peak hours and may change the perception of the tax payers that the system unreliable and tax payers might utilize the manual filing system. The results of this study can complement the previous research that has been done by (Gwaro, et al., 2016).

Technical skill of filing (X3) – The coefficient for Technical skills of filing is 0.23. This means that for a 1-unit (i.e., taxpayers Knowledge of taxation system, internet familiarity and skills, professionals assistance & website ease of use) increase in the technical skill of filing, we expect an approximately 0.23 unit effect increase that taxpayers can be tax compliance which is statistically significant; in other words, there is a 0.23 significant influence of taxpayers technical skills of filing on taxpayers compliance.

The possible reason of the significant influence can be taxpayers' knowledge of e-tax filing system, taxpayers' internet familiarity and skills of filing as well as website ease of use. According to LTO's 2016 training manual, taxpayers had been well informed of their support options and what to use when and how. The large taxpayers' branch office supports taxpayers by telephone, e-mail, Site support (at the taxpayers premise), and Office support (at tax center). The branch office also arranged frequent training in order to build taxpayers technical skills of filing specially e-tax application software. The results of this study can complement the previous research that has been done by (Kiring'a & Jagongo, 2017).

I. ***Std. Err***. – These are the standard errors associated with the coefficients. The standard error is used for testing whether the parameter is significantly influence tax compliance by dividing the parameter estimate by the standard error to obtain a t-value (see the column with t-values and p-values). The standard errors can also be used to form a confidence interval for the parameter, as shown in the last two columns of this table.

J. ***t and P>|t|*** – These columns provide the t-value and 2-tailed p-value used in testing the null hypothesis that the coefficient (parameter) is 0.We use a 2-tailed test to compare each p-value to our preselected value of alpha which is 0.05. Coefficients having p-values less than alpha are statistically

significant. With a 2-tailed test and alpha of 0.05, we may reject the null hypothesis that the coefficient for network connectivity is equal to 0. The coefficient of 0.061 is significantly greater than 0 which is its p-value is 0.387, which is greater than 0.05. The coefficient 0.386 for E-tax filing system is significantly different from 0 using alpha of 0.05 because its p-value is 0.000, which is smaller than 0.05. The coefficient 0.229 for technical skills of filing is statistically significant because its p-value of 0.005 is less than 0.05.The constant 1.55 (_cons) is significantly different from 0 at the 0.05 alpha levels. However, having a significant intercept is rarely interesting.

K. ***[95% Conf. Interval]*** – This shows a 95% confidence interval for the coefficient. This is very useful as it helps us to understand how high and how low the actual population value of the parameter might be. The confidence intervals are related to the p-values such that the coefficient will not be statistically significant if the confidence interval includes 0. If we look at the confidence interval for network connectivity, we can see that it just includes Zero (-0.078 to 0.200) such confidence intervals help us to put the estimate from the coefficient into perspective by seeing how much the value could vary. The confidence intervals for technical skills of filing (0.070 to 0.387) have the p-value of 0.005, which is above 0 but not 0.05 which makes it significant.

Chapter Five

Summary, Conclusions and Recommendations

5.1. Introduction

This chapter presents the summary of the findings of the study, makes conclusions and presents the recommendations for further research in the subject area.

5.2. Summary of Findings

This study aimed at establishing the influence of electronics tax system and compliance among large taxpayers in large taxpayers' branch office in Ethiopia. There were three research questions answered by this study: how does electronics system influence tax compliance with regard to tax filing, network connections and technical skills of tax returns. Taxpayers were categorized into various sectors of the economy and ownership for ease of analysis. Significance is typically measured by our t-statistic, or our p-value in the regression readout.

5.2.1. Results of the first hypotheses test

The first hypothesis in this study is H1: There is a significant influence of e- tax filing system on the tax compliance of large taxpayers. Perceived usefulness, perceived ease of use and user acceptance was shown to be an important construct to influence taxpayers' perceptions on the electronic tax-filing system towards tax compliance. The findings show that a system that is usefulness and easy to use are important for taxpayers to be voluntarily e-file their tax returns in which they accept the system.

The findings also show that the relationship between e-tax filing system and tax compliance were positively correlated and there is a statistical significant influence of electronic tax filing system on tax compliance of large taxpayers at 5% significance level. Overall, it can be concluded that most of taxpayers at large taxpayers Branch office had a good perception towards electronic tax Filing. This in sensibly increase the number of

taxpayers who wants to file their tax return through e-Filing in the future and hence, help the objective of LTO to achieve Electronic tax filing implementation.

5.2.2. Results of the second hypotheses test

The second hypothesis in this study is H_2: There is a significant influence of network connectivity on tax compliance of large taxpayers. Server hang-ups due to system overload typically show up as slowly loading pages. The system may respond slowly for a period and then return to normal operation. Server slowdowns typically happen at peak traffic periods, when scheduled tasks run, or when certain maintenance occurs.

The findings show that taxpayers unable to submit their tax due to System hang-ups which leads to be unwillingness to file their tax returns. Taxpayers needs assistance when they faced System hang ups which leads to inability to file tax returns as well as they challenged for the incurrence of costs to pay third parties to file tax returns on their behalf. Due to those reasons tax payers utilize the manual filing alternative to file their tax which needs more time to pay tax on time, tax payers might need to be forced as they are not file their tax from their home as they do file tax electronically, tax might not be returned timely as majority tax payers far from the authority and accurate tax return might not be submitted as it is a paper form. The result shows that network connectivity was not able to significantly influence on taxpayer compliance of large taxpayers at 5% significance level.

5.2.3. Results of the third hypotheses test

The third hypothesis in this study is H_3: There is a significant influence of taxpayers' technical skills of filing on tax compliance of large taxpayers. The tax knowledge, internet familiarity and skills with regard to the taxpayers understanding of the tax and professionals' assistance and website ease of use relating to the taxation system applied are important aspects of tax payers' technical skills of electronic tax filing system.

The result revealed that tax payers can accurately determine their tax obligation and file a return on time using the e- tax filing system, can file a return without anybody's help, the technical competence of filing tax returns they had influences their use of electronic tax

system, agreed that the information on online tax declaration is easy to comprehend and had ability to use self-help menus on e-tax platform. This implies that tax payers had enough knowledge of taxation system; know how website eases of use, Internet familiarity and skills in which they don't need professional assistance. The study therefore infers that the technical skill of filing tax returns is a factor that influences the tax compliance. The result shows that the technical skill of filing had a significant effect on taxpayer compliance of large taxpayers at 5% significance level.

5.2.4. R-Squared

R-squared is a statistical measure that represents the proportion of the variance for a dependent variable that's explained by an independent variable. R-squared is a statistical measure that's used to assess the goodness of fit of our regression model. In this study 33.44% variations in dependent variable (tax compliance) were explained by the independent variables (e- tax filing system, network connectivity and technical skills of filing) presented in our model.

5.3. Conclusion

This research provides several important implications for the implementation and promoting of effective electronic tax filing system. These findings have policy implications for the implementation of not only electronic tax filing system but also e-government services. Understanding e-tax filing system use factors can extend the understanding of taxpayers decision making and lead to better strategies for a successful implementation of e-tax filing specifically and e-government generally.

Taxpayers had limited internet access and the revenue service's information technology system could not handle the huge overcrowding of tax returns, especially in the few days just before the deadline. Therefore large taxpayers' branch office continuously upgraded its electronic system and offered prefilled electronic forms to simplify the process for taxpayers. The tax authority should drive initiatives to overcome connectivity shortages by creating a public-private network of e-filing centers, providing more connectivity points. In addition, it should made arrangements with internet cafes so that taxpayers could use their equipment for free and trained operators at access points. It even

developed a mobile training and awareness unit that traveled to diff erent parts of the country to help people file taxes online.

This research indicates that the Ethiopian government needs to also focus on some specific areas of ease of use of the system. In order for smooth transition by the citizens towards higher acceptance of e-tax filing system initiatives, the federal government also must formulate a guideline for all related parties on the quality measures required in the development of all e-government systems.

5.4. Recommendations

Based on the findings of this study, the researcher came up with several recommendations to encourage the use of electronics tax system that will improve tax compliance. Electronic systems for filing and paying taxes, if implemented well and used by most taxpayers, benefit both tax authorities and taxpayers. Tax authority should undertake intensive and increased sensitization of taxpayers to make them aware of the electronic tax filing, how it works and the advantages of using it so that taxpayers can understand and appreciate it. The authority should also frequently be involved in capacity building for instance holding training & seminars countrywide on the online tax filing process. LTO should undertake thorough taxpayer education from high school level so that taxpayers gain knowledge and understanding of the taxation system, appreciate it and be able to comply with the tax obligations. The electronic tax filing process should be simplified with clear instructions and guidelines provided on the website and the system server should be upgraded to increase on the system stability experienced. Tax consultation centers should be increased in the country where taxpayers can acquire knowledge and filing skills.

This study proposes the following areas for further study. To begin with further research should be done to establish the impact of e- tax filing on tax evasion and avoidance as well as the impact of e-payment on tax compliance. Implementing electronic tax filing and payments in Ethiopia study also should be done among small & medium taxpayers as well as individual taxpayers. Finally, the impact of e-tax filing on tax compliance among other sectors of the economy should be study

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Appendices

Appendix I: Letter of Transmittal

Dear Respondent

My name is AberaTatek, a student of Addis Ababa University pursuing Masters of Science in Finance.

In partial fulfillment of the requirements, I am carrying out a research on "The Influence of Electronic tax filing system on Tax Compliance in the case of Large Taxpayers Branch office [LTO]" to solicit your views as a taxpayer. I am kindly requesting you to take a few moments to respond to the questions. Your response will be of great help to both my study and the understanding of issues connected to the topic. I therefore assure you that no source will be identified.

Thanks in advance

SECTION A: PERSONAL DATA

1. What is your Gender?

Male □ Female □

2. Kindly Tick against your Age bracket (years)? …….

18 – 24 □ 25 – 30 □

31 – 35 □ 36 – 40 □

41 – 45 □ 46 & above □

3. Level of education

Primary □ Tertiary College□

Secondary □ University□ None □

4. Kindly Tick against your Major industry type as listed below or specify where necessary

Agriculture	□	financial service	□
Chemical	□	Health care	□
Defense	□	Information	□
Direct selling	□	manufacturing	□
Education	□	Mining & Minerals	□
Energy	□	Telecommunication	□
Entertainment	□	Transport	□

Others (please specify)……

5. Type of Business ownership

Sole Proprietorship□ Partnership□ Corporation □ other □

SECTION B. TAX COMPLIANCE

Kindly tick whether you strongly disagree (SD), disagree (D), undecided (U), agree (A), or strongly agree (SA) with the following statements about tax compliance.

No	Statement	SD	D	U	A	SA
1	Paying tax is the right thing to do					
2	Paying tax is a responsibility that should be willingly accepted by all society					
3	I feel a moral obligation to pay my tax					
4	Paying my tax finally advantages everyone					
5	I think of tax paying as helping the government do worthwhile things					
6	I accept responsibility for paying my fair share of tax					
7	Overall, I pay my tax with good will					

SECTION C. ELECTRONICS TAX FILING SYSTEM

Kindly tick whether you strongly disagree (SD), disagree (D), undecided (U), agree (A), or strongly agree (SA) with the following statements about electronic tax filing system.

No	Statement	SD	D	U	A	SA
1	Using e-filing in my job would enable me to accomplish tasks more quickly					
2	Using e-filing would improve my job performance					
3	Using e-filing would enhance my effectiveness on the job					
4	Using e-filing would make it easier to do my job					
5	I would find it easy to get e-filing system to do what I want it to do					
6	I would find e-filing easy to use					

SECTION D. NETWORK CONNECTIVITY

Kindly tick whether you strongly disagree (SD), disagree (D), undecided (U), agree (A), or strongly agree (SA) with the following statements about network connectivity.

No	Statement	SD	D	U	A	SA
1	System hang-ups leads to delay in tax submission					
2	System hang ups leads to unwillingness to file tax returns					
3	System hang ups leads to inability to file tax returns without assistance					
4	System hang ups leads to incurrence of costs to pay third parties to file tax returns on my behalf					
5	System hang ups leads to compromise of tax information to be submitted					

SECTION E. TECHNICAL SKILLS OF FILING

Kindly tick whether you strongly disagree (SD), disagree (D), undecided (U), agree (A), or strongly agree (SA) with the following statements about technical skills of filing.

No	Statement	SD	D	U	A	SA
1	I Can accurately determine my tax obligations and file returns on time using the online tax system					
2	I can file tax returns without anybody's help					
3	The technical competence of filing tax returns influences my use of electronics Tax system					
4	The information on online tax declaration is easy to comprehend					
5	I have ability to navigate the e- filing system quickly and efficiently					
6	I can use the self-help menus available in the website					

Thank you very much for your patience, cooperation, and support for my research.