Automation of Tax Administration and Tax Compliance in Uganda.

Case study: Uganda Revenue Authority, Kampala East

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2013- M102-20060

Uganda Martyrs University

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DEDICATION

I dedicate this research report to my family especially my parents Mr George Rushegyera and Tophas Kobusingye.

I also owe special dedication to my guardian brother Tusiime Evans Rushegyera, who laid for me an academic foundation that has led me to this level.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ACRONYMS

ATO	Australian Tax Office
DT	Domestic Taxes
DTMP	Domestic Taxes Modernization Project
ERCA	Ethiopian Revenue and Customs Authority
ESRM	Electronic Sales Registry Machine.
E-tax	Electronic Tax
IRS	Internal Revenue Services
IRAS	Inland Revenue Authority of Singapore
IT	Information Technology
ITAS	Integrated Tax Administration System
KRA	Kenya Revenue Authority
MRA	Mauritius Revenue Authority
OECD	Organization for Economic Cooperation and Development
PAYE	Pay As You Earn
PRN	Payment Registration Number
SPSS	Statistical Package for the Social Sciences
TIN	Taxpayers Identification Number
TRMU	Tax Risk management Unit
UMA	Uganda Manufacturers Association
UMU	Uganda Martyrs University
URA	Uganda Revenue Authority
VAT	Value Added Taxes

ABSTRACT

The study examined the effect of automation of tax administration on tax compliance in Uganda, a case of Uganda Revenue Authority, Kampala East. The study was underpinned by Goal setting theory, Social Justice Theory and Evolutionary pattern of taxes theory. The objectives were; to establish the effect of online registration of taxpayers on tax compliance in Uganda Revenue Authority Kampala East, to establish the effect of online filling of tax returns on tax compliance in Uganda Revenue Authority Kampala East and to establish the effect of online payment of tax on tax compliance in Uganda Revenue Authority Kampala East. The study used a case study design.

The study population was 71 where a sample size of 59 was selected for the study. Out of these, 50 responded making a response rate of 84.7%. Data was collected using the questionnaire, interview guide and documentary review checklist. The findings of the study revealed that online registration of taxpayers affects tax compliance shown by $R^2 = 0.523$. Online filling of tax returns explained 55.4% (0.554 *100) variations in tax compliance. Also online tax payments had an effect on tax compliance. This was shown by 55.4% (0.554 *100) variations in tax compliance were explained by online tax payments.

The study concluded that online taxpayer registration, online filling of tax returns and online tax payments had a strong positive significant effect on tax compliance.

The study recommends that URA should put more emphasis on dissemination of concrete tax knowledge (technical knowledge) when conducting its tax education campaign given that it has been found to positively affect taxpayer's compliance behavior. Also URA should work out mechanisms of interfacing its online payments services with commercial banks to enable taxpayers experience benefits of online payments and increased compliance. Furthermore URA should utilize more of the expertise of the educational institutions like universities in its tax education activities given that they are better placed to provide the required technical knowledge. URA should make its online services more user friendly to the ordinary computer illiterate taxpayers since it was found out online services have a strong significant impact on tax compliance. URA should ensure that taxpayers take confidence of its service provision of on line services as being effective, efficient and economical, and making fair accountability for the resources entrusted to them by the taxpayer. This will improve taxpayers' perception of online services thereby improving taxpayer compliance. The government of Uganda and URA should also step up efforts of using more behavioral (noneconomic) measures of encouraging online services of taxpayer registration, filing of taxpayer returns and online tax payment to all taxpayers to comply than concentrating on using deterrence (economic) measures to encourage compliance

CHAPTER ONE

GENERAL INTRODUCTION

1.0 Introduction

Tax is a compulsory financial obligation of a nation's income-earning population towards its government. One of the taxation objectives in Uganda is to collect revenue for financing government's expenditure. In addition, tax is a tool to boost the economic development of a nation. In other words, funds collected from taxation are used by the Ugandan government for the development of the nation to provide facilities for its population (Singh, 1995).

Uganda's vision 2040 is towards "a transformed Ugandan society from a peasant to a modern and prosperous country within 30 years". It is envisaged that the country will graduate from a predominantly low income of a per capita of USD 506 to a middle income segment by 2017 and reach a per capita of USD 9,500 by 2040. Uganda Revenue Authority is charged with the responsibility of collecting this tax revenue in order to achieve this vision and fully finance and sustain the national recurrent and development expenditure. The study focused on establishing the effect of automation of tax administration on tax compliance in Uganda, a case of Uganda Revenue Authority Kampala East

This chapter presents the background of the study, statement of the problem, research objectives, and scope of the study, significance, justification and definition of key terms, conceptual framework and conclusion.

1.1 Background of the study

In early human history, tax collectors used the most rudimentary methods; some of these methods were so crude that they gave the profession a bad name. Over-all, automation has had a role in making tax administration more efficient-and that is by itself a tremendous benefit to taxpayers (William, 1963)**.**

Revenue authorities all over the world have been building and improving the automatic data processing system for almost a decade, but neither tax administration n nor technology stands still. Returns volumes are increasing rapidly, and similarly, advances in technology have already made it advantageous for revenue authorities to shift from one generation of computers to another and from one data input system to another in order to achieve greater capacity, speed, and economy (William, 1963)**.**

The United States' federal income tax system depends, to a large degree, on "voluntary compliance." It may, therefore, not be surprising that the federal income "tax gap"—the portion of federal income taxes due but not paid each year—is estimated to exceed $150 billion. This non-compliance stems from a variety of sources, including innocent mistakes, as well as intentional evasion (Leandra Lederman, 2003).

In many developing countries, tax compliance is a serious challenge facing income tax administration and hindering tax revenue performance However, from all the taxes, personal income tax has remained the most disappointing, inefficient, unproductive and problematic tax system (Asada, 2005; Kiabel&Nwokah, 2009; Nzotta, 2007; Odusola, 2006; Sani, 2005).

Empirical evidence on the ground in Kenya shows there has been hostility between the taxpayers and tax collectors on issue relating to tax compliance- how about tax evasion cases reported daily in our local newspaper (Daily Nation, July 7, 2006, pg 3) and outward resistance from taxpayers for example the recent protest by taxpayers over implementation of Electronic Tax Registers. Hostile taxpayer's behavior implies that given a chance taxpayers would not comply with tax laws. Perhaps, understanding the taxpayers' behavior in terms of factors which influence their attitude towards tax compliance and how to influence the very factors would be a solution to this "jigsaw puzzle" (Lumumba Omweri Marti et al. 2011).

In many countries Uganda inclusive, overall tax compliance levels are low and a large sector of the informal economy escape the tax net entirely (Brautigam, 2008), and it is evident that non-compliance is wide spread (Torgler *et.al,* 2006). Since tax compliance has remained unresolved and multidimensional, and deterrence theory cannot adequately explain this puzzle, and fiscal reforms built on tax morale findings (fiscal psychology model) have proved effective in Spain, Russia, Australia and other developed countries and the reverse has been observed in Puerto Rico, may be, it could be the case for the Uganda's small taxpayers.

The Uganda Revenue Authority (URA) was established by a Uganda Revenue Authority statute of 1991 It was set up to assess and collect specified revenue, to administer and enforce the laws relating to such revenue and to provide for related matters. This statute incorporated all the laws that were in force then regarding tax collection. The new organization URA amalgamated the three tax administration departments that were responsible for all the taxes collected by the central government of Uganda. These departments were customs and excise, Inland Revenue and income tax department.

The domestic taxes department is responsible for administering taxes on incomes and local consumption and production. Taxes administered include VAT, Corporation tax, Individual income tax, Rental income tax, Pay as You Earn (PAYE), Local Excise tax and Withholding tax. The department is also responsible for the collection of motor vehicles fees, stamp duty and non-tax revenue payable to government.

In 2006, Uganda Revenue Authority embarked on a transformation drive known as the URA modernization programme. The reforms were geared towards reengineering all URA core business processes to make URA more client focused and align employee effort towards a shared vision. The programme had domestic taxes modernization project(DTMP) that implemented the integrated tax administration system (ITAS) later called e-tax system, customs modernization project, human resource modernization project IT service modernization project integrity enhancement modernization and public and taxpayer education modernization project (URA Modernization report, 2012).

In 2006, the domestic tax modernization project (DTMP) was set with the objectives of creating an efficient and effective tax administration services while employing modern business processes, systems and practices. The old system was characterized with inefficiencies such as nil and offset tax returns, tax officers would merely receive and stamp tax returns without face vetting them for proper filling, Because of all this it would take a long time to detect any errors on the tax return until the taxpayer was audited (URA Modernization report, 2012).

In 2008, the integrated tax administration system (ITAS) was implemented in the URA office of Kampala East, a designated pilot site office and later rolled out to all offices. Tax registration and return forms were redesigned. Taxpayers Identification number (TIN) was made a requirement

for all transacting any businesses with URA .Once issued, the TIN was used to profile taxpayers and assess obligations across all tax regimes. External and internal data is now used to profile taxpayers for audits (URA Modernization report, 2012).

1.2 Problem statement

In 2008, the integrated tax administration system was implemented in URA designed to increase online registration of taxpayers, online filing of tax returns and online tax payments hence to improve revenue collection. In order to achieve this, URA invested heavily in information technology equipment, massive training of staff and benchmarking visits were carried out (URA annual performance report 2011/2012). To have an effective tax system, a high degree of voluntary compliance is needed. Raising the level of voluntary compliance is a key element of tax reforms in creating a modern tax system. Building a high level of compliance requires a wide range of political and administrative inputs (Glenn, 1996). Also automation was expected to push taxpayer compliance to an average of 75% revenue collection across all tax segments and up to 99% for large taxpayers. This would raise domestic tax contribution to total revenue collected to 75% annually.

However nine years after automation of tax administration the trends of domestic tax revenue show that it only contributes 58%. Also the Uganda budget report for 2012/2013, 2013/2014 indicated a revenue collection shortfall of 135.19 and 503.47 billion respectively. It was also reported that Kampala East office failed to meet its targeted revenue collection for those respective years (Domestic taxes performance report 2012/2013 and 2013/2014). Alabede et al (2011), contends that despite the various tax reforms undertaken by governments to increase tax revenue over the years, prior statistical evidence has proven that the contribution of taxes to the government's total revenue remained consistently low and is relatively shrinking

It is against this background that the study to assess the effect of automation of tax administration on tax compliance in Uganda Revenue Authority Kampala East was necessary.

1.3 Objectives of the study

1.3.1 General objectives

The major objective of the study is to establish the effect of automation of tax administration on tax compliance in Uganda, a case of Uganda Revenue Authority Kampala East

1.3.2 Specific objectives

i. To establish the effect of online registration of taxpayers on tax compliance in Uganda Revenue Authority Kampala East
ii. To establish the effect of online filling of tax returns on tax compliance in Uganda Revenue Authority Kampala East
iii. To establish the effect of online payment of tax on tax compliance in Uganda Revenue Authority Kampala East

1.4 Research questions

i. What is the effect of online registration of taxpayers on tax compliance in Uganda Revenue Authority Kampala East?
ii. What is the effect of online filling of tax returns on tax compliance in Uganda Revenue Authority Kampala East?
iii. What is the effect of online payment of tax on tax compliance in Uganda Revenue Authority Kampala East?

1.5 Scope of the study

1.5.1 Geographical scope

The study was carried out in Uganda Revenue Authority. Kampala east which is located in the eastern part of Kampala capital city along Kampala Jinja highway. Kampala East covers the administrative region of Nakawa Division and other surrounding areas such as Namugongo. Kireka, Bweyogerere in Wakiso and some parts of Mukono District.

1.5.2 Content scope

The study was conducted in Uganda revenue authority with specific emphasis on domestic tax office of Kampala east located in Kampala capital city authority. The research looked at the effect of automation of tax administration on tax compliance. Under automation, the emphasis was put on electronic tax administration system where the major areas of concern were; online taxpayer registration, online tax filing of returns and online tax payments as dimensions of the independent variable. The dependent variable was tax compliance. This was measured by duly registration, timely filing of returns, duly payments by due dates and determination of accurate tax liability.

1.5.3 Time scope

The study covered a period of five years. That is from 2011-2015. This period was chosen because it provided the automated system data and revenue performance that enabled the researcher to compare and come up with recommendations.

1.6 Significance of the Study

Uganda Revenue Authority: The findings of the study may be of significance to Uganda revenue authority domestic taxes which could use them together with the recommendations in implementing administrative measures and policies to strengthen and accelerate tax compliance.

Domestic Taxes, Kampala East: Domestic Taxes, Kampala east may also learn from the research and be able to identify and improve automation of tax administration practices that have been hindering tax compliance.

Policy makers: It may also help policy makers to come up with informed policies/decisions on how tax administration should be well managed hence formulating proper ways on improving automation of tax administration in the economy.

Academicians: The academicians interested in automation of tax administration and tax compliance may learn from the research and expand on it. This means that the study may serve as a basis for further research.

1.7 Justification of the Study

Tax compliance was a problem affecting revenue collection. Annual revenue performance reports indicated serious revenue short fall problems.

Some studies on automation of tax administration show some positive results which indicated that something can be done to reduce the problem of noncompliance.

Therefore, a study into automation of tax administration could help towards maximizing tax compliance in Kampala East office was justifiable.

1.8 Definition of key terms

Online registration

Initially tax payers used to have old Tax Identification Numbers (TINs) to enable them transact business with URA. With the introduction of e-tax, the old TINs were discarded and replaced by new ones. Tax payers (old and new) have to go to the webs site, http://ura.go.ug and access various tax registration forms. These include Income tax, VAT, PAYE, Excise duty (individual and non-individual). After submitting the fully filled forms; tax payers are allocated the new TINs automatically by the system. It is with this new TIN that one can be able to submit (file) periodic returns ranging from monthly to yearly.

Online filing of returns

Using the new TIN and password, tax payers are able to access and file returns monthly or yearly, they file and submit these returns through the URA web portal https://ura.go.ug

The monthly returns include VAT, WHT, PAYE and excise duty whereas yearly returns are for Individual and Corporation income taxes.

Online payment

Using a TIN and password on the URA web portal, a tax payer easily accesses the payment registration .A PRN enables the taxpayers to fill the amount, choose the desired bank and then make a tax payment of tax to any nearest bank of their choice.

Increased taxpayer registration

Taxpayers who receive or earn chargeable income from trade and employment, regardless of their size or legal form and status, are required by law to: register for tax, keep and maintain sufficient records for tax purposes, carry out tax assessments, pay taxes (as due), file all tax returns in time, and carry out other tax-related duties like accounting for withholding taxes and paying employment tax on behalf of their employees (Nelson, 2008).

Individuals have an obligation to notify the revenue agencies of taxable income and gains. Some will fail to do so, for example 'ghosts' and 'moonlighters' operating in the hidden economy. Revenue agencies must set up specialist teams to improve the focus of the work, by increasing the scope and scale of data-matching to identify non-compliance.

Improved tax filing ratio

Filling ratio is a ratio of tax payers that file their returns to those on the tax register **.**A filed returns where tax payers declare the basis of their taxable income to a taxation body. A tax payer registered with URA has an obligation to submit a return for the tax period defined by the respective tax law. If revenue authorities do not receive returns, the tax assessment is delayed and agencies may not collect the correct amount of tax. Non-compliance with the filing requirements affects payments which increases arrears (Inland Revenue, 2001).

Increased tax payments

On line services increase the compliance levels hence increased payments: These improvements result from filing of accurate and timely returns, earlier collection of tax revenue, selective risk-based audits and reduced numbers of disputed assessments (Andrew, 2014).

Tax law: An area of legal study dealing with the statutory, regulatory, constitutional, and common-law rules that constitutes the law applicable to taxation. It's a method by which government levies on economic transaction .In order for taxpayers to calculate their own tax liabilities, they must first understand the tax law and how it applies to their situation. Simple laws and regulations minimize taxpayer effort and compliance costs. This can be achieved by rewriting the tax law to reduce the volume of information and in clear language that helps ensure that taxpayers know and understand their rights and obligations under the tax laws (CATA, 2012).

Good taxpayers' service

Compliance demands that tax administrations adopt a service-oriented attitude toward taxpayers, ensuring that taxpayers have the information and the support they need to meet their tax obligations. Taxpayers must receive clear information describing their obligations, the taxes applicable, and when and where they are payable. They need to be informed about changes to the laws and they should have easy access to information and tax forms. Modern tax administrations provide taxpayers with a range of advice and information through enquiry centers, web sites and public seminars (Sapiei, 2013).

Efficient audit

Planned and documented activities performed by qualified personnel to determine the validity and reliability of information, as well as to provide an assessment of a system's internal control. Tax audit is an examination of tax return by the URA to verify that income and deductions are accurate. The Commissioner may call upon a withholding agent to allow an auditor to examine

the agent's records to verify their accuracy against the agent's tax credit certificates (income tax act, Cap 340).

Effective collection enforcement

The tax law adequately provides for a series of progressive enforcement steps and actions that are taken against non-compliant taxpayers. Prompt detection of taxpayers failing to file tax returns and pay the tax due is critical to improve tax compliance. This begins with having a cleansed and updated taxpayer register. Collection enforcement must be prompt and expeditious, since international experience has consistently shown that the older the debt, the more difficult it is to collect (Andrew, 2014).

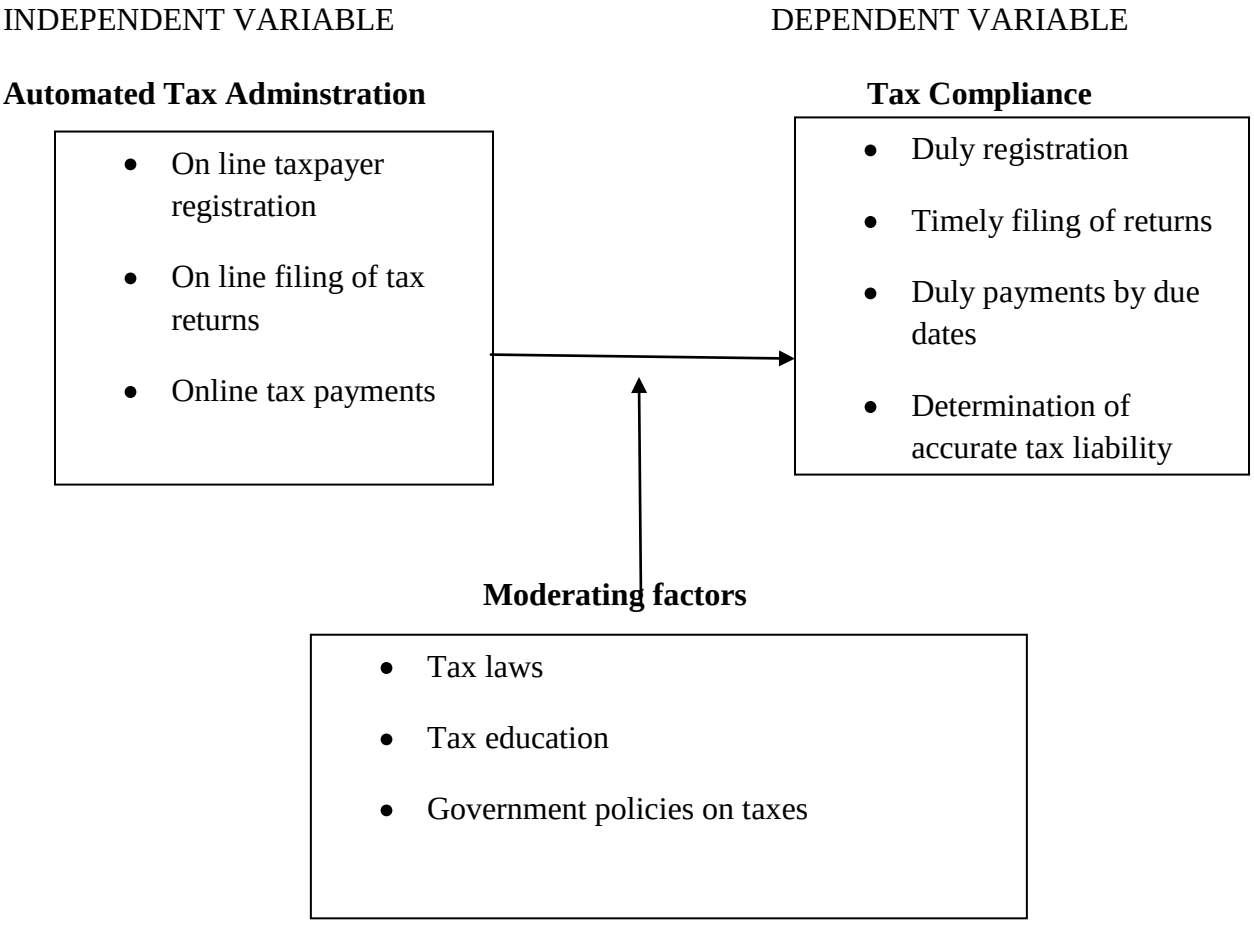
1.9 Conceptual framework

The conceptual framework for the study is presented in form of causal diagrams which clearly depicts relations between parameters in the independent variable and dependent variables. Automated systems in revenue authorities result into online registration of taxpayers, online filing of tax returns and on line tax payments. This is expected to lead to; increased taxpayer registration improved return filling ratios and increased tax payments. External factors such as tax laws, good taxpayer's services, effective audits and efficient enforcement measures might also influence tax compliance.

OECD (2001) divides compliance into two key categories: Administrative compliance (complying with the administrative rules of lodging tax returns and paying taxes on time, what some would include within their definitions of compliance with reporting requirements, procedural compliance or regulatory compliance); and Technical compliance which means

computation of taxes in accordance with the technical requirements of the tax laws or taxpayers paying their share of tax in accordance with the provisions of the tax laws.

Figure 1: A conceptual Framework showing the relationship between automation of tax administration and tax compliance



Source: Adapted from OECD (2001) and modified by the researcher

From figure 1 above, it is indicated that automation of tax administration is the independent variable comprising of online taxpayer registration, online filling of tax returns and online tax payments. The dependent variable is tax compliance. It is assumed that any change in automation of tax administration will bring a change in tax compliance. Tax compliance is studied under timely filing of returns, duly payments by due dates and determination of accurate tax liability. However this change can be affected by tax laws, levels of income and government policies on taxes

1.10 Conclusion

This study examined the effect of automation of tax administration on tax compliance in Uganda, a case of Uganda Revenue Authority Kampala East. Automation is the administration of taxes using electronic and computerized online systems.

Automation of tax administration is very essential in the running of the affairs of tax compliance in order to satisfy the interests of the different stakeholders (OECD, 2004). In this study Automation of tax administration was taken as independent variable with special focus on online taxpayer registration, online filling of tax returns and online tax payments. This was reflected against its effect on tax compliance focusing on duly registration, timely filing of returns, duly payments by due dates and determination of accurate tax liability

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CHAPTER TWO

LITERATURE RIVIEW

2.0 Introduction

This chapter represents actual review and summary of the literature review with the main focus on automation of tax administration and tax compliance in domestic taxes, Kampala east. To enhance coordination of the study, the research was based on the objectives as highlighted in chapter one. Sources of literature used included; textbooks, journals, magazines, internet, existing research proposals and research reports, official reports, acts and regulations and other official documents. The chapter presents theoretical review, review of main concepts of the study, actual review done objective by objective and conclusion

2.1 Theoretical review

This study was guided by the following theories as they were used to explain the effect of automation of tax administration on tax compliance in Uganda revenue authority, Kampala East

2.1.1 Goal setting theory

This study was mainly guided by the goal-setting theory by Latham and Locke (2002) as cited in Kyakulumbye (2013) highlights mechanisms that connect goals to performance outcomes, direct attention to priorities, and focused mind and efforts. Goal setting theory challenges revenue administrators to bring their knowledge and skills to bear and to increase their chances of increasing revenue collected. The more challenging the goal, the more people will draw on their full repertoire of skills (Locke & Latham, 2002). The theory emphasizes goal setting and encouragement of decision rights as a basis for tax compliance. The theory observes that taking

responsibility for results requires that organizational members are given the opportunity to influence their results favorably and have the freedom to take action.

In relation to tax compliance, the above theory implies that workers have a say in defining the right Key Performance Indicators and the mandate to establish Critical Success Factors in relation to their job responsibilities Armstrong, (2006). However, the existing automation system in Uganda Revenue Authority appears to be problematic or unsatisfactory, where some employees perceive electronic tax system as a complex system that is not done in good faith and that the system does not support taxpayers with limited computer and internet usage skills

2.1.2 Social Justice Theory

Also the social justice theory makes two basic assumptions about electronic tax administration that is viewed as exchange processes in which people make contributions for which they expect certain outcomes; and, individuals evaluate the fairness of these exchanges using information gained through social interactions Mowday (1991) as cited in (Venclova et al., 2013). The original version of social justice theory suggested that social exchanges were perceived as fair when people sensed that their contributions were in balance with their rewards (Adams, 1963) as cited in (Venclova et al., 2013). (Venclova *et al*., 2013) identified seven procedural categories that individuals can use in order to determine the fairness of organizational processes. These include procedures for selecting agents, setting ground rules, collecting information, making decisions, appealing decisions, safeguarding employee rights, and changing procedures. An individual's awareness of unfair practices in any one of the seven factors can lead to perceptions of injustice.

In automation of tax administration, tax administrators' attitudes toward the system are strongly linked to tax compliance. According to Boswell and Boudreau (2000), perceptions of fairness of the system are an important aspect that contributes to its effectiveness. Understanding tax administrators' attitudes about automation of tax administration in URA is important as they can determine its effectiveness (McDawall & Fletcher, 2004). If automation of tax administration is seen and believed to be biased, irrelevant or political, that may be a source of dissatisfaction with the system.

2.1.3 Evolutionary pattern of taxes theory

The evolutionary pattern of taxes, otherwise known as tax structure development is cardinal to the assessment of the growth and performance of the various strands of taxation in virtually all economies of the world. The theory of tax structure development is a representation of a historical legacy, exhibited in the policy and practices of several nations of the world overtime. Tanzi (1969); Webber and Wildavsky (1986); and Peters (1991) reviewed the experience of several nations of the world with respect to the introduction, stoppage or re-enforcement of various tax handles according to the dictates of economic condition.

The theory of tax structure development as advanced by Hinrichs (1966); Thorn (1967); Braun (1975); Webber and Wildavsky (1986) and several others posits as at the early stages of economic development, the basic features of taxation are the narrowness of personal income tax base, the operation of poll tax, the scarcity of tax administrators and the commanding height of indirect taxation on foreign trade in the tax structure. In addition, the tax revenue to GDP ratio is low. However, these basic features move in opposite directions as the positive measures by government propel the economy sooner or later beyond the stagnation level. Over-time,

therefore, some taxes are likely to grow in importance while others are almost certain to decline. Personal Income Tax (PIT) provides a good example of the former since PIT revenue is expected to increase as per capita income rises. Consequently, the progressive tax system revenue has a high degree of elasticity in terms of income.

All over the world, governments strive to achieve development goals that are set out in either their annual fiscal budget or in their medium term plans. These goals require huge capital outlay to be met from taxation and other revenue sources. Certainly, taxes are generally seen as the most convenient means through which the cost of governments is met albeit from the standpoint of government (Eshag, 1983). However, taxpayers' views appear not to take in with this notion. This assertion could be justified in the light of the various concerns regarding non-compliance to tax in the form of avoidance at the very least and outright evasion at the extreme (Coskun et al., 2009). Tax compliance has therefore generated huge international concerns for tax authorities and policy makers as tax evasion seriously threatens the capacity of governments to raise public revenue (Gerald et al., 2009). Developing and emerging economies are particularly vulnerable to tax evasion and avoidance activities of individual taxpayers and corporations... as the tax losses arising in course of tax evasion and avoidance activities do largely contribute to the poor performance of the state revenue mobilization in these countries. (GIZ, 2010).

In this regard, several attempts have over the years been made by both practitioners and academics to examine the issue of tax compliance from various angles including online registration, online filing of tax returns and online payment. For instance, Eshag (1983) argues that, the amount of tax revenue generated by a government for its expenditure programmes

depends among other things, upon the willingness of the taxpayer to comply with the tax laws of the country. This willingness could also be attributed to automation of tax administration demonstrated at any given point in time on the one hand and the purpose of the tax on the other hand (Noami and Joel, 2009).

Some of the empirical researches on tax compliance and evasion undertaken from various angles in the context of the business and economic environments of the developed countries of the world include those of: Andreoni, et al., (1998); Torgler (2003); Wenzel (2002); Diego and Luca (2011); Serdan et al. (2011) and Coskun et al. (2009). It has been argued that the findings of these works could not be favourably applied within the context of developing countries due mainly to the noticeable differences in the socio-political, cultural and even demographic constitution of the developed and developing economies (Alabede et al., 2011). Likhovsk (2010) also criticized some of these studies for their reliance on risk based neoclassical economics approaches to model the compliance decisions of individuals, particularly with reference to: the level of actual income, tax rate, audit probability, and the magnitude of fines. Kircher et al. (2007) and Young et al. (2013) both faulted the economic approach to assessing tax compliance for its inability to provide extensive empirical explanations regarding tax compliance decisions on the one hand, and the constraint in methodology and the narrow scope applied to explain complex compliance behavior on the other hand.

This gap therefore ushered in a new dimension to tax compliance research, aimed at identifying and explaining the other critical "*actors in the field*") which influence the individual's compliance decision (Alm et al., 2011). In line with this, Fischer et al. (1992) resorted to

different non-economic factors such as; online registration of taxpayers, online filing of tax returns and online tax payments have been proposed to affect tax compliance. Following the lead of Fischer et al. (1992), the Inland Revenue Service of USA outlined 64 factors that are related with tax compliance by taxpayers or companies (Young, 1994). Other behavioural based studies of tax compliance include that of: Modeo et al. (1987) and Harwood et al. (1993). Also moral reasoning was studied by Singh (2003) and tax penalty and sanctions by Davis et al. (2002) and Tittle (1997).

Economic theories of tax compliance are also referred to as deterrence theory. According to Trivedi and Shehata (2005), economic theories suggest that taxpayers "play the audit lottery," i.e. they make calculations of the economic consequences of different compliant alternative, such as whether or not to evade tax; the probability of detection and consequences thereof, and choose the alternative which maximizes their expected after tax return/ profit (possibly after adjustment for the desired level of risk). The theories suggest that taxpayers are moral utility maximizers hence, economic theories emphasize increased audits and penalties as a solution to compliance problems. Economic based studies suggest that taxpayers' behaviour is influenced by economic motives such as profit maximization and probability of detection (Trivedi & Shehata, 2005), underreporting (Erard & Ho, 2002; Cobham, 2005), business income taxpayers operating in informal economy (Etchberry, 1992) among many factors.

Psychology theories of tax compliance assume that psychological factors – including moral and ethical concerns are also important to taxpayers and so taxpayers may comply even where the risk of audit is low. Psychology theories de-emphasize audits and penalties and instead focus on changing individual attitudes towards tax system.

Trivedi and Shehata (2005) concluded that some taxpayers' behaviour may follow economic theories while others may follow the psychological theories and a mixture of the two is also possible.

In conclusion, there is no independent theory that can be used to explain the relationship between automation of tax administration and tax compliance. Rather, the above theories are complementary.

2.2 Review of the main concepts of the study

2.2.1 Automation tax administration

Automation: is use of electronic systems or information technology for the performance of repetitive tasks at high speed in an efficient and effective way. Automation of tax administration is modernization of tax administrations by means of information and communication technologies (ICTs).

Tax: A tax is a non-quid pro quo payment to the tax authorities or governments. It's a non-quid pro quo in a sense that the benefits received by the tax payers from the government do not necessarily correspond to the amount of the tax paid. Seligman (1984) defines a tax as "A compulsory contribution from a person to the government towards expenses incurred in the

common interest of all without reference to the special benefits conferred". Osborn (1993) also says "It is the imposition of duties for the raising of revenue.

Taxpayers who receive income from trade, regardless of their size or legal form and status, are required by law to: register for tax, keep and maintain sufficient records for tax purposes, carry out tax assessments, pay taxes (as due), file all tax returns in time, and carry out other tax-related duties like accounting for withholding taxes and paying employment tax on behalf of their employees (Nelson, 2008).

E-tax: This is an integrated tax administration system that provides on -line services to a taxpayer on a 24 hour basis. This system was custom made by Tata consultancy services limited for URA. The system is designed to administer income tax, value added tax, local excise duty and other fees and licenses. E-tax enables taxpayers to lodge their tax registration, filling of returns and tax payment applications on-line through the URA web portal, from anywhere on the globe as long as they are connected to the internet

2.2.2 Tax Compliance

Scholz and Witte, (1989), define tax compliance as a situation where the tax payer complies with the fiscal set up by registering with the revenue authority, filing required returns in time, accurately reporting tax liability according to law, paying any outstanding taxes as they fall due and maintaining all records required.

Compliance: essentially relates to the extent to which a taxpayer meets these obligations. The broad categories of taxpayer obligation include: taxpayer registration; timely filing or lodging of requisite taxation information; reporting of complete and accurate information (incorporating

good record keeping); and payment of taxation obligations on time. If a taxpayer fails to meet any of the above obligations then they may be considered to be non-compliant (OECD, 2004).

Tax compliance: is currently a topical policy issue, especially in developing countries, as governments are seeking ways to improve efficiency in tax revenue collection to finance their budgets (Chau & Leung 2009). Tax non-compliance behavior in SMEs include non-registration for tax, non-filing of returns, none or poor payment of taxes, underreporting of turnover and profit, and none or poor bookkeeping (Alink 2010) In Africa, however, the number of countries that have tax administrations with fully functioning information technology (IT) systems is still scarce. The majority of countries receive tax payments through the banking sector, but fewer have established electronic filling of tax returns (Kloeden 2011). Investment in technology in most African countries is still rather low, accounting for less than 2% of the total administrative expenditure. Another challenge is related to internet penetration, which is also rather low across the region.

In most parts of Africa, the bulk of income tax revenue comes from large business firms and from government employees. The extension of the tax to small traders, artisans or professional persons meets with serious administrative difficulties as there is no way of ascertaining income where no proper books are kept, and no regular accounts are prepared or audited (Kaldor, 1970).

In Rwanda Revenue Authority, they have realized that one cannot talk about taxes without mentioning compliance. Summing up all the functions and activities that revenue administrations do they are centered on achieving voluntary tax compliance. They have conducted meaningful audits, inspections and initiated targeted taxpayer education programs that add value and enhance tax compliance in Rwanda (Kawanga, 2015).

Mauritius Revenue Authority (MRA) came up with an improved tax risk management process to address tax risks in a holistic approach. A Tax Risk Management Unit (TRMU) under the Compliance Department was set up to systematically identify, assess and rank tax compliance risks in the four main areas, namely registration, return filing, submission of accurate tax declarations and timely payment of tax. For those taxpayers who are willing or trying to do the Right thing, MRA has made things easy for them and assisted them to comply with the tax obligations. However, for those taxpayers who don't want or have decided not to comply, MRA has enforced with vigor the tax laws to make them comply

According to Inland Revenue Authority of Singapore (2014)**,** minority of their taxpayers are not compliant because they are not fully aware of their filing/payment obligations or do not know how to comply. Information guiding taxpayers in understanding what will happen if they did not file their tax return or filed late not paid or paid late, etc is loaded on their web portal. Taxpayers who have made mistakes in their past tax returns are encouraged to do the right thing to avoid penalty or have their penalties reduced.

2.3 Actual review

2.3.1 Online taxpayer registration and Tax compliance

The introduction of single Tax Identification Numbers (TIN) for individuals and companies was one of the measures that were implemented in several African countries with the aim of facilitating compliance, control and reducing the room for corruption. This number was used for all tax purposes, including in customs, combined with the introduction of information and

communication technology tools, it facilitated the detection of tax evasion and corruption (Fjeldstad & Moore 2013).

The Kenya Revenue Authority (KRA) uses an automated online system to generate Taxpayer Identification Number (TIN). Tax-payers have used the automated electronic system of registration to obtain the identification online, without having to interact with tax officials or visit tax offices which reduced on their compliance cost (Kariuki 2013).

Due to increased informal business in Ethiopia, enforcement via Electronic Sales Registry Machine (ESRM) has been increased to ensure that firms that operate underground are brought onto the tax register (Merima, 2012). Automated system has ensured that non-compliant taxpayers don't remain unidentified and outside the tax system. This was ensured through third party information obtained to support intelligence, analysis of information supplied by third parties and massive taxpayer education programmes (Inland Revenue, 2001).

Inland Revenue used robust management information systems through data-matching to identify non-compliance. The department's intelligence work identified some £22 million additional tax in 1999-00 by identifying people not registered for tax. (Inland Revenue, 2001).

2.3.2 Online filling and tax compliance

There has been considerable overall progress in the use of e-filing for the major taxes and a number of bodies report substantial progress over the last 5 years; for many, this progress has been facilitated by the use of mandated e-filing requirements (viz. CIT, VAT, and employers' wage income reports); however, around 30% of surveyed revenue bodies still have considerable

progress (i.e. +60% absolute) to make across some/all of the major taxes, including a number who have made quite limited progress over the last five years (OECD,2010)

In South Africa, electronic filling of tax returns (e-filling) made the process much faster; in 2006/07 only 1.6% of tax returns were processed within 48 hours, in 2008, this number increased to 34% (African Development Bank 2010). IRS e-file has securely transmitted more than 1 billion tax returns since 1990. Nearly 80 percent of all individual federal returns are now e-filed (IRS, 2014).

According to Tarmo (2013), the top three e-services that displayed the biggest savings in time compared to regular offline services were: establishing a company, submitting tax reports (VAT, income or social tax), and i-voting. The savings were derived from no longer having to visit various government agencies physically or having to obtain information from several separate information systems. The online submission of tax returns to the Estonian Tax and Customs Board and the e-service of the Estonian Agricultural Registers and Information Board stood out as having the biggest impact on accessibility compared to offline services.

Pre-filled forms under the e-tax system have made the tedious task of filing taxes very simple for Estonian inhabitants. The e-tax saved Estonian companies 7 euros on average per income and social tax declaration, around 726,000 euros in total Tarmo(2013).

According to the Inland Revenue report (2001), around 90 per cent of the 9 million tax returns issued each year were filed by the 31 January deadline. £150 million and £300 million of the returns remained at risk/ outstanding after automatic £100 penalties have been applied. The report recommended development of the management information systems to monitor the use of

automatic £100 penalties, daily penalties and estimated tax assessments to assess whether these incentives are effective and that they are being used appropriately.

Many African countries adopted measures to simplify the administration of tax systems (for instance by adopting electronic filling of tax returns), but did so without ensuring that tax laws and policies were coherent and fair. In Anglophone African countries, revenue administration reforms have failed to include tax policy. As a consequence, tax officials continue to have the possibility of granting unjustified and ad hoc tax exemptions, increasing the opportunities for political interference and corruption in general (Moore 2013; Moore & Mascagni 2014).

Revenue authorities in African have turned towards increasing the use of technology in the administration of taxes. Information technology (IT) tools have played an important role in tax administration modernization. For instance, in countries where electronic systems for filing and paying taxes have been implemented well and used by most taxpayers, reduction in operational costs for administering tax and increased tax compliance have been registered in those particular countries. It has also provided for a reduction of corruption, which is more likely to occur with in-person payments at tax offices (World Bank & IFC 2014).

2.2.3 Online tax payments and tax compliance

Take-up of fully electronic e-payment methods (e.g. Internet payments, phone banking, and direct debit) has not progressed at the same rate as e-filing take-up rates and only around one third of revenue bodies report that the majority of tax payments are made via fully electronic methods; considerable potential exists in over more than half of surveyed countries to exploit the significant benefits that can be obtained from wide use of fully electronic payment methods, with

available industry data from one country indicating a cost differential of up to 1: 5 between fully electronic and manual payment methods (OECD, 2010). On January 1, 2011, the IRS required all tax payments to be made electronically. Paper coupons and checks were longer accepted. Trustmark's tax payment service that helps taxpayer to pay both state and federal taxes was used by most taxpayers since it was very simple and convenient and available around the clock.

In 2008, the Ethiopian Revenue and Customs Authority (ERCA) required several businesses to use Electronic Sales Registry Machine (ESRM). ESRMs were connected, through a general packet radio service, to the central data base of ERCA providing real-time data on each transaction. This enabled ERCA to monitor reported revenues of firms on a day-to-day basis and Offered a cheaper possibility to gather and analyze large amount of data on tax payers. Empirical evidences on the impact of ESRM on tax compliance using micro data from Ethiopia showed that tax payments by firms increased in the aftermath of the ESRM use. The effect was driven primarily by personally owned firms, which were more likely to evade taxes. This result further suggested that the ESRM use minimized evasion among firms that were more likely to evade taxes. The evidences point to a possible positive contribution of the IT revolution to fiscal capacity in developing countries. It was also observed that revenue gains from ESRM use may be weakened due to increased informality (Merima, 2012).

Robust management information systems in tax administration have provided an effective framework for managing the risks associated with the assessment and collection of tax. The system improved the administration of taxes by making assessments more straightforward and by allowing a more focused approach to compliance work (Inland Revenue, 2001).

Simplification, standardization and harmonization of tax procedures were important in reducing noncompliance and corruption in tax administration. Simpler and more streamlined processes to pay and collect taxes reduce tax officials' discretionary power, increase predictability, lessening the burden for firms and individuals to comply and hence reduce the opportunities for corruption (Rahman 2009).

In Africa, however, the number of countries that have tax administrations with fully functioning IT systems is still scarce. Nevertheless, there are some examples of the use of technology to facilitate tax collection and administration that can be found in the region. In Rwanda, for example, since 2012 businesses with an annual turnover of between US$3,000 and US$770,000 can pay taxes through mobile phones (M-Declaration) (Oxfam Blog, 2013).

In Tunisia, a system for online filling and payment has helped to reduce the frequency of payments and the time required to file and pay taxes, reducing also the burden to tax payers – which consequently provided disincentives to engage in corruption. The reform has reduced tax evasion and helped to increase the total tax revenue collected (from 12.3% of GDP in 2007 to 19% in 2008). A one stop shop e–window has also been established to facilitate trade across borders (ATAF, 2012).

2.4 Other factors that affect tax compliance.

Taxpayer's services: Taxpayer services are aimed at raising tax awareness and enhance the level of voluntary taxpayer compliance (Jenkins *et al. 2000).* Taxpayer services within URA are aimed at improving Voluntary compliance and bringing about stability and honesty in operations

Bird (1989) stresses that the willingness of the taxpayer to comply with their tax obligation depends largely on the perception that the tax paid is put to some good use.

The highest rates of tax are found in Scandinavian countries, where governments provide a range of public goods and services to its citizenry than the rest of the world (Kay and King 1990). Taxpayers in these countries are therefore tax compliant because of what their governments provide in return. This however this does not negate one of the main characteristics of a tax, that a taxpayer payer does not demand something equivalent in return from the government for the payment. It is expected that when taxes are collected, they are used by government for public good and not just for those who make the payment.

According to Nelson (2008), Revenue authorities can't control every individual taxpayer. To maximize compliance they need to encourage taxpayers to comply voluntarily by providing taxpayers with everything necessary to enable compliance. Revenue authorities need to know what taxpayers need to comply and how they can make it easy for them to comply.

Tax law: Revenue authorities have a central role (and vested interest) in ensuring that taxpayers and other parties understand their obligations under the revenue laws. For their part, taxpayers and others have an important role to play in meeting their obligations as, in many situations, it is only they who are in a position to know that they may have an obligation under the law (OECD, 2004). A taxpayer may technically meet their obligations but compliance may be in question due to interpretational differences of the law. In such circumstances, clarity of the taxation law

represents a category of risk to be addressed either by changing the law or changing the way in which it is applied.

Efficient tax collection measures: Tax collections measures include; reminder letters, telephone calls, agency notices to banks and other third parties, legal recovery actions, including asset seizures, liens, and temporary closure of businesses (Andrew, 2014). Prompt detection of taxpayers failing to file tax returns and pay the tax due is critical to improve tax compliance Without efficient collection measures, the tax arrears portfolio increases and reaches a point where the taxes can't be collected. Arrears arise from 4 categories such as; new taxpayers; taxpayers who have never filed returns; previous taxpayers with current liability; and taxpayers with large liabilities in the previous year. Penalties and interest are paid by the taxpayers in case of delayed tax payments and are an effective deterrent to non-compliance. Arrears can also arise from audits.

Interest and penalties serve to remind taxpayers of the need to take reasonable care in preparing their tax returns and managing their tax affairs. Good interest and penalty regime serve as an effective deterrent to non-compliant taxpayers. Interest and penalty should be strictly enforced on taxpayers who fail to: file returns on time, late filing & late payment, understatement and providing misleading records (Andrew, 2014).

Efficient audits programs*:* Audits have been used in most revenue authorities as one of the strategies to ensure that compliance is managed in an effective and efficient**.** Where audit verification is determined as the appropriate response, consideration is given to the full range of

audit types to optimize visibility and coverage. Full audits should be conducted in only limited circumstances and restricted to large and medium taxpayers, suspected of fraud or evasion.

Key features of the risk-based audit programs include; national audit strategy and plan, risk analysis, uses of wide range of audit types and gaining access to a wide range of third parties. Taxpayers must know that if they fail to comply with the tax laws, they face a reasonable risk of being detected. (Harrison, 2006).

Different types of audits have been used by revenue authorities and include the following: Registration checks are mainly for new businesses, particularly small and medium-size ones. Desk audits are made annually (usually after the filing of the income tax return) and are intended to detect mathematical errors as well as other anomalies in the returns which would result in the assessment of additional tax liabilities. Single issue audits are directed at verifying items for which errors have been detected in returns such as an unusual credit claim. An issue-based audit focuses on two returns, and last for two-three days. Comprehensive audits are all cases where serious under reporting or evasion have been detected during a registration check, desk verification, or an issue-oriented audit, should be subject to a comprehensive audit. Tax fraud investigations involve the most serious cases of non-compliance which may have criminal implications. Fraud investigations require searching of premises, seizure of evidence, testimony from witnesses, etc. and are normally carried out by specialized investigators in accordance with criminal law. (URA Audit Manual, 2010).

Reduced audit effort is a way of ensuring that compliance is minimized. An audit effort is the difference between what the tax payers have declared in their returns and what the auditors have

assessed. The differences arise out of non-declaration of all the income received; wrong deductions, credits or tax offsets; and in correct calculated and reported other tax-related obligations (ATO, 2014). Depending on what the auditors find, the taxpayers may owe more tax, or be in the clear (Internal Revenue Service, 2005).

2.5 Conclusion

Sometimes the Uganda Revenue Authority has failed to collect the expected despite having substantial laws support from government. Taxpayers must know that if they fail to comply with the tax laws, they face a reasonable risk of being detected. (Harrison, 2006).Interest and penalty should be strictly enforced on taxpayers who fail to: file returns on time, late filing & late payment, understatement and providing misleading records (Andrew, 2014). Uganda Revenue Authority face a critical challenge of shortfall in revenue collect. Besides, most activities performed by the country require adequate financial resources, Scott Herridge, (2002).

This study needs to be carried out so as to help in identifying other sources of local revenue and reduce over dependence on Conditional Grants' transfers in order to improve service delivery.

Though there are a number of studies that have been done on tax compliance, very few studies addressed automation of tax administration, besides they were done in different geographical settings other than domestic taxes Kampala east office. Also these studies were done at different times, using different methods. Therefore this study hopes to address the gaps left out by other researchers as far as the extent to which automation of tax administration influence tax compliance is concerned specifically in domestic taxes Kampala east office.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter provides a description of research methodology that was employed in the study. It also looks at the research design, study population, determination of the sample size, sampling techniques and procedures, data collection methods, data collection instruments, validity and reliability, procedure of data collection, data analysis and measurement of variables.

3.2 Research design

The study used case study design. It involved collection of data from a number of respondents in its natural setting, cheaply and in a short time (Creswell 2003 and Koul 2005). The case study design was used because of its in-depth investigation of an individual, group, institution and makes detailed examination of a single subject (Mugenda and Mugenda, 1999).The research used the case study to make an intensive investigation on automation tax administration that affects the level of tax compliance at individual unit, group, entire community, and family, in order to understand the life cycle of that particular unit and collect a firsthand narrative (Amin 2005). The justification for the use of a case study was that it permits marriage of diverse techniques within the same study. In addition, it helps to generate new understandings, explanations or hypotheses about the problem.

Both qualitative and quantitative methods were used in order to reduce bias. Qualitative approach was helpful in interpreting people's opinions, perceptions about automation of tax administration and tax compliance using interviews and documentary reviews. The qualitative

data also gave narrative and descriptive information that explained and gave deeper understanding and insight into a problem as suggested by Amin, (2005).

On the other hand quantitative approach was still used because of its flexibility form of multiple scale and indices focused on the same construct which allowed many responses from different respondents (Ahunja, 2005).

3.3 Study population

According to records from human capital section of domestic taxes, Kampala East regional office has a total establishment of 72 employees, however only 59 posts are filled. Twelve (12) UMA executive members were interviewed as representatives of tax payers and included in the study population. Therefore, the study population was 71 respondents comprising of URA staff and tax payers' representatives.

3.4 Sampling procedures

3.4.1 Sample size

The sampling frame included manager, supervisors, Revenue officer and UMA Executives which brought the total population to 71.

The population was stratified in functional areas and relevant to the study across the department using Krejcie and Morgan's (1970) table to minimize bias. (Appendix VI).

The sample size was 59.

Table 1; showing category, population, sample size and sampling technique.

SN	Category	Population	Sample size	Sampling technique
1	Manager	1	1	Census
2	Supervisors	6	6	Census
3	Revenue officers	52	41	Simple random sampling
4	UMA executives	12	11	Purposive sampling
6	**Total**	**71**	**59**	

Source: Domestic Taxes Kampala east records (2015)

3.4.2 Sampling techniques

In determining the sample size, probability and non-probability sampling techniques were used. For this study purposive and simple random sampling techniques were used. This was advantageous because the researcher relied on the respondents who were critical for research. Purposive sampling was used for the groups with limited numbers of most possible respondents since all the groups were seen to have all the required information (Mugenda and Mugenda, 1999). Simple random sampling gave a chance to all respondents to be picked.

3.5 Data collection methods

Data sources

Primary and secondary sources were used to collect data.

3.5.1 Primary sources.

Primary data was collected from respondents through issuing of questionnaires. The researcher, with the help of guiding questionnaire interviewed different officers UMA who are directly

engaged in the registration of taxpayer, receiving of taxpayer returns and ensuring that taxpayers pay the collect taxes by the due dates.

3.5.2 Secondary source.

Secondary data was collected in form of statistical data which was collected from electronic cashbook databases, e-tax system, and Annual Revenue Bulletins, Domestic Taxes compliance Reports. Furthermore some key documents was reviewed such as; Taxpayers registers to assess the conditions registers, returns to identify some forms of non-compliance, Tax payments and Audit reports to evaluate strength of the payments and auditing functions in the e-tax system

3.6 Data collection methods

3.6.1 Questionnaire survey

In this study, a questionnaire was used as a major instrument for data collection. It was advantageous in that it collected data from a relatively large number of respondents from their natural setting, cheap and saved time. The questionnaire method involved use of a set of questions printed in a logical order (Kothari 1984); (Mugenda and Mugenda 1999). This enabled the respondents to freely express their views on automation of tax administration and tax compliance as the key variable of the study. The method also allowed the respondents to record what they felt, thought and believed was true or false. The questions were close ended to facilitate administration and analysis (Mugenda and Mugenda, 1999). In addition to the questionnaire face to face interviews were given which yielded more information from which responses were recorded. Expecting respondents to have limited time more especially management team and for accuracy, interview guide was vital.

3.6.2 Interviews

In circumstances where the questionnaires did not to generate sufficient information, the interview method that comprised of personal (face to face) interviews with key individuals considered to have the necessary information relevant to objectives of the study was applied using interview guides. Structured interviews with a set of pre - determined questions and standardized recording as constructed in the interview guide were used. This method had an advantage of providing in depth data which could have not been got using the questionnaire (Mugenda and Mugenda, 1999).

3.6.3 Documentary review

The study reviewed automation of tax administration documents. The study also used a review of existing literature related to the study problem and variables in form of reports, published and unpublished research, journals, electronic journals, websites and databases to gain more information on the study problem. Sekaran (2003) classifies these documents as secondary sources of data collection method and asserts that this method saves time and reduces the cost of gathering information.

3.7 Data collection instruments

The study used both primary and secondary sources. Primary data is the original data that was collected for the first time, which was specifically collected for the problem under study.

The researcher also used secondary sources of data. This enabled comparability of secondary data that was available with responses from the primary data gathered in order to derive a meaningful and objective interpretation of the findings. Data collection instruments that were used included; questionnaire, interview guides and documentary review checklists.

3.7.1 Questionnaire

This consisted of the questions which the respondent answered. According to Mugenda and Mugenda (1999), a standard questionnaire contains a list of possible alternatives from which respondents select the answer that best suits the situation.

Structured and unstructured questions gave the Uganda revenue authority Kampala east respondents a degree of freedom to bring out some information in detail due to the open ended nature of some questions.

It accommodated a wide range of close-ended questions giving room to cover more areas of interest as far as desired data was concerned.

Self-administered questionnaire was filled by respondents from domestic taxes Kampala east office who were selected to participate in the study and were hand delivered by the researcher to avoid inconveniences and delays.

3.7.2 Interview guide

To supplement the data from self-administered questionnaires, an interview guide was used to key respondents from management team of domestic taxes Kampala east office and UMA Executives. This was used in face-to-face interviews intending to have in-depth of online registration, online filling, online payments and tax compliance. This was used because it is flexible in terms of adapting, adopting and changing the questions as the research proceeds.

3.7.3 Documentary review checklist

The researcher used this instrument in order to capture secondary data and first-hand information relevant to the study. These documents helped the researcher by revealing the level

of automation of tax administration on tax compliance in domestic taxes, Kampala eat office through a review of the analysis reports, minutes of meetings and other archival or file records.

3.8 Quality control

3.8.1 Validity

Validity means that correct procedures have been applied to find answers to a question (Catherine, 2002).Validity was established through the average Content Validity Index (CVI) formula. This is a tool used to gauge the content validity of items on an empirical measure. It was applied using the formula shown below;

$$\text{Content Validity Index (CVI)} = \frac{\text{Number of items declared valid}}{\text{Total number of items}}$$

In this approach, a panel of 4 (four) experts from domestic taxes, Kampala east where I conducted my pre-test of the instrument to establish whether it was valid were used. The researcher used Sekarani (2003), who recommends that for an instrument to be valid, its content validity index has to be 0.7 and above.

Using formula

That is; CVI =n/N

Where; CVI stands for Content Validity Index, n stands for number of items rated valid by all judges and N stands for number of items in the instrument. The instruments for this study were valid to be used since they had a C.V.I of 0.83 which is above 0.7.

Using the formula;

Judge1. = 37/42= 0.88

Judge2. = 35/42= 0.83

Judge3. = 36/42= 0.85

Judge4. = 35/42= 0.83

Therefore the total= 0.88+0.83+0.85+0.83 = 3.39/4 = **0.85**

3.8.2 Reliability

Reliability was used to measure the degree to which the instrument would be the same when put under the same conditions. Data collection instrument is presumed reliable when it produces the same results whenever it is repeatedly used to measure concepts from the same respondents even by other researchers. To ensure reliability, the research instrument was pre-tested to select 10 respondents from domestic taxes, Kampala east to ensure consistency and comprehensiveness. Furthermore, some consultations with other researchers, supervisors and peer groups were done to review the research instrument. The degree of reliability was established using Cronbach's coefficient Alpha that showed how the level of the relationship between automation of tax administration and tax compliance in domestic taxes, Kampala east office would be generalized.

A high Cronbach's coefficient Alpha above 0.72 is considered to indicate high reliability hence acceptable for social research (Mugenda and Mugenda, 1999). The Cronbanch's Alpha reliability Coefficient (a) was calculated by running a statistical test using Statistical Package for Social Scientists (SPSS). Therefore, for this study, the measurements in the instrument were found to be 0.923, the instrument was considered reliable to use. (See Appendix V)

Table 2; Summary of reliability statistics

Variable	Reliability Statistics	Number of Questions
Online registration	0.815	8
Online filling	0.911	9
Online payments	0.892	9
Tax compliance	0.901	12
Total Reliability	**0.878**	**38**

Source: Primary Data (2016)

The table above shows three sections of the questionnaire that was used to collect data for the study. Data collected for each section was subjected to cronbanch's coefficient alpha reliability test to examine the degree of dependability of the data. The overall reliability was found to be 0.878, (Mugenda and Mugenda, 1999) asserts that cronbanch's coefficient alpha results which are above 0.72 are fit enough to be relied on for the study, since 0.878 is above 0.72, the collected data is fit to be relied on.

3.9 Data Analysis

According to (Sekaran, 2003), data analysis is the evaluation of data. It is the process of systematically applying statistical and logical techniques to describe, summarize and compare data.

After the information is gathered, a variety of tools was used to analyze it in order to capture the relevant findings and present it in a manner that was understood by fellow researchers and other research users. The main tool to be used was SPSS (statistical packages for social scientists) this shall be used for data analysis whereas Epi-data was used for data entry. Descriptive statistical

method was used to obtain frequencies and percentages in form of tables and charts, other tools used included;

3.9.1 Editing

Editing was done in order to discard unwanted and irrelevant information, verify the data and check for consistency.

3.9.2 Coding

This involved grouping answers of a similar nature or with similar meaning into one set of answers and giving them a particular number called a code. This means that, for example questions with provide multiple responses was coded. The coding helped the researcher to get the total number of responses for each of the questions. This was also helpful to tabulate the data using the figures and numbers obtained.

3.9.3 Tabulation

Tabulation involved representing the information obtained in figures and tables. This was later used to establish comparisons as well as conclusions for the study.

3.9.4 Qualitative data analysis

Qualitative data was obtained by conducting interviews with key informants using interview guides and open ended questionnaires. Qualitative analysis involved categorizing data and then attaching it to the appropriate categories. The analysis of the interview responses was edited according to the themes developed in the objectives of the study. The data from open ended questionnaires and interview responses was analyzed by listing all the respondents' views under

each question category. Where necessary, quotes from respondents were used to strengthen the interpretation.

3.9.5 Quantitative data analysis

Quantitative data was collected from close ended questions. Quantitative data analysis process involved; editing, coding classification and presentation in form of tables and graphs so that data was liable for analysis. The analysis entailed computation of descriptive statistics, through which relationships supporting or conflicting with the hypotheses were subjected to statistical tests to determine the extent to which data was said to have indicated any conclusions (Kothari, 2004).

The data collected through questionnaires was analyzed using Statistical Package for Social Sciences (SPSS) because this is the most recommendable package for analyzing social sciences researcher data (Sekaran, 2003). The statistics focused on the measures of central tendencies (percentages and frequencies) and relational statistics to measure the Direction, form and degree of the relationship (regression and correlation) between automation of tax administration and tax compliance, which was provided by SPSS.

3.10 Ethical considerations

As listed by Mikkelsen (2005:342) permission to undertake research, informed consent, confidentiality and explaining purpose was significantly considered during the data collection process. The researcher got an introductory letter from Uganda Martyrs University to seek necessary permission from different authorities. The letter was presented to areas where the study was conducted. A covering letter accompanying the questionnaire explaining the purpose of the study was distributed directly to the respondents in their respective areas to be filled. The

cover letter was also used to provide access to the interview process which was done on an appointment with the respondents.

At the point of the interview, a short introduction on the purpose of the research was done in order to obtain a willing cooperation of the research participants. In cases of voice recording and writing down, participants was informed and assured that the information will be treated with maximum confidentiality.

3.11 Limitations of the study

Some respondents were unwilling to answer the questionnaires for fear of reprisals from top management and some were busy with office work. This was solved by assuring the respondents that the purpose of this research is of academic purposes and would not affect them in any negative way.

Since most of the interviewees are managers, they were expecting to take the study as an official evaluation of their competence. This problem was handled in the introduction of the purpose of the study as respondent names and personal details are made optional and confidentiality of information emphasised.

Most of the related literature on the study is scanty: Whereas there are several studies that have been conducted on automation of tax administration and tax compliance, most of the studies relate to other countries. However, efforts were made to find more information from government reports and online journals.

3.12 Conclusion

The previous chapters presented a review of the theories and studies done by a number of researchers on the area of automation of tax administration and tax compliance. This chapter intended to obtain a deeper knowledge on the status quo regarding the subject of automation of tax administration within URA and tax compliance. The case study research design permited marriage of diverse techniques within the same study. In addition, it helps to generate new understandings, explanations or hypotheses about the problem.

CHAPTER FOUR

PRESENTATION, ANALYSIS AND DISCUSSION OF FINDINGS

4.0 Introduction

In this chapter, the results are presented, analyzed and discussed. The study aimed at establishing the effect of automation of tax administration on taxpayer compliance in Uganda Revenue Authority, a case of domestic taxes, Kampala East. The chapter highlights the response rate, demographic characteristics of the respondents and empirical findings according to the objectives of the study. The analysis was done using SPSS statistical package version 18.0. The data collected is presented using frequency distribution tables.

This section is organized according to specific categories of respondents that are Management, supervisors, Revenue officers, and UMA Executives. The purpose of categorizing these respondents was to help in establishing the respondents sample characteristics from small and manageable groups so that each and every type of respondent is accessed to be able to form appropriate opinion about the research findings on the effects of automation of tax administration on tax compliance in Uganda Revenue Authority, a case of domestic taxes, Kampala East.

4.1 Response Rate

The researcher set out to find out the response rate of the respondents and the results are indicated in the table below.

Table 3; Showing the response rate when questionnaires were administered

SN	Category	Population	Sample size	Rate of return	% of return
1	Manager	1	1	1	100%
2	Supervisors	6	6	5	83.3%
3	Revenue officers	52	41	35	85.4%
4	UMA executives	12	11	9	81.8
6	**Total**	**71**	**59**	**50**	**84.7**

Source: Primary Data (2016)

This research had a study population of 71 and from this a sample of 59 was selected for the study. Of these sampled respondents, a total of 50 returned the questionnaires fully completed, giving response rate of 84.7%. This was regarded adequate in line with literature by Mugenda and Mugenda (1999) which recommends 70% as a good response rate when quantitative data is collected.

4.2 Demographic Characteristics of Respondents

To determine the background characteristics of the respondents the study focused on Gender, age, level of education and duration of service in Uganda revenue authority Kampala east.

4.2.1 Gender of Respondents

This section looked at the Gender of the respondents which was categorized as male and female. The results were analyzed using descriptive statistics as presented in table 3 below;

Table 4: Gender of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1	2.0	2.0	2.0
	male	30	60.0	60.0	62.0
	Female	19	38.0	38.0	100.0
	Total	50	100.0	100.0	

Source: Primary Data (2016)

The study mainly consisted of males at a distribution of 60.0% (30) compared to 38.0% (19) females. The male respondents were the biggest number and this could be because the automation of tax administration involves laborious activities which favor more males than females. This implies that having more males implementing automation of tax administration, would be used for increased tax compliance in Uganda Revenue Authority, domestic taxes, Kampala East since it favors them.

4.2.2 Age of Respondents

This sub section looked at the age group of respondents which was categorized as below 20-30 years, 31-40 years, and 41 years and above. The results were analyzed using descriptive statistics and presented in table 4 below;

Table 5: Age of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1	2.0	2.0	2.0
	20-30	16	32.0	32.0	34.0
	31-40	23	46.0	46.0	80.0
	41 years and above	10	20.0	20.0	100.0
	Total	50	100.0	100.0	

Source: Primary Data (2016)

The study findings show that most of the respondents 46.0 (23) fall in the age bracket of (31-40 years) followed by 20-30 years at 32.0% (16), above 41 years at 20.0% (10). The results showed that most respondents are in age group of 31-40 years which is the most energetic and responsible age group. This implies that it can be tapped into to provide the required skills and knowledge for planning and execution of automation of tax administration in relation to tax compliance in Uganda Revenue Authority, domestic taxes, Kampala East.

4.2.3 Level of Education

This subsection represents the respondents' level of education. This was done in order to ascertain their level of participation and their views about how automation of tax administration affectstax compliance in Uganda Revenue Authority, domestic taxes, Kampala East.This

included O level, Alevel, Diploma level, Degree level, Master's degree and others. The results were analyzed using descriptive statistics and are presented in table 5 below;

Table 6: Level of education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1	2.0	2.0	2.0
	O'LEVEL	2	4.0	4.0	6.0
	A'LEVEL	6	12.0	12.0	18.0
	BACHELORS	31	62.0	62.0	80.0
	MASTERS	10	20.0	20.0	100.0
	Total	50	100.0	100.0	

Source: Primary Data (2016)

From the figure above it was found out that, out of 50 respondents, 4.0% had finished 'O' level, 12.0% were up to 'A' level, 62.0% bachelor's degree level, and 20.0% belong to master's degree. This indicated that the majority of respondents were of degree level, implying that participants provided adequate information in relation to the study since most of them were highly educated with minimum requirements of a public officer. This also means that they are in position to provide supervisory and technical support skills required in the tax compliance since they possess minimum qualification for public officers.

4.2.4 Duration of service in Uganda revenue authority

This looked at duration of service which was categorized as following; less than 1 year, 1-2 years, 3-5 years and 6 years and above. This was done to find out the duration of one's full, participation and experience on how automation of tax administration affects tax compliance. The results were analyzed using descriptive statistics and are presented in table 6 below;

Table 7: Length of time in this organization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1	2.0	2.0	2.0
	Less than one year	1	2.0	2.0	4.0
	1-2years	18	36.0	36.0	40.0
	3-5years	11	22.0	22.0	62.0
	6 and above years	19	38.0	38.0	100.0
	Total	50	100.0	100.0	

Source: Primary Data (2016)

The study findings in the figure above show that a good number of the respondents at 38.0%(19) had spent 6 years and above, 36.0% (18) had spent 1-2 years, and 22.0% (11) 3-5 years while 2.0% (1) had spent less than one year. This shows that majority of respondents had been in Kampala east for 6 years and above implying that such experience could be utilized for better

automation of tax administration and long term implementation of automation of tax administration in order to achieve a high level of tax compliance.

4.3 Automation of tax administration and tax compliance in Uganda Revenue Authority

Findings were presented and analyzed according to the objectives of the study and a number of factors were examined as shown below;

4.3.1 Online registration and tax compliance

The first objective of the study was to establish the effect of online registration of taxpayers on tax compliance in Uganda revenue authority, Kampala East. Table 5 represents respondent's opinions on online registration of taxpayers and how it affects tax compliance.

Table 8: Respondents' opinions on online registration and tax compliance

	N	**SD**	**D**	**N**	**A**	**SA**
Kampala east tax office has embraced online registration	50	2% (1)	-	4.0% (2)	42% (21)	52% (26)
Kampala east tax office introduction of single Tax Identification Numbers (TIN) for individuals and companies	50	2% (1)	2% (1)	4% (2)	40% (20)	52% (26)
Online registration has enabled tax compliance	50	2% (1)	16% (8)	24% (12)	38% (19)	20% (10)
Online registration has facilitated the detection of tax evasion	50	4% (2)	18% (9)	18% (9)	50% (25)	10% (5)
Online registration has facilitated the detection tax corruption	50	6% (3)	18% (9)	24% (12)	44% (22)	8% (4)
Online registration has facilitated registration of only eligible taxpayers	50	18% (9)	20% (10)	20% (10)	22% (11)	18% (9)
Online system has ensured tax compliance of all taxpayers	50	6% (3)	22% (11)	26% (13)	26% (13)	20% (10)

Strongly Disagree=SDA, Disagree=DA, Neutral=N, Agree=A, Strongly Agree=SA

Source: Primary Data (2016)

When respondents were asked if Kampala east tax office has embraced online registration, 52.0% (26) and 42.0 % (21) of the respondents agreed with the statement, 4.0% (2) were neutral about the statement and 2.0% (1) of the respondents strongly disagreed with the statement. This indicated that to a large extent respondents agreed that Kampala east tax office had embraced online registration. This means that Kampala east tax office follows and implements to a greater extent proper online registration of taxpayer procedures. Implying that online registration can be used to achieve tax compliance. In fact documentary review indicated that Kampala east tax office had 11,435 registered taxpayers by beginning of January 2008 but by 30th June 2014 the tax register had grown to 26,456 registered taxpayers (Domestic taxes performance report 2013/2014).

On the question "Kampala east tax office introduction of single Tax Identification Numbers (TIN) for individuals and companies" 92.0% (46) of the respondents agreed with the statement, 4.0% (2) were neutral about the statement and 4.0% (2) of the respondents disagreed with the statement. This shows that to a greater extent Kampala east tax office was issuing a single Tax Identification Number (TIN) for individuals and companies. This means that issuance of a single TIN was used to achieve online registration. On the other hand one of the respondents said "*online registration is cost effective on ura side – pushes most of work to taxpayers"*. This means that not all taxpayers are happy with online registration. This is in agreement with Inland Revenue, (2001)who suggests that third party information obtained to support intelligence, analysis of information supplied by third parties and massive taxpayer education programmes.

On whether Online registration has enabled tax compliance, 2.0% (1) strongly disagree 16.0% (8) disagree while 38.0% (19) and 20.0% (10) agree and strongly agree respectively and 24.0% (12) are neutral. Thus to a large extent online registration has enabled tax compliance, implying that most taxpayers have registered online which eases tax compliance in Kampala east. Indeed one of the respondents said *"simplify it for the illiterate taxpayers".* This means that most of the taxpayers have knowledge of online registration. This is in line with (Kariuki 2013) who contends that tax-payers have used the automated electronic system of registration to obtain the identification online, without having to interact with tax officials or visit tax offices which reduced on their compliance cost.

On the question "Online registration has facilitated the detection of tax evasion". 10.0% (5) and 50.0% (25) showed positive response while 18.0% (9) and 4.0 % (2) did not. 18.0% (9) were neutral. This shows that to a greater extent online registration has facilitated the detection of tax evasion. This means that there is increased tax compliance since tax evasion is reduced. This agrees with (Fjeldstad& Moore 2013) who urges that for all tax purposes, including in customs, combined with the introduction of information and communication technology tools, online registration facilitated the detection of tax evasion and corruption.

On finding out whether online registration has facilitated the detection tax corruption in registration process, 44.0% (22) agreed, 8.0% (4) strongly agreed with the statement. On the hand 6.0% (3) and 18.0% (9) strongly disagree and disagree respectively and 24.0% (12) were neutral. This indicates that to a large extent online registration has facilitated the detection tax corruption in registration process, an interpretation that there will be improved revenue collected

as corruption is reduced. However, one of the interviewees had this to say "there *is need for the office to carryout voluntary registration of all eligible taxpayers so as to get the right information of the taxpayers".* This means that the ground is not yet clean enough to say that the online registration process is corruption free.

On whether online registration has facilitated registration of only eligible taxpayers, 22.0% (11) agree while 18.0% (9) strongly agree. On the other hand, 38.0% (19), did not agree with the statement. 20.0% (10) where neutral. This indicates that online registration has facilitated registration of only eligible taxpayers. This means that e-tax does online editing that only allows registration of eligible taxpayers. The implication here is that value for money will be realised hence tax compliance. This is in line with Merima, (2012) who suggests that Electronic Sales Registry Machine (ESRM) has been increased to ensure that firms that operate underground are brought onto the tax register.

On finding out whether online registration has ensured tax compliance of all taxpayers, 26.0% (13) and 20.0% (10) agree and strongly agree with the statement where as 6.0% (3) and 22.0% (11) strongly disagree and disagree with the statement 26.0% (4) where neutral. This shows that to a greater extent online system has ensured tax compliance of all taxpayers,a clear indication that tax compliance was supported by majority stakeholders. This implies that this positive support can be utilised in achieving tax compliance. Chau & Leung (2009) noted that tax compliance is currently a topical policy issue, especially in developing countries, as governments are seeking ways to improve efficiency in tax revenue collection to finance their budgets.

Table 9: Correlations between online registration and tax compliance

Correlations

		Registration	Compliance
Registration	Pearson Correlation	1	.723**
	Sig. (2-tailed)		.000
	N	50	50
Compliance	Pearson Correlation	.723**	1
	Sig. (2-tailed)	.000	
	N	50	50

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data (2016)

The findings in the table above revealed that there is a strong positive significant relationship between online registration and tax compliance at (r) = 0.723**, at the level of significant P = 0.001(2-tailed) given by the Pearson correlation. This indicates that an improvement in online registration leads to improved, tax compliance. The view therefore is that the management of domestic taxes Kampala east management should enhance online registration if tax compliance is to be improved.

Table 10: Model summary of online registration and tax compliance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.723[a]	.523	.513	.52164

a. Predictors: (Constant), online registration

Source: Primary Data(2016)

The model summary table above revealed that correction coefficient (R), using predicator online registration, is 0.723[a], the R^2 is 0.523 and Adjusted R Square = .513. This implies that 51.3% (0.513 *100) variations in tax compliance are explained by online registration while the remaining 47.7% is explained by other factors.

4.3.2 Online filling and Tax compliance

The second objective of the study was to establish the effect of online filling of tax returns on tax compliance in domestic taxes, Kampala East. Table 8 represents respondent's opinions on online filling and how it affects tax compliance.

Table 11: Respondent's opinions on online filling and tax compliance

	N	**SD**	**D**	**N**	**A**	**SA**
There has been considerable overall progress in the use of e-filing	50	2% (1)	4% (2)	10% (5)	52% (26)	32% (16)
A number of bodies report substantial progress over the last 5 years	50		6% (3)	10% (5)	68% (34)	16% (8)
This progress has been facilitated by the use of mandated e-filing requirements	50	2% (1)	8% (4)	16% (8)	50% (25)	24% (12)
Electronic filling of tax returns has made the process much faster	50	2% (1)	6% (3)	8% (4)	46% (23)	38% (19)
Online filing has increased the number of returns received	50	4% (2)	18% (9)	10% (5)	46% (23)	22% (11)
Online filing has led to increased revenue collection	50	4% (2)	16% (8)	6% (3)	48% (24)	26% (13)
Online filing has reduce the cost of returns filing	50	4%	28% (14)	6% (3)	36% (18)	26% (13)
Online filing has been convenient for taxpayers to file their tax returns	50	2% (1)	20% (10)	18% (9)	40% (20)	20% (10)
Online filing has increased tax compliance	50					

Strongly Disagree=SDA, Disagree=DA, Neutral=N, Agree=A, Strongly Agree=SA

Source: Primary Data(2016)

When respondents were asked if they believed that there has been considerable overall progress in the use of e-filing, 84.0% (42) of the respondents agreed with the statement, 10.0% (9) were neutral about the statement and 6.0% (3) of the respondents disagreed with the statement. This shows that to a large extent respondents believed that there has been considerable overall progress in the use of e-filing in domestic taxes Kampala east. This implies that respondent's value use of e-filling and means that all structures and policies to e-filling systems would be facilitated in Kampala east office. In fact one respondent had this to say *"it has greatly improved on the filling of many taxpayers".* This means that some respondents were satisfied with the present online-filling. This is in contrast with OECD, (2010) who suggests that a small number have made quite limited progress over the last five years)

On the question "a number of bodies report substantial progress over the last 5 years, 16% (8) and 68%, (34) strongly agree and agree respectively, while 10.0% (5) were neutral about the statement and 6.0% (3) of the respondents disagreed with the statement. This shows that to a large extent a number of bodies report substantial progress over the last 5 years and therefore it is right to conclude that online filling was generally accepted hence improved the filling tax returns. From the interviews one respondent said *"the number of nonfilling has gone down as many taxpayers are helped and at the same time taxpayers can file at any time and place without coming to the office"*. This is in agreement with African Development Bank (2010) who contends that in South Africa, electronic filling of tax returns (e-filling) made the process much faster; in 2006/07 only 1.6% of tax returns were processed within 48 hours, in 2008, this number increased to 34%.

Whether the progress has been facilitated by the use of mandated e-filing requirements, 74.0% (37) agreed with the statement, while 10.0% (10) disagreed with statement. This shows that to a large extent the progress has been facilitated by the use of mandated e-filing requirements. This implies that mandated e-filling improves tax compliance.

On whether URA Electronic filling of tax returns has made the process much faster 2.0% (1) strongly disagree 6.0% (3) disagree while 46.0% (23) and 38.0% (19) agree and strongly agree with the statement respectively and 8.0% (4) were neutral. This indicates that to a large extent electronic filling of tax returns has made the process much faster in domestic taxes, Kampala east. This means that the exercise of e-filling is not much tedious to discourage taxpayer to fulfil their obligations, an implication that there would be reduced non compliance. From the documentary review, Kampala east office returns (2012/2013 and 2013/2014) indicated how the number of tax returns received online more than doubled within that period. This agrees with Tarmo (2013), who noted that e-services have displayed the biggest savings in time compared to regular offline services

On the question "online filing has increased the number of returns received". 38.0% (19) and 46.0% (23) showed positive response while 6.0% (3) and 2.0 % (1) did not. 8.0% (4) were neutral. This showed that to a greater extent online filing has increased the number of returns received. This means that taxpayers in Kampala east are filling their returns on line. An implication that there would be increased tax compliance. However, one interviewee respondent had this to say "*online filling is convenient to only those who are computer literate and these are few taxpayers*". This means that though the system may be good, not all people can use it.

Therefore non tax compliance will remain an issue in Kampala east if this challenge of computer literacy among taxpayers is not addressed.

On finding out whether online filing has led to increased revenue collection, 48.0% (24) agreed, 26.0% (13) strongly agreed with the statement. On the hand 4.0% (5) and 16.0% (8) strongly disagree and disagree respectively and 6.0% (3) were neutral. This indicates that to a large extent online filing has led to increased revenue collection in comparison to the period prior to implementation of online filing of tax returns.This means that there was adequate revenue collected by implementing online filing of tax returns though the revenue collected fell below the target for Kampala east office and URA generally for the period that was studied. This in line with Tarmo(2013), who suggests that e-tax saved Estonian companies 7 euros on average per income and social tax declaration, around 726,000 euros in total.

On whether online filing has reduced the cost of returns filing, 36.9% (18) agree while 26.0% (13) strongly agree. On the other hand, 28.0% (14), 4.0 %(4) did not agree with the statement. 6.0% (3) where neutral. This indicates that to greater extent online filing has reduced the cost of returns filing. Indeed one of the respondents had this to say *"this process has specifically simplified the works of tax collection. It is much easier to view taxpayers' profiles and returns without carrying physical files".* This means that some administrative costs are cut, an implication that there will be cost reduction in the compliance management process.

On finding out whether online filing has been convenient for taxpayers to file their tax returns, 40.0% (20) and 20.0% (10) agree and strongly agree respectively with the statement where as 2.0% (1) and 20.0% (10) strongly disagree and disagree with the statement. 18.0% (9) were

neutral. This shows that to a greater extent online filing has been convenient for taxpayers to file their tax returnsand means that there are many tax returns filled online. This implies that this information can be helpful in determining tax compliance. Contrary to the above, from the interviews, one respondent said "*it should be done by tax experts to avoid errors in filling system".*

On whether online filing has increased tax compliance, 46.0% (23) and 18.0% (9) agree and strongly agree with the statement whereas 2.0% (1) and 22.0 %(11) strongly disagree and disagree with the statement. 12.0% (6) where neutral. This indicated that to a greater extent online filing has increased tax compliance.

Table 12: Correlations between online filling and tax compliance

Correlations

		Registration	Compliance
Filling	Pearson Correlation	1	.745**
	Sig. (2-tailed)		.000
	N	50	50
Compliance	Pearson Correlation	.745**	1
	Sig. (2-tailed)	.000	
	N	50	50

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data(2016)

The findings in the table above revealed that there is a strong positive significant relationship between online filling and tax compliance at (r) = 0.745**, at the level of significant P = 0.001(2-tailed) given by the Pearson correlation. This indicates that an improvement in online filing of

tax returns leads to improved, tax compliance. The view therefore is that the management of domestic taxes Kampala east should enhance online filling if tax compliance is to be achieved

Table 13: Model summary of online filling and tax compliance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.745[a]	.554	.545	.50401

a. Predictors: (Constant), online filling

Source: Primary Data(2016)

The model summary table above revealed that correction coefficient (R), using predicator online filling, is 0.723[a], the R^2 is 0.554 and the Adjusted R Square = 0.545 . This implies that 54.5% (0.545 *100) variations in tax compliance are explained by online filling while the remaining 44.6% is explained by other factors.

4.3.3 Online payment on tax compliance

The third objective of the study was to establish the effect of online payment on tax compliance in domestic taxes, Kampala East. Table 11 below represents respondents' opinions online payment on tax compliance

Table 14: Respondents' opinions on effect of online payment on tax compliance

	N	SD	D	N	A	SA
Domestic taxes Kampala east tax office has fully embraced e-payment methods	50	2% (1)		6% (3)	44% (22)	48% (24)
All tax payments are currently made via electronic methods	50	2% (1)		65 (3)	46% (23)	46% (23)
Online payment has reduced tax administrative costs	50	2% (1)	14% (7)	10% (5)	50% (25)	24% (12)
Online payments are very simple and convenient	50	4% (2)	12% (6)	20% (10)	40% (20)	24% (12)
Online payment has enabled provision of real-time data on each transaction	50	2% (1)	8% (4)	8% (4)	56% (28)	26% (13)
Online payments has enabled monitoring of tax revenues on a day-to-day basis	50	8% (4)	6% (3)	4% (2)	34% (17)	48% (24)
Online payments has minimized evasion among taxpayers	50	6% (3)	16% (8)	18% (9)	46% (23)	14% (7)
Online payments has reduced non compliance	50	2% (1)	18% (9)	16% (8)	52% (26)	12% (6)
Online payments has helped to increase the total tax revenue collected	50	6% (3)	12% (6)	2% (1)	54% (27)	26% (13)

Strongly Disagree=SDA, Disagree=DA, Neutral=N, Agree=A, Strongly Agree=SA

Source: Primary Data(2016)

When respondents were asked if Domestic taxes Kampala east tax office has fully embraced e-payment methods, 92.0% (46) of the respondents agreed with the statement, 6.0% (3) were neutral about the statement and 2.0% (1) of the respondents disagreed with the statement. This indicates that to a greater extent Domestic taxes Kampala east tax office has fully embraced e-payment methods. This implies that balanced out put such as sustainable tax compliance would be realized. However, from the qualitative data it was observed that "*online payment is not convenient to the business people as it is a slow process especially when the banks are busy"*. This agrees with OECD, (2010) that urges that majority of tax payments are made via fully

electronic methods; considerable potential exists in over more than half of surveyed countries to exploit the significant benefits that can be obtained from wide use of fully electronic payment methods, with available industry data from one country indicating a cost differential of up to 1: 5 between fully electronic and manual payment methods.

On the question "online payment has reduced tax administrative costs" 74.0% (37) of the respondents agreed with the statement, 10.0% (5) were neutral about the statement and 16.0% (8) of the respondents disagreed with the statement. This shows that to a large extent online payment has reduced tax administrative costs, an implication that all physical activities were replaced with machines hence there is no need to deploy men in regard to tax payment. This is in line with Merima(2012), who observed that revenue gains from ESRM use may be weakened due to increased informality.

On whether online payments are very simple and convenient, 4.0% (2) strongly disagree 12.0% (6) disagree while 40.0% (20) and 24.3% (12) agree and strongly agree respectively and 20.0% (10) were neutral. This indicates that to a large extent online payments are very simple and convenient. This implies that every can afford to pay online. In fact one respondent observed *"this has greatly reduced number of taxpayers frequenting offices. All the transaction can be done without coming to the offices".*

On the question "online payments has enabled provision of real-time data on each transaction". 26.0% (13) and 56.0% (28) shows positive response while 2.0% (1) and 8.0% (4) did not. 8.0% (4) were neutral. This showed that to greater extent online payments has enabled provision of

real-time data on each transaction. This implies that there is timely decision making and implementation of tax compliance activities, which can help in timely prevention of mistakes and error in tax compliance.This is in line with (ATAF 2012) that e-payments have been established to facilitate trade across borders.

On finding out whether online payments has enabled monitoring of tax revenues on a day-to-day basis, 34.0% (17) agreed, 48.0% (24) strongly agreed with the statement. On the hand 8.0% (4) and 6.0% (3) strongly disagree and disagree respectively and 4.0% (2) were neutral. This indicates that to large extent online payments has enabled monitoring of tax revenues on a day-to-day basis. This implies that if automation of tax administration is consistently adhered to, it can greatly improve tax compliance. Indeed one respondent had this to say *"the system in practice is prompt and satisfactorily to taxpayers".* This indicates that some respondents appreciate the role played by online payments in Kampala east office.

On whether online payments have minimized evasion among taxpayers, 46.0% (23) agree while 14.0% (7) strongly agree. On the other hand, 16.0% (8) disagreed, 6.0% (3) strongly disagreed with the statement. 18.0% (9) where neutral. This indicates that to a larger extent internal online payments have minimized evasion among taxpayers. This agrees with Rahman (2009) who observed that simpler and more streamlined processes to pay and collect taxes reduce tax officials' discretionary power, increase predictability, lessening the burden for firms and individuals to comply and hence reduce the opportunities for corruption.

On the question "online payments has reduced non compliance". 52.0% (26) and 12.0 (6) agreed and strongly agreed respectively while 2.0% (1) and 18.0% (9) strongly disagree and disagree with the statement and 16.0% (8) were neutral. This shows that to greater extent respondents strongly believed that online payments has reduced non compliance. Therefore Kampala east office can use the available measures to facilitate proper tax compliance. On the other hand one respondent said *"taxpayers under declare and there is less follow up".* This means that some responds in Kampala east feels that there is more work to do with online payments if total compliance is to be achieved.

On finding out whether online payments has helped to increase the total tax revenue collected, 54.0% (27) and 26.0% (13) agree and strongly agree with the statement where as 6.0% (3) and 12.0% (6) strongly disagree and disagree with the statement. 2.0% (1) were neutral. This shows that to greater extent online payments has helped to increase the total tax revenue collected in comparison to the period before online payments because for the period under research it was noted that despite the increase in tax revenue collected, Uganda revenue authority and Kampala east office specifically failed to meet their revenue collection target for the two financial years. This means that even much as majority of taxpayers were paying online, there is need to explore other tax payment options such as mobile payments. This is in line with (Oxfam Blog 2013) who observed that in Rwanda, for example, since 2012 businesses with an annual turnover of between US$3,000 and US$770,000 can pay taxes through mobile phones (M-Declaration and M-payments).

Table 15: Correlations between online registration and tax compliance

Correlations

		Registration	Compliance
Payment	Pearson Correlation	1	.744**
	Sig. (2-tailed)		.000
	N	50	50
Compliance	Pearson Correlation	.744**	1
	Sig. (2-tailed)	.000	
	N	50	50

**. Correlation is significant at the 0.01 level (2-tailed).

Source: Primary Data(2016)

The findings in the table above revealed that there is a strong positive significant relationship between online payments and tax compliance at (r) = 0.744**, at the level of significant P = 0.001(2-tailed) given by the Pearson correlation. This indicates that an improvement in online payments leads to improved, tax compliance. The view therefore is that the management of domestic taxes Kampala east office management should enhance online payments if tax compliance is to be improved.

Table 16: Model summary of online registration and tax compliance

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.744[a]	.554	.545	50429

a. Predictors: (Constant), online payments

Source: Primary Data(2016)

The model summary table above revealed that correction coefficient (R), using predicator online payments, is 0.723[a] and the R^2 is 0.554 and the Adjusted R Square. This implies that 54.5% (0.545 *100) variations in tax compliance are explained by online payments while the remaining 44.6% is explained by other factors.

Table 17: Responses on Tax compliance in domestic taxes Kampala east

	N	SD	D	N	A	SA
Duly registration						
All persons required to register for taxes have duly registered	50	14% (7)	28% (14)	18% (9)	28% (14)	12% (6)
Automaton has enabled timely registration of taxpayers	50	4% (2)	12% (6)	18% (9)	50% (25)	16% (8)
Automation has resulted into increased number of registered taxpayers	50	2% (1)	8% (4)	16% (8)	52% (26)	22% (11)
Automation of tax registration has improved quality of information from taxpayers	50	2% (1)	14% (7)	20% (10)	50% (25)	14% (7)
Timely filing of returns						
Electronic filing of returns has improved the taxpayer-tax administrators relationship	50	2% (1)	10% (5)	20% (10)	50% (25)	16% (8)
Filing of tax returns is done before the due date	50	6% (3)	12% (6)	26% (13)	34% (17)	22% (11)
Automation has reduced tax avoidance	50	4% (2)	22% (11)	20% (10)	38% (19)	16% (8)
Duly payments by due dates						
Automation has made all eligible persons to pay due taxes	50	2% (1)	12% (6)	20% (10)	44% (22)	22% (11)
There is timely payment of taxes due to automation of taxes	50	10% (5)	44% (22)	20% (10)	22% (11)	2% (1)
Determination of accurate tax liability						
Automation of taxes has reduced under declaration of tax liability	50	6% (3)	20% (10)	28% (14)	32% (16)	14% (7)
Automation of taxes has improved tax compliance	50	14% (7)	16% (8)	18% (9)	46% (23)	16% (8)

Strongly Disagree=SDA, Disagree=DA, Neutral=N, Agree=A, Strongly Agree=SA

Source: Primary Data(2016)

When respondents were asked ifall persons required to register for taxes have duly registered, 40% (20) of the respondents agreed with the statement, 18% (9) were neutral about the statement and 42% (21) of the respondents disagreed with the statement. This indicates that to a greater extent all persons required to register for taxes have duly registered. This implies that Kampala east office was achieving tax compliance through duly registration of all taxpayers. This is in agreement Scholz and Witte, (1989), who noted that tax compliance as a situation where the tax payer complieswith the fiscal set up by registering with the revenue authority, filing required returns in time. However, one respondent observed that *"taxpayers still lack knowledge".* This indicates that most respondents were not sure with the nature of automation in tax administration.

On the question "automaton has enabled timely registration of taxpayers" 66% (33) of the respondents agreed with the statement, 18% (9) were neutral about the statement and 16% (8) of the respondents disagreed with the statement. This shows that to a large extent the automaton has enabled timely registration of taxpayers. This implies that such timely registration has been helpful in provision of better and long term tax compliance. However Kawanga, (2015) observed that conducting a meaningful audits, inspections and initiating targeted taxpayer education programs that add value and enhance tax compliance is paramount.

On whether automation has resulted into increased number of registered taxpayers, 74% (37) of the respondents agreed with the statement, 16% (8) were neutral about the statement and 10% (5) of the respondents disagreed with the statement. This means that respondents respected the contribution from the registration of all taxpayers towards tax compliance. In fact one respondent

said *"issue of administrative assessment to taxpayers who do not want to comply, use of field operation to curb tax payers who do not wish to comply*". This means that tax registration curb non compliance. This agrees with Bird (1989) who stresses that the willingness of the taxpayer to comply with their tax obligation depends largely on the perception that the tax paid is put to some good use.

On whether automation of tax registration has improved quality of information from taxpayers, 64% (32) agreed with the statement. 20% (10) were neutral about the statement and on other hand 16% (8) of the respondents disagreed with the statement. This shows that on average, automation of tax administration has improved quality of information from tax payers. The implication is that the tax administrators and taxpayers would greatly benefit from the quality of information from taxpayers that would enhance tax compliance. This is in line with According to Nelson (2008) who suggested that revenue authorities can't control every individual taxpayer. To maximize compliance they need to encourage taxpayers to comply voluntarily by providing taxpayers with everything necessary to enable compliance.

On whether electronic filing of returns has improved the taxpayer-tax administrators relationship, 2 %(1) % strongly disagree 10% (5) disagree while 50% (25) and 16% (8) agree and strongly agree respectively and 20% (10) were neutral. This indicated that to a large extent most of electronic filing of returns has improved the taxpayer-tax administrator's relationship. This shows efficiency in tax administration and tax compliance.

On the question whether "filing of tax returns is done before the due date" 34% (17) and 22% (11) showed positive response while 12% (6) and 6 % (3) did not. 12% (6) were neutral. This shows that to a greater extent there was filing of tax returns is done before the due date. This means that there was easy monitoring and evaluation against set targets/goals in a specific time. From qualitative data it was observed that "information *flow is outstanding and payments of taxes have been facilitated with the automation process"* this meant that there is satisfactory filling of returns.

On finding out whether automation has reduced tax avoidance, 38% (19) agreed, 16% (8) strongly agreed with the statement. On the hand 4% (2) and 22% (11) strongly disagree and disagree respectively and 20% (10) were neutral. This indicates that to a large extent automation has reduced tax avoidance. However one respondent had this to say *"There is need for tax authorities to follow up on under declaration".* A manifestation that incidences of tax avoidance are still present even with automation in place. This is supported by (URA Audit Manual, 2010) that suggests fraud investigations require searching of premises, seizure of evidence, testimony from witnesses, etc. and are normally carried out by specialized investigators in accordance with criminal law.

On whether automation has made all eligible persons to pay due taxes, 32% (16) agree while 10% (5) strongly agree. On the other hand, 20% (10) disagreed, 12 %(6) strongly disagreed with the statement. 24% (12) were neutral. This indicated that to a larger extent automation has made all eligible persons to pay due taxes. This implies that there satisfactory tax compliance.

On whether there is timely payment of taxes due to automation of taxes, 44% (22) agree while 10% (75) strongly agree. On the other hand, 22% (11) disagreed, 2 %(1) strongly disagreed with the statement, while 20% (10) where neutral. To a larger extent there is timely payment of taxes due to automation of taxes. This implies that proper procedure for tax collection was adhered to.

On the question "automation of taxes has reduced under declaration of tax liability". 32% (16) and 14% (7) agreed and strongly agreed respectively while 6% (3) and 20% (10) strongly disagree and disagree with the statement and 28% (14) were neutral. This shows that to greater extentautomation of taxes has reduced under declaration of tax liability. On the other hand, one respondent said*"under declaration is still going on since taxpayers do it themselves".*

This is a clear indication that the automation of tax administration has not clearly dealt with under declaration of tax liability. This is in contrast with (Harrison, 2006) who proposes that taxpayers must know that if they fail to comply with the tax laws, they face a reasonable risk of being detected.

On finding out automation of taxes has improved tax compliance, 46% (23) and 16% (8) agree and strongly agree with the statement where as 4% (2) and 16% (8) strongly disagree and disagree with the statement, whereas 18% (9`) where neutral. This shows that to greater extent domestic taxes, Kampala east has improved tax compliance a result of automation of tax administration. This implies that Kampala east office has met its targeted revenue hence showing value for money. Indeed one respondent said "*it has been so easy to review taxpayers' profile*

any time and more advice can be given on any appropriate time". This means that the automation is user friendly to both side of administration and taxpayers.

4.4 Conclusion

Though most of the respondents largely credited online registration, online filing and online payment as having improved tax compliance in Uganda revenue authority Kampala east, the failure by Uganda revenue authority and Kampala east specifically to meet the tax revenue target for the financial years 2012/2103 and 2013/2014 respectively brings to the fore the fact that there are other factors which affect tax compliance that need to be closely looked such as introduction of mobile registration, mobile filing and mobile payment which have potential to tap into the large informal sector of taxpayers which has would in turn push the tax compliance levels upwards.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter presents the summary of the study, discussion of the findings, conclusions and recommendations and is presented objective by objective.

5.1 Summary of the Study Findings

The general objective of the study was to establish the effect of automation of tax administration on tax compliance in Uganda a case study of Uganda Revenue Authority, Kampala East. Online registration of taxpayers, online filling of tax returns and online tax payments were dimensions of the independent variable while tax compliance was the dependent variable.

5.1.1 How online registration affects tax compliance

The study findings revealed that there was a strong significant positive relationship between online registration and tax compliance given by Pearson correlation of 0.723^{**} at (r) = 0.723^{**}, at the level of significant P = 0.000> 0.01 level (2-tailed). This implies that when online registration is improved, tax compliance will also improve.

Also the model summary table above revealed that correction coefficient (R), using predicator online registration, is 0.723^{a} and the R^2 (0.523). This implies that 52.3% (0.523 *100) variations in tax compliance are explained by online registration while the remaining 47.7% is explained by other factors.

In addition, findings from the interviews revealed that online registration increases tax compliance since the online registration captures a lot of significant information such as email address, physical address, mothers' maiden name and phone contact of the taxpayer all which are mandatory fields in the online application form that a taxpayer fills at registration. This enables URA to follow up and monitor these taxpayers during assessments and enforcement, this ensures duly registration, duly filing of returns and duly payments by the due dates, in fact one of the UMA executives noted that "*online application captures enough detail from the taxpayer which makes follow up easy".*

5.1.2 How online filling affect tax compliance

The study revealed that there was a strong significant positive relationship between online filling and tax compliance given by Pearson correlation of 0.745^{**} at (r) = 0.745^{**}, at the level of significant P = 0.000> 0.01 level (2-tailed).This implies that if there are good online filling, tax compliance improves.

Also the model summary table above revealed that correction coefficient (R), using predicator online filling, is 0.723^{a} and the R^2 (0.554). This implies that 55.4% (0.554 *100) variations in tax compliance are explained by online filling while the remaining 44.6% is explained by other factors.

The findings from the interviews revealed that online filing has reduced the time taken to file the returns and the physical visits that a taxpayer has to make to URA offices, one of the UMA executives had this to say "online filing is a wonderful initiative but only to the computer literate taxpayers," this implies that there is need to design appropriate strategies to cater for computer illiterate taxpayers in order to achieve maximum tax compliance

5.1.3 How online payments affect tax compliance

The study revealed that there was a strong significant positive relationship between online payments and tax compliance given by Pearson correlation of 0.744^{**} at (r) = 0.744^{**}, at the level of significant P = 0.000> 0.01 level (2-tailed).This implies that online tax payments improves tax compliance

Also the model summary table above revealed that correction coefficient (R), using predicator online filling, is 0.744^{**} and the R^2 (0.554). This implies that 55.4% (0.554 *100) variations in tax compliance are explained by online filling while the remaining 44.6% is explained by other factors.

Interview results suggest that the online payment platform by URA should be synchronized with the banking system in Uganda where a taxpayer does not need to physically walk to the bank in order to make their tax payment as noted by one of the interviewees “taxpayers want to pay their taxes without physically walking into the bank, URA should upgrade integrate their system with commercial banks”

5.2 Conclusions

5.2.1 Online registration and tax compliance

The study concluded that online registration has strong significant positive effect on tax compliance. The study also concluded that introduction of single Tax Identification Number (TIN) for individuals and companies have got a strong positive effect on tax compliance. It was also noted by majority of respondents that “Online registration has facilitated the detection of tax evasion”.

5.2.2 Online filling and tax compliance

The study concluded that online filing of tax returns has got a relative strong significant positive effect on tax compliance. It was also noted by majority of respondents that "There has been considerable overall progress in the use of e-filing despite the challenges of internet accessibility".

The study also concluded that a number of taxpayers and stakeholders reported substantial progress over the last 5 years. It was also noted by the majority of respondents that "online filling is much quicker and time saving".

5.2.3 Online payments and tax compliance

The study concluded that online payment of tax has got a strong positive significant effect on tax compliance and that online payments has helped to increase the total tax revenue collected in comparison to the period before online payments though the revenue collected during the years under the study fell below the net targeted revenue collections.

5.3 Recommendations

URA should put more emphasis on dissemination of concrete tax knowledge (technical knowledge) when conducting its tax education campaign given that it has been found to positively affect taxpayer's compliance behavior. URA should utilize more of the expertise of the educational institutions like universities in its tax education activities given that they are better placed to provide the required technical knowledge. URA should get a mechanism of simplifying the online systems for the taxpayers without computer and internet knowledge and skills in order to achieve the desired tax compliance level.

The online taxpayers' registration should also be encouraged to seek tax advisors' services, as they might not be able to understand the technical taxation issues given the need for specialized training.

The government of Uganda should ensure that taxpayers take confidence of its service provision of on line filling as being effective, efficient and economical, and making fair accountability for the resources entrusted to them by the taxpayer. This will improve taxpayers' perception of online filling of taxes returns.

The government of Uganda and URA should step up efforts of using more behavioral (noneconomic) measures of encouraging online payments to all taxpayers to comply than concentrating on using deterrence (economic) measures to encourage compliance.

5.4 Areas of further study

More studies can be done to assess the magnitude of how taxpayer perception effects on tax compliance as it has not clearly been studied in here and as well, because of the mixed findings by different researchers.

The effects of Social norms on the small business taxpayers' understanding of taxation issues and there compliance

The current study can be expanded further by increasing the population studied to include all Uganda's small and medium business taxpayers.

The effect of tax knowledge on perception of tax fairness. The will help clarify further the continued mixed findings by the different researchers.

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APPENDENCES

APPENDIX 1: Questionnaire for respondents

I am a student of Uganda Martyrs University pursuing a Master's degree in Business Administration.

I am conducting a study on automation of tax administration and tax compliance in Uganda a case study of domestic taxes Kampala east tax office. This questionnaire has been designed purposely for data collection on automation of tax administration and tax compliance. You have been carefully identified as a potential person who can provide useful and reliable data that will help policy makers and implementers to improve on automation of tax administration and tax compliance in domestic taxes Kampala east tax office. he information generated will be handled with utmost confidentiality and will be used for academic purposes.

Thank you in advance for your cooperation by giving your valuable time and effort to fill the questionnaire.

Yours faithfully,

Tumwine Bosco

(STUDENT)

Section A: Demographics

Please tick the most appropriate answer in the corresponding box

1. **Gender :** 1)Male ☐ 2)Female ☐

2. **Age:** 1) 20-30 years ☐ 2) 31-40 years ☐ 3) 41 years and above ☐

3. What is your highest level of education?

   1) Primary Level ☐ 2) "O" levels 3) ☐ 'A' Level ☐ 4) Diploma Level

   5) Degree Level ☐ 6) Master's Degree ☐ 7) others (specify) ----------

4. How long have you been in this organization?

   1) Less than 1 year ☐ 2) 1-2 years ☐ 3) 3-5 years ☐ 4) 6years and above ☐

Section B: Automation of tax administration and tax compliance

Please, use the scale below to answer the questions that follows by ticking the number that corresponds to your opinion.

5	4	3	2	1
Strongly disagree	Disagree	Neutral	Agree	Strongly agree

Section C. Online registration

		1	2	3	4	5
1.	Kampala east tax office has embraced online registration					
2.	Kampala east tax office introduction of single Tax Identification Numbers (TIN) for individuals and companies					
3.	Online registration has enabled tax compliance					
4.	Online registration has facilitated the detection of tax evasion					
5.	Online registration has facilitated the detection tax corruption					
6.	Online registration has facilitated registration of only eligible taxpayers					
7.	Online system has ensured tax compliance of all taxpayers					

Do you have any comment(s) you would wish to make on the way the online registration is carried out in domestic taxes Kampala east tax office? Please specify

……

……

……

……

Section D. Online Filling

		1	2	3	4	5
1.	There has been considerable overall progress in the use of e-filing					
2.	A number of bodies report substantial progress over the last 5 years					
3.	This progress has been facilitated by the use of mandated e-filing requirements					
4.	Electronic filling of tax returns has made the process much faster					
5.	Online filing has increased the number of returns received					
6.	Online filing has led to increased revenue collection					
7.	Online filing has reduce the cost of returns filing					
8.	Online filing has been convenient for taxpayers to file their tax returns					
9.	Online filing has increased tax compliance					

Do you have any comment(s) you would wish to make on the way the online filing is carried out in domestic taxes Kampala east tax office? Please specify

……

……

……

……

Section E. Online Payment

		1	2	3	4	5
1.	Domestic taxes Kampala east tax office has fully embraced e-payment methods					
2.	All tax payments are currently made via electronic methods					
3.	Online payment has reduced tax administrative costs					
4.	Online payments are very simple and convenient					
5.	Online payments has enabled provision of real-time data on each transaction					
6.	Online payments has enabled monitoring of tax revenues on a day-to-day basis					
7.	Online payments has minimized evasion among taxpayers					
8.	Online payments has reduced non compliance					
9.	Online payments has helped to increase the total tax revenue collected					

Do you have any comment(s) you would wish to make on the way the online payments are carried out in domestic taxes Kampala east tax office? Please specify

……

……

……

……

Section: Tax compliance

		1	2	3	4	5
	Duly registration					
1	All persons required to register for taxes have duly registered					
2	Automaton has enabled timely registration of taxpayers					
3	Automation has resulted into increased number of registered taxpayers					
4	Automation of tax registration has improved quality of information from taxpayers					
	Timely filing of returns					
5	Electronic filing of returns has improved the taxpayer-tax administrators relationship					
6	Filing of tax returns is done before the due date					
7	Automation has reduced tax avoidance					
	Duly payments by due dates					
8	Automation has made all eligible persons to pay due taxes					
9	There is timely payment of taxes due to automation of taxes					
	Determination of accurate tax liability					
10	Automation of taxes has reduced under declaration of tax liability					
11	Automation of taxes has improved tax compliance					

Do you have any comment(s) you would wish to make on the way the tax compliance is managed in domestic taxes Kampala east tax office? Please specify

……

……

……

……

Thank you for your time to fill this questionnaire.

APPENDIX II: Interview guide for employees

i. Do you think the domestic taxes Kampala east office has policies in place?

ii. How has automation of tax administration been carried out in domestic taxes Kampala east tax office?

iii. Has Automation of tax administration supported you in measuring the level oftax compliance indomestic taxes Kampala east office?

iv. How has online registration been done in the domestic taxes Kampala east office?

v. Is there timely online filling of returns in the domestic taxes Kampala east office?

vi. Do you think there is some inconveniences caused by online filling?

vii. If yes specify some of them.

viii. Are there strong and effective online payments controls in the domestic taxes Kampala east office?

ix. Do you think the payments controls are strictly followed by all personnel concerned?

x. Does the tax compliance have progressive reports on automation controls?

xi. Have you had times when the taxpayers complain on the accessibility and quality of automated systems?

xii. Are their some barriers you have identified in trying to achieve tax compliance of taxpayers? If yes mention some?

xiii. Do you know of any report on the quality of the compliance provided by the automation of taxes by domestic taxes Kampala east office? If yes, what are the findings?

Thank you for your cooperation.

APPENDIX III: Taxpayers interview guide

Automation of tax administration and tax compliance

i. Are you aware that the domestic taxes Kampala east office requires you to use e-tax?

ii. Are you satisfied with Automation of tax administration and tax compliance systems used by domestic tax Kampala east?

iii. Do you think the automation of tax administration has made it easy for you to pay taxes?

iv. If yes how?

v. Do you ever bother to know the challenges associated with automation of taxes filling?

vi. Are you satisfied with the quality of services offered by automation of tax payment?

vii. Do you get satisfied with the quality of services given to you by the online registration? (Yes or no)

viii. If No, what has made you not satisfied with their service?

ix. What should be done to improve the level of tax compliance in domestic tax Kampala east?

Thank you for your positive response

APPENDIX IV: Documentary review check list

I. Top management meeting minutes

II. Domestic taxes annual performance reports

III. Audit reports

IV. Reports, minutes of meetings and other archival or file records

V. Documents related to automation of tax administration and compliance

VI. Government Policy guidelines on automation of tax administration

VII. Annual performance reports

VIII. Relevant tax laws

APPENDIX V: Table for determining sample size from a given population

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	**59**	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

Note: "N" is population size

"S" is sample size.

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Output Data

Demographics of respondents

Statistics

		Gender	Age of Respondents	what is your highest level of education	Length of time in this organisation
N	Valid	50	50	50	50
	Missing	0	0	0	0

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1	2.0	2.0	2.0
	male	30	60.0	60.0	62.0
	Female	19	38.0	38.0	100.0
	Total	50	100.0	100.0	

Age of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1	2.0	2.0	2.0
	20-30	16	32.0	32.0	34.0
	31-40	23	46.0	46.0	80.0
	41 years and above	10	20.0	20.0	100.0
	Total	50	100.0	100.0	

what is your highest level of education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1	2.0	2.0	2.0
	O'LEVEL	2	4.0	4.0	6.0
	A'LEVEL	6	12.0	12.0	18.0
	BACHELORS	31	62.0	62.0	80.0
	MASTERS	10	20.0	20.0	100.0
	Total	50	100.0	100.0	

Length of time in this organisation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	1	2.0	2.0	2.0
	Less than one year	1	2.0	2.0	4.0
	1-2years	18	36.0	36.0	40.0
	3-5years	11	22.0	22.0	62.0
	6 and above years	19	38.0	38.0	100.0
	Total	50	100.0	100.0	

Online Registration

Frequency Table C

Kampala East office has embraced online registration

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	26	52.0	52.0	52.0
	Agree	21	42.0	42.0	94.0
	Neutral	2	4.0	4.0	98.0
	Strongly disagree	1	2.0	2.0	100.0
	Total	50	100.0	100.0	

Kampala East office has embraced online registration

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	26	52.0	52.0	52.0
	Agree	21	42.0	42.0	94.0
	Neutral	2	4.0	4.0	98.0
	Strongly disagree	1	2.0	2.0	100.0
	Total	50	100.0	100.0	

Online registration has enabled compliance

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	10	20.0	20.0	20.0
	Agree	19	38.0	38.0	58.0
	Neutral	12	24.0	24.0	82.0
	Disagree	8	16.0	16.0	98.0
	Strongly disagree	1	2.0	2.0	100.0
	Total	50	100.0	100.0	

online registration has facilitated the detection of tax evasion

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	5	10.0	10.0	10.0
	Agree	25	50.0	50.0	60.0
	Neutral	9	18.0	18.0	78.0
	Disagree	9	18.0	18.0	96.0
	Strongly disagree	2	4.0	4.0	100.0
	Total	50	100.0	100.0	

online registration has facilitated the detection of corruption in registration process

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	4	8.0	8.0	8.0
	Agree	22	44.0	44.0	52.0
	Neutral	12	24.0	24.0	76.0
	Disagree	9	18.0	18.0	94.0
	Strongly disagree	3	6.0	6.0	100.0
	Total	50	100.0	100.0	

online registration has facilitated the registration of only eligible taxpayers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	9	18.0	18.4	18.4
	Agree	11	22.0	22.4	40.8
	Neutral	10	20.0	20.4	61.2
	Disagree	10	20.0	20.4	81.6
	Strongly disagree	9	18.0	18.4	100.0
	Total	49	98.0	100.0	
Missing	System	1	2.0		
Total		50	100.0		

online system has ensured tax compliance of all taxpayers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	10	20.0	20.0	20.0
	Agree	13	26.0	26.0	46.0
	Neutral	13	26.0	26.0	72.0
	Disagree	11	22.0	22.0	94.0
	Strongly disagree	3	6.0	6.0	100.0
	Total	50	100.0	100.0	

Frequency Table D

Thetre has been considerable progress in the use of e-filling

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	16	32.0	32.0	32.0
	Agree	26	52.0	52.0	84.0
	Neutral	5	10.0	10.0	94.0
	Disagree	2	4.0	4.0	98.0
	Strongly disagree	1	2.0	2.0	100.0
	Total	50	100.0	100.0	

A number of taxpayerseport substantial pogress in use of online filing over the 5 years

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	8	16.0	16.0	16.0
	Agree	34	68.0	68.0	84.0
	Neutral	5	10.0	10.0	94.0
	Disagree	3	6.0	6.0	100.0
	Total	50	100.0	100.0	

The progress has been facilitated by the use of mandated e-filling reqiurements

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	12	24.0	24.0	24.0
	Agree	25	50.0	50.0	74.0
	Neutral	8	16.0	16.0	90.0
	Disagree	4	8.0	8.0	98.0
	Strongly disagree	1	2.0	2.0	100.0
	Total	50	100.0	100.0	

Electronic filling of tax returns has made the process much faster

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	19	38.0	38.0	38.0
	Agree	23	46.0	46.0	84.0
	Neutral	4	8.0	8.0	92.0
	Disagree	3	6.0	6.0	98.0
	Strongly disagree	1	2.0	2.0	100.0
	Total	50	100.0	100.0	

online filling has increased the number of returns received

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	11	22.0	22.0	22.0
	Agree	23	46.0	46.0	68.0
	Neutral	5	10.0	10.0	78.0
	Disagree	9	18.0	18.0	96.0
	Strongly disagree	2	4.0	4.0	100.0
	Total	50	100.0	100.0	

online filing has increasedrevenue collection

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	13	26.0	26.0	26.0
	Agree	24	48.0	48.0	74.0
	Neutral	3	6.0	6.0	80.0
	Disagree	8	16.0	16.0	96.0
	Strongly disagree	2	4.0	4.0	100.0
	Total	50	100.0	100.0	

online filing has reduced the cost of online filing

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	13	26.0	26.0	26.0
	Agree	18	36.0	36.0	62.0
	Neutral	3	6.0	6.0	68.0
	Disagree	14	28.0	28.0	96.0
	Strongly disagree	2	4.0	4.0	100.0
	Total	50	100.0	100.0	

online filing has been convinient for taxpayers to file their tax returns

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	10	20.0	20.0	20.0
	Agree	20	40.0	40.0	60.0
	Neutral	9	18.0	18.0	78.0
	Disagree	10	20.0	20.0	98.0
	Strongly disagree	1	2.0	2.0	100.0
	Total	50	100.0	100.0	

online filing has increased tax compliance

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	9	18.0	18.0	18.0
	Agree	23	46.0	46.0	64.0
	Neutral	6	12.0	12.0	76.0
	Disagree	11	22.0	22.0	98.0
	Strongly disagree	1	2.0	2.0	100.0
	Total	50	100.0	100.0	

Frequency Table E

Domestic taxes of kampala east tax office has fully embraced e-payment methods

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	24	48.0	48.0	48.0
	Agree	22	44.0	44.0	92.0
	Neutral	3	6.0	6.0	98.0
	Strongly disagree	1	2.0	2.0	100.0
	Total	50	100.0	100.0	

All tax payements are made via electronic methods

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	23	46.0	46.0	46.0
	Agree	23	46.0	46.0	92.0
	Neutral	3	6.0	6.0	98.0
	Disagree	1	2.0	2.0	100.0
	Total	50	100.0	100.0	

Online payment has reduced tax administrative costs

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	12	24.0	24.0	24.0
	Agree	25	50.0	50.0	74.0
	Neutral	5	10.0	10.0	84.0
	Disagree	7	14.0	14.0	98.0
	Strongly disagree	1	2.0	2.0	100.0
	Total	50	100.0	100.0	

Online payments are very simple and convinient

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	12	24.0	24.0	24.0
	Agree	20	40.0	40.0	64.0
	Neutral	10	20.0	20.0	84.0
	Disagree	6	12.0	12.0	96.0
	Strongly disagree	2	4.0	4.0	100.0
	Total	50	100.0	100.0	

online payments has enabled provision of real time data on each transaction

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	13	26.0	26.0	26.0
	Agree	28	56.0	56.0	82.0
	Neutral	4	8.0	8.0	90.0
	Disagree	4	8.0	8.0	98.0
	Strongly disagree	1	2.0	2.0	100.0
	Total	50	100.0	100.0	

online payments has enabled monitoring of tax revenues on day to day basis

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	24	48.0	48.0	48.0
	Agree	17	34.0	34.0	82.0
	Neutral	2	4.0	4.0	86.0
	Disagree	3	6.0	6.0	92.0
	Strongly disagree	4	8.0	8.0	100.0
	Total	50	100.0	100.0	

online payments has minimised evasion among tax payers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	7	14.0	14.0	14.0
	Agree	23	46.0	46.0	60.0
	Neutral	9	18.0	18.0	78.0
	Disagree	8	16.0	16.0	94.0
	Strongly disagree	3	6.0	6.0	100.0
	Total	50	100.0	100.0	

inline payments has reduced non compliance of

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	6	12.0	12.0	12.0
	Agree	26	52.0	52.0	64.0
	Neutral	8	16.0	16.0	80.0
	Disagree	9	18.0	18.0	98.0
	Strongly disagree	1	2.0	2.0	100.0
	Total	50	100.0	100.0	

online payments has helped to increase the total tax revenue collected

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	13	26.0	26.0	26.0
	Agree	27	54.0	54.0	80.0
	Neutral	1	2.0	2.0	82.0
	Disagree	6	12.0	12.0	94.0
	Strongly disagree	3	6.0	6.0	100.0
	Total	50	100.0	100.0	

Frequency Table F

All persons required to register for taxes have duly registered

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	6	12.0	12.0	12.0
	Agree	14	28.0	28.0	40.0
	Neutral	9	18.0	18.0	58.0
	Disagree	14	28.0	28.0	86.0
	Strongly disagree	7	14.0	14.0	100.0
	Total	50	100.0	100.0	

Automation has enabled timely registration of taxpayers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	8	16.0	16.0	16.0
	Agree	25	50.0	50.0	66.0
	Neutral	9	18.0	18.0	84.0
	Disagree	6	12.0	12.0	96.0
	Strongly disagree	2	4.0	4.0	100.0
	Total	50	100.0	100.0	

Automation has resulted into increased number of taxpayers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	11	22.0	22.0	22.0
	Agree	26	52.0	52.0	74.0
	Neutral	8	16.0	16.0	90.0
	Disagree	4	8.0	8.0	98.0
	Strongly disagree	1	2.0	2.0	100.0
	Total	50	100.0	100.0	

14Automation of tax registration has improved quality of information from taxpayers

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	7	14.0	14.0	14.0
	Agree	25	50.0	50.0	64.0
	Neutral	10	20.0	20.0	84.0
	Disagree	7	14.0	14.0	98.0
	Strongly disagree	1	2.0	2.0	100.0
	Total	50	100.0	100.0	

Electronic filing has improved the taxpayer tax administrators relationship

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	8	16.0	16.3	16.3
	Agree	25	50.0	51.0	67.3
	Neutral	10	20.0	20.4	87.8
	Disagree	5	10.0	10.2	98.0
	Strongly disagree	1	2.0	2.0	100.0
	Total	49	98.0	100.0	
Missing	System	1	2.0		
Total		50	100.0		

Filing of tax returns is done before due date

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	11	22.0	22.0	22.0
	Agree	17	34.0	34.0	56.0
	Neutral	13	26.0	26.0	82.0
	Disagree	6	12.0	12.0	94.0
	Strongly disagree	3	6.0	6.0	100.0
	Total	50	100.0	100.0	

Automation of has reduced tax avoidance

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	8	16.0	16.0	16.0
	Agree	19	38.0	38.0	54.0
	Neutral	10	20.0	20.0	74.0
	Disagree	11	22.0	22.0	96.0
	Strongly disagree	2	4.0	4.0	100.0
	Total	50	100.0	100.0	

Automation has improved the quality of taxpayer returns

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	11	22.0	22.0	22.0
	Agree	22	44.0	44.0	66.0
	Neutral	10	20.0	20.0	86.0
	Disagree	6	12.0	12.0	98.0
	Strongly disagree	1	2.0	2.0	100.0
	Total	50	100.0	100.0	

Automation has made all eligible persons to pay due taxes

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	5	10.0	10.2	10.2
	Agree	16	32.0	32.7	42.9
	Neutral	12	24.0	24.5	67.3
	Disagree	10	20.0	20.4	87.8
	Strongly disagree	6	12.0	12.2	100.0
	Total	49	98.0	100.0	
Missing	System	1	2.0		
Total		50	100.0		

There is timely payment of taxes due to automation of taxes

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	5	10.0	10.2	10.2
	Agree	22	44.0	44.9	55.1
	Neutral	10	20.0	20.4	75.5
	Disagree	11	22.0	22.4	98.0
	Strongly disagree	1	2.0	2.0	100.0
	Total	49	98.0	100.0	
Missing	System	1	2.0		
Total		50	100.0		

Automation of taxes has reduced underclaration of tax liability

		Frequency	Percent	Valid Percent	Cumulative Percent
10Valid	Strongly agree	7	14.0	14.0	14.0
	Agree	16	32.0	32.0	46.0
	Neutral	14	28.0	28.0	74.0
	Disagree	10	20.0	20.0	94.0
	Strongly disagree	3	6.0	6.0	100.0
	Total	50	100.0	100.0	

Automation of taxes has improved tax compliance

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	8	16.0	16.0	16.0
	Agree	23	46.0	46.0	62.0
	Neutral	9	18.0	18.0	80.0
	Disagree	8	16.0	16.0	96.0
	Strongly disagree	2	4.0	4.0	100.0
	Total	50	100.0	100.0	

Correlations

		O1	O4
O1	Pearson Correlation	1	.723**
	Sig. (2-tailed)		.000
	N	50	50
O4	Pearson Correlation	.723**	1
	Sig. (2-tailed)	.000	
	N	50	50

**. Correlation is significant at the 0.01 level (2-tailed).

Automation of taxes has improved tax compliance

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Strongly agree	8	16.0	16.0	16.0
	Agree	23	46.0	46.0	62.0
	Neutral	9	18.0	18.0	80.0
	Disagree	8	16.0	16.0	96.0
	Strongly disagree	2	4.0	4.0	100.0

Correlations

		O2	O4
O2	Pearson Correlation	1	.745**
	Sig. (2-tailed)		.000
	N	50	50
O4	Pearson Correlation	.745**	1
	Sig. (2-tailed)	.000	
	N	50	50

**. Correlation is significant at the 0.01 level (2-tailed).

Correlations

		O3	O4
O3	Pearson Correlation	1	.744**
	Sig. (2-tailed)		.000
	N	50	50
O4	Pearson Correlation	.744**	1
	Sig. (2-tailed)	.000	
	N	50	50

**. Correlation is significant at the 0.01 level (2-tailed).

Reliability Online registration

Reliability Statistics

Cronbach's Alpha	N of Items
.815	8

Filling

Reliability Statistics

Cronbach's Alpha	N of Items
.911	9

Payments

Reliability Statistics

Cronbach's Alpha	N of Items
.892	9

Compliance

Reliability Statistics

Cronbach's Alpha	N of Items
.901	12

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.723[a]	.523	.513	.52164

a. Predictors: (Constant), O1

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.745[a]	.554	.545	.50401

a. Predictors: (Constant), O2

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.744[a]	.554	.545	.50429

a. Predictors: (Constant), O3