FACTORS AFFECTING AUTOMATED TAX SYSTEMS ON REVENUE COLLETION AMONG SMALL AND MEDIUM ENTERPRISES IN KENYA

(A CASE STUDY OF WEST OF NAIROBI STATION)

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A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF ECONOMICS, ACCOUNTING AND FINANCE, SCHOOL OF BUSINESS IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF POST-GRADUATE DIPLOMA IN TAX ADMINISTRATION AT JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY.

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DECLARATION

Declaration by the Student:

This research study is my original work and has not been presented to any other examination body. No part of this research should be reproduced without my consent or that of Kenya School of Revenue Administration

Sign:_____ Date:_____

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Declaration by the Supervisor:

This research project has been submitted with my approval as Kenya School of Revenue Administration Supervisor.

Sign: _____Date: _____

Dr. Marion Nekesa PhD

DEDICATION

I wish to dedicate this work to the almighty God for seeing me throughout my studies and to my family for the support and understanding accorded to me.

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This acknowledgement goes to Almighty God for enabling me pursue my studies at Kenya School of Revenue Administration with humility. Without much ado, I wish to acknowledge my able supervisor for guidance and admonition while working on this research project. It also goes to Kenya School of Revenue Administration library which offered the reading materials and other literature. My friends and relatives too should receive this acknowledgement. To all of you, May God richly bless you.

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ABBREVIATIONS AND ACRONYMS

GDP	Gross Domestic Product
GoK	Government of Kenya
ICT	Information Communication Technology
IRS	Internal Revenue Services
IT	Information Technology
ITMA	Integrated Tax Management System
KIPPRA	Kenya Institute for Public Policy Research and Analysis
KRA	Kenya Revenue Authority
SAGA	Semi Autonomous Government Agency
US	United States
USA	United States of America
VAT	Value Added Tax

ABSTRACT

This study aim to establish the factors effecting automated tax systems on revenue collection in Kenya. The study was guided by the following specific objectives:- to determine the effect of tax compliance costs on revenue collection in Kenya, to analyze the effect of technical skills and knowledge on revenue collection in Kenya, to assess the effect of tax rates on revenue collection in Kenya and to determine the effect of penalties and interests on revenue collection . The study adopted a descriptive Research design .The target population of 98 was drawn from West of Nairobi Tax Station. The study used primary data collected through closed structured questionnaires to meet the objectives of the study. A pre-test on a different sample was carried out to give a Cronbach's alpha greater than 0.7 for all the variables as a rule of thumb. Data analysis used of descriptive statistics and inferential statistics was done using Standard statistical techniques including Pearson correlation coefficient and regression analysis employed in the analysis. All the analysis was carried out using the statistical package for social sciences (SPSS Version.24). Analysis of variance (ANOVA) was used to establish if there is a statistical significance between the observed and expected values with the Pearson Chi square giving the degree significance of the relations, hence establishing the hypotheses. In multivariate analysis, multiple regression analysis model was used to determine the type of the relationship that existed between independent and dependent variables. The study found that Tax compliance cost, penalties and interest and tax rate significantly influences revenue collection. Based on study finding, this study recommends there is need for effective cost management when administering tax. Reduction in cost of compliance will increase the number of registered traders which will increase revenue collection. Kenya revenue Authority should offer on a regular basis technical support to traders which will help them familiarize with tax systems in order to facilitate collection of revenue collection. Technical support will help traders reduce the transaction time in serving their clientele and transparency in service delivery.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

This chapter examines the background of the study; statement of the problem; objectives of the study; research questions; significance of the study; limitation of the study; and scope of the study.

1.1.1 Global perspective

Automated systems such as ITAX Systems have been proven to be capable of introducing massive efficiencies to business processes that can result in increased revenue. Applying technological solutions towards the strategic goals for government will be a key step towards transforming government into an entity that can keep abreast of the needs, requirements and expectations of today's modern world (Wasao 2014).

Automation of revenue collection system involves investing in modern technologies for example: ICT in order to upgrade the revenue system to achieve integration and information sharing so as to enhance efficiency and effectiveness of the system. All Sectors of the County should put in place an effective and efficient revenue collection system in monitoring framework that ensures adequate supervision of the budgeted programs and project activities to enhance accountability and absorption of resources (Amin, 2013). Automation of revenue collection systems and structures is instrumental in improving and simplifying administration of taxation through utilizing modern technologies for example ICT.

Automation of tax payment was first coined in US. Australia is among the countries that had implemented the system in the management of their municipalities (Turner et al, 2004). However,

the purpose of the tax strategy in Turkey is to simplify tax laws and regulations and to harmonize tax law with European Union law.

The development and utilization of modern technology in revenue mobilization has become a critical feature of every country particularly developing countries. There are numerous usefulness modern technology offers in the development of municipalities.

Wasilewski (2000) studied the economic development and taxation system by comparing the case of Braziland Japan. Japans experience demonstrated that a country does not need to postpone a real change in the tax structure until it achieves a high stage of development. Rather, a modern system can stimulate economic growth and enhance the domestic market. According to a study conducted in Ghana by Gidisu (2012) on the automation system procedure adopted the UNCTAD developed Automated System for Customs Data and Management, which is fully integrated and covers the complete tax clearance process. The system handles customs declarations, accounting procedures, transit and other suspense procedures, generation of trade data that can be used for statistical and economic analysis.

According to Zhou & Madhikeni, (2013), the adoption of technology on online receipting process in Zimbabwe has showed a positive impact on organization performance in developed countries. Compared to the traditional receipting process, an online receipting is a value-added service that allows a reliable online communication between the sender and the recipients. A certified receipting process has to guarantee the following aspects. First, the validity of the origin and the receipt exchange must not be denied and both the sender and Impeding Mechanisms for Adopting a New Technology the recipient receive a confirmation in case the receipt is delivered successfully or if the delivery fails (Zhou & Madhikeni, 2013)

Experiences from Ghana, Philippines and morocco as cited by the World Bank in a report done in 2004 (Customs modernization) initiatives have shown that the automated customs procedures have ensured that data required by different bodies are centralized and easily accessible by all the relevant bodies. The systems implemented in these countries in mid-1990 yielded substantial gain in the effectiveness of the customs procedures (International Monetary Fund, 2003).

The systems provided adequate data for customs officers to make speedy and informed decisions, a network linking all users of the system and simplification of the customs procedures.

Technology adoption is key in improving the efficiency and effectiveness in revenue mobilization. No doubt, the traditional kinds of paper forms always will be an essential part of the tax administration system (UNCTAD, 2008). Through technology adoption, a tax collection agency will be able to meet their revenue collection targets, as there will be less tax avoidance and evasions. Technology in the tax framework falls under the Public Administration part and its target is to enhance the productivity and viability both at national and local level. For instance Nisar (2013) argued that recent trends in public taxation stress the need of developing a system of tax assessment and collection.

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view of the above, Panday (2006) carried out an empirical study whose main goal was to establish the influence of adoption of technology on revenue mobilization in India. He used regression analysis among a random sample of 20 local governments in the country. The results of the study revealed that for government to compare in execution with the development and desires of its constituents, it should significantly build its financial profundity without causing expensive repeating overheads. Panday (2006), in his study on use of technology on revenue in Malaysia collections using 120 questionnaires distributed to employees of the country revenue. He further noted that technology adoption through systems automation, have been seen to be fit for acquainting bigger efficiencies with accumulation of street parking fees that can enhance

Turner et al, 2004).

Automation which inculcates usually technological enhancement in terms of upgraded hardware and software so as to curb inherent risks relating to revenue reductions or the vice versa for expenditures (Ireland P. N., 1994) In Addition, automation of process at revenue collection points has a positive impact on the tax clearance time (Haughton & Desmeules, 2001). Conversely, The automation of Tax system rather than just affecting the revenue collection, expenditure and clearance time as highlighted above, will also impact the overall staffing, confirming that the right measure of tax assessment has been undertaken so as to deter underpayments and tax evasions, and proper ways of accountability and audit trails instigated so as to curb embezzlements.

This usually attained successfully by synchronizations of various systems in various systems towards a common repository mapping which is a fundamental tool in automation (Dramod K, 2004). Such Automation in enfranchised not only in the revenue collection administration but many other governmental and non-governmental institutions so as to not only obtain maxim on

the key objectives but also smooth run other operations as well as deter any risks from (De Wulf & Sokol, 2005).

Automation of tax collection allows tax data entry, automated processing, computation and analysis as well as automatic production of tax reports and feedback required for control and risk management purposes (Holniker,2005). According to Holniker (2005), automation of tax collection includes developing powered computer program to carry out tax assessments and computations; and to determine tax dues at high levels of speed and accuracy hence ensuring quick response to the recipient (Guido, 2007). Automation argues Katsuya-Takii (2003) is a catalyst and stimulus for customs modernization. Baurer (2005) argues that in carrying out their responsibilities, tax administrations can also create problems for the business community when they impose burdensome reporting and record keeping requirements; conduct excessive inspections and audits; fail to deal with corrupt tax administration employees; and fail to provide transparency in tax administration operations.

This type of environment harms individual businesses and the overall economy. As a result, many in the business community react by taking steps which adversely affect the tax base. This typically includes underreporting profits and turnover; underreporting employee wages and by creating phantom employees. A significant number of businesses also fail to register or file tax declarations. This only increases the burden on those tax payers who try to comply with the tax law and discourages their future compliance. The result is a vicious cycle which tends to preserve the status quo Customs automation is usually part of an overall tax administration reform (Rao, 2000) and modernization program. Online response of automation tax collection is the processing of customs documents by the computer assisted treatment of electronically transmitted information. Swindle (2007) adds payment and accounting, to register and account for payments

by importers and exporters; and risk management, to select those consignments bearing higher risks, concealing duty and tax noncompliance, illegal importation of drugs or materials aimed for terrorist activities. Notwithstanding the foregoing benefits, Ward and Dietmar (2007) noted that automating customs administration has cost implications, which vary from country to country and according to the initial situation of the customs administration in terms of available ICT, human expertise and the structure of tax administration (Peled, 2008).

Tax is an economic obligation imposed by the government on natural and legal persons (Tauy & Guvenc, 2007) .These tax obligations are contained in tax laws. Tax compliance refers to fulfilling all tax obligations as required by the tax laws. It is the act of reporting all incomes and paying of all taxes by fulfilling the provisions of laws, regulations and court judgements within the stipulated period without having to wait for follow-up actions from the authority. Non-compliance is the intentional failure by citizens to declare their taxable activities. It takes several forms like concealing some taxable activities, falsifying returns and failing to stick to the laid regulations concerning declarations and submission of the returns. On-compliance is closely linked to tax evasion except that it incorporates, apart from evading taxes the aspect of complying with other income tax rules and regulations such as deadline for submission of tax returns .Tax avoidance is legal while tax evasion is not, although tax evasion and tax avoidance have similar effect on revenue collection, however from legal point of view tax avoidance doesn't amount to non-compliance (Myles,1995)

Sreekantaradhya (2000) notes that taxation plays a vital role in the process of development of any country. It enables resource mobilization, allocation, distribution and stabilization. Revenue Authorities across the world are mandated to assess, collect and enforce laws relating to a

country's tax revenues. "Governments around the world are increasing the use of information and communications technologies to improve the delivery of public services and the dissemination of public administration information to the public"(Azmi & Kamarulzaman, 2010, p. 599). A common feature of these reforms is the use of automated systems in collecting, accounting and facilitating tax payments.

This facilitates timely access to information from reliable databases, it also unifies procedures and standardizes the payments processes.

One of the earliest adopters of online filing was the United States of America (USA), through its Internal Revenue Service (IRS).The IRS, in recognition of the need to effectively and efficiently collect taxes with minimum disruption to taxpayers employed the use of modernized Information Technology infrastructure (IRS,2007). According to eFile LLC (2016), online filing of tax returns in the USA began as early as 1986. Initially, efiling in the USA began as a small test program with only 25,000 tax returns being filed electronically. The system also allowed a tax refund to be wired directly to the taxpayers bank account. It was seen to greatly reduce the chances of making an error while filing the tax return. The test program's success led to its rollout to other cities initially not covered. Four years later 4.2 million tax returns were filed in the year 1990. As at 2013, the method had become widely popular with a record of 1 billion tax returns having been filed throughout its history.

The transition from manual to online tax systems in countries such as Singapore began in early 1990s. In other countries such as Mexico, its revenue authority began implementing online filing systems in 1998. As at 2004, the online system supported online tax payments and other tax transactions (Bhatnagar, 2004).

Electronic tax filing was first coined in United States, where the Internal Revenue Service's (IRS) began offering e-filing for tax refunds only. This has now grown to the level that currently approximately one out of every five individual taxpayers is now filing electronically. This however, has been as a result of numerous enhancements and features being added to the program over the years.

Online tax filing (Electronic tax filing or e-filing) is a process where tax documents or tax returns are submitted through the internet; usually without the need to submit any paper return (Wasao, 2014). The e-filing system encompasses the use of internet technology, the Worldwide Web and Software for a wide range of tax administration and compliance purposes. Countries have given different names to online tax filing system, for instance (Gellis, 1991), electronic declaration is named electronic tax filing.

Before 1990, organizations in most countries across the world used information technology (IT) in a very restricted manner (Bryson & Daniels, 2007). At the time, the use of information and communication technologies (ICT's) for business operations was considered to be costly rather than a way of presenting organizations with a new approach to business. As a result of increased technological advancements, however, things took a different turn and the use of ICT's became an important consideration for most organizations (Al-Adaileh, 2009). A number of factors including increased global activities and the evolution of a digital environment have greatly contributed to the increased use of ICT's by organizations. As a result of the above changes, many organizations are compelled to spend heavily on ICT's in order to improve performance and increase efficiency (Rao, 2006; May et al., 2007).

However, the initial excitement quickly disappears when it becomes almost impossible to determine the role and exact benefits associated with the use of ICT's. Consequently, it is critical for any organization to assess the contribution of ICT systems to performance. Considering that the use of ICT's is aimed at enhancing the users' ability to work better and produce more, it is imperative to measure and assess the success of ICT's from the users' perspective. Arguably, the success of ICT's depends more on users than on technology (Akman et al., 2005). Tax compliance is the timely filing and reporting of required tax information, the correct self-assessment of taxes owed, and the timely payment of those taxes without enforcement action (Jones, 2009).

In Africa, Nigeria for instance modernized its tax administration services in the period between 2004 and 2013. The online system was known as Integrated Tax Administration System (ITAS). The system was launched in 2013, its main aim was to use technology to enhance tax compliance with automation of all core processes of tax administration (PwC, 2015).

The East Africa region was not left behind; Uganda and Tanzania were early reformers of their revenue administration systems in the Eastern Africa Region (KRA, 2010). Muwonge (2011) notes that in Uganda, the Uganda Revenue Authority (URA) in 2005 developed an online tax system dubbed 'e-Tax'. Muwonge (2011) further comments that the purpose of the online tax system was to enable efficiency in the tax administration process as well as reduce the taxpayer's expenses in tax compliance. In Tanzania on the other hand, electronic filing of VAT returns was introduced in October 2012 significantly reducing the time taken to file the tax returns. Additionally, in 2013 the Tanzania Revenue Authority (TRA) launched a Revenue Gateway System, an interface between the TRA and commercial banks enabling seamless payments of taxes.

Tax evasion is the deliberate failure to pay taxes as provided in the tax laws. According to Sandmo (2005) tax evasion is a practice that violates the tax laws. He emphasized that when taxpayers refrain from reporting correct profits, they engage in illegal activities that are subject to legal action from the tax authorities. Tax evaders will always want to hide from the tax authorities. A report by the Institute of Economic Affairs (2012) noted that tax evasion is common in the SME sector, largely driven by the perception that taxes create a heavy burden on them.

Tax evasion is different from tax avoidance in that, tax avoidance is done within the confines of the tax laws (Sandmo, 2005).When there is ambiguity in the tax laws, this in some cases provides a tax saving opportunity for a business. A business can also evaluate their business model, transactions and financial profile to align themselves in such a way that they benefit from paying lower taxes (Mgammal & Ismail, 2015). Hira (2016) notes that the most positive aspect of the year 2015 was the introduction of the iTax online system. Hira asserts that though the iTax system has been experiencing teething problems, he believes it was a good move as it would revolutionize how tax affairs would be conducted.

1.1.2 Kenya Perspective

Kenya‘s tax system has undergone more or less continual reform over the last twenty years. On the policy side, rate schedule has been rationalized and simplified, a new value-added tax introduced and external tariffs brought in line with those of neighbouring countries in East Africa. At the same time, administrative and institutional reforms have taken place. Most notable among these was the creation of the semi-autonomous Kenya Revenue Authority (KRA) in 1995, which centralized the administration of tax collection.

The KRA identified the use of technology as a major factor of success in revenue administration reforms and overall improvement of their service delivery (KRA, 2010). Other benefits expected to be realised were reduced lead times, costs savings and reduced interaction between KRA employees and taxpayers. This would guarantee the transparency and credibility of the tax transactions and thus lower corruption between the KRA employees and taxpayers (KRA, 2010).In response to this, they launched a technology platform known as the Integrated Tax Management System (ITMS) in 2003. In October 2013, they introduced the iTax online system. The iTax online system was an improved version of the ITMS allowing additional tax processes and payments in addition to filing of tax returns. As at 2015 over 2 million taxpayers were registered on the iTax online system (KRA, 2015). SMEs are non-subsidiary, independent firms which employ less than a given number of employees. SMEs bring dynamism and innovation and are responsible for creation of employment opportunities in emerging and developing economies. They account for a large percentage (95% to 99%) of the businesses in all countries (OECD, 2009). The World Bank (2015) places the contribution of SMEs towards total employment at 45 3 percent and 33 percent contribution to the Gross Domestic Product (GDP) in emerging countries.In Kenya, SMEs are estimated to account for over 25% of the GDP and account for 77% of the employment statistics (Institute of Economic Affairs, 2012). The Budget Focus Report by the Institute of Economic Affairs (2012) further noted that as at 2005 the potential tax accruable from the SMEs stood at 4% of the GDP. The OECD (2007) noted that annual turnover, number of employees and net assets were the categories used to define SMEs. In Kenya, the MSME bill has defined SMEs in general, using the number of employees and company's annual turnover criteria. The SME definition however for manufacturing companies has two additional criteria; i) investment in plant and machinery and ii) registered capital. Kenya Revenue Authority was

established by the KRA Act, Chapter 469 of the Laws of Kenya. The KRA's main mandate is to act as the revenue collection agency of the government (KRA, 2015). In carrying out its mandate, the KRA administers and enforces various written laws relating to revenue which include the Income Tax Act (ITA), Value Added Tax (VAT) Act, Customs and Excise Act, Traffic Act, Transport Licensing Act, Sugar Act, Stamp Duty Act, Second- Hand Motor Vehicles Purchase Tax Act among others. The Authority also acts as an advisor of the Government in revenue administration matters (The Republic of Kenya, 2015). Section 3 (1) of the ITA provides that income tax shall be charged upon the income of a person which accrued in or was derived from Kenya (Income Tax Act Chapter 470, 2012). Income taxes in Kenya include corporation tax, Pay As You Earn (PAYE), capital gains tax, rental income tax, advance tax on commercial vehicles, fringe benefit tax, withholding tax and turnover tax. Companies pay corporation tax on the gains and profits from their businesses. Sole proprietors and partnerships pay PAYE on the gains and profits from their businesses, calculated based on the individual graduated scale rates. Furthermore, businesses are required to pay VAT, customs and excise duties charged under the VAT Act, Customs Act and Excise Duty Act respectively. The iTax online system is used to facilitate payment of all income taxes, VAT and excise duty. Additionally, monthly and annual self-assessment returns for these taxes are filed on the iTax online system. Once the payment is made and tax returns filed, the company's iTax ledger is updated automatically to reflect the company's tax position. The iTax online system also allows for online Personal Identification Number (PIN) registration, amendment of PIN details, applications for waiver of penalties and interest, assessment dispute resolution, application for tax compliance certificates and applications for tax refunds.

The system also facilitates e-communication with the KRA. In the Sixth Corporate Plan, the KRA recognized that its goal was to enable the government of Kenya achieve revenue independence by the year 2018 which would effectively eliminate its reliance on financing its budget deficit through loans. In this Plan, the importance of using technology to enhance tax compliance was emphasized. This was seen as a way to deal with tax evasion and fraud (KRA, 2015). 5 Tax evasion is the deliberate failure to pay taxes as provided in the tax laws. According to Sandmo (2005) tax evasion is a practice that violates the tax laws. He emphasized that when taxpayers refrain from reporting correct profits, they engage in illegal activities that are subject to legal action from the tax authorities. Tax evaders will always want to hide from the tax authorities. A report by the Institute of Economic Affairs (2012) noted that tax evasion is common in the SME sector, largely driven by the perception that taxes create a heavy burden on them. Tax evasion is different from tax avoidance in that, tax avoidance is done within the confines of the tax laws (Sandmo, 2005).When there is ambiguity in the tax laws, this in some cases provides a tax saving opportunity for a business. A business can also evaluate their business model, transactions and financial profile to align themselves in such a way that they benefit from paying lower taxes (Mgammal & Ismail, 2015). Hira (2016) notes that the most positive aspect of the year 2015 was the introduction of the iTax online system. Hira asserts that though the iTax system has been experiencing teething problems, he believes it was a good move as it would revolutionize how tax affairs would be conducted. The iTax online system was initially introduced in phases. After successful piloting, it was made a mandatory requirement for filing of tax returns online from1 August 2015(KRA, 2015).In essence, this meant that all taxpayers including SMEs, were required to use iTax only and abandon the manual process.

ITax launched in 2011 and implemented by Indian firm Tata, iTax replaces the online system previously used by KRA, which the public has complained about over its inefficiencies. The success of the KRA largely hinges on the efficacy and efficiency of the newly introduced iTax system in increasing tax compliance and closing tax leakages through tax evasion. The iTax system was launched in October 2011 in a bid to increase efficiency and ensure better compliance with tax laws (KRA, 2014). The web-enabled system that seeks to make tax compliance a simple, quick and secure exercise is expected to bring down the cost of tax compliance in logistics, and help reduce interaction between staff and taxpayers, eliminating bribery claims. This is part of KRA's mission to attain global best practices in tax collection, and the taxman intended to benchmark against nations that have fully automated their systems, including the US.

Throughout the years, the Kenya government has attempted different income tax reforms aimed at enhancing revenue collection (Masinde and Makau, 2010). One of the measures that have been actualized with the goal to expand income tax collection in Kenya was the presentation of self-assessment frameworks (SAS) in 1992.The objectives of this system was to increase voluntary compliance, reduce tax authorities' burden of assessing tax returns and increase tax collection efficiency through reduction of tax collection costs (Masinde and Makau, 2010).

However in spite of different tax reforms, levels of compliance have remained very low. A study led by KRA, KIPPRA and the Treasury, in view 2012 information uncovered that VAT installment consistence was as low as 55% while return lodgment consistence was 65% (Masinde and Makau, 2010). Kenya's tax code is still complex and cumbersome, characterized by uneven and unfair taxes, a narrow tax base with very high tax rates and rates dispersions with respect to trade, and low compliance.

Additional challenges include tax systems with rates and structures that are difficult to administer and comply with are unresponsive to growth and discretionary policy hence low productivity; raise little revenue but introduce serious economic distortions; treat labour and capital in similar circumstances differently; and are selective and skewed in favour of those with the ability to defeat the tax administration and enforcement system (Karingi, Wanjala, Nyamunga, Okello, Pambah, and Nyakang, 2005). This led to the birth of itax in Kenya Revenue Authority. This is a web enabled system that enables the taxpayer file returns, make payments and monitor their profiles online.

Taxpayers' behaviour towards tax system has evoked great attention among many revenue authorities in the world especially in developed countries. However, it is debatable on what has been done towards the study of taxpayers' behaviour towards tax system in developing countries (Lumumba et al., 2010). Despite all the efforts aimed at developing better and easier electronic tax filing systems, these tax-filing systems has remained unnoticed by the public or are seriously underused in spite of their availability.

Kenya is ranked among low compliance countries with the hard task of ensuring efficient and effective tax administration, in order to ensure tax compliance, hence raising more revenue (Mandola, 2013).Therefore, there is a need to understand the acceptance by the users of the electronic tax-filing systems and identify the factors that can affect their decision to use or not use these electronic tax-filing systems. This issue is important in that the answer could help the government to plan and promote new forms of electronic tax-filing systems in the future.

From this definition, there are three dimensions of tax compliance: filing, reporting, and payment compliance.

Therefore, a taxpayer would be called non-compliant if the three dimensions are not properly accomplished. The aim of tax reforms in many countries is to achieve higher voluntary compliance and one way to do this is by introducing electronic filing system (Khadijah, 2013). No matter what the justifications advanced, a tax fails to the extent that it is avoided or evaded (Shultz and Harris, 2004).

The aim of tax reform in many countries is to achieve higher voluntary compliance and one way to achieve this is by introducing a self-assessment system (SAS) (Khadijah, 2014).

ITax is an improvement of a previous online system by KRA called the Integrated Tax Management System (ITMS), rolled out in 2007, which failed to automate taxation and spawned serious customer dissatisfaction. KRA says that most taxpayers are locked out by inefficiencies and bureaucratic systems hence iTax. With the new system, taxpayers will be able to register, file returns, make payments and enquire about their status, while monitoring their accounts in real-time 24 hours a day, from the comfort of their homes or offices. The system eliminates rogue agents who swindle taxpayers by keeping outdated electronic registers of tax agents. To further cut down the cost of taxation, taxpayers will be required to fill their returns offline by downloading the returns form, filling it and uploading it at their own convenience. The system has integrated more than 30 banks to ensure that most taxpayers are covered.

The system has simplified and quickened tax compliance and secured exercise, thus bringing down the cost of tax administration. The system has reduced interaction between KRA staff and taxpayers thus eliminating cases of bribery claims. Tax evasion creates horizontal inequity and, if

opportunities for evasion are correlated with income, complicates the attempt to achieve vertical equity.

1.1.3 Revenue Collection

A study by Edward (2009) revealed that revenue collection is a major challenge facing many countries worldwide but the challenges are more in developing countries in comparison to developed countries. Beekes & Brown (2008) posited that developed nations such as USA and Canada have effective revenue collection systems hence minimizing revenue collection challenges.

Gideon and Alouis (2013) wrote that an efficient national revenue collection system is the hub of every public administration system and the cornerstone of sound fiscal management. It enables governments to finance budget deficits from domestic sources, thus dissuading recourse to off-shore sourcing. Other countries regionally have introduced such electronic systems more so those that are online for the same purposes in several government departments and organizations. Kenya Revenue Authority is one such organization that relies heavily on electronic systems strategy in order to deliver on its core responsibility of collecting revenue on behalf of the Government of Kenya.

Computerization of taxpayer records is still incomplete. There is need to develop systems that can access third party sources of information, such as withholdings, bank transactions, foreign exchange transactions, transactions in securities and large transactions (involving real estate, cars, tax-deductible transactions, customs payments). Use of tax amnesties can prove useful. Enhancing administration through measures such as entrusting sensitive negotiations to special teams; minimizing contacts between tax payers and tax collectors and reducing the discretionary powers

of tax officers; setting up supervisory systems with at least three hierarchical levels to reduce opportunities for collusion; and devise incentive systems that match public and private interests. There is the possibility of relying on banks in collecting taxes (Moyi 2006).

Electronic tax system forms part of the revenue collection reforms by Kenya Revenue Authority whose main motive is enhancing tax collections and tax efficiency and thus, tax revenues have been increasing rapidly due to the country's rapid economic development accelerated by the new systems. In this regard, the planning and formulation phase of an elaborate electronic system strategy was done in the KRA Corporate plan of 2003 and was implemented in the fourth corporate plan of 2009. KRA has a centralized Information Communication Technology (ICT) department that provides support services in terms of electronic systems to the entire organization all these to try and achieve its goals for achieving increased revenue collection and facilitating voluntary compliance by taxpayers (Atika, 2012).

Muita (2011) argued that online tax systems are rapidly replacing paper-based tax reporting systems. Promising many advantages over the traditional method of hard copy tax filing, these systems promise faster process, lower costs and increased efficiency.

An electronic system for filing and paying taxes, like the one introduced by KRA benefits both tax authorities and taxpayers. For tax authorities, electronic filing lightens the workload and reduces operational costs – such as the costs of processing; storing and handling tax returns. In the previous years, the Kenya Revenue Authority has revised all its targets downwards in the last four years. To meet its target of a record Sh1.18 trillion, the taxman had to raise collections by over 20 per cent through new efficient measures that heavily relied on the introduction of electronic tax system.

Dowe (2008) argued that the basic prerequisites for implementing successful e-filing and e-payment systems are: a reliable and accessible internet service; cooperative financial institutions; an IT oriented public; and adequate financing to set up the appropriate infrastructure in tax offices. Ideally, the setting of an e-filing and e-payment system should form part of a comprehensive IT design, development and implementation strategy. The implementation process for electronic tax systems begins with the development of a strategic business plan documenting the ideas and actions, desired outcomes and the time frame for each component, taking into account the strengths and weaknesses of the tax administration and environmental opportunities and threats. The plan should also document the implementation strategy including the implementation approach. Many countries have taken a gradual approach by allowing voluntary e-filing and e-payment for select segments of the taxpayer base. After testing is complete filing becomes mandatory for some taxpayers, e.g. companies.

Sheikh (2015) explains that as with any new system, there have been numerous teething problems with the electronic system. First, there are two concurrent tax systems manual and iTax systems without either system recognizing the other. Taxpayers are also receiving demand emails from the Integrated Tax Management System. This is bound to create discrepancies in taxpayers' records, especially with regards to payment of tax obligations as well as submitting returns.

According to Lubua (2014), employees play a vital role in ensuring that the revenue authority collects its tax from clients at the right time. They also ensure that clients have the right knowledge of business taxation. Low integrity to employees is reported to significantly affect efforts by the revenue authority toward improving revenue collection. To a large extent, the use of ICTs has addressed the challenge of corruptive behaviour by employees. In areas such as custom department, clients are able to conduct own assessments. However, in domestic revenue there is

a low usage of ICTs. Clients depend on employees for assessment and this assessment depends on employees' rational ability and integrity.

1.1.4 I Tax system

Itax system was launched in 2011 and is implemented by an Indian firm Tata which replaces the online system previously used by KRA which was not able to work efficiently. The web enabled system that seeks to make tax compliance simple, quick and secure is expected to bring down the cost of tax compliance. This is in line with KRA's mission to attain best practices in tax collection globally. On iTax, taxpayers are will be able to register, file returns, make payment and monitor their ledgers and accounts anytime anywhere. The system will also help lock out brokers who swindle and take advantage of ignorant taxpayers. It shall cut down on the cost of taxation because taxpayers can fill their returns offline and upload at their own convenience.

All taxpayers who register get a unique password through their personal identification numbers, PIN and can view their payment status even in the case of withholding tax on areal time basis. To ensure compliance, KRA has leveraged information technology such as the 2005 Simba Customs System and the ubiquitous iTax platform, to drive enhanced and efficient revenue collections. iTax has, for example, made it difficult for taxpayers who previously evaded tax to transact with tax compliant taxpayers.

The main aim of electronic filing is to enable taxpayers to meet their normal tax obligations in a convenient manner without visiting tax office. Tax compliance has always been an area of concern to policy makers, tax administrators and society in general. This is mainly because tax compliance affects revenue collection and the ability of the government to achieve its fiscal and social goals (Tan and Sawyer, 2003). Measures to improve compliance include providing excellent taxpayer

services that generate better long-term outcomes such as higher tax collection and reduction in the tax gap. The aim of tax reforms in many countries is therefore, to achieve higher voluntary compliance and one way to do this is by introducing electronic filing system (Khadijah, 2013). In Kenya, various taxes are filed and remitted by due dates, which are mandatory dates for either tax returns.

The iTax online system is used to facilitate payment of all income taxes, VAT and excise duty. Additionally, monthly and annual self-assessment returns for these taxes are filed on the iTax online system. Once the payment is made and tax returns filed, the company's iTax ledger is updated automatically to reflect the company's tax position.

The iTax online system also allows for online Personal Identification Number (PIN) registration, amendment of PIN details, applications for waiver of penalties and interest, assessment dispute resolution, application for tax compliance certificates and applications for tax refunds. The system also facilitates e-communication with the KRA.

In the Sixth Corporate Plan, the KRA recognized that its goal was to enable the government of Kenya achieve revenue independence by the year 2018 which would effectively eliminate its reliance on financing its budget deficit through loans. In this Plan, the importance of using technology to enhance tax compliance was emphasized. This was seen as a way to deal with tax evasion and fraud (KRA, 2015). The iTax online system was initially introduced in phases. After successful piloting, it was made a mandatory requirement for filing of tax returns online from1 August 2015(KRA, 2015).In essence, this meant that all taxpayers including SMEs, were required to use iTax only and abandon the manual process.

Small companies pose challenges for tax administration by the revenue authorities worldwide due to their large numbers which translates into huge tax administration costs. Additionally, the nature

of the SMEs' transactions also poses a challenge as the SMEs tend to operate in the informal market and domestic market as opposed to the export market, hence making it harder to supervise their tax compliance (OECD, 2009). The KRA does acknowledge the challenges of tax compliance of the SME sector. According to Mungai (2015), the Office of the Commissioner General admits that many SMEs do not register voluntarily, and those who get to register often fail to keep records, file tax returns and settle tax liabilities promptly. In KRA's Fifth Corporate Plan, the revenue authority demonstrated its renewed focus on SME tax compliance.

The corporate plan denoted the SME sector as a sector with a low tax compliance (KRA, 2013).Additionally, in the Sixth Corporate Plan, the KRA noted that SME businesses in Kenya are over 2.7 million and many of these are not registered for tax(KRA, 2015).

Based on the foregoing, it is evident that that SMEs are prone to engage in tax evasion. Revenue authorities therefore need to bridge the gap between the huge tax administration costs they incur in ensuring tax compliance of SMEs and also lower the high tax compliance costs incurred by the SMEs. Going forward, the revenue authorities are left with no choice but to look for alternative methods to ensure tax compliance in a bid to minimize tax evasion.

An important point to note is that the iTax online system was introduced at a time when the KRA was under increasing pressure to seal tax loopholes and widen its tax net. There was also the need to increase efficiency in tax collection procedures by automating these procedures in order to improve revenue inflows from taxes. The iTax rollout also came at a time when there was renewed and specific focus on the taxpayers' tax compliance.

The introduction was a welcome initiative, with the KRA aiming to promote equity among taxpayers by standardizing tax procedures. It was also seen as an effective tool for the effective

and efficient collection of tax and widening of the tax net to cover more taxpayers, including the SMEs.

An analysis of the achievements so far as per the KRA's Sixth Corporate Plan showed that the use of iTax in tax compliance procedures is still low and underperforming. Underperformance was recorded specifically in electronic filing of annual corporate tax returns individual tax returns and making payments electronically.

Some of the reasons put across by the KRA to try and explain the underperformance include late rollout of these modules, Kenyans been ranked poorly compared to other countries on degree of uptake of ICT and inadequate knowledge amongst taxpayers of these functionalities (KRA, 2015). Since the introduction of the iTax online system and subsequent mandatory requirement of its use by all taxpayers, no studies have been conducted to determine the factors influencing the adoption of the iTax online system by SMEs. This could also shed light on any challenges they may be facing in adopting the online system hence necessitating this study. There was therefore the need to establish the factors influencing the adoption of the iTax online system among SMEs.

Kenya Revenue Authority has introduced e-filing system known as iTax. iTax system is a computing and accounting system for state revenues (levies, taxes) which stores all relevant (credit and debit) data in individual accounts in a data base, and thus helps monitor and control all tax transactions. iTax provides a convenient and efficient way to improve revenue collection, transparency in fiscal administration and management of local and national tax authorities.

ITax system in Kenya has enabled taxpayers to register for PIN and obtaining PIN certificate online, apply for Tax Compliance Certificate (TCC), file annual returns, amend personal details, apply for refunds, register payments to make online and pay through bank, request for waiver of interests and penalties, access their individual ledger records kept by KRA and incase of any errors

can be corrected early avoiding penalties and interests, receive communications and make enquiries online and report challenges online. In conjunction with a personalized taxpayer identification number, the tax authority using iTax can automate most of the levying processes and minimize the scope for tax fraud. Technically, iTax is a completely integrated modular system for taxation with an open source database, which can handle all types of taxes. iTax supports the Kenya Revenue Authority in registration, assessment, collection, accounting, debt management, auditing, tax monitoring, and reporting (iTax case study, 2012).

Kenya Revenue Authority, the revenue collection body in Kenya has been offering efficient services since the introduction of iTax system. The authority has embarked on major issues such as confidentiality by ensuring secrecy of every taxpayer's affairs and use of tax information only as allowed by the law (KRA, 2012).

Service delivery has been facilitated through providing taxpayers and their authorized agents with clear precise and timely information, ensuring the courtesy and considerate treatment are extended unconditionally to all taxpayers, responding expeditiously to every taxpayer's enquiry, complaint or request, explaining the grounds for and derivation of every tax assessment, providing proper technical advice to the taxpayer on requests about tax implications, assisting new taxpayers to register, educating the taxpayers and the general community about tax obligations and rights (Naomi & Joel, 2011).

KRA was formed to develop improve on financial collection measures as well as making sure that all financial leakages are closed. It was also to ensure that it expedites trade by putting in place those measures that allow digital controlled movement of goods and services. KRA therefore have put in place those measures to reduce the leakages.

They invariably include segregation of duties, custody of assets, strict authorization procedures, internal audit, and the use of passwords, proper record digital controls and management supervision (Lumumba *et al.* 2010).

1.2 Statement of the Problem

Despite other reforms of tax systems through introduction of various tax reforms like electronic tax register ETR, Integrated tax Management System(ITMS),integrated tax Administration system, Electronic, KRA still not achieve its targets. In addition, the practice of tax evasion still presents a serious threat to achieving this goal, and it continues to directly deny the Government its rightful revenue. For example, failure to fully declare the sales receipts of a business enterprise through keeping of parallel records is stealing of Government revenue. This means that the trader does not pay the right amount of Value Added Tax or Income Tax.

Small companies pose challenges for tax administration by the revenue authorities worldwide, due to their large numbers which translates into huge tax administration costs. Additionally, the nature of the SMEs' transactions also poses a challenge as the SMEs tend to operate in the informal market and domestic market as opposed to the export market, hence making it harder to supervise their tax compliance (OECD, 2009).

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Achieving full tax compliance is the ultimate goal of any revenue administration. However the practice of tax evasion still is a big challenge to achieving this goal and continues to reduce collectable taxes that are due to the authority. This often occurs when tax authorities and finance ministry through treasury do not have a suitable forecasting and monitoring systems in place to measure compliance levels. Manual tax administration systems proved to be time consuming and labour intensive process in verifying and approving the compliant taxpayers. This could normally lead to delays in taxpayer registration, capturing of information and returns.

Based on the foregoing, it is evident that that SMEs are prone to engage in tax evasion. Revenue authorities therefore need to bridge the gap between the huge tax administration costs they incur in ensuring tax compliance of SMEs and also lower the high tax compliance costs incurred by the SMEs.

An analysis of the achievements so far as per the KRA's Sixth Corporate Plan showed that the use of iTax in tax compliance procedures is still low and underperforming. Underperformance was recorded specifically in electronic filing of annual corporate tax returns individual tax returns and making payments electronically. Some of the reasons put across by the KRA to try and explain the underperformance include late rollout of these modules, Kenyans been ranked poorly compared to other countries on degree of uptake of ICT and inadequate knowledge amongst taxpayers of these functionalities (KRA, 2015).

Since the introduction of the iTax online system and subsequent mandatory requirement of its use by all taxpayers, no studies have been conducted to determine the factors influencing the adoption of the iTax online system by SMEs. This could also shed light on any challenges they may be facing in adopting the online system hence necessitating this study. There was therefore the need to establish the factors influencing the adoption of the iTax online system among SMEs.

It's therefore against this background that the study aim to investigate the effect of factors influencing automated tax system on revenue collection in Kenya.

1.3 Objectives of the Study

1.3.1 General Objective

The general objective is to investigate factors affecting automated tax system on revenue collection among Small and Medium Enterprises in West of Nairobi station.

1.3.2 Specific Objectives

i. To investigate the effect of tax compliance costs on Revenue collection among Small and medium enterprises in West of Nairobi station.

ii. To determine the effect of technical skills and knowledge on Revenue collection among Small and medium enterprises in West of Nairobi station.

iii. To assess the effect rate of tax on Revenue collection among Small and Medium Enterprises in West of Nairobi station.

iv. To find out the effect of penalties and interest on Revenue collection among Small and medium enterprises in West of Nairobi station.

1.4 Research Questions

i. Does the tax compliance cost affect Revenue collection among SMEs in West of Nairobi station?

ii. Does the technical skills and knowledge affect Revenue collection of SMEs in West of Nairobi station?

iii. Does tax rate affect Revenue collection among SMEs in West of Nairobi station?

iv. Does penalties and interests affect Revenue collection among SMEs in Nairobi station?

1.5 Significance of the study

1.5.1 Government of Kenya

The government relies on revenue inflows to finance its expenditure in an economy. The study will go a long way to assist in demonstrating the factors affecting adoption of technology in improving revenue inflows.

This will consequently serve as a guide or reference for other government departments and ministries as they undertake modernization programs to enhance revenue inflows.

1.5.2 KRA Management

This study will give insight to KRA on the progress made so far in bringing on board tax payers to the iTax online platform for ease of delivery of services and improved tax compliance. It will enhance the understanding of the Revenue Authority of the SME sector, which will enable them develop strategies to enhance compliance. It will also point out the challenges faced by taxpayers, hence providing guidance on the issues to deal with for greater efficiency in the adoption of the iTax system.

1.5.3 Future Researchers

The study will add knowledge to readers and researchers pursuing the factors influencing the uptake of technology to access tax services and meet tax obligations required by the tax laws. The study will in essence lay a basis for further studies of adoption of technology in enhancing tax compliance.

1.6 Scope of the Study

This study will be carried out at West of Nairobi Station and will target its 98 employees. This means that the respondents will be supplied with questionnaires with an aim of getting their views regarding the factors affecting automated systems on revenue collection in Kenya.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter examines the literature review of the concepts of revenue collection; its effect of iTax systems on revenue collection; and literature that various authors and scholars have put forward in relation to revenue collection.

2.2 Theoretical Framework

The theoretical framework plays an important role in guiding the entire process of the research study. Theories are constructed in order to explain, predict and master phenomena e.g. relationships, events, or the behavior.

2.2.1 Theory of Technology Acceptance Model

This theory was initially proposed by Davis (1989) and tries to explain the model of how users accept technology when it is imposed on them. The model describes two major factors that influence the uptake of the technology by the users including;

Perceived usefulness- this is interpreted as the degree to which the user of the new technology believes that using that particular technology will help them enhance their job performance. If the user believes that the technology will help them to a great extent in enhancing their performance, then they are more likely to use that technology and adopt it in a shorter span of time. However, if the user feels the technology won't help enhance their performance, they will tend to avoid it unless forced to do so, may be in their workplaces.

Perceived ease of use – this is the degree to which a potential user of a new technology believes it would require minimal effort to use it. If the user thinks the technology will be easy to use at minimal effort, then they are more likely to adopt technology as opposed to a user who believes that it would require a lot of effort to use the technology. The theory was later theorized further and extended to different models such as "An extension of the Technology Acceptance Model in hospital in the home units" but the new models still borrowed heavily from the principles of the original model.

KRA has targeted to make their systems to be user friendly (KRA ICT Strategy 2014) endeavoring to entice taxpayers. This is by making it easier for taxpayers to interact with KRA more easily (online wherever they are and therefore avoiding long queues at KRA premises) and also making the systems such as iTax as simple as possible to use for most of the Kenyans. The two main issues being: ease of use and usefulness.

2.2.2 Unified theory of acceptance and use of technology

This theory was formulated by Venkatesh.et al (2003), and aims to explain user intentions while using an information system and the subsequent usage behavior. The theory claims that there are four main factors that will influence usage of a new information system and they include: performance expectancy, effort expectancy, social influence and facilitating conditions. The four factors are moderated by gender, age, experience and voluntariness of the targeted user. For example, for a user who is young and with an IT background, they are more likely to find a new system highly useful in performing their duty, easy to use as they are already technical and will most likely influence their peers in using the same information system.

The theory was developed by reviewing and consolidating the principles of eight earlier models which include the one above i.e Technology Acceptance Model and others. The model has been used by various researchers in their studies but has also received criticism from various quarters as many compare it with the theory of technology acceptance model (Venkatesh, & Zhang, 2010).

The Unified theory of acceptance and use of technology involves the economic environment of the firm, the structures of the industry and the internal structure of the firm is one of the most important components for the growth and development of the firm. The unified theory involves the change from manual to use of computerised technology which makes work easier and faster. The information system is introduced to the firm by the management according to the various tasks they need to be performed successfully in an automated way. Most of the organisations have changed from the use of manual system to the Modern information system which is a good example of automation. (Venkatesh, 2016).

The growth of the firm involves the stages which are followed in the cycle of the growth and include the introduction stage the growth, peak and decline stage, these stages are also used in the introduction of information technology to perform the various tasks. The capital increases in the growth stage but in the peak stage it remains constant then it starts going down in the decline stage and at this stage of decline most firms are forced close down. The expenditure increases as the capital and the output increases at the same rate. Some of the information systems used in modern technology include the business systems which processes the data and produces the output (Venkatesh, 2016).

The theory of acceptance and use of technology was earlier demonstrated by other scholars who performed more research work to support their work and shows how the small firms starts and grows to big firms with more growth in output, capital and expenditure as a result of the use of advanced technology by the use of computerised systems. The business continues to expand its market it produces more products and increases the labour costs and those are indicators for the growth of the firm in the industry. The firm acts as one union to attain the goals of the organisation by using different processes to attain the objectives (Gupta A. , 2008)

The entrepreneurs of the business start with the idea of the business and organises the idea and put it into working and the business starts and there is growth in the development of the business idea which was the main aim of the entrepreneur is successful. The entrepreneur is the inventor of the business idea and the processes of business development and should take the feedback. The introduction of information system affects the organisation but mostly the positive effects (Gupta B. , 2011)

In Kenya, use of information systems will be influenced by such factors as age, education level and voluntariness of the users. This is all put into mind while developing such information systems so that they can cater for as many users as possible and also not receive a lot of resistance when introduced to the users.

2.2.3 The Deterrence Theory

The theoretical approaches of tax compliance have commonly been divided into economic deterrence theory and the wider behavioural theory. The behavioural theory encompassed the social and fiscal psychological theories. The use of deterrence theory model was mainly prevalent in the examination of tax evasion (Frey & Feld, 2002).

The theory can be achieved through a number of approaches and these could be both punitive and persuasive. In the use of the punitive nature of the deterrence theory, it can take the form of increasing the probability of being detected and increasing the tax rate or alternatively through the imposition of tougher penalties. It can also take a form of providing better taxpayer education and increased advertising of incentives in instances of being compliant (Frey & Feld, 2002; Sandmo, 2004; Feld, Schmidt & Schneider, 2007).

It has been established that the different tax systems contend with the challenge of taxpayers who are not compliant with their tax payment obligations and the use of the economic deterrent theory was the most favoured in dealing with the tax collection challenge (Franzoni, 1999). According to International Monetary Fund (2015) the way of dealing with noncompliance is always akin to stressing deterrence as the way in which revenue collection can be improved. It can however be inferred that the taxpayers always do a balancing decision as they choose how much to evade in contrast to the tax potentially saved and the risk of being detected and penalized (Frey & Feld, 2002; Sandmo, 2004). It can therefore be argued that in doing this, the taxpayers' test the probability of being caught in their misdemeanors and at what cost will that be and make a determination if they could sustain such punishment, and therefore base their decision on that. The economic deterrent theory, is regarded as one of the major theoretical areas that have an impact on tax compliance, however this theory has been impacted upon by the development of social and psychological models (Frey & Feld, 2002).

2.3 Conceptual Framework

A conceptual framework is a concise description of the phenomenon under study represented by graphical depiction of the major variables of the study (Mugenda, 2003). Young *et al.* (2003) defines conceptual framework as a diagrammatic representation of the relationship between the

dependent and independent variables. In this study, the main variable under study is Revenue collection, which is a dependent variable. This variable will be influenced by various variables. This study however intends to concentrate mainly on three major factors (independent variables) including; Tax compliance Cost, Technical Skills and Knowledge, Rate of Tax and Interests and Penalties on Revenue collection (dependent variable)

Independent Variables

iTax system

Dependent Variable

Revenue collection

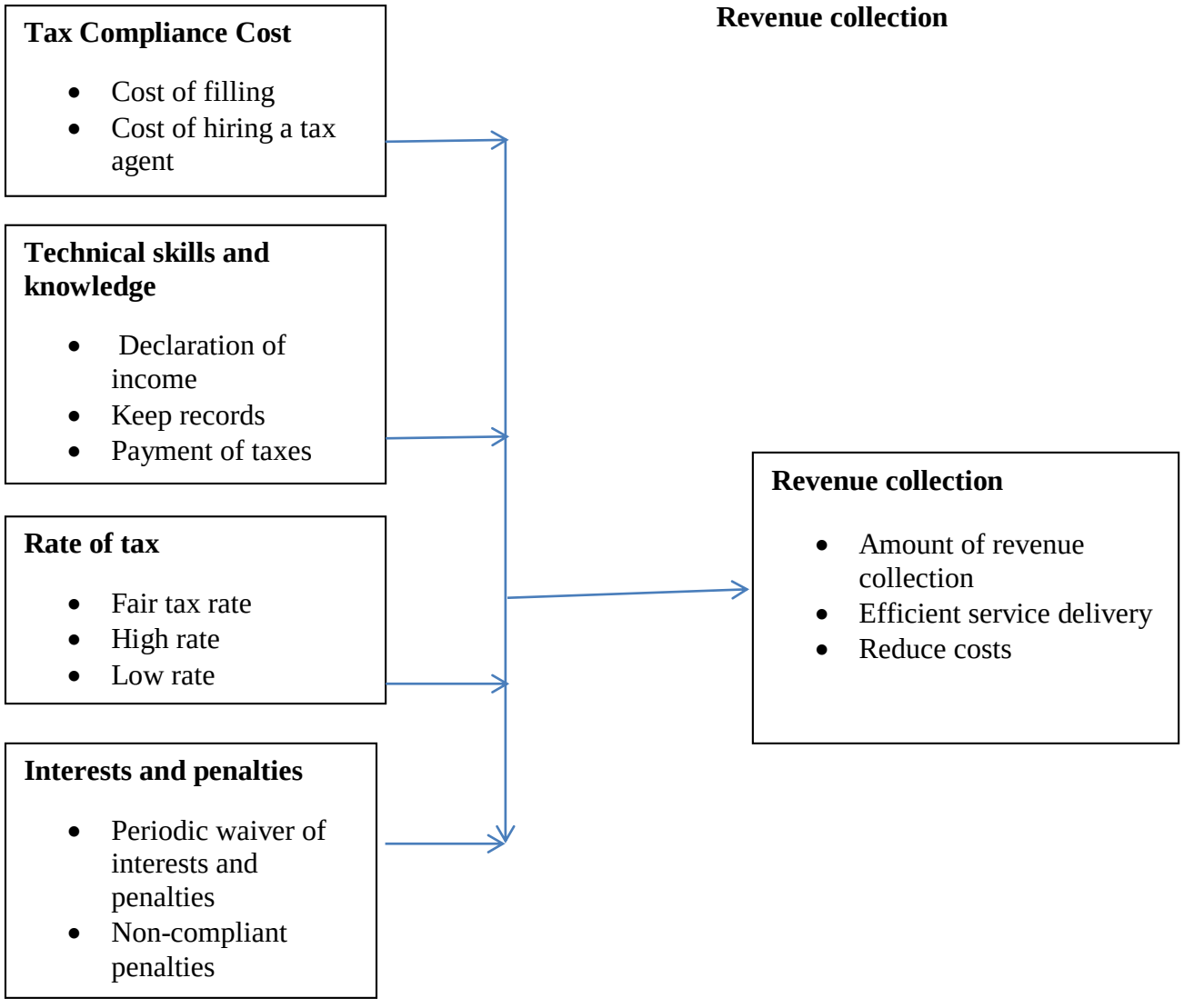

Figure 2.1: Conceptual Frame work

2.4 Empirical Review of variables

The electronic tax system has been around, globally, for the last 30 years. Its history began in 1986 as a small test program in which only 5 tax payers from Cincinnati, Raleigh Durham, and Phoenix agreed to participate. Since then, electronic tax system has grown to become common place, serving millions of taxpayers every year (Cobham, 2010).

There are several studies on on-line tax filing and payments. For examples In Germany, J. Seelmann et al., (2011) did a study on the benefits of a computerized integrated system for taxation (iTax). They found out that iTax system has cost saving and service improvement effects induced by e-Government. The KRA sixth corporate plan is guided by the authority's ability to leverage technology to enhance service delivery and promote compliance. A research study of South Korea and Turkey on user evaluation of tax filing web sites was done by Lee et al. (2013), to compare the design and the complexity of the web sites and the ease with taxpayers can file tax returns and queries on their tax status. While Turkey had a complex online system, to the contrary Turkish users did not find tax filing system difficult to use and that was attributable to the fact that they relied on accounting professionals to do their tax returns online

According to a study conducted by Gidisu (2012), the following are the major usefulness Turkey is enjoying from the adoption of automation tax collection in the operation and management of municipalities: The automation of tax collection saves the cost and enhances the efficiency of the process. The adoption of the system in Turkey saved the country $23.1 million dollars as the system presented a platform for fewer workers to be employed with optimum efficiency:

Another usefulness is time savings; in Turkey the new system of municipal management offers a great deal of effective management as the system is employed to perform a multiple task within a

limited timeframe. Automation of tax collection also brings about efficiency and effectiveness in the declaration and subsequent payment of tax due. The situation in Turkey indicated that the new system offers a framework for all taxpayers to be tracked. The ultimate of all of these is enhancing tax compliance. (Gidisu (2012)

Wamathu (2013) studied the effects of electronic taxation on financial performance of audit firms in Kenya. From the finding the study found that there has been timely filing of returns since inception of I-tax, there has been a reduction in audit period due to introduction of I-Tax, respondents were quite knowledgeable. , system failure when login were less, iTax was user manual friendly , I-tax system was reliable and that I-tax was not user friendly, iTax system cost effective, I-tax system was cost effective and respondent were aware of that iTax system was electronic cash register and electronic signature device. She recommended that there is need for the Kenya Revenue Authority to invest on technology in order to reduce the system failure as the study revealed that system failure affects system logins. System failure discourages use of technology.

A study done by Kamau (2014) focused on the adoption of technology as strategic tool in enhancing tax compliance in Kenya: a case study of large taxpayers of Kenya Revenue Authority. The study examined the impact of adoption of technology as a strategic tool in enhancing tax compliance in Kenya. The study revealed that the adoption of technology does have an impact on the tax compliance levels of the large taxpayers.

In addition, it was found that there is a positive relationship between the adoption of technology and the tax compliance levels.

In this study, compliance was looked at comprehensively as VAT registration compliance, filing compliance and payment compliance, Registration compliance relates to the portion registered taxpayers with the appropriate tax obligation which is VAT in this study. Filing compliance relates to the proportion of VAT tax returns filed on time, e-return acknowledgement receipt and penalty imposed for non-compliance. Computation compliance measures the percent of the correct VAT tax liability that is correctly. Computed and reported. Tax payment compliance measures the portion of the computed tax liability that is paid within the timelines of tax laws through payment registration slip based on the reported tax due and bank confirmation receipt.

2.4.1 Tax compliance cost

Tax compliance expenses are incurred by taxpayers in the process of fulfilling tax requirements laid on them by tax law (Sandford, 1995). Tax compliance costs include the tax collection costs expenses relating to paying and accounting for tax, wages & salaries of employees and professionals and the cost of acquiring knowledge, updating the system to enable it work. Taxpayers usually depend on tax professionals who through avoidance schemes minimize tax payments (Franzoni, 2000).

High tax compliance costs disadvantages a country's competitiveness interns of attractiveness, KRA has devised ways of simplifying the tax systems e.g. the iTax system in order to reduce reliance on tax professionals. This encourages voluntary compliance Compliance expenses can be interpreted in different ways. One, the costs are divided in three in respect to time, monetary and psychological costs. Time expenses relate to hours consumed to in ensuring all aspects of tax compliance. Cash expenses relate salaries paid to internal employees and fees paid external tax professionals. The psychological costs concerns the effects upon a taxpayer in dealing with the tax matters e.g. mental stress. Psyschological costs are difficult to quantify.

Other compliance expenses include all expenses incurred by the taxpayer but are outside the control of the taxpayer (Hijattulah and Pope, 2008).

Vaillancourt (1987) held that Value Added Tax (indirect tax) has a higher compliance cost than Income Tax (direct tax).In the study survey of the OECD countries, 8 out of 11 countries cited VAT compliance cost as forming the largest part of the total tax compliance cost (Pope, 2001).Compliance expenses entail record keeping, preparation and submission of VAT returns (Cleruox, 1992).

2.4.2 Technical skills and Knowledge

Taxpayer knowledge is concerned with the taxpayers' ability in understanding tax laws, the willingness to comply and the role of taxes in national development (how tax collected by the government is utilized (Mohd, 2010).Taxpayer education activities are meant to enhance the level of taxpayer understanding of the tax systems and empower taxpayers in fulfilling their tax obligations. On compliance opportunities may be readily available to educated taxpayers but because of their better understanding of the tax system contributes towards positive attitudes hence promoting tax compliance. Education programs creates awareness of laws, procedures, motivates taxpayers to voluntarily comply, report correct income, maintain a close relationship between the revenue authority & the taxpayer and instill confidence in the tax system (Oyedele 2009). Teaching tax courses should be emphasized because of their impact on compliance (Hite and Hasseldine, 2001).

Taxpayer knowledge has influence on compliance and various researches support this argument. Knowledge is categorized on the basis ordinary or official education received and knowledge towards the opportunity to evade tax (Groenland & Veldhoven 1983). Tax knowledge as one of the key factor in tax compliance has a very close relationship with the taxpayers' ability to

understand the tax law & regulations, and their ability to comply (Singh, 2003).Taxpayer education exists to encourage voluntary compliance through service delivery to taxpayers. Low levels of voluntary tax compliance will compel revenue authority to use costly and coercive methods to enforce compliance (Fjeldstad and Ranker 2003). Kimingu and Kileva (2007) says that the education component will deal with compliance matters in the informal sector. This is premised on the possibility that non-compliance being unintentional due to the ignorance of the law or may be intentional due to the negative compliance attitudes. (Christina, Deboral and Gray, 2003).

2.4.3 Rate of tax

It is generally believed that a high tax rate is the main cause of tax evasion. Incentives to evade tax depend on the marginal rates of taxation because these govern the gains from evasion as a sum of the sum evaded (Kaldor, 1956).

One major tax evasion is the high personal income tax rates which tend to lead tax payers to evade tax. Too many and complicated rules and regulations imposed by the government tend to lead to tax evasion. Businesses find it generally difficult often not profitable to do business legally. The heavy taxation is also a subject of worry not only in developed countries like USA but also in Kenya and other less industrialized countries in Africa and Latin America. For instance, taxes in Kenya confront the large manufacturing sector in different shapes and shades example: import duties, export & excise duties, sales and VAT, withholdings and income taxes, and PAYE etc. (KRA, 2011)

The high levels of taxation of SMEs in Africa and in Kenya in particular, warrants attention on accelerated research areas aimed at addressing the overall effects of taxation on SMEs (Osambo, 2009) By studying taxation behavior in five different countries (USA, Gambia, Nigeria, South

Africa and Kenya), Derwent (2000) concluded that increased tax burden is a major threat. The results show that the increase in tax rates leads to higher production, distribution and selling costs which lead to higher prices and as a result consumers change their buying behavior. People react to the higher prices by buying less of the product. When sales fall, some manufacturers cut back on production and some workers may lose their jobs. The productive resources i.e. land, capital, labour and entrepreneurship are allocated to other industries or go unused.

For instance when the government increase taxes on items such as beer and cigarettes for the purpose of realizing revenue and discouraging their consumption people tend to buy local brews. Whenever prices increase due to increase in tax rates; prices of goods and service increase and there is a drop in the consumption rate and a decrease in sales volumes which leads to retarded growth of SMEs.

Tax payment is among the outflows of cash from the business which reduce the purchasing power of an enterprise. This is due to the fact that a large amount of cash collected is used to pay taxes rather than to expand the business. The study showed that the purchasing power of an enterprise drops immediately an organization pays taxes (Mika Mungaya, IJMBS Vol. 2, Issue 3, and July - Sept 2012).

Some studies suggest that high tax rates foster evasion. The intuition is that high tax rates increase the tax burden and, hence, lower the disposable income of the taxpayer (Chipeta, 2002) However, the level of the tax rate may not be the only factor influencing people's decision about paying taxes. In fact, the structure of the overall tax system has an impact as well. If, for example, the tax rate on corporate profits is relatively low, but individuals are facing a high tax rate on their personal income, they may perceive their personal tax burden as unfair and choose to declare only a part of their income. Similarly, large companies can often more easily take advantage of tax

loopholes, thereby contributing to the perceived unfairness of the system. Tax rates and the overall structure of the tax system, therefore, have a significant effect on the disposition to evade and avoid taxes.

2.4.4 Interest and penalties

Empirical studies on the impact of fines on tax compliance do not provide a clear picture on the relation between fines and tax compliance (Fischer et al, 1992). Keeping constant the expected value of a tax but changing audit probabilities and fines for non-compliance, it showed that compliance increased significantly with higher fines, but not with higher audit probabilities (Friedland, Maital and Rutenberg, 1978).Punitive penalties makes tax evasion more costly for the taxpayer hence leading to the reduction of tax evasion. Research studies show that more punitive fines and penalties can result in more tax avoidance (Kirchler, 2007).

Deterrence is effective when there is a combination of effective imposition of fines and frequent audits to detect cases of non-compliance.

Penalties and audit probabilities have a strong impact on tax compliance (Allingham and Sandmo, 1972).The Higher the fine, penalty and higher the potential of audit probability, the greater the deterrent effect on tax evasion. Extremely punitive tax penalties have no effect if it is common knowledge that tax audits will not occur. Fines should be set at a higher level to minimize the expected the value of tax evasion and assure its deterrent effect on taxpayers. The tax system would be viewed as unjust if fines are too high individuals would exploit any available opportunity to avoid tax payment (Kirchler et al, 2007).In Kenya, the penalty for non-submission or late filing of a VAT return is 5% of VAT payable or kshs.10, 000 per tax period whichever is higher.

Fines and penalties commonly relate to failure to; register, submit a return on or before the due date or submitting a payment return without paying the tax due, filing incorrect tax returns,

keeping inaccurate records, issue of improper tax invoice, failure to display a certificate of registration, and charging VAT when not registered among the many non compliance aspects.

2.6 Research gap

An important point to note is that the iTax online system was introduced at a time when the KRA was under increasing pressure to seal tax loopholes and widen its tax net. There was also the need to increase efficiency in tax collection procedures by automating these procedures in order to improve revenue inflows from taxes. The iTax rollout also came at a time when there was renewed and specific focus on the SMEs' tax compliance. The introduction was a welcome initiative, with the KRA aiming to promote equity among taxpayers by standardizing tax procedures

2.7 Summary

Governments today are under an increasing pressure to improve the delivery of public services in cost-effective ways. To meet this challenge for example tax authorities are turning to e-government led solutions like electronic tax filing and other ITAX systems functions (Muturi & Kiarie, 2015). To date, the use of ICT is prominent in business and tax settings. Notably, tax authorities around the world are using electronic tax administration systems to interact with taxpaying public in tax collection, administration and compliance settings. Technology has influenced the way we work, play, and interact with others. The use of technology to improve the effectiveness of tax administration, expand taxpayer services, and enhance tax compliance has come to attract increasing attention in developed and developing countries (Mutur & Kiarie, 2015). Worldwide; taxpayers' resistance, underutilization and reluctance to use electronic filing system remain a great concern and still plague various tax agencies which are embracing electronic tax administration systems. The importance of understanding and influencing

taxpayer's acceptance and embrace of ITAX system is critical, given the investment in technology and the potential for cost saving. Despite the increasing need to increase revenue collection and enforcement so as to provide public services, KRA still face the challenges of low tax compliance and tax administration. In view of this identified conceptual gap, this study aims to fill the void by discussing some of the teething effects of ITAX systems on revenue collection.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter presents the research method that was used in the research project. It includes the research design, study area, population of study or target population, sample design and procedures, data collection methods and data analysis procedures applied.

3.2 Research Design

The study used a descriptive research design. It involved gathering data that describes events and then organizes, tabulates, depicts and describes data. The research study adopted descriptive in nature since it seeks to describe and interpret the events and findings from the field. This was appropriate since it described the characteristics of the event and also enabled the researcher to view the sample by gathering complete and accurate data from the field for analysis. To ensure that the research suite internal and external validity, multiple sources of evidences was used to provide data from many sources to analyze and discuss the primary data that was collected to avoid errors. Descriptive studies portray the variables by answering who, what and how questions (Babbie, 2002).

3.3 Sampling Frame

Cooper and Schindler (2014) deem a sample frame to be a "listing of all population elements from which the sample was drawn. The target population for this study was drawn from the sampling frame.

3.4 Target Population

A population can be defined as a complete set of individuals, cases or objects with some common observable characteristics and a target population as that population to which a researcher wants to generalize the results of the study (Mugenda and Mugenda, 2003). The research targeted 98 SMEs in West of Nairobi Station.

3.5 Sample and Sampling Techniques

As it may be impossible to investigate the whole population, a sample was picked out which will represent the entire population. The study used census method to arrive at the sample size of 98. The purpose for census methods is because it's less costly and also the target population was less than 100.

3.5.1 Sampling Techniques

It refers to the technique or the procedure the researcher adopted in selecting items for the sample. The researcher used purposive random sampling technique in order to focus on the respondents that have the knowledge in iTax system. There is no set percentage that is accurate for every population but what matters is the actual number or size of the sample, not the percentage of the population.

3.6 Data Collection instruments

The study used closed ended structured Questionnaire to collect data. The questionnaire was distributed to 98 SMEs only because they are the ones who uses iTax systems on day today activities. Primary data was collected through a self-administered questionnaire.

The responses in the questionnaires helped gain an in-depth understanding. A questionnaire gathered statistically meaningful data on the perspectives of respondents on an issue of interest

based on a set of predetermined questions. According to Kothari (2008), a questionnaire is the most appropriate instrument for this study due to its ability to collect a large amount of information in a reasonably quick span of time hence why the questionnaire was an appropriate instrument for this study.

3.7 Data Collection Methods

3.7.1 Primary Data

The study used primary data. These are the data which are collected from some primary sources i.e. a source of origin where the data generate. These are collected for the first time by an investigator or an agency for any statistical analysis.

3.7.2 Secondary Data

The study used secondary data sources to complement primary data. These are the data which are collected from some secondary source i.e. the source of reservation storage where the data is collected by one person and used by other agency. These are collected as primary data and used by other as secondary data. According to Kothari (2004) secondary data involves data that was collected by use of the library, internet and books. Secondary data was drawn from the library, websites, newspapers, journals, books, financial publication, and magazines such as the frequency analysis relating to our study.

3.8. Pilot study

Before administering the research instruments to the respondents, pre-testing was carried out so as to help in determining the validity and reliability of the research tools to ensure that the questions are applicable and clearly understandable.

3.8.1 Reliability of the Research Instrument

Reliability of an instrument is the measure of the degree to which a research instrument yields consistent results or data after repeated trials (Cooper, 2003). Cronbach's Coefficient Alpha approach was used to measure internal consistency of the research instruments. Cronbach's Coefficient Alpha is a scale measurement tool appropriate in measuring internal consistency in descriptive survey researches as recommended by Cohen, Manion and Morrison (2007). Computation of Cronbach's Alpha was carried out using statistical package for social sciences (SPSS Version.24)..

3.8.2 Validity of the Research Instrument

Kothari (2008) defines validity as a sound measurement that indicates the degree to which an instrument measures what it purports to measure.

3.9 Data management

Data collected was screened with the purpose of cleaning any errors that occurred either due instruments of data collection and procedures, mistakes of research assistants or fatigue due to pressure of the respondents on deadline of collecting the instruments. Before data was exposed to statistical procedures and test such as multiple regressions, researcher will check the assumptions that the study variables were normally be distributed and whether samples that was selected is adequate. To ensure that there is no violation of the assumptions, this study was tested for multicollinearity and normality test.

3.10 Data Collection Procedure

Data collection procedures commenced upon approval of the proposal after its defense. An introduction letter was issued to the sampled entities for consent to collect data from the respondents. The questionnaires was administered to the respondents directly by the researcher with the help of two research assistants in order to save on time. For those respondents who was not available for a sit-in filling of the questionnaire, the respondent was used to drop and pick method to ensure they fill the questionnaires.

3.11 Data Analysis and Presentation

The study checked completed questionnaires for completeness and consistency. The data was analyzed using descriptive statistics. Responses in the questionnaires were processed by use of a computer Statistical Package for Social Science (SPSS) version 24) to analyze the data. The findings was presented using tables, charts and graphs for further analysis and to facilitate comparison. Frequencies and descriptive statistics were used to analyze the results and thereafter conclusions and recommendations were drawn from the findings.

a. The Qualitative Analysis

Qualitative data was collected through questionnaires then first edited and response rate calculated. The data is then categorized into different themes according to research variable and descriptive statistics such as mean, standard deviation and frequency distribution which according to Kothari (2012) measures the point about which items have a tendency to cluster and describe the characteristics of the data collected is computed.

b. The Quantitative Analysis

Quantitative data was analyzed using inferential statistics where both parametric (Chi- Square test) and non- parametric (Pearson correlation coefficient) test will be used. Chi-square test will

be used to test statistically significant difference between large and mutually unrelated parametric samples. The aim is to determine if the means of two unrelated samples differ.

Pearson correlation test was conducted to test level of significance between all independent variables and dependent variables. Pearson's correlation coefficient will be used as a measure of linear correlation.

c) Empirical Model

In multivariate analysis, multi-linear regression model was used in explaining decision to financial performance by testing variables used as the independent variables of the study. Multiple regression analysis measures the effects of multiple independent variables on one dependent variable. Multiple regressions was therefore be adopted to measure the effects of multiple independent variables on the dependent variable and effects of multiple independent variable.

Regression analysis was applied in all the cases where correlation was found to exist between the independent and dependent variables. It is important to carry out regression analysis so as to establish the extent of the influence exerted on the dependent variable by the independent variable.

A multiple regression model used to determine the relative importance of each of the four variables in relation to the study which sought to understand the effectiveness of tax payer education as a revenue collection strategy in KRA. The regression model that used for hypothesis testing was be as follows:

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

Where

Y= Revenue collection

X1 = Tax compliance costs

X2 = Technical skills and knowledge

X3 = Tax rates

X4 = Penalties and interest

B0 = constant of regression

ε. = error term

3.12 Measurement of Variables

.**Table 3.2: Measurement of Variables**

Variable	Indicators	Likert scale
Tax Compliance Cost	Cost of filling Cost of hiring a tax agent Cost of travelling	**5 points**
Technical skills and tax knowledge	Declaration of income Keep records Payment of taxes	**5 points**
Rate of tax	Fair tax rate High rate low	**5 points**
Penalties and interest	Punitive interests and penalties Periodic waiver of interests and penalties Non-compliant penalties	**5 points**
Revenue collection	Amount of revenue collection Efficient service delivery Reduce costs	

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.0 Introduction

This chapter represents the analysis, presentation and interpretation of the findings. In addition the findings are also discussed in relation to literature reviewed. It gives the empirical findings and results following the application of the variables using the techniques mentioned in chapter three in methodology.

4.1 Response Rates

Research's data collection instruments (questionnaires) were administered within a period of three weeks. Out of 98 questionnaires administered the researcher ensured a 95% response rate by personally administering the questionnaires with the help of research assistant. A total of 94 questionnaires were successfully completed and returned. Bailery, (2000) asserts that a response rate of 50 is considered good, and response greater than 70% is considered very good, therefore the response was very good. The findings are presented in Table 4.1.

Table 4.1: Response Rate

Response Rate	Frequency	Percent
Returned	94	95%
Unreturned	4	5%
Total	98	100

4.2 Reliability test results

Reliability is measure of the degree to which a research instrument yields consistent result after repeated trials (Mugenda & Mugenda, 2003). The results are depicted in tale 4.2 below.

Table 4.2: Reliability tests results

Constructs	Reliability Cronbach's alpha	No.	Comment
Tax compliance cost	0.722	6	Accepted
Technical skills and knowledge	0.743	6	Accepted
Rate of tax	0.784	6	Accepted
Penalties and interest	0.733	6	Accepted
Revenue collection	0.760	6	Accepted

The results of the reliability test produced an overall Cronbach Alpha correlation coefficient of 0.701 while specific findings indicated that, Tax compliance cost had a coefficient of 0.722, Level of tax knowledge had a coefficient of 0.743, Rate of tax had a coefficient of 0.784, Penalties and interest had a coefficient of 0.733 and revenue collection had a coefficient of 0.760. Table 4.2 shows that all the study variables yielded Cronbach alpha coefficients values of more than 0.7, which is the recommended value. This indicates that the instrument was reliable to obtain data on determinants of residential rental income tax compliance by property owners.

4.3 Test of Assumptions of the Study Variables

When the assumptions of the linear regression model are correct, ordinary least squares (OLS) provides efficient and unbiased estimates of the parameters (Long & Ervin, 1998). To ensure that there was no violation of the assumptions, this study tested for multicollinearity, autocorrelation and normality test.

a) Multicollinearity

To determine whether multicollinearity existed, collinearity test was conducted using, tolerance, and variance inflation factor (VIF). The collinearity results are presented in Table 4.3.

Table 4.3: Multicollinearity Test Results for the study of independent variables

Model	Collinearity Statistics Tolerance	VIF
Tax compliance cost	.822	1.34
Technical skills and knowledge	.813	1.133
Rate of tax	.843	1.154
Penalties and interest	.731	1.234
Value Added Tax compliance	.812	1.123

a. Dependent Variable: Revenue collection

Table 4.3 shows that the variables have a VIF that is less than 10 and tolerance value more than 0.1 ruling out the possibility of multicollinearity. Therefore, the results imply that there was no multicollinearity problem among the variables.

b) Autocorrelation test

Autocorrelation was tested using Durbin Watson test. This tested whether there is a (linear) correlation between the error term for one observation and the next. A Durbin Watson test value (d) takes on values between 0 and 4. A value of d = 2 means there is no autocorrelation

.**Table 4.4: Autocorrelation test**

Model	Durbin-Watson
1	2.011

a. Predictors: (Constant), Tax compliance cost, technical skills and knowledge, Rate of tax, Penalties and interest
b. Dependent Variable: Revenue collection

Autocorrelation was tested using Durbin Watson test in Table 4.4. This tested whether there is a (linear) correlation between the error term for one observation and the next.

A Durbin Watson test value (d) takes on values between 0 and 4. A value of d = 2 means there is no autocorrelation.

c) Normality test)

Normality was tested by use of The Shapiro-Wilk Test to test whether the score of the samples were normally distributed with the same mean and standard deviation. If the test is significant ($P<0.05$) then the distribution is not significantly different from a normal distribution, but if the test is non – significant ($P>0.05$) then the distribution of the sample is significantly different from a normal distribution (Kilungu et al., 2015). The results was significant.

Table 4.5: Tests of Normality

	Shapiro-Wilk		
	Statistic	**df**	**Sig.**
Tax compliance cost	.921	94	.196
Technical skills and tax knowledge	.933	94	.222
Rate of tax	.942	94	.187
Penalties and interest	.934	94	.265
Revenue collection			

Normality was tested by use of Shapiro-Wilk test as shown in Table 4.5. The tests results showed that the p-values for the variables > 0.05 as shown in table above illustrating that the standardized residuals were significantly normally distributed.

4.4 Descriptive Statistics

4.4.1 Effect of Tax compliance cost on revenue collection

The study sought to establish the effect of tax compliance cost on revenue collection in Kenya. Specifically, the study focused on the cost of filling tax return, cost of hiring a tax agent and The cost of travelling in order to file a return. Descriptive statistics results for tax compliance cost were conducted and presented on table 4.6 below; -

Table 4.6 Tax compliance cost

Statement	SA	A	U	D	SD	Mean	SD
Cost of filing a tax return	47.1	46.3	3.2	1.1	0	1.8	0.5
The Cost of hiring a tax agent	25.3	58.2	12.8	1.8	0	1.6	0.6
The cost of travelling in order to file a return	14.5	25.2	44.7	12.1	3.3	2.9	1.3

The findings on the statement tax compliance tax of the cost of filing a tax return contributes to revenue collection, 47.1 percent of the respondents strongly agreed, 46.3 percent of the respondents agreed, 3.2 percent of the respondents undecided and 1.1 percent of the respondents disagreed that the cost of filing a return contributes to revenue collection This show that majority of the respondents agreed that the cost of filing a return contributes to revenue collection. Regarding the statement on the cost of hiring a tax agent contributes to revenue collection, 25.3 percent of the respondents strongly agreed, 58.2 percent of the respondents agreed, 12.8 percent of the respondents undecided and 1.8 percent of the respondents disagreed respectively that the cost of hiring a tax agent contributes to revenue collection. These shows that majority of the

respondents agreed to the statement that the cost of hiring a tax agent contributes to revenue collection.

Regarding the statement of the cost of travelling in order to file a return **,** 14.5 percent of the respondents strongly agreed, 25.2 percent of the respondents agreed, 44.7 percent of the respondents undecided and 12.1 percent of the respondents disagreed and 3.3 percent of the respondents strongly disagreed respectively that the cost of travelling in order to file a return . This shows that the majority of the respondents were undecided to the statement that the the cost of travelling in order to file a return.

Table 4.6 the highest mean value was 2.9 which corresponds to the scale value of 3 in the questionnaire an indication that the respondents were indifferent on whether that the cost of travelling in order to file a return. On average, the results indicate that the tax compliance cost influences revenue collection respectively.

Tax compliance cost was assessed using five measures and the overall mean score or responses regarding capital allowance were 2.2 on a 5-point scale which indicates that majority of the respondents agreed that tax compliance cost affects the revenue collection in Kenya.

The average overall standard deviation of 0.72 infers that 68% of the response was spread within one standard deviation of the overall mean. The standard deviation statistical rule of 68%, 95% and 99.7% applies in all the interpretations in the rest of the documents. This means that one standard deviations has 68% of the data spread around the mean and 95% for two standard deviations and 99.7% for three standard deviation. The study findings are supported by a number of studies which includes (Franzoni, 2000)

4.4.2 Technical skills tax knowledge on revenue collection

The study sought to establish the effect of technical skills and tax knowledge on revenue collection in Kenya. Specifically, the study focused on the self-assessment and amended returns. Descriptive statistics results for tax amnesty were conducted and presented on table 4.7 below

Table 4.7 Technical skills and tax knowledge

Statement	*SA*	*A*	*U*	*D*	*M*	*Sd*
Small and Medium sized entrepreneurs have adequate knowledge on tax rate, basis of taxation and compliance requirements.	*36.3*	*53.2*	*7.5*	0	1.7	0.6
Knowledge about tax declaration of income role in determining Small and Medium sized entrepreneurs tax compliance	29.1	56.6	13.6	1.7	1.9	0.7
KRA has created a lot of public awareness on payment of taxes revenue collection.	30.5	76.1	3.4	0	1.2	0.5

The findings on the statement Small and Medium sized entrepreneurs have adequate knowledge on tax rate, basis of taxation and compliance requirements on revenue collection, 36.2 percent of the respondents strongly agreed, 53.2 percent of the respondents agreed, 7.5 percent of the respondents undecided and none of the respondents disagreed respectively that Small and Medium sized entrepreneurs have adequate knowledge on tax rate, basis of taxation and compliance requirements. This show that majority of the respondents agreed Small and Medium sized entrepreneurs have adequate knowledge on tax rate, basis of taxation. Regarding the statement on the Knowledge about tax laws plays a major role in determining Small and Medium sized entrepreneurs tax compliance, 29.1 percent of the respondents strongly agreed, 56.6 percent

of the respondents agreed, 13.6 percent of the respondents undecided and 1.7 percent of the respondents disagreed respectively that the. These shows that majority of the respondents agreed to the statement that the Knowledge about tax laws plays a major role in determining Small and Medium sized entrepreneurs tax compliance. Regarding the KRA has created a lot of public awareness on revenue collection, 39 percent of the respondents strongly agreed, 54.2 percent of the respondents agreed, 5.1 percent of the respondents undecided and 1.7 percent of the respondents disagreed KRA has created a lot of public awareness on revenue collection.

This shows that the majority of the respondents agreed to the statement that the KRA has created a lot of public awareness on revenue collection. On average, the results indicate that the Level of tax knowledge influences revenue collection. Technical skills and tax knowledge was assessed using five measures and the overall mean score or responses regarding tax amnesty were 1.66 on a 5-point scale which indicates that majority of the respondents agreed that level of tax knowledge affects the revenue collection.

The average overall standard deviation of 0.6 infers that 68% of the response was spread within one standard deviation of the overall mean. The standard deviation statistical rule of 68%, 95% and 99.7% applies in all the interpretations in the rest of the documents. This means that one standard deviations has 68% of the data spread around the mean and 95% for two standard deviations and 99.7% for three standard deviation. The study findings are supported by a number of studies which includes (Fjeldstad and Ranker 2003). Kimingu and Kileva (2007)

4.4.3 Effect of rate of tax on revenue collection

The study sought to establish the effect of tax rate on revenue collection in Kenya. Descriptive statistics results for Rate of tax on revenue collection was conducted and presented on table 4.8 below

Table 4.8 Tax rate

Statement	*SA*	*A*	*U*	*D*	*M*	*Sd*
Tax rate is fair to Small and Medium sized entrepreneurs	*39.3*	*52.2*	*9.5*	0	1.8	0.9
Small and Medium sized entrepreneurs are now willingly paying tax due high tax rate	30.1	57.6	13.6	1.7	1.6	0.9
The computation of tax on proceeds is simple for Small and Medium sized entrepreneurs to apply due to low rate	35.5	29	3.4	0	1.4	0.6

The findings on the statement tax rate is fair to Small and Medium sized entrepreneurs, 39.3 percent of the respondents strongly agreed, 52.2 percent of the respondents agreed, 9.5 percent of the respondents undecided and 1.8 percent of the respondents disagreed respectively that tax rate is fair to Small and Medium sized entrepreneurs. This show that majority of the respondents agreed that tax rate is fair to Small and Medium sized entrepreneurs. Regarding the statement on the Small and Medium sized entrepreneurs are now willingly paying tax due to the well-structured tax rate, 30.1 percent of the respondents strongly agreed, 57.6 percent of the respondents agreed, 13.6 percent of the respondents undecided and 1.7 percent of the respondents disagreed respectively that the Small and Medium sized entrepreneurs are now willingly paying tax due to the well-structured tax rate. These shows that majority of the respondents agreed to the statement that the Small and Medium sized entrepreneurs are now willingly paying tax due to the well-structured tax rate. Regarding the statement of the computation of tax on proceeds is simple for Small and Medium sized entrepreneurs to apply**,** 35.5 percent of the respondents strongly

agreed, 29 percent of the respondents agreed, 3.4 percent of the respondents undecided computation of tax on proceeds is simple for Small and Medium sized entrepreneurs to apply.

Table 4.8 the highest mean value was 1.8 which corresponds to the scale value of 2 in the questionnaire an indication that the respondents were indifferent on whether the computation of tax on gross rental proceeds is simple for property owners to apply. On average, the results indicate that the tax rate influences revenue collection in Kenya.

Tax rate was assessed using five measures and the overall mean score or responses regarding tax rates were 2.5 on a 5-point scale which indicates that majority of the respondents agreed that tax rate affects the revenue collection in Kenya.

The average overall standard deviation of 0.8 infers that 68% of the response was spread within one standard deviation of the overall mean. The standard deviation statistical rule of 68%, 95% and 99.7% applies in all the interpretations in the rest of the documents.

This means that one standard deviations has 68% of the data spread around the mean and 95% for two standard deviations and 99.7% for three standard deviation. The study findings are supported by a number of studies which includes (Kaldor, 1956).

4.4.4 Effect of Penalties and interest on revenue collection

The study sought to establish the effect of penalties and interest on revenue. Descriptive statistics results for Penalties and interest on revenue collection was conducted and presented on table 4.8 below;

Table 4.8 Penalties and interest

Statement	*SA*	*A*	*U*	*D*	*M*	*Sd*
Interests and penalties are very punitive to business owners	*37.3*	*52.2*	*9.5*	0	1.9	0.9
Periodic waiver of fines and penalties could encourage tax compliance	30.1	57.6	13.6	1.7	1.6	0.9
Small and Medium sized entrepreneurs file returns on time to avoid penalties of non-compliance on the iTax system	35.5	29	3.4	0	1.4	0.6

The findings on the statement Interests and penalties are very punitive to business owners, 37.3 percent of the respondents strongly agreed, 52.2 percent of the respondents agreed, 9.5 percent of the respondents undecided respectively that Interests and penalties are very punitive to business owners . This show that majority of the respondents agreed that Interests and penalties are very punitive to business owners. Regarding the statement on the Periodic waiver of fines and penalties could encourage tax compliance, 30.1 percent of the respondents strongly agreed, 57.6 percent of the respondents agreed, 13.6 percent of the respondents undecided and 1.7 percent of the respondents disagreed respectively that the Periodic waiver of fines and penalties could encourage tax compliance. These shows that majority of the respondents agreed to the statement that the Periodic waiver of fines and penalties could encourage tax compliance.

Regarding the statement of the Small and Medium sized entrepreneurs file returns on time to avoid penalties of non-compliance on the iTax system **,** 35.5 percent of the respondents strongly agreed, 29 percent of the respondents agreed, 3.4 percent of the respondents undecided that Small

and Medium sized entrepreneurs file returns on time to avoid penalties of non-compliance on the iTax system.

Table 4.8 the highest mean value was 1.9 which corresponds to the scale value of 2 in the questionnaire an indication that the respondents were indifferent on whether Interests and penalties are very punitive to business owners. On average, the results indicate that the penalties and interest influences revenue collection in Kenya.

Tax rate was assessed using five measures and the overall mean score or responses regarding tax rates were 2.5 on a 5-point scale which indicates that majority of the respondents agreed that tax rate affects the residential rental income tax compliance by property owners in Kenya.

The average overall standard deviation of 0.8 infers that 68% of the response was spread within one standard deviation of the overall mean. The standard deviation statistical rule of 68%, 95% and 99.7% applies in all the interpretations in the rest of the documents.

This means that one standard deviations has 68% of the data spread around the mean and 95% for two standard deviations and 99.7% for three standard deviation. The study findings are supported by a number of studies which includes (Kaldor, 1956).

4.5 Correlation Analysis

4.5.1 Correlation results on independent variables

Correlation shows the relationship existing between variables in the study. The study's dependent variable is revenue collection and the independent variables consist of tax compliance cost, level of tax knowledge, tax rate and penalties and interest.

The results depicted in table 4.9 below

Table 4.9: Correlation between independent variable and dependent variable

Variables		**Revenue collection**	**Tax compliance cost**	**Level of tax knowledge**	**Tax rate**	**Penalties and interest**
Revenue collection	Pearson Correlation	**1**				
	Sig. (2-tailed)					
Tax compliance cost	Pearson Correlation	0.444	1			
	Sig. (2-tailed)	0.002				
Level of tax knowledge	Pearson Correlation	0.421	.3421	1		
	Sig. (2-tailed)	0.001	.0014			
Tax rate	Pearson Correlation	0.443	.1240	.0621	1	
	Sig. (2-tailed)	0.003	.0120	.0043		
Penalties and interest	Pearson Correlation	0.434,	.3120	.0000	.1310	1
	Sig. (2-tailed)	0.000	.0031	0.0001	.0031	

In an attempt to show the relationship between the study variables and their findings the study used the Karl Pearson's coefficient of correlation (r). According to the findings as indicated in table 4.9, it was clear that there was a positive correlation between revenue collection and tax compliance cost as depicted by a correlation value of 0.444. This implies that tax compliance cost was linearly related to revenue collection. The study also depicted that there is a positive correlation between level of tax knowledge and revenue collection with a correlation value of 0.445. Another positive correlation was between Tax rate and revenue collection with a correlation value of 0.458 and a positive correlation between penalties and interest and revenue collection with a correlation value of 0.434. This shows that there was a positive correlation between tax compliance cost, level of tax knowledge, tax rates and penalties and interest and revenue collection. The findings of this study agreed with the study conducted by (Kaldor, 1956).

4.6 Regression Analysis

A multiple regression analysis was conducted to investigate the joint causal relationship between the independent variables and dependent variable rental revenue collection. This is represented by the overall model $Y = \beta_0 + \beta_1 \mathbf{x_1}^{z} + \beta_2 x_{2z} + \beta_3 x_{3z} + \beta_2 x_{2z}\, \boldsymbol{\varepsilon}\ldots$

a) Tax compliance cost

To evaluate the effect Tax compliance cost and revenue collection in Kenya.

Table 4.10: Model Summary of Tax compliance cost

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.437[a]	.197	.186	.87526	1.987

a. Predictors: (Constant), Tax compliance cost

b. Dependent Variable: Revenue collection

The R square value in table 4.10 in this case is 0.197which clearly suggests that there is a strong relationship between Tax compliance cost and Revenue collection as indicated in table above. This indicates that Tax compliance cost share a variation of 19.7% of Revenue collection

Table 4.11: ANOVA of Tax compliance cost

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.892	1	10.892	12.162	.000[b]
	Residual	42.767	154	.767		
	Total	54.648	155			

a. Dependent Variable: Revenue collection

b. Predictors: (Constant), Tax compliance cost

The ANOVA result in Table 4.11 showed that the overall model was a good fit since (F-value =12.162 and p-value=0.000<0.05).

Table 4.12: Coefficients of Tax compliance cost

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	.258	.115	-	2.257	.028
	Tax compliance cost	.403	.107	.446	3.765	.000

a. Dependent Variable: Revenue collection

Table 4.12 indicates that the regression weight for tax compliance cost was positive and significant (β= 0.403, t= 3.765, p < .05). Therefore, the null hypothesis was rejected at P < 0.05 level of significance implying that tax compliance cost has a significant relationship with Revenue collection. The regression estimate for tax compliance cost was 0.403; this indicates that a unit increase in tax compliance cost would result in 40.3% increase in Revenue collection.

b) Level of tax knowledge

To find out the effect of Level of tax knowledge on revenue collection in Kenya.

Table 4.13: Model Summary of Technical skills and tax knowledge

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.478[a]	.228	.207	.85515	2.006

a. Predictors: (Constant), Technical skills and tax knowledge
b. Dependent Variable: Revenue collection

The R square value in Table 4.13 was 0.228 which clearly suggested that there is a strong relationship between technical skills and tax knowledge and Revenue collection. This indicates that level of tax knowledge share a variation of 21.7% of revenue collection.

Table 4.14: ANOVA of Technical skills and tax knowledge

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	11.886	1	11.987	16.033	.000[b]
	Residual	42.643	154	.749		
	Total	54.648	155			

a. Dependent Variable: Revenue collection
b. Predictors: (Constant), Technical skills and tax knowledge

The ANOVA Table in 4.14 indicates that the overall model was a good fit since (F-value=16.033 and p-value=0.000<0.05)

Table 4.15: Coefficients of technical skills and tax knowledge

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	**Std. Error**	**Beta**	**t**	**Sig.**
1	(Constant)	.221	.104	-	2.041	.047
	Technical skills and tax knowledge	.451	.114	.468	4.001	.000

a. Dependent Variable: Technical skills and knowledge

Table 4.15 indicates that the regression weight for level of tax knowledge was positive and significant (β= 0.451, t= 4.001, p < .05). Therefore, the null hypothesis was rejected at P < 0.05 level of significance implying that level of tax knowledge has a significant relationship with revenue collection. The regression estimate for level of tax knowledge was 0.451; this indicates that a unit increase in technical skills and tax knowledge would result in 45.2% increase in revenue collection in Kenya.

c) Tax rate

To investigate the effect of tax rate on revenue collection in Kenya.

Table 4.16: Model Summary of Tax rate

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.421[a]	.177	.170	.87898	1.995

a. Predictors: (Constant), Tax rate
b. Dependent Variable: Revenue collection

The R square value in Table 4.16 is 0.177 which clearly suggests that there is a strong relationship between Tax rate and revenue collection as indicated in table above. This indicates that Tax rate share a variation of 17.4% of revenue collection.

Table 4.17: ANOVA of Tax rate

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	10.617	1	10.608	11.732	.00[b]
	Residual	44.035	154	.754		
	Total	54.647	155			

a. Dependent Variable: Revenue collection

b. Predictors: (Constant), tax rate

The ANOVA able in 4.17 indicates that the overall model was a good fit since (F-value=11.732 and p-value=0.000<0.05).

Table 4.18: Coefficients of tax rate

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.258	.115	-	2.235	.028
	Tax rate	.408	.108	.442	3.708	.000

a. Dependent Variable: Revenue collection

Table 4.18 indicates that the regression weight for Tax rate was positive and significant (β= 0.408, t= 3.708, p < .05). Therefore, the null hypothesis was rejected at P < 0.05 level of significance implying that Tax rate has a significant relationship with Revenue collection in Kenya. The regression estimate for Tax rate was 0.408 this indicates that a unit increase in Tax rate would result in 40.5% increase in Revenue collection in Kenya.

d) Penalties and interest

To evaluate the effect Penalties and interest and Revenue collection in Kenya.

Table 4.10: Model Summary of penalties and interest

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.447[a]	.199	.187	.89526	1.977

a. Predictors: (Constant), Penalties and interest

b. Dependent Variable: Revenue collection

The R square value in table 4.10 in this case is 0.199which clearly suggests that there is a strong relationship between penalties and interest and Revenue collection as indicated in table above. This indicates that penalties and interest share a variation of 19.9% of Revenue collection

Table 4.11: ANOVA of Penalties and interest

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.892	1	11.892	12.162	.000[b]
	Residual	40.767	154	.867		
	Total	52.648	155			

a. Dependent Variable: Revenue collection

b. Predictors: (Constant), Penalties and interest

The ANOVA result in Table 4.11 showed that the overall model was a good fit since (F-value =12.162 and p-value=0.000<0.05).

Table 4.12: Coefficients of Penalties and interest

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	t	
1	(Constant)	.268	.114	-	2.259	.027
	Penalties and interest	.404	.108	.444	3.865	.000

a. Dependent Variable: Revenue collection

Table 4.12 indicates that the regression weight for penalties and interest was positive and significant (β= 0.404, t= 3.865, p < .05). Therefore, the null hypothesis was rejected at P < 0.05 level of significance implying that penalties and interest has a significant relationship with revenue collection. The regression estimate for capital allowance was 0.403; this indicates that a unit increase in penalties and interest would result in 40.4% increase in Revenue collection

Table 4.19: Model Summary for independent and dependent variables

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.707[a]	.505	.453	.71722	2.001

a. Predictors: (Constant), Tax compliance cost, level of tax knowledge, tax rate and penalties and interest

b. Dependent Variable: Revenue collection

From the model summary The R square value in Table 4.19 is 0.502 which clearly suggests that there is a strong relationship between tax compliance cost, technical skills and tax knowledge, tax rate, penalties and interest and revenue collection as indicated in table above. This indicates that tax compliance cost, level of tax knowledge, tax rate, penalties and interest share a variation of 50.5% of Revenue collection in Kenya .

The overall goodness of fit was obtained through regressing the goodness of fit for all the independent variables. The results of the multiple regression indicate R^2= .505 and adjusted R=.453 as shown in Table 4.19. This is an indication that there is a strong relationship between independent variables and Revenue collection.

Table 4.19: ANOVA for independent and dependent variables

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	28.376	1	5.466	11.338	.000[b]
	Residual	28.262	155	.513		
	Total	45.629	155			

a. Dependent Variable: Revenue collection

b. Predictors: (Constant), Tax compliance cost, level of tax knowledge, tax rate, penalties and interest

The overall model significance was presented using the ANOVA test table. The results in Table 4.19 shows that the overall model was a good fit since (F-value=11.338 and p-value=0.000<0.05) for all independent variables meaning that null hypothesis is rejected and concludes that there is a relationship between different independent and dependent variables. The findings there imply that all independent variables were statistically significant in explaining revenue collection in Kenya. ANOVA was used to test whether the regression analysis model used is fit or the relationship of the variable just occurred by chance.

Significance of F ratio is used to determine whether model used was fit or not. If the F ratio is significant the model used is considered fit and vice versa. A P - value of less than 0.05 indicates that the F statistics is high and that the null hypothesis of independent needs to be rejected since it's not true. In this case the F ratio (F=11.338, P=.000[b]) was found to be significant hence the model used for analysis was fit.

Table 4.20: Coefficients of Overall Regression Model

Model		Unstandardized Coefficients		Standardized Coefficients		Sig.
		B	Std. Error	Beta	T	
1	(Constant)	.195	.096	-	2.054	.044
	Tax compliance cost	.312	.096	.234	2.266	.016
	Technical skills and tax knowledge	.241	.098	.355	3.560	.043
	Tax rate	.296	.096	.314	3.061	.022
	Penalties and interest	.315	.096	.244	2.366	.014

a. Dependent Variable: Revenue collection

$Y=\beta_0+ \beta_1 x_1 +\beta_2 x_2 + \beta_3 x_{3+\beta_4 x_4} +\varepsilon$…….

$Y = 0.195 +0.312X_1 +0.241X_2 +0.296X_3 + 0.315$ were significant with p- values of 0.044, 0.0.16, 0.043 + 0.014, respectively.

The regression equation above has established that taking all factors into account (tax compliance cost, level of tax knowledge, tax rate and penalties and interest) the findings reveals that assuming other variables are at zero a unit change (increase) in tax compliance cost will lead to a 0.312 increases revenue collection; a unit increase in level of tax knowledge will lead to a 0.241 increases value added tax compliance; a unit increase in tax rate will lead to a 0.296 increases revenue collection and a unit increase in penalties and interest will lead to a 0.315 increases revenue collection as shown in table 4.20. This infers that penalties and interest influences revenue collection to a great extent followed by tax compliance cost then tax rate while level of tax knowledge influence to a little extent revenue collection.

The regression coefficient results indicate a positive significant effect between tax compliance cost, level of tax knowledge, tax rate, penalties and interest and revenue collection.

4.7 Discussion of key Findings

The key findings of the study are discussed in this section as per study objectives.

4.7.1 Tax compliance cost and revenue collection

Tax compliance cost was assessed using five measures and the overall mean score or responses regarding tax compliance cost were 2.2 on a 5-point scale which indicates that majority of the respondents agreed that tax compliance cost on revenue collection in Kenya. The average overall standard deviation of 0.7 infers that 68% of the response was spread within one standard deviation

of the overall mean. Further collinearity analysis was done and the results showed that tax compliance cost had positive and significantly related to revenue collection (r = 0.456, p-value=0.00<0.05).

4.7.2 Technical skills and tax knowledge

Technical skills and tax knowledge was assessed using five measures and the overall mean score or responses regarding level of technical skills and tax knowledge were 1.6 on a 5-point scale which indicates that majority of the respondents agreed that level of tax knowledge affects the revenue collection Kenya. The average overall standard deviation of 0.0.66 infers that 68% of the response was spread within one standard deviation of the overall mean. Further collinearity analysis was done and the results revealed that technical skills and tax knowledge had a positive and significantly related to revenue collection (r = 0.431, p-value=0.00<0.05).

4.7.3 Tax rate

Tax rate was assessed using four measures and the overall mean score or responses regarding tax rate were 2.5 on a 5-point scale which indicates that majority of the respondents agreed that tax rate affects the revenue collection in Kenya. The average overall standard deviation of 0.74 infers that 68% of the response was spread within one standard deviation of the overall mean. Further collinearity analysis was done and the results showed that tax rate had a positive and significantly related to revenue collection (r = 0.458, p-value=0.00<0.05).

4.7.4 Penalties and interest

Penalties and interest was assessed using five measures and the overall mean score or responses regarding penalties and interest were 1.6 on a 5-point scale which indicates that majority of the respondents agreed that level of tax knowledge affects the revenue collection in Kenya. The

average overall standard deviation of 0.0.66 infers that 68% of the response was spread within one standard deviation of the overall mean. Further collinearity analysis was done and the results revealed that penalties and interest had a positive and significantly related to revenue collection ($r = 0.431$, p-value=$0.00<0.05$).

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

Chapter five outlines the summary of this research, conclusions and recommendations based on research findings and suggestion of areas which may require further consideration as far as future research is concerned.

5.1 Summary of the findings

The findings of the study have been summarized below as per the study objectives. The findings were supported by the frequencies of the responses

5.1.1 Tax compliance cost

The first objective of the study was to evaluate the effect of tax compliance cost on revenue collection in Kenya. Methods used to arrive at the findings included descriptive statistics, analysis of variance and regression analysis. The study found out that tax compliance cost had a significant positive influence on revenue collection. The overall mean score of responses regarding tax compliance cost indicated that majority of the respondents agreed that tax compliance cost affects the revenue collection in Kenya.

The reliability analysis results showed that all the coefficients of the constructs were positive and significant.

5.1.2 Technical skills and tax knowledge

The second objective of the study sought to find out` the effect of technical skills and tax knowledge on revenue collection in Kenya.

Descriptive statistics, regression analysis and analysis of variance were conducted. The study found out that level of tax knowledge had a significant positive influence on revenue collection.

The overall mean score of response regarding level of tax knowledge and revenue collection indicated that majority of the respondents agreed that level of tax knowledge affects the revenue collection in Kenya. Correlation results indicated that there was a positive and significant relationship between level of tax knowledge and revenue collection. It was therefore concluded that level of tax knowledge has significant positive effect on revenue collection.

5.1.3 Tax rate

The third objective of the study sought to investigate the effect of tax rate on revenue collection in Kenya. Descriptive statistics, regression analysis and analysis of variance were conducted. The study found out that tax rate had a significant positive influence on revenue collection.

The overall mean score of response regarding tax rate and revenue collection indicated that majority of the respondents agreed that tax rate affects the revenue collection compliance in Kenya. Correlation results indicated that there was a positive and significant relationship between tax rate and revenue collection. It was therefore concluded that tax rate has significant positive effect on revenue collection.

5.2 Conclusions

The aim of the study was to determine effect of factors affect revenue collection in Kenya.

Data collected and analyzed through both descriptive and inferential statistics established that all independent variables had significant effects on revenue collection.

5.2.1 Tax compliance cost

The study found out that tax compliance cost had a significant positive influence on revenue collection. The overall mean score of responses regarding tax compliance cost indicated that majority of the respondents agreed that tax compliance cost affects the revenue collection in Kenya. The reliability analysis results showed that all the coefficients of the constructs were positive and significant.

5.2.2 Level of tax knowledge

The study found out that level of tax knowledge had a significant positive influence on revenue collection. The overall mean score of response regarding level of knowledge and revenue collection indicated that majority of the respondents agreed that technical skills and tax knowledge affects the revenue collection in Kenya. Correlation results indicated that there was a positive and significant relationship between level of tax knowledge and revenue collection. It was therefore concluded that level of tax knowledge has significant positive effect on revenue collection.

5.2.3 Tax rate

The study found out that tax rate had a significant positive influence on revenue collection The overall mean score of response regarding tax rate and penalties and interest indicated

that majority of the respondents agreed that tax rate affects the revenue collection in Kenya.

Correlation results indicated that there was a positive and significant relationship between tax rate and revenue collection. It was therefore concluded that tax rate has significant positive effect on revenue collection.

5.2.4 Penalties and interest

The study found out that penalties and interest had a significant positive influence on revenue collection. The overall mean score of response regarding penalties and interest and penalties and interest indicated that majority of the respondents agreed that penalties and interest affects the revenue collection in Kenya. Correlation results indicated that there was a positive and significant relationship between penalties and interest and revenue collection. It was therefore concluded that penalties and interest has significant positive effect on revenue collection.

5.3 Recommendations.

The study found that Tax compliance cost, penalties and interest and tax rate significantly influences revenue collection. Based on study finding, this study recommends there is need for effective cost management when administering tax. Reduction in cost of compliance will increase the number of registered traders which will increase revenue collection.

Kenya revenue Authority should offer on a regular basis technical support to traders which will help them familiarize with tax systems in order to facilitate collection of revenue

collection. Technical support will help traders reduce the transaction time in serving their clientele and transparency in service delivery.

There is also need for training of traders from system developers on a regular basis in order to help the taxpayer in filing and paying of revenue collection.

The management of Kenya Revenue Authority should be frequently organizing workshops and seminars whereby they will be training the traders on proper use of tax systems in order to facilitate collection of revenue collection. The traders must have sufficient training in order to fully deploy use of tax systems to facilitate revenue collection..

The study also found that penalties and interest influences revenue collection. The study therefore recommends that the tax authority in Kenya (KRA) need to develop effective policies to develop a positive relationship and trust with taxpayers since this would encourage tax compliance on revenue collection.

The study further established that Tax rate encourage compliance with revenue collection. The study therefore recommends that the tax authority in Kenya (KRA) should reduce tax rates to encourage tax compliance revenue collection.

5.4 Suggestions for Further Research

This study recommends a similar study, which incorporates the views of the tax authority in Kenya to establish the factors behind revenue collection.

The study recommends an additional study on the other factors that influence revenue collection among SMEs.

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APPENDICES

APPENDIX 1

INTRODUCTION LETTER

Mary Githinji.
P.O Box 509
Nairobi, Kenya
26th April, 2019.

Dear Respondent,

RE: **DATA COLLECTION**

I am a student at KESRA currently undertaking a research study to fulfill the requirements of the Award of Post Graduate Diploma in Tax Administration on the factors affecting automated tax system on revenue collection in Kenya**.** You have been selected to participate in this study and I would highly appreciate if you assisted me by responding to all questions in the attached questionnaire as completely, correctly and honestly as possible. Your response will be treated with utmost confidentiality and will be used only for research purposes of this study only.

Kindly note that the study will be conducted as academic research and the information you provide will be treated as confidential. Your participation in the exercise is voluntary and so you are free to choose to or not to participate.

Thank you in advance for your co-operation.
Yours Faithfully,

Mary Githinji

APPENDIX 11

QUESTIONNAIRE

SECTION A: GENERAL INFORMATION

This section asks general questions about the respondent. Please use a Tick (✓) or (✗) in spaces provided or appropriately fill in the spaces as per questions provided

1) Please indicate your age bracket: 18-25 years (…) 26- 35 years (…) Over 35 years (…)

2) Gender Male (……) Female (…….)

3) What is your level of study? Certificate (…) Diploma (…) Undergraduate (…) Masters (…)

4) How many years of service do you have in the industry? Below 1 year (…) 1-10 years (…) 11-20 years (……) 21-30 years (……) Above 30 years (…..)

5) How many years have you worked at the ITAX Center, Nairobi?

   Below 1 year (……) 1-5 years (……) 5-10 years (……) above 10 (……)

SECTION B: FACTORS AFFECTING AUTOMATED TAX SYSTEM IN KENYA

This section asks general questions tax compliance. Please use a Tick (✓) or (x) in spaces provided or appropriately fill in the spaces as per the questions provided.

1. Strongly Agree 2. Agree 3. Not sure 4. Disagree 5.Strongly Disagree

SECTION B

1. EFFECT OF TAX COMPLIANCE COSTS

1) Evaluate the following statements and tick where appropriate under the choices below

Where: 1 – Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 - Agree or 5 - Strongly Agree

Statement	**1**	**2**	**3**	**4**	**5**
The cost of filing a tax return is fair					
The cost of hiring a tax agent high					
The cost of travelling in order to file a return is low					

2. EFFECT OF TAX KNOWLEDGE

II) Evaluate the following statements and tick where appropriate under the choices below
Where: 1 – Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 - Agree or 5 - Strongly Agree

Statement	**1**	**2**	**3**	**4**	**5**
Small and Medium sized entrepreneurs have adequate knowledge on tax rate, basis of taxation and compliance requirements.					
Knowledge about declaration of income					
KRA has created a lot of public awareness payment of taxes					

3. EFFECT OF PENALTIES INTERESTS

I11) Evaluate the following statements and tick where appropriate under the choices below

Where: 1 – Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 - Agree or 5 - Strongly Agree

Statement	**1**	**2**	**3**	**4**	**5**
Interests and penalties are very punitive to business owners					
Periodic waiver of fines and penalties could encourage tax compliance					
Small and Medium sized entrepreneurs file returns on time to avoid penalties of non-compliance on the iTax system					

4. EFFECT OF TAX RATES

iv) Evaluate the following statements and tick where appropriate under the choices below

Where: 1 – Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 - Agree or 5 - Strongly Agree

Statement	**1**	**2**	**3**	**4**	**5**
Value added tax rate is fair to Small and Medium sized entrepreneurs					
Small and Medium sized entrepreneurs are now willingly paying tax due to the well-structured tax rate					
The computation of tax on proceeds is simple for Small and Medium sized entrepreneurs to apply					

5). REVENUE COLLECTION

1) Evaluate the following statements and tick where appropriate under the choices below

Where: 1 – Strongly Disagree, 2 – Disagree, 3 – Neutral, 4 - Agree or 5 - Strongly Agree

Statement	**1**	**2**	**3**	**4**	**5**
The amount of revenue collected is as a results of itax system					
The itax system enhance revenue collection					
The itax systems reduce costs					

THANK YOU FOR YOUR PARTICIPATION

APPENDIX 111: BUDGET

DESCRIPTION	COST PER ITEM	TOTAL AMOUNT (Kshs)
Stationery Photocopying papers Pens, pencils, rubbers Ink cartridge (Printer) Files (12 rim binders)	10 reams @600/=	**20,000.00**
Personnel Questionnaires administrators Stastician		**20,000.00**
Transport and subsistence Vehicles Subsistence allowance		**10,000.00**
Communication Telephone Internet		**20,000.00**
Other Services Library services Purchase of periodicals and books		**40,000.00**
Total expected cost		**110,000.00**

APPENDIX 1V: WORK PLAN

ACTIVITY (2018)	DECEMBER(2018)	FEBRUARY(2019)	APRIL (2019)
Draft proposal			
Proposal presentation			
Designing the research instrument			
Proposal defense			
Field work & data Collection			
Data Entry / Analysis			
Report Writing			
Presentation of 1st draft			
Presentation of 2nd draft			
Submission of final report			