

**FACTORS AFFECTING RESIDENTIAL RENTAL INCOME TAX  
COMPLIANCE AMONG LANDLORDS IN NYERI MUNICIPALITY, NYERI  
COUNTY, KENYA**

**BY**

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**A RESEARCH PROJECT SUBMITTED TO THE SCHOOL OF BUSINESS  
AND ECONOMICS IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR THE AWARD OF DEGREE OF MASTERS IN  
TAX AND CUSTOMS ADMINISTRATION**

**MOI UNIVERSITY**

**2021**

## DECLARATION

### Declaration by Candidate

This research project is my original work and has not been presented for an award of degree in any other university or college.

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## **DEDICATION**

This research project is dedicated to my parents Mr. & Mrs. Ngunjiri, son Luis, sisters Cess, Carol and Martha, and my nephews Ryan & Vicky. You have been my pillar and motivation as I pursued this course.

## **ACKNOWLEDGEMENT**

My special thanks to Almighty God for His relentless love and mercies and having seen me this far. I would also like to pass my sincere gratitude to my supervisors Dr. Michael Muma and Dr. Zurah Mohammed for your continuance guidance through this project. Sincere appreciation to my family for your spiritual and moral support. May the almighty God bless and keep you.

## ABSTRACT

Taxation is the main source of government revenue used to finance its public expenditure. Increased government spending and the need to finance public activities have resulted to the government bringing into tax the real estate sector. However, the issue of tax compliance is a big challenge facing small, medium, large taxpayers and governments in both developed and developing countries as it threatens the capacity of tax authorities to raise the expected revenue. This is evidenced by many governments being unable to meet their target revenues collections. A report by Kenya Revenue Authority in 2012 reveals that less than 40% of landlords and other developers comply with tax requirements adding that the authority's ability to identify and capture all landlords in the tax net was not optimal. Therefore, this study sought to determine the factors affecting residential rental income tax compliance among landlords in Nyeri municipality. The specific objectives of this study were: to determine the effect of taxpayer knowledge, taxpayer education, compliance costs and deterrence sanctions on tax compliance of residential rental income tax among landlords in Nyeri municipality. The theories supporting this study included: the theory of planned behavior and economics deterrence theory. This study adopted explanatory research design with target population of 1,909 landlords and a sample size of 330 respondents in Nyeri Municipality using simple random sampling technique. The primary data was collected by use of close ended questionnaires. Data was analyzed using descriptive and inferential statistics and presented using statistical, graphical and a combination of both. The findings of this study indicated that taxpayer knowledge had a positive and significant effect on residential rental income tax compliance ( $\beta = 0.424$ ,  $p < 0.05$ ). Taxpayer education had a positive and significant effect on residential rental income tax compliance ( $\beta = 0.372$ ,  $p < 0.05$ ). Compliance costs had a negative and significant effect on residential rental income tax compliance ( $\beta = -0.218$ ,  $p < 0.05$ ). Lastly deterrence sanctions had a positive and significant effect on residential rental income tax compliance ( $\beta = 0.477$ ,  $p < 0.05$ ). The study concluded that tax knowledge, taxpayer education, cost of compliance and deterrence sanction affected residential rental income tax compliance among landlords in Nyeri municipality. Based on the findings, the study recommends that KRA should formulate policies on deterrence measures and taxpayer education to improve on revenue collection. Therefore, the study suggested that other areas for further research included effect of stakeholder sensitization program on tax compliance of residential rental income tax in Nyeri municipality.

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**ABBREVIATIONS AND ACRONYMS**

<b>GCP</b>	Gross County Product
<b>KNBS</b>	Kenya National Bureau of Statistics
<b>KRA</b>	Kenya Revenue authority
<b>NHC</b>	National Housing Corporation
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>SACCO</b>	Savings and Credit Cooperative Society
<b>SAS</b>	Self-Assessment System
<b>SME</b>	Small Medium Enterprise
<b>SPSS</b>	Statistical Package for Social Sciences
<b>VIF</b>	Variance Inflation Factor

## OPERATIONAL DEFINITION OF TERMS

- Costs of compliance:** Costs of compliance are the common costs a taxpayer has to incur in complying with tax obligations for example, time taken to complete tax returns, costs of hiring tax accountants, psychological costs such as stress, arising as a result of uncertainty that one is not sure that he/she has met all of the tax rules (Amayi & Machogu, 2013)
- Deterrence Sanctions:** Punitive measures that the law imposes for the performance of an act that is prescribed or for the failure to perform a required act (IAEA, 2017).
- Landlord:** Owner of a house, apartment, land, or real estate which is rented or leased to an individual or business, who is called a tenant or lessee. (LLI,1992).
- Residential Rental Income:** This is tax payable by resident persons (individual or company) on rental income earned for the use or occupation of a residential property (KRA, 2015).
- Tax:** This is a compulsory unrequited payment made to supra-natural bodies and does not include fines for tax offences (OECD, 1996).
- Tax Awareness** Taxpayer awareness is an effort or action accompanied by self-encouragement and willingness to perform the rights and obligations of taxation in accordance with the regulations (Rahayu et al., 2017).

- Tax Avoidance:** This is an arrangement of a taxpayer's affairs that is intended to reduce his tax liability and that although the arrangement could be strictly legal it is usually in contradiction with the intent of the law it purports to follow (OECD, 2010).
- Tax Compliance:** The ability of taxpayers to obey tax laws made by tax authority to inform their real income in tax return and to pay the amount of tax correctly in which it must be conducted at the right time appropriate with the tax regulation (Palil and Mustapha, 2011).
- Taxpayer education:** This refers to programs aimed at teaching taxpayers about their tax rights, responsibilities, and legal requirements (Gitaru, 2017).
- Tax Evasion:** Tax evasion is generally used to mean illegal arrangements where liability to tax is hidden or ignored, that is the taxpayer pays less than he is legally obligated to pay by hiding income or information from the Tax authorities (OECD, 2010).
- Tax Knowledge:** The ability to understand taxation laws, especially regarding tax registration, filing requirements and their willingness to comply (Abdu & Wondimu, 2019).

## CHAPTER ONE

### 1.0 Introduction

This chapter discusses the background of the study, statement of the problem, research objectives, and research hypotheses, significance of the study and the scope of the study.

### 1.1 Background of the study

Tax compliance is the degree to which a taxpayer complies (or does not comply) with the tax rules of their country, for example by declaring income, filing a tax return, and paying the tax due in a timely manner. According to (Simon and Clinton, 2002) Tax compliance is a continuum ranging from commitment to society's and government's objectives on the one hand, to law enforcement on the other. On the compliance side, (MC Barnet, 2001) differentiates between committed compliance, referring to taxpayers' willingness to pay taxes without complaining, capitulative compliance, describing taxpayers who give in and pay taxes, and creative compliance, which covers activities addressed to reducing taxes within the brackets of the law.

In developed countries like Malaysia, a study conducted by (Palil, 2010) demonstrates that demographic factors such as income levels, gender and age are positively correlated to tax compliance. He argued that female, higher income earners and older taxpayers are more tax compliant than other taxpayers. Statistics shows that In India only 36% of citizens are tax compliant while the rest are not. Nasiruddin et al., (2012) conducted a study of improving tax compliance in developing countries, he concluded that there are very low levels of tax compliance in Dhaka city, Bangladesh. Sawyer (2016) conducted a study in New Zealand which concluded that the frequent changes in tax legislation together with a complex tax system resulted to low levels of tax compliance.

Tax compliance remains a topical policy issue in most developing countries, as governments are seeking ways to improve efficiency in tax revenue collection to finance their increased budgets (Maseko, 2014). In most developing countries, tax administration is usually weak and characterized by extensive evasion, corruption, and coercion. In many cases, overall tax compliance levels are low and a large proportion of the informal sector of the economy escapes the tax net entirely (McKerchar and Evans, 2009). Many factors affect the low level of tax compliance in developing countries, such as attitudes, penalties, income, education, knowledge, corruption, high marginal tax rates, lack of availability of information and accounting systems, a large informal sector, weak regulatory systems, ambiguity in the tax law (Gitonga and Memba, 2018).

Ojochogwu and Ojeka (2012) did a study on factors affecting Tax Compliance among Small and Medium Enterprises (SMEs) in North Central Nigeria. They concluded that it is the problem of high tax rate that primarily contributes to non-compliance. A study conducted by Gcabo and Robinson (2007) revealed that some tax payers find South African tax system unfair thus resulting to low levels of tax compliance. Yidersal and Tilahun (2014) conducted a study of the determinants of tax compliance in Ethiopia, they concluded that perception on government spending; perception on equity and fairness of the tax system; penalties; personal financial constraint; changes on current government policies; and referral group are factors that significantly affect tax compliance behaviour.

Thananga et al., (2013) assessed the factors affecting compliance on Rental Income Tax Policy by landlords in Nakuru Municipality. He argued that cost of compliance played a key role in determining the level of compliance. Lucinde (2017) examined the



determinants of compliance levels with residential rental income tax among property owners in Nairobi county.

She concluded that tax compliance is dependent on penalties imposed for non-compliance and also audits. She cited that cases of high compliance to tax by taxpayers are due to fears of being sanctioned. Kuria (2011) assessed the factors affecting rental income tax compliance among landlords in Kilifi county. Based on the findings of his study, tax compliance levels with rental income tax in Kilifi County were low. He also discovered that Landlords and possibly the other citizens were not ready to comply with tax regulations because there is a feeling that there is no clarity on the advantages of paying taxes.

Rental income taxes are a fundamental source of revenue to government in both developing and developed countries. According to a recent study by OECD, rental property is the most heavily taxed type of asset in many OECD countries (OECD 2018). Taxation on rental income by KRA has been in existence since implementation of the income tax act of 1973. Kenya reintroduced rental income tax in the year 2016 as provided for in the income Tax Act of Kenya Cap 470 Section (6A). All landlords earning one hundred and forty-four thousand shillings but does not exceed ten million shillings during any year of income are required by the authority to pay 10% of the gross receipts' income by the 20<sup>th</sup> day of the following month. Kenyan taxation on income scheme works on a self-assessment basis. The government anticipates individuals to determine their own tax requirements and voluntarily pay whatever is due. By assigning the responsibility on individuals, the government eludes the expensive alternative of determining each taxpayer's obligation and exploit alternatives to collect taxes.

Nonetheless, one cost of depending so greatly on the voluntary compliance of individual taxpayers is that not all individuals voluntarily pay their taxes when due. Majority of landlords have been collecting rent by themselves or using unregistered agents making it difficult to trace their income for the purpose of taxation.

The move by the government to tighten the law on taxation on rental income amidst increasing cost of doing business in Kenya has received mixed reactions from landlords due to their impact on business. The government is in a move to enforce compliance with the rental Income tax and has introduced several measures.

One is withholding tax on rentals where appointed tax agent can withhold part of the rent and remit to KRA. Also, the taxman may get data from the electricity provider Kenya power for taxpayers' details who have requested to be supplied power at their rental properties. Such measures enable KRA to ascertain numbers of landlords collecting rental income even when they do not comply.

Nyeri is a town located at the Central Highlands of Kenya, about one hundred fifty kilometres North of Kenya's Capital, Nairobi. It is the county headquarters of Nyeri County with a population of 140,338 persons 49% male and 51% female. The population density is 837 persons per Km<sup>2</sup>. The main economic activities in Nyeri Municipality include agriculture, fishing, tourism and wildlife and mining. Unemployment level is 17.5% while poverty levels stand at 32.7%. Nyeri Municipality covers an area of 167km<sup>2</sup> of land. The residential housing sector in Nyeri has been slowly picking up, with most of the estates, having existed for less than 6-years. Some factors driving real estate investment in Nyeri municipality include government decentralisation of services, urbanisation, and growth of middle class in the region as well as relatively high levels of income. The residential market has majority of the

houses being owner-built and National Housing Corporation (NHC) probably being the only institutional developer in Nyeri, having constructed residential bungalows for sale. (Cyttonn, 2019)

According to Gross County Product (GCP) report 2019 by the Kenya National Bureau of Statistics (KNBS), Nyeri was ranked the 12<sup>th</sup> richest county in terms of GDP per capita in the country at \$ 958, with Nairobi coming in 1<sup>st</sup> with \$2,063 per capita (Cyttonn, 2019). The relatively high income is mainly boosted by the agricultural sector, which accounted for 34.4% of the gross county product illustrating higher purchasing power thus a growing demand for residential properties in Nyeri. However even with an increased demand in residential properties in Nyeri, tax compliance among landlords remains a big challenge.

## **1.2 Statement of the Problem**

Tax compliance levels have constantly remained minimal, even after use of sanctions such as penalties, audits, fines, and cessation of non-compliant taxpayers' businesses have not improved revenue collections to the expected targets.

A recent report concluded that roughly half of the landlords in London do not report their rental income (Tuomas et al., 2018). (Helhel et al., 2014), concluded that high tax rates and unfair tax systems in European countries contribute to high rate of non-compliance. Statistics shows that In India only 36% of citizens are tax compliant while the rest are not. A study conducted by (Nadia et al., 2019) in Malaysia shows that netizens find the Malaysian tax laws hard to follow while others have inadequate knowledge about the same. (Sawyer, 2016) conducted a study in New Zealand which concluded that the frequent changes in tax legislation together with a complex tax system resulted to low levels of tax compliance.

Developing countries like Nigeria failed to meet its tax revenue target of 8million naira in FY 2019 collecting total revenue of 5.26million naira. Ethiopia, like any other developing countries, faces difficulty in raising revenue to the level required for the promotion of economic growth. Hence, the country has been experienced a consistent surplus of expenditure over revenue for long period of time (Tesfaye, 2015).

A study by (Aiko & Logan, 2014) reveals that only 78% of South Africans and 64% in Botswana respectively support payment of taxes while the rest percentages do not.

According to a report by KIPPRA (2019) KRA has continuously performed below its targets. For instance in 2017/2018 financial year the authority collected Kes 1,853 billion against a set target of Kes 1,949 billion while in 2018/2019 financial year KRA was able to collect Kes 1,522 billion against a target of Kes 1,659 billion.

Lucinde (2017) examined the determinants of compliance levels with residential rental income tax among property owners in nairobi county. She concluded that high levels of non compliance are attributed to penalties imposed on taxes and a fear of being sanctioned. Kuria (2011) assessed the factors affecting rental income tax compliance among landlord in kilifi County. Based on the findings of his study tax compliance levels with rental income tax in Kilifi County were low. Many property owners are not disclosing full and correct information regarding their rental properties to avoid e-cruitment and payment of rental income (KRA 2019).

The main reason of low revenue collection performance can be attributed to high levels of tax non-compliance and poor tax administration (IMF 2015). In 2012 KRA revealed that less than 40% of landlords and developers had complied with tax requirements additionally, KRA ability to effectively identify and capture all landlords in the tax net is not optimal. The move by the government to tighten the law on taxation on rental

income amidst increasing cost of doing business in Kenya has received mixed reactions from landlords due to their impact on business. The problem of tax compliance is a growing international concern also facing landlords in Nyeri County. Although studies have been conducted by scholars globally, regionally, and locally on tax compliance, they do not bring out in totality all the factors which influence residential rental income tax compliance especially in Nyeri Municipality. Therefore, I conducted a study on factors affecting tax compliance on residential rental income tax among landlords in Nyeri Municipality using factors like tax knowledge, taxpayer education and awareness, compliance costs and deterrence sanctions which is a timely study, relevant and will add to knowledge gap.

### **1.3 Objectives of the Study**

The study was guided by general and specific objectives.

#### **1.3.1 General Objective**

The general objective of this study was to determine the factors affecting residential rental income tax compliance among landlords in Nyeri County, Kenya.

#### **1.3.2 Specific Objectives of the study**

The study was guided by the following specific objectives:

- i. To investigate the effect of tax knowledge on tax compliance of residential rental income tax among landlords in Nyeri municipality.
- ii. To establish the effect of taxpayer education on tax compliance of residential rental income tax among landlords in Nyeri municipality.
- iii. To assess the effect of cost of compliance on tax compliance of residential rental income tax among landlords in Nyeri municipality.

- iv. To determine the effect of deterrence sanctions on tax compliance of residential rental income tax among landlords in Nyeri municipality.

#### **1.4 Research Hypotheses**

The study was guided by the following research hypotheses.

**H<sub>01</sub>** Tax knowledge has no significant effect on tax compliance of residential rental income tax among landlords in Nyeri municipality.

**H<sub>02</sub>** Taxpayer education has no significant effect on tax compliance of residential rental income tax among landlords in Nyeri municipality.

**H<sub>03</sub>** Cost of compliance has no significant effect on tax compliance of residential rental income tax among landlords in Nyeri municipality.

**H<sub>04</sub>** Deterrence sanctions has no significant effect on tax compliance of residential rental income tax among landlords in Nyeri municipality.

#### **1.5 Significance of the Study**

The findings of this study were beneficial to the following stakeholders:

##### **Kenya Revenue Authority Management and Policy makers**

This study gives an insight to KRA to understand the challenges the landlords face in their quest to meet their tax obligation. This study will help KRA to come up with policies and regulations that will enhance voluntary tax compliance on rental income among taxpayers not only in Nairobi but all over the country. The study will aid in policy making by the government which can improve compliance levels of tax payment by the Kenyan landlords. This will help the government raise more domestic revenue from tax collection which will be used in realizing the government goals in Vision 2030.

**Landlords**

The Kenyan landlords will understand the critical role of voluntarily tax compliance as an engine to economic development and reduce noncompliance costs. This in return is going to improve the performance of the government and they will enjoy the low cost of doing business due to improved services by the government.

**Scholars and Researchers**

The study will add to the body of knowledge of attention to both researchers and academicians who pursue to discover or examine the factors influencing voluntarily tax compliance on rental income among the landlords in Nairobi or any other area. It will lay the basis of other studies to be carried on the same topic.

**1.6 Scope of the Study**

This study was limited to assessing the factors affecting tax compliance of residential rental income tax by landlords earning an annual income of between one hundred forty-four thousand to ten million in Nyeri Municipality, Nyeri County in the Republic of Kenya. The independent variables of the study were tax knowledge, taxpayer education and awareness, compliance costs and deterrence sanctions, while the dependent variable of the study was residential rental income tax. The research design adopted was explanatory research design. The target population comprised 1,909 landlords in Nyeri Municipality. A sample size of 330 respondents was selected using random sampling technique. The study focused on 2019/2020 financial years. This study assumed a geographical scope.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter presents the review of literature, review of concepts, theoretical framework, empirical review, and critique of reviewed literature, summary of literature review, and research gaps and conceptual framework.

#### **2.1 Review of Concepts**

This section contains review of concepts studies related to the variable of the study

##### **2.1.1 Tax compliance**

Taxation is a vital root to generate national income as the main source of government revenue to finance its public expenditure. Taxation offers a predictable and stable flow of revenue to fund development projects in most countries across the world such as the provision of infrastructure like good roads, stable power supply, stable water supply all of which combine to create an enabling environment for businesses and in turn the economy at large to grow (Ojochogwu and Ojeka, 2012). However, one of the main challenges to taxation is tax compliance. Tax compliance can be defined as the ability and eagerness of taxpayers to comply with tax laws, announce the accurate income in each year and pay the exact amount of taxes on time (Singh, 2003). According to Kasipillai (2014) tax compliance is defined as the accurate reporting of income and claiming of expenses in accordance with stipulated tax laws.

One of the measures that have been implemented to increase revenue collection in Kenya was the introduction of self-assessment systems (SAS) in 1992. The objective of this system was to increase voluntary compliance, reduce tax authorities' burden of assessing tax returns and increase tax collection efficiency (reduce tax collection costs),



(Muoki & Osebe, 2014). However, despite various administrative reforms, levels of tax compliance have remained quite low.

### **2.1.2 Tax knowledge**

Tax knowledge is an essential element in a voluntary tax compliance system (Kasipillai, 2014). Tax knowledge as one of the factors influencing tax compliance is related to the taxpayers' ability to understand taxation laws, especially regarding tax registration, filing requirements and their willingness to comply (Abdu & Wondimu, 2019). Therefore, understanding taxpayers' knowledge and compliance behaviour is an important issue for any government and tax collecting authority particularly in a self-assessment environment. Commonly Citizens have limited knowledge on government true expenditures and the cost of public services provided by the government. Therefore, taxpayers without tax knowledge are compelled to solicit the service of tax professionals. Tax knowledge can be learnt by self-learning, taking formal education, and taking the informal ones. The government also takes many actions to socialize tax rules and policies where taxpayers can learn from. Unfortunately, not all people give their best attention to acknowledge the rules, some of them assume that tax is a burden that should be denied (Hastuti, 2014).

Studies conducted by different researchers such as (Ahmed & Kedir, 2015), (Palil, 2010), (Abdu & Wondimu, 2019) showed that tax knowledge has a positive and significant impact on tax compliance. However, a study of (Engida and Baisa, 2014) indicated that tax knowledge was not significantly correlated with tax compliance.

### **2.1.3 Taxpayer education**

Education is a key determinant of tax compliance. It relates to a taxpayer's ability to understand and comply or not to comply with tax laws (Ahmed & Kedir, 2015). High

public tax awareness are forms of national and civic responsibility which encourages people to fulfil their obligations to register as taxpayer reporting and paying taxes properly.

Even though many institutions and scholars have recognised the importance of taxpayer education and the relationship it has with tax compliance, they have at the same time lamented that taxpayer education has not been sufficient in informing taxpayers of their tax obligations (Mbilla et al., 2020). Most citizens do not have much understanding of what tax laws mean and why the tax system is structured and administered as it is (Oladipupo & Obazee, 2016).

Through taxpayer education, the taxpayer is aware of the rights, obligations, and the procedures of paying taxes as well as the consequences of non-compliance (Amayi & Machogu, 2013). The level of education received by taxpayers is an important factor that can contribute to the understanding of tax requirements, especially regarding registration and filing requirements (Maseko, 2014). A study conducted by (Ahmed & Kedir, 2015) indicate that education has a positive and significant impact on tax compliance; when there is an improvement in educational background of the taxpayer, a decline in tax compliance attitude could be expected.

#### **2.1.4 Compliance cost**

Compliance costs associated with taxation are major impediments to prompt compliance behaviour of taxpayers (Muturi and Thiga, 2015). Compliance costs, monetary and in terms of time and effort, can create barriers for tax compliance. High-level of tax rates and complex tax legislations can result to various tax crises like tax evasion and tax fraud.

Research by (Luigi, 1998) concluded that companies will create a kind of resentment against authorities who impose too high levies and too complex tax systems which accelerates tax avoiding systems.

He also argued that due to the complexity of tax systems, most companies rely on external tax professionals who by means of advanced tax avoidance engineering will minimize tax payments (Luigi, 1998). Some elements of costs of tax compliance may include audit costs, travelling, administrative costs and others. Administrative costs are the costs that exist besides the occurrence of compliance costs that are borne by the companies. Compliance costs can also be divided into three components time spent, cash expenses and psychological costs.

These costs are assumed as costs that the government must also consider as a public cost to ensure that the tax legislation is obeyed.

### **2.1.5 Deterrence sanctions**

Deterrence is based on the concept that the risk of detection and punishment will improve compliance behaviour (OECD, 2010). Deterrence can be achieved through some approaches, punitive and persuasive which may take the form of increasing the chances of detection, increasing tax rates or by imposing higher penalties (Ahmed & Kedir, 2015) . The relationship between deterrence and tax compliance is complex. Research on the effect of deterrence conducted by revenue bodies and academic research show different results. (Braithwaite, 2008) describes deterrence as a double-edged sword.

Deterrence can strengthen the moral obligation to pay tax as it points out what is the right thing to do, unfortunately deterrence can also create resistance from the taxpayer

by feelings of oppression. Thus, deterrence can have a positive or negative effect on compliance.

The question therefore is not whether revenue bodies should use deterrence, but how it can be used most effectively. (Muoki & Osebe, 2014), argues that taxpayers, when made to pay higher fines for evading taxes, deters them from future evasion. Tax penalties may have both positive and negative impact on taxpayers. If tax penalties are fair and acceptable, they strengthen taxpayers' compliance. If they are perceived as oppressive, they are likely to create resistance and result in even more non-compliance (Ali et al., 2014).

## **2.2 Theoretical Framework**

A theoretical framework can be defined as one that introduces and describes the theories that explain why the research problem under study exists (Kothari, 2004). This study was guided by the following theories namely: economic deterrence theory and the theory of planned behaviour.

### **2.2.1 Economic Deterrence theory**

The economic deterrence theory was originally developed by (Allingham Sandmo, 1972). This theory is based on the concept that, if the consequence of committing a crime outweighs the benefit of the crime itself, the individual will be deterred from committing the crime. The economic deterrence theory states that taxpayer behaviour is influenced by factors determining the benefits and cost of evasion, such as the tax rate, the probability of detection and penalties for fraud (Ali et al., 2014). (Allingham Sandmo, 1972) argues that tax compliance depends heavily on the probability of detection and the tax rates. The theory emphasizes the benefits that can accrue individuals who comply with the law. The model then predicts substantial

noncompliance (Ali et al., 2014). Therefore, according to the theory, in order to improve compliance, penalties for non-compliance should be increased. Thus, there is a generally positive relationship between tax penalty and tax compliance. Increase in tax penalty would lead to an increase in tax compliance and vice versa (Oladipupo & Obazee, 2016).

The economic deterrence theories hold that taxpayers are a moral utility maximiser influenced by economic motives like profit maximization. Therefore, they analyse alternative compliance paths for instance whether or not to evade tax (Thananga et al., 2013). A moral but risk averse taxpayer, with true income would choose the fraction of income to declare to tax authorities to maximize her/his expected utility of income.

### **2.2.2 The Theory of Planned behaviour**

This theory arises due to high disparities in the display of behaviours (Ajzen, 2011). Theory of planned behaviour indicates that the behaviour of a person is encouraged by three factors, first factor is behavioural belief, which is an outcome belief, and evaluation of results. Confidence and evaluation of results will form a variable attitude towards a certain behaviour. The second factor is normative belief. It is an individual belief in the normative expectations of other people such as family, friends, corporate leaders, tax officers, and tax consultants.

Normative expectation forms a subjective norm of behaviour. The third factor is control belief, which is individual belief about the existence of events or ideas that encourage their behaviour and perceptions of how strongly the two influence their behaviours. Control belief forms a perceived behavioural command.

Pertaining to the theory of planned behaviour, taxpayers will consider attitudes, subjective norm, and control perceived behaviour in constructing their intention to

comply with the tax laws (Ajzen, 2011). Some researchers demonstrate that empirically, the attitude of tax compliance, subjective norm, perceptual behaviour, and perceptions of taxpayers towards the government have some effect on the intention to comply with the tax obligations (Damayanti et al., 2015). (Alabede et al., 2011), conducted a study in Nigeria and concluded that indicates taxpayer's attitude towards tax evasion is positively related to compliance behaviour.

Research conducted by (Bobek and Hatfield, 2003) empirically proves that subjectivity and perceived behavioural control are variables that influence the tax compliance.

## **2.3 Empirical Literature Review**

### **2.3.1 Tax knowledge and Tax Compliance**

A study by (Palil, 2010) asserts that tax knowledge is necessary to increase public awareness on taxation rules and the role of taxation in national development. Once individuals have the knowledge pertaining the importance of taxation, they will be influenced to comply without any enforcements or pressure on them. In addition, attitude towards taxation can also be improved through taxation knowledge, thus when a taxpayer has a positive attitude toward tax, this may influence him or her to comply (Eriksen and Fallan, 1996)

(Abdu & Wondimu, 2019), examined the level of tax compliance by taxpayers and its determinant factors in Bench Maji, Sheka and Kaffa zones of Southwest Ethiopia. Findings of their investigation showed that tax compliance was positively affected by tax knowledge, simplicity of the tax system, attitude of tax payers towards tax, perceived role of government expenditure, and rewarding scheme of for loyal tax payers. But, age, sex of respondents, tax penalties and enforcements, organizational

strength of the tax authority, fairness of the tax system, tax rate and tax audit were not statistically significant factors influencing compliance behaviour of taxpayers.

(Thananga et al., 2013), assessed the factors affecting compliance on Rental Income Tax Policy by landlords in Nakuru Municipality. He argued that knowledge on rental income tax policy was low especially on the provisions of the policy itself which also contributed to high levels of non-compliance. He also cited that cost of compliance played a key role in determining the level of compliance which are both direct taxes and indirect tax costs such as auditing costs, costs of hiring personnel and experts for the purposes of compliance.

### **2.3.2 Taxpayer education and Tax compliance**

(Adimassu and Jerene 2015), did a study on determinants of voluntary tax compliance behaviour in self-assessment system in Ethiopia concluding that education has a positive influence on tax compliance. (Abdu & Wondimu, 2019), did an analysis of Tax Compliance and its Determinants in Kaffa, Bench Maji, and Sheka Zones Ethiopia. Their findings concluded that tax compliance is positively affected by education levels of taxpayers.

(Mbilla et al., 2020), conducted a study of the relationship between taxpayer education and tax compliance in Ghana, their results indicated a strong but negative correlation between taxpayer education and tax compliance.

(Machogu and Amayi, 2013) analysed the effects of taxpayer education on voluntary tax compliance among SMEs in Tanzania. Their findings revealed that the level of taxpayer education affects tax compliance.

### **2.3.3 Tax Compliance costs and tax compliance**

(Kirchler and Wahl, 2010), developed a standardised inventory to measure different facets of tax compliance and non-compliance. They concluded that voluntary compliance originates from spontaneous willingness to cooperate, emanating from taxpayers' moral obligation to contribute to the public welfare while enforced compliance states that tax payments according to the law arise from taxpayers' concern of being audited and fined. (Muoki & Osebe, 2014) analysed factors affecting Tax Compliance in Real Estate Sector in Nakuru Town.

Their study findings revealed direct evidence that tax compliance cost is a contributory factor to tax compliance, and an indication of its magnitude effect. The study also provides some preliminary evidence that fines and penalties play a vital role in improving tax compliance. Specifically, for a tax system with fair tax rates of fines and penalties, tax compliance is likely to improve.

The results also inferred that perceived opportunity for tax evasion has a significant effect on tax compliance. This is because through opportunity, induced opportunity to cheat increased non-compliance regardless of whether the participants intended to be non-compliant or not.

(Muturi and Thiga, 2015), studied the factors that influence compliance with Tax Laws among Small and Medium Sized enterprises in Kenya. Their finding reveals that tax compliance cost and tax rates have the most significant effect on tax compliance. In other words, Kenyans are not ready to incur extra cost for them to pay tax. (Mukabi, 2014), analysed the factors influencing turnover tax compliance in the Kenya Revenue Authority in the Domestic Taxes Department in Nairobi County.



He concluded that taxpayers are not aware of their responsibilities; however, the result also indicated that other factors like cost of compliance and complicated systems result into the low levels of compliance.

#### **2.3.4 Deterrence sanctions and Tax compliance**

(Ojochogwu and Ojeka, 2012), did a study on factors affecting Tax Compliance among Small and Medium Enterprises (SMEs) in North Central Nigeria. They concluded that it is the problem of high tax rate that primarily contributes to non-compliance therefore pushing most SMEs to remain in the informal sector. (Lucinde, 2017) examined the determinants of compliance levels with residential tax income tax among property owners in Nairobi county. She suggests that tax compliance is dependent on penalties imposed for non-compliance and also audits. She cited that cases of high compliance to tax by taxpayers are due to fears of being sanctioned.

(Kuria, 2011) assessed the factors affecting rental income tax compliance among landlords in Kilifi county. Based on the findings of his study tax compliance levels with rental income tax in Kilifi County were low.

He also discovered that Landlords and possibly the other citizens were not ready to comply with tax regulations because there is a feeling that there is no clarity on the advantages of paying taxes. (Ondimu, 2010), conducted a study on effects of tax reforms on compliance of SMEs in Kisumu County Kenya. He argued that SMEs tax behaviours negatively affect the tax compliance. He also suggests that KRA administration reforms, influences tax compliance of the SMEs taxpayers in Kisumu town. Gitonga and Momba (2018) studied the determinants of tax compliance by public transport savings and credit cooperative societies in Kenya; Kiambu County concludes that tax deterrence sanctions like fines and penalties negatively influence tax

compliances by public transport savings and credit cooperative societies in Kenya. He further concludes that tax compliance costs by public transport savings and credit cooperative societies influences tax compliance levels negatively. He ends by concluding that tax knowledge levels have a positive influence on tax compliance by public transport SACCOs in Kenya.

#### **2.4 Critique of Reviewed Literature**

Several studies have been done both globally and locally about factors affecting tax compliance among taxpayers. (Hery and Jasman, 2019), conducted a study in Indonesia of the factors affecting compliance with tax regulations focusing on planned behaviour analysis. They studied factors like equity perception, moral and norms and detection risk concluding that equity perception has a positive and significant effect towards tax compliance intentions while morals and Social Norms has a positive and significant effect towards tax compliance intentions. (Adimassu and Jerene 2015), studied the determinants of voluntary tax compliance behaviour in self-assessment system in Ethiopia.

They analysed economic, social, demographic and institutional factors concluding that tax knowledge, simplicity of tax returns and administration, perception on fairness and equity, perception on government spending, probability of auditing, and the influence of referral group were determinant factors that influence voluntary compliance behaviour of taxpayers'.

Abdu & Wondimu (2019) examined the level of tax compliance by taxpayers and its determinant factors in Bench Maji, Sheka and Kaffa zones of Southwest Ethiopia. They analysed demographic factors like age, gender etc but did not look at costs of compliance as a variable. Lucinde (2017) examined the determinants of compliance levels with

residential tax income tax among property owners in Nairobi county supporting her study with the Allingham-sandom theory and fiscal exchange theory. Kuria (2011) assessed factors affecting rental income tax compliance among landlord in Kilifi county. (Thananga et al., 2013), analysed factors affecting compliance on Rental Income Tax Policy by landlords in Nakuru Municipality using convenience sampling technique. (Gitonga and Memba, 2018) studied the determinants of tax compliance by public transport savings and credit cooperative societies (SACCO) in Kenya; Kiambu county.

### **2.5 Summary of Literature Review and Research gaps**

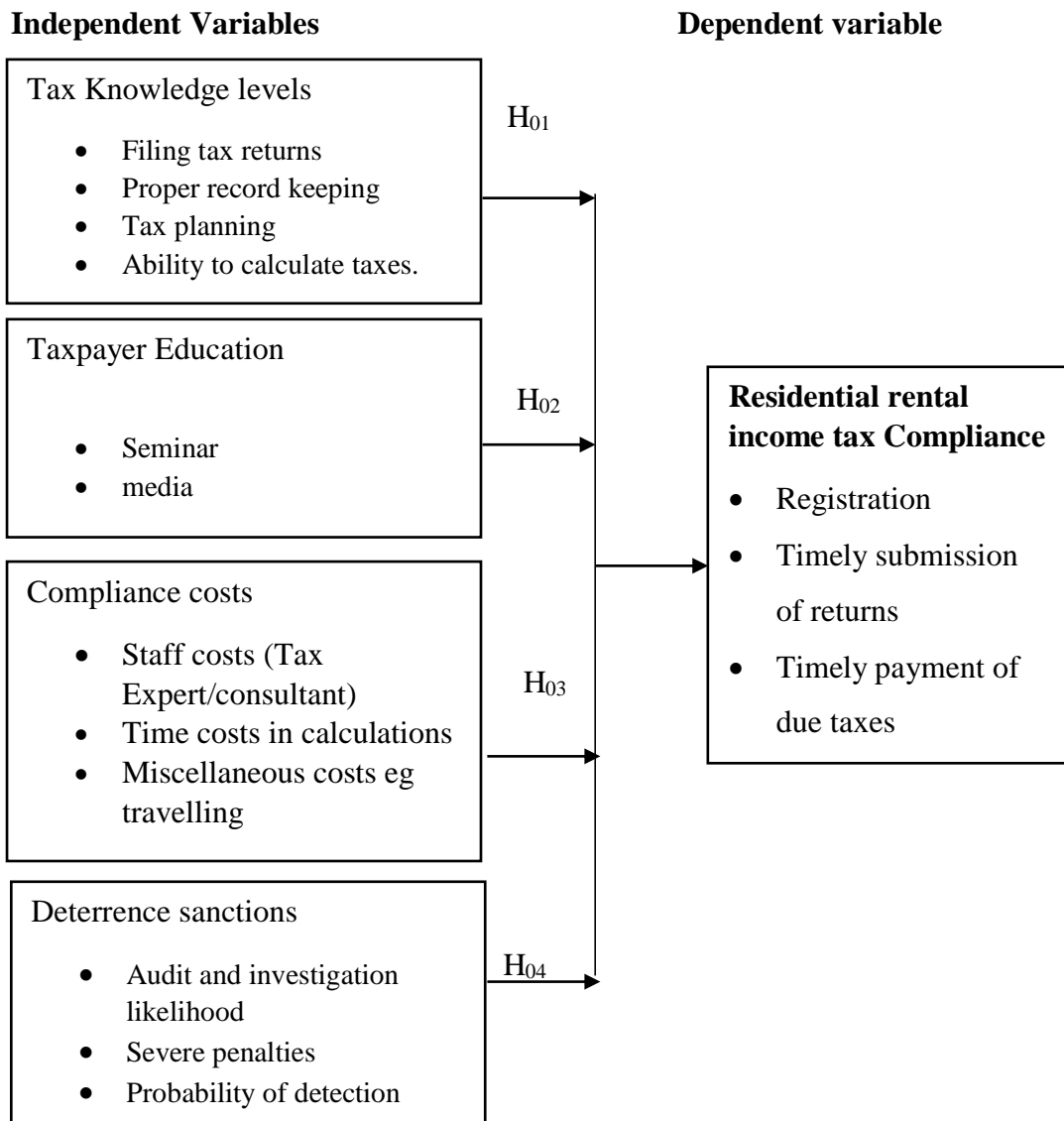
This chapter seeks to explain the various factors affecting tax compliance, like taxpayers' knowledge, education and awareness of tax policies, costs of compliance and deterrence sanctions like penalties. From the review, conceptual, contextual and methodological gaps are identified. (Abdu & Wondimu, 2019), examined the level of tax compliance by taxpayers and its determinant factors in Bench Maji, Sheka and Kaffa zones of Southwest Ethiopia. Findings of their investigation showed that tax compliance was positively affected by tax knowledge, simplicity of the tax system, attitude of tax payers towards tax, perceived role of government expenditure, and rewarding scheme of for loyal tax payers. However, the study was conducted in Ethiopia.

(Muturi and Thiga, 2015), studied the factors that influence compliance with Tax Laws among Small and Medium Sized enterprises in Kenya. Their finding reveals that tax compliance cost and tax rates have the most significant effect on tax compliance. The current study attempts to specifically explore factors affecting residential rental income tax compliance among landlords in Nyeri municipality.

A research gap is an unexplored topic or chapter revealed during a literature search that has a scope for research or further exploration (Mugenda and Mugenda, 1999). Many studies have been done including (Kuria, 2011) who assessed the factors affecting rental income tax compliance among landlord in Kilifi county. Based on the findings of his study tax compliance levels with rental income tax in Kilifi County were low. No study has been done that explored on factors affecting residential rental income tax compliance by landlords in Nyeri Municipality. This is a gap that this study aims to fill.

## 2.6 Conceptual Framework

A conceptual framework is a pictorial expression of the variables of a study showing the way they interact with one another (Kothari, 2004).



**Figure 2.1: Conceptual Framework Researcher (2021)**

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter explains the methodology which the study adopted. This included research design, target population, sampling frame, sampling techniques and sample size, data collection tools and data analysis and presentation.

#### **3.2 Research Design**

A research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure (Kothari, 2004). It is basically the structure and plan of an investigation (Mugenda and Mugenda 2003, Orodho 2008). In this study the Explanatory research design was used to specify the nature and direction of the relationship between variables being studied. The goal is often to generalize the results to the population from which the sample is selected (Fowler, 2002).

#### **3.3 Target Population**

(Kothari, 2004) defines population as an aggregate of items possessing a common trait or traits. The population of this study was 1,909 residential property owners in Nyeri municipality, National Bureau of Statistics (2019), Nyeri County Government).

#### **3.4 Sample size and Sampling Techniques**

A sample is an entity selected from a population with the objective of identifying and estimating the characteristics of a population (Cramer, 2004). Samples can either be probability or non-probability samples.

With probability samples, each element has a known chance of being included in the sample while non-probability samples do not allow the researcher to determine this probability (Kothari, 2004). This study adopted a random sampling technique. To determine a sample size from the population in Nyeri Municipality, Slovin's mathematical formula was used by considering total population, sampling error and the level of reliability. It was assumed that the sample had 95% reliability about the population and a margin error of 5% as follows  $n = N / (1 + Ne^2)$ .

Where;

N is total population size.

n is Sample size.

e is Margin error.

$$= 1909 / (1 + 1909 * .05^2)$$

Sample size is 330.

### **3.5 Data Type and Data Collection Methods**

Data collection is the process of gathering information on variables of interest in an established systematic manner that enables one to answer the research questions (Saunders et al., 2014). There are two broad methods of data type: primary and secondary data. Primary data is fresh data collected by the researcher on the ground, while secondary data is data collected from journals, thesis, and magazines, published statistics etc. In this study data was collected by self-administered questionnaires. The reason for using a questionnaire is that opinions from respondents were collected in a structured manner and it helped to quantify the information.

Putting the research objectives of the study into consideration, data was collected using well-structured close ended questionnaires to obtain precise and accurate information from the respondents. Close ended questionnaire was prepared in the form of five Likert-scale where 5=strongly agree, 4=Agree, 3=Neutral, 2=Disagree and 1=strongly disagree. Likert-scale is reliable because it provides an opportunity for each statement in the instrument to be answered by the respondents. It is also easy to construct.

### **3.5.1 Pilot Testing**

Pilot testing is defined as a type of software testing that verifies a component of the system or the entire system under a real time operating condition (Guru 99, 2021). The purpose of the pilot test is to evaluate the feasibility; validity and reliability, of the measuring instrument and trustworthiness of the respondents for data collection to establish how appropriate, understandable, and practical the instrument is. It is also done to address any problems prior to the main study and to check the time required for the completion of the questionnaire. According to (Mugenda and Mugenda, 2003) a pilot study with a sample of a tenth of the total sample with homogenous characteristics is appropriate for the pilot study. Therefore, in this study the pilot sample size was 33 (10%\*330) respondents. The pilot test was conducted among landlords of Machakos Municipality. The respondents were selected randomly and did not form part of the study.

### **3.5.2 Reliability of data collection instrument**

According to (Joppe, 2004) reliability is the extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability and if the results of a study can be reproduced under a similar methodology, then the research instrument is reliable.



Reliable measuring instrument does contribute to validity, but a reliable instrument need not be a valid instrument. If the quality of reliability is satisfied by an instrument, then while using it we can be confident that the transient and situational factors are not interfering.

Reliability can be improved in the following two ways: By standardizing the conditions under which the measurement takes place and by carefully designed directions for measurement with no variation from group to group, by using trained and motivated persons to conduct the research and by broadening the sample of items used (Kothari, 2004). Reliability is measured using Cronbach alpha coefficient which is a measure used to assess the reliability of a set of set of scale or test items.

A coefficient of reliability ranges from 0 to 1 in providing the overall assessment. If all the scale items are entirely independent from one another then  $\alpha = 0$ ; and, if all the items have high covariances, then  $\alpha$  approached 1 as the number of items in the scale approaches infinity. (Cronbach, 1951) Some authors offer indications of alpha having a threshold of  $>0.7$  as an acceptable, sufficient, or satisfactory level. However, there is no universal minimally acceptable reliability value. An acceptable reliability value depends on the type of application, and furthermore, the focus should be on the population reliability value and not on the sample reliability value (Bonett, 2014). This study tested reliability of the study instrument using Cronbach's alpha coefficient with a threshold of 0.7. Cronbach's alpha is computed by correlating the score for each scale item with the total score for each observation and then comparing that to the variance for all individual item scores:

### **3.5.3 Validity of data collection instrument**

Validity indicates the degree to which an instrument measures what it is supposed to measure. In other words, validity is the extent to which differences found with a measuring instrument reflect true differences among those being tested (Kothari, 2004).

There are three main types of validity tests namely, content validity, construct validity and criterion related validity. Content validity is the extent to which a measuring instrument provides adequate coverage of the topic under study (Kothari, 2004). If the instrument contains a representative sample of the universe, the content validity is good. Construct validity is the degree to which scores on a test can be accounted for by the explanatory constructs of a sound theory.

A measure is said to possess construct validity to the degree that it confirms to predicted correlations with other theoretical propositions. Criterion related validity relates to our ability to predict some outcome or estimate the existence of some current condition. This form of validity reflects the success of measures used for some empirical estimating purpose (Kothari, 2004). In this study content validity was used because the researcher will consult with the supervisor on the state of the research document.

### **3.6 Data Analysis and Presentation**

(Savenye and Robinson 2005), defines data analysis as the process of systematically applying statistical and or logical techniques to describe, illustrate and evaluate data. Data presentation is the process of using diagrams to explore and understand data collected (Saunders et al., 2014). Data was analysed using Statistical package for Social Sciences (SPSS). Both descriptive and inferential tests will be used in this analysis. Data will be described using both descriptive and inferential statistics such as mean, median mode and frequencies, which was helpful in describing the distribution

of responses. Pearson's correlation coefficient was used to establish the relationships between the independent and dependent variables.

A multiple linear regression was as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where:

$Y$  = tax compliance (dependent Variable)

$\beta_0$  = regression model constant,

$\beta_1$ ,  $\beta_2$ ,  $\beta_3$  and  $\beta_4$  represent coefficients of independent variables.

$X_1$  = tax knowledge.

$X_2$  = taxpayer education

$X_3$  = tax compliance costs.

$X_4$  = deterrence sanctions.

$\varepsilon$  = error term.

### **3.7 Assumptions of Multiple Regression**

Multiple regression analysis was used to show the level of variations explained by the independent variables on the dependent variable through the coefficient of determination ( $R^2$ ). Most statistical tests rely upon certain assumptions about the variables used in the analysis. Knowledge and understanding of the situations when violations of assumptions lead to serious biases, and when they are of little consequence, are essential to meaningful data analysis. The assumptions were explained as follows:

### **3.7.1 Normality**

Saunders *et al.*, (2007) argued that normality test is used to determine whether the data sets are normally distributed. Normality holds that the distribution of the test is bell-shaped with 0 (zero) mean, with 1 (one) standard deviation and a symmetric bell-shaped curve. It is assumed that the residuals of variables were normally distributed. That is, the errors in the prediction of value Y (the dependent variable) were distributed in a way that approaches the normal curve Ghasemi & Zahediasl, (2012).

According to Razali and Wah (2011) Shapiro-Wilk is the most powerful normality test. The test was used in testing the data in this study.

### **3.7.2 Autocorrelation**

Autocorrelation refers to the degree of correlation between the values of the same variables across different observations in the data. A common method of testing for autocorrelation is the Durbin-Watson test. Statistical software such as SPSS may include the option of running the Durbin-Watson test when conducting a regression analysis. The Durbin-Watson tests produces a test statistic that ranges from 0 to 4. Values close to 2 (the middle of the range) suggest less autocorrelation, and values closer to 0 or 4 indicate greater positive or negative autocorrelation respectively.

### **3.7.3 Homoscedasticity**

In regression analysis, homoscedasticity means a situation in which the variance of the dependent variable is the same for all the data, which implies that the error is constant along the values of the dependent variable. The best way for checking homoscedasticity is to make a scatterplot with the residuals against the dependent variable.

### 3.7.4 Linearity

The assumption of linearity was tested by creating a scatter plot using SPSS Statistics where the researcher plotted the dependent variable against the independent variable and then visually inspected the scatter plot to check for linearity. The t-Test was used to examine whether there was some significant linear relationship between the independent and dependent variables or not (Kothari & Garg, 2014). A decision about the null hypothesis in a two-tailed test was conducted by comparing the computed value and critical value of t distribution. The decision criteria were that null hypothesis should be rejected at  $\alpha \times 100\%$  level of significance when the computed value and critical value is lower than  $-\alpha/2$  or larger than  $\alpha/2$ . Rejecting a null hypothesis means there is a significant linear relationship between the variables (Kothari & Garg, 2014).

### 3.7.5 Multicollinearity

Multicollinearity refers to the relationship between two or more exogenous variables, where the independent variables demonstrate little correlation with other independent variables Hair Jr et al. (2010). Multicollinearity problem occurs when the independent variables are highly correlated to each other (Hair *et al.*, 2010). Therefore, when two or more variables are highly related, it means they contain unnecessary information. In this study multicollinearity was tested statistically by use of the VIF (Variance Inflation Factor). The VIF for a predictor indicates whether there is a strong linear association between itself and all the remaining predictors. VIF is a reciprocal of the tolerance. Larger VIF greater than 10 indicates high levels of Multicollinearity (Stevens 2002). However, the most reliable statistical test of multicollinearity was an examination of tolerance and Variance Inflation Factor (VIF) with the thresholds of more than 0.1 and VIF of 10 (Hairr *et al.*,2010).

In scientific research, diagnostic tests are usually carried out to empirically determine the quantitative impact of study design limitations of more quantitative loading of diagnostic accuracy (Lijmer *et al.*, 1999). In this study, four diagnostic tests were done before data analysis to authenticate the research findings. The tests included normality, multicollinearity test, homoscedasticity and autocorrelation test computed using statistical packages for social science (SPSS).

### 3.8 Operationalization and Measurement of Variables

	Variable	Objectives	Indicators	Measurement scale	Tool of Analysis
Dependent Variable	Tax Compliance	To determine the factors affecting Residential rental income tax compliance among Landlords in Nyeri Municipality	Timely submission of returns Registration Timely payment of due taxes Filing accurate returns Proper record keeping	5point Likert scale questionnaire	Regression Analysis  Descriptive and inferential statistics
Independent variables	Tax knowledge	To determine the effect of tax knowledge on residential rental income tax compliance by Landlords in Nyeri Municipality.	Filing tax returns. Proper record keeping Ability to calculate taxes Tax planning	5point Likert scale questionnaire	Regression Analysis  Descriptive and inferential statistics
	Taxpayer education	To assess the effect of education and awareness on residential rental income tax compliance by Landlords in Nyeri Municipality.	Rights and obligations Residential rental income tax rate Filing returns and paying taxes	5point Likert scale questionnaire	Regression Analysis  Descriptive and inferential statistics
	Cost of tax compliance.	To evaluate the effect of cost of compliance on residential rental income tax compliance by Landlords in Nyeri Municipality.	Staff costs Audit and legal costs Time cost in taxes calculations	5point Likert scale questionnaire	Regression Analysis  Descriptive and inferential statistics
	Deterrence sanctions	To assess the effect of deterrence sanctions on residential rental income tax compliance by Landlords in Nyeri Municipality.	Audit and investigation likelihood Severe penalties Probability of detection	5point Likert scale questionnaire	Regression Analysis  Descriptive and inferential statistics

### **3.9 Ethical considerations**

(Agwor and Osho, 2017) suggests that all social science researchers should be up right in doing what is good and discarding what is bad during the research period. (Roberts, 2015) asserts that in application of quantitative methods of data gathering, ethical code necessitates the use of real factual data in the study. In this regard, it will be necessary to transform and use all data acquired in its true form to improve the accuracy and reliability of the findings. Data collected from the various research sources should be collected and evaluated with impartiality (Roberts, 2015).

A researcher has a moral obligation to safeguard the privacy of sensitive information the exposure of which would negatively impact the subjects of a research study. According to (Agwor and Osho, 2017), a researcher should as much as possible secure the anonymity and the confidentiality of the study participant and never put them at risk. This is because some participant in a study may not want to have their identity not to be disclosed. In this regard the confidentiality of any sensitive data acquired during data collection in this research was highly observed.



## CHAPTER FOUR

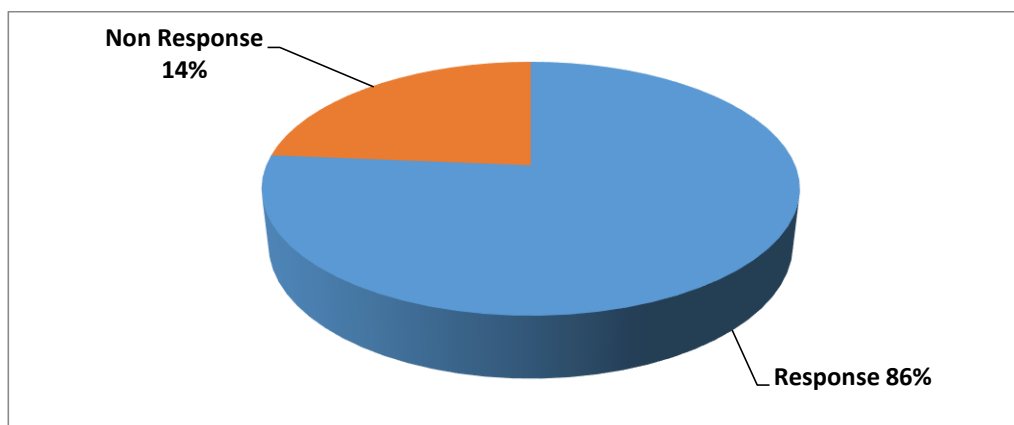
### DATA ANALYSIS, FINDINGS, INTERPRETATION AND DISCUSSION

#### 4.1 Introduction

This chapter covers data analysis, the findings from respondents, interpretation and discussion which linked them to the objectives of the study. The collected data was entered into Statistical Package for Social Sciences (SPSS) and the findings were analyzed with the help of means, standard deviation, and regression analysis.

#### 4.2 Response Rate

The study issued out 297 questionnaires to the respondents, out of which 256 of them were filled and returned. This was equivalent to a response rate of 86%, as indicated in Figure 4.1. The findings are supported by Yin (2015) who argues that response of over 70% is deemed to be good for presentation of the findings.



**Figure 4.1: Response Rate**

#### 4.3 Reliability Results

Sekaran (2010) argued that reliability is a measure of stability and consistency with which instrument measures the concept. The study findings indicated that the data instruments were reliable with a Cronbach alpha Value of above 0.70.

The findings indicated that the Cronbach alpha for each of the variables was above the lower limit of acceptability thus reliable with tax knowledge having a coefficient of 0.951; taxpayer education 0.754; cost of compliance 0.829, deterrence sanctions 0.912 and tax compliance 0.921 as shown in Table 4.1.

**Table 4.1: Reliability Results**

<b>Variable</b>	<b>No. of Items</b>	<b>Cronbach Alpha (<math>\alpha</math>)</b>	<b>Remark</b>
Tax knowledge	6	0.951	Reliable
Taxpayer education	6	0.754	Reliable
Cost of compliance	6	0.829	Reliable
Deterrence sanctions	6	0.912	Reliable
Tax compliance	6	0.921	Reliable

*Source: Survey Data (2021)*

#### **4.4 Demographic Characteristics**

This section provides information that posits the basic characteristics of respondents such as pin identification, residential income tax known, filing of returns and annual turnover.

##### **4.4.1 Identification Pin**

The study sought to establish whether the respondents had identification pins. Results revealed that 55.5% had identification pin while 44.5% did not have identification pin. The results demonstrate that respondent had identification pins suggesting a relatively high rate of compliance.

**Table 4.2: Respondent**

<b>PIN</b>	<b>Frequency</b>	<b>Percentage</b>
Yes	143	55.5
No	113	44.5
<b>Total</b>	<b>256</b>	<b>100</b>

#### 4.4.2 Residential income tax

Results revealed that 36.7% had known about residential rental income tax while 63.3% had not known residential rental income tax. The results demonstrated that majority of respondent had little or no knowledge about residential rental income tax.

**Table 4.3: Residential income tax**

<b>Compliance</b>	<b>Frequency</b>	<b>Percentage</b>
Yes	93	36.7
No	163	63.3
<b>Total</b>	<b>256</b>	<b>100</b>

#### 4.4.3 Filing Returns

The study sought to establish whether the respondents filed their returns. Results revealed that 43.1% have been filing their returns while 56.9% have not been filling their returns. The results demonstrate that majority of respondent have not been filing their returns

**Table 4.4: Filing Returns**

<b>PIN</b>	<b>Frequency</b>	<b>Percentage</b>
Yes	112	43.1
No	144	56.9
<b>Total</b>	<b>256</b>	<b>100</b>

#### 4.4.4 Annual Turnover

The respondents were requested to indicate their annual turnover. Their responses are shown on table 4.5. As per the findings shown, majority of the businesses recorded annual turnover of over kes 10,000,000 followed by kes 144,000-10,000,000. Lastly, few businesses recorded annual turnover of less than kes 144,000.

**Table 4.5: Annual Turnover**

<b>Annual turnover in KSH</b>		
Less than-144,000	72	27.6
144,000-10,000,000	84	33.2
Above 10,000,000	100	39.2
<b>Total</b>	<b>256</b>	<b>100.0</b>

#### **4.5 Statistical Assumptions**

Statistical tests rely on certain assumptions about the variables used in the analysis. Osborne and Waters (2014), opine that when these assumptions are not, met the results may not be valid. They further argued that this may result to a type I or type II error, or over or under-estimation of significance or effect size(s). It is therefore important to pretest these assumptions for validity of their results.

According to Osborne and Waters (2014), not pretesting for these assumptions has led to a situation where there is rich literature in education and social science, but questions into the validity of many of these results, conclusions, and assertions still exist. Testing for assumptions is beneficial as it ensures that an analysis meets the associated assumptions and helps avoid type I and II errors (Owino, 2014). Prior to data analysis, assumptions for normality and multicollinearity, linearity, autocorrelation, and homoscedasticity were checked.

##### **4.5.1 Test of Normality**

Parametric statistics assumed that the data under test is normally distributed, hence the use of the measure of central tendency (Zikmund, 2010). Several statistical procedures including correlation, regression, t-test and f-tests are based on the assumption that the data follows a normal distribution (Ghasemi & Zahediasl, 2012). There are several ways

of testing normality such as Shapiro-Wilk, Kolmogorov-Smirnov, Lilliefors, and Anderson Darling.

According to Razali and Wah (2011) Shapiro-Wilk is the most powerful normality test and this study adopted it. Normality was tested using the Shapiro-Wilk test and the results showed that all the variables were above 0.05 ( $p > 0.05$ ) hence confirming data normality. On Kolmogorov-Smirnov test the results showed that all the variables were less than 0.05 ( $p < 0.05$ ) hence confirming data normality.

The study's data set was subjected to a normality test and the results are shown in Table 4.6

**Table 4.6: Tests of Normality**

	Kolmogorov smirnow		Shapiro-Wilk	
	Statistics	sig	Statistics	sig
TK	0.017	0.006	0.860	0.23
TE	0.304	0.000	0.761	0.67
CC	0.208	0.010	0.764	0.20
DS	0.208	0.010	0.764	0.20
TC	0.254	0.008	0.720	0.31

#### 4.5.2 Homoscedasticity Test

Homoscedasticity is the assumption that the variation in the residuals (or amount of error in the model) is similar at each point across the model. It also means a situation in which the variance of the dependent variable is the same for all the data. Homoscedasticity facilitates analysis since most methods assume equal variance. Gary (2016) explains that an important assumption of linear regression is that the spread of the residual is constant across the graph, and when the assumption is violated, the statistical results may not be fit since there is presence of biased coefficients. If variance

of errors from the regression line is not constant it is said to be Heteroscedastic. The Breusch-Pagan/Godfrey test is used to test heteroscedasticity in a linear regression model. The results from Table 4.7 show the results from the Breusch Pagan test analysis of variance table.

**Table 4.7 Homoscedasticity test**

Ho: Constant variance	
Chi2 (1)	0.35
Prob>chi2	0.43

The prob>chi2 is 0.43 p value >0.05 thus we concluded that the assumption of homogeneity is not violated.

#### 4.5.3 Linearity Test

Statistical linearity assumptions are necessary since it is best to assume that relationship between predictor and the dependent variables is linear. Csorgo, (1985) states that deviation from linearity is measured to determine how significant the deviation from linearity is.

Table 4.8 indicated deviation from linearity p value is >0.05, if the p value is less <0.05 then there is non-linearity, and the assumption is violated. The deviation from linearity p value 0.423>0.05 therefore we conclude that the relationship between the dependent variables and independent variables is linear.

**Table 4.8 Tests of Linearity**

*ANOVA Table*

			Sum of Squares	df	Mean Square	F	Sig.
Tax Compliance*	Between Groups	(Combined) Linearity	1.472	64	.023	1.875	.366
		Deviation from Linearity	.003	1	.003	1.223	.223
			.198	66	.003	.970	.423
Within Groups			.233	125	.003		
Total			.349	256			

#### 4.5.4 Autocorrelation Test

According to Ellen (2018), this test is conducted to check whether the values of the residuals are independent to ensure that the observations are independent from one another and uncorrelated. The Durbin-Watson test was conducted to indicate the level of autocorrelation. The statistic's value ranges from 0 to 4. Non-autocorrelation is shown by a number near 2; positive autocorrelation is indicated by a value near 0; and negative autocorrelation between independent variables is indicated by a value near 4

**Table 4.9 Durbin Watson test**

<b>Model</b>	<b>Durbin-Watson</b>
1	2.083921

Table 4.9 showed a Durbin Watson test with the results 2.08392 which indicated that there was non-autocorrelation.

#### 4.5.5 Multicollinearity Test

Multicollinearity is the undesirable situation where the correlation among the independent variables is strong. It increases the standard errors of the coefficients using collinearity statistics to get tolerance and Variance Inflation Factor (VIF). To test for multicollinearity, VIF was computed using statistical packages for social science (SPSS). Multicollinearity increases the standard errors of the coefficients and thus makes some variables statistically not significant while they should otherwise be significant (Osborne and Waters, 2014). Tolerance is the amount of variance in independent variable that is not explained by the other independent variable. Bowerman and Connell (2006) stated that lower levels of VIF are better while higher levels of VIF are known to affect adversely the result associated with a multiple regression analysis. The authors argued that VIF above 2.50 start to indicate relatively high levels of multicollinearity. The Variance Inflation Factor test in the study regression model

ranged between 1.695 and 1.898. These values were lower than the 2.5 level suggested by Allison (2009) as an indicator of multicollinearity; therefore, multicollinearity was not a problem on this analysis. Thus, the study findings were able to fulfill the threshold as indicated by Table 4.10.

**Table 4.10: Multicollinearity Test Coefficients<sup>a</sup>**

Model	Collinearity Statistics	
	Tolerance	VIF
(Constant)		
TK	<b>0.725</b>	<b>1.898</b>
TE	<b>0.854</b>	<b>1.695</b>
CC	<b>0.721</b>	<b>1.702</b>
DS	<b>0.932</b>	<b>1.817</b>

a. Dependent Variable: Residential Rental Income Tax Compliance

#### **4.6 Descriptive Statistics**

The study used descriptive statistics including means and standard deviations to describe tax knowledge, taxpayer education, cost of compliance, deterrence sanctions and tax compliance.

##### **4.6.1 Tax knowledge**

The descriptive statistics findings of tax knowledge as the independent variable are shown in Table 4.11



**Table 4.11: Tax knowledge**

<b>Statement</b>	<b>Mean</b>	<b>Std. Dev</b>
I know about residential rental income tax.	3.68	.993
Taxpayers Knowledge about residential rental income tax contributes to high compliance by property owners.	4.02	1.372
I know how to calculate and file a self-assessment residential rental income tax return.	3.56	1.185
I understand the residential rental income tax threshold and dates for filing a return.	3.55	1.095
Maintaining proper books and records helps you to be tax compliant.	4.48	1.176
I understand my rights and obligations as a taxpayer	3.80	1.364
<b>Mean</b>	<b>3.8</b>	

From Table 4.11, respondents agreed I know about residential rental income tax (M=3.68). Respondents agreed that Taxpayers Knowledge about residential rental income tax contributes to high compliance by property owners (M=4.02). I know how to calculate and file a self-assessment residential rental income tax return (M=3.56). I understand the rental income tax threshold and dates for filing a return (M=3.55). Maintaining proper books and records helps you to be tax compliant (M=4.48) I understand my rights and obligations as a taxpayer (M=3.80).

#### **4.6.2 Taxpayer education**

Table 4.12 gives the descriptive findings of taxpayer education as another independent variable used in the study.

**Table 4.12: Taxpayer education**

<b>Statement</b>	<b>Mean</b>	<b>Std. Dev</b>
KRA has created awareness among taxpayers on residential rental income tax.	4.52	1.228
I have attended workshops, trainings, and seminars about rental income.	3.63	.717
Public awareness has not sufficiently been done.	3.34	.724
Taxpayer education has improved my compliance.	3.08	.634
I understand my rights and obligations as a taxpayer.	4.87	.678
KRA should adopt better ways of creating awareness and educating taxpayers.	3.33	.709
<b>Mean</b>	<b>3.7</b>	

From Table 4.12, majority of the respondents agreed (M=4.52) that KRA has created awareness among taxpayers on residential rental income tax. Other respondents still agreed (M=3.63) that I have attended workshops, trainings, and seminars about rental income. Other respondents also agreed (M=3.34) that public awareness has not sufficiently been done. Respondents also agreed (M=3.08) on Taxpayer education has improved my compliance. While (M=4.87) I understand my rights and obligations as a taxpayer. Lastly (M=3.33) on KRA should adopt better ways of creating awareness and educating taxpayers.

#### 4.6.3 Cost of compliance

Table 4.13 gives the descriptive findings of cost of compliance as another independent variable used in the study.

**Table 4.13: Cost of Compliance**

<b>Statement</b>	<b>Mean</b>	<b>Std. Dev</b>
Cost of hiring a tax auditor is high	4.72	.657
Hiring staff to maintain proper records, calculate taxes file returns and be on look out of emerging issues is expensive	4.32	.805
The actual tax payable is high	3.10	.955
Too much time lost in tax calculations	3.55	.750
Maintaining records of not less than five years is cumbersome	4.75	.978
Travelling to KRA offices for clarifications is costly	4.01	.851
<b>Mean</b>	<b>4.07</b>	

From the data findings, respondents agreed with the statement that Cost of hiring a tax auditor is high (M=4.72). Hiring staff to maintain proper records, calculate taxes file returns and be on look out of emerging issues is expensive (M=4.32). The actual tax payable is high (M=3.10). Too much time lost in tax calculations 3.55. Maintaining records of not less than five years is cumbersome (M=4.75). Lastly, the results also showed that respondent agreed that Travelling to KRA offices for clarifications is costly (M=3.13).

#### 4.6.4 Deterrence Sanctions

Table 4.14 gives the descriptive findings of deterrence sanctions as another independent variable used in the study

**Table 4.14: Deterrence Sanctions**

<b>Statement</b>	<b>Mean</b>	<b>Std. Dev</b>
Penalties imposed by KRA are harsh and that prompts you to be tax compliant	4.82	.680
I am afraid of tax audits, so you keep proper books of accounts and file timely returns	3.98	.693
High tax rates deter you from being tax compliant	3.65	.748
I choose to pay tax penalty rather than payment of actual taxes	4.91	.718
Tax customer care desk in cultural event have helped me as a taxpayer to correctly declare my income	4.66	.924
I file nil and incorrect returns to avoid penalties	4.97	.987
<b>Mean</b>	<b>4.5</b>	

The findings of the respondents agreed that Penalties imposed by KRA are harsh and that prompts you to be tax compliant (M=4.82). I am afraid of tax audits, so you keep proper books of accounts and file timely returns (M=3.98). High tax rates deter you from being tax compliant of (M=3.65). I choose to pay tax penalty rather than payment of actual taxes (M=4.91). Tax customer care desk in cultural event have helped me as a taxpayer to correctly declare my income 4.66. Lastly, I file nil and incorrect returns to avoid penalties (M=4.97).

#### 4.6.5 Tax Compliance

Table 4.15 gives the descriptive findings of Tax Compliance as the dependent variable used in the study.

**Table 4.15: Tax Compliance**

<b>Statement</b>	<b>Mean</b>	<b>Std. Dev</b>
I file returns by or on 20 <sup>th</sup> of every month following receipt of income	3.97	.412
I pay tax by or on the due date	3.93	.602
I declare and file accurate returns	4.05	.605
I am registered for KRA Pin	4.00	.660
I pay correct taxes	3.86	.452
I maintain proper books and records	3.81	.309
<b>Mean</b>	<b>3.9</b>	

From the data findings, respondents agreed with the statement that I file returns by or on 20th of every month following receipt of income (M=3.97). I pay tax by or on the due date (M=3.93). I declare and file accurate returns (M=4.05). I am registered for KRA Pin (M=4.00). I pay correct taxes 3.86. Lastly, I maintain proper books and records (M=3.83).

#### 4.7 Inferential Statistics

An analytical model had been developed in order to establish the strength and direction in which each predictor influenced the regressor which was the factors affecting residential rental income tax compliance among landlords in Nyeri municipality.

#### 4.8 Correlation Analysis

The Table 4.16 presents the results of the correlation analysis. The results presented in the showed that tax knowledge is positively and significantly associated with residential rental income tax compliance as shown by  $r=0.267$  and  $p=0.000<0.01$ ). The results also indicated that taxpayer education is positively and significantly associated with residential rental income tax compliance as shown by  $r=0.334$  and  $p=0.003<0.01$ ). The

results also confirmed that cost of compliance is negatively and significantly associated with residential rental income tax compliance as shown by  $r = -0.520$  and  $p = 0.000 < 0.01$ . Further, results suggested that deterrence sanction is positively and significantly associated with residential rental income tax compliance as shown by  $r = 0.243$  and  $p = 0.000 < 0.01$ .

**Table 4.16: Correlation Analysis**

		TC	TK	TE	CC	DS
Tax Compliance	Pearson Correlation	1				
	Sig. (2-tailed)					
Tax knowledge	Pearson Correlation	.267**	1			
	Sig. (2-tailed)	.000				
Taxpayer education	Pearson Correlation	.334**	.141**	1		
	Sig. (2-tailed)	.003	.000			
Cost of compliance	Pearson Correlation	-.520**	-.322**	-.412**	1	
	Sig. (2-tailed)	.000	.006	.000		
Deterrence Sanction	Pearson Correlation	.243**	.410**	.257	.314	1
	Sig. (2-tailed)	.000	.000	.000	.004	

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

**Source: Research Data, (2021)**

#### 4.9 Multiple Regression Analysis

Multiple regression analysis was adopted to show the level of significance of the relationship that exists between dependent variable and independent variables. The analysis shows how independent variables affect dependent variable and to show the extent to which the chosen variables affect each other. The results are indicated in the model summary on the table 4.17.

**Table 4.17: Multiple Linear Regression Analysis Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.647 <sup>a</sup>	.418	.406	.43179

a. Predictors: (Constant), tax knowledge, taxpayer education, cost of compliance and deterrence sanction

**Source: Research Data, (2020)**

The results in Table 4.17, found out that independent variables, tax knowledge, taxpayer education, cost of compliance and deterrence sanction correlates with residential rental income tax compliance up to 64.7% ( $R=0.647$ ) and accounts for a variation of 41.8% ( $R^2 =0.418$ ). This implied that 58.2% of the change in residential rental income tax compliance was caused by other factors which were not included in the model. The findings further reveal that even if the results adjust, the model will still account for 40.6% ( $AdjustedR^2, 0.406$ ) variation of residential rental income tax compliance.

#### **4.10 Analysis of Variance**

The ANOVA-Analysis of Variance is used to show how well the adopted model fits for use in the study. The findings were summarized on table 4.18, ANOVA tests were conducted to determine whether the model works in explaining the relationship among variables as postulated in the conceptual model.

From Table 4.18, an F statistics value of 46.761 as arrived at with a significance level of 0.000 which was less than 0.05 significance level, implying the model is statistically significant. The overall of implications of the model is that independent variables contribute significantly to changes in the dependent variable.

**Table 4.18: ANOVA**

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	7.298	1	7.298	46.761	0.000
Residual	5.159	255	0.018		
<b>Total</b>	<b>12.457</b>	<b>256</b>			

a. Dependent Variable: Tax compliance: \_mean

b. Predictors: (Constant), tax knowledge, taxpayer education, cost of compliance and deterrence sanction

#### 4.11 Model Summary

To test how well the model works in explaining the relationship tax knowledge, taxpayer education, cost of compliance and deterrence sanction on residential rental income tax compliance, regression analysis was conducted.

**Table 4.19: Overall Effect of Tax Knowledge, Taxpayer education, Cost of Compliance and Deterrence Sanction on Residential Rental Income Tax Compliance**

Model		Unstandardized Coefficients		Standardized Coefficients		t	Sig.
		B	Std. Error	Beta			
1	(Constant)	.563	.231			2.437	.004
	Tax knowledge	.316	1.275	.424		3.007	.000
	Taxpayer education	.238	1.124	.372		3.021	.002
	Cost of compliance					-	
	Deterrence sanction	-.381	1.058	-.218		4.853	.000
		.321	2.028	.477		4.251	.000

a. Dependent Variable: residential rental income tax compliance

**Source: Research Data, (2021)**

The regression analysis model derived from the methodology was specified as

follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

**Where:**

Y = residential rental income tax compliance

$\alpha$  = Constant

X<sub>1</sub> = Tax knowledge

X<sub>2</sub> = Taxpayer education

$X_3$ =cost of compliance

$X_4$ =Deterrence sanction

$\beta_1, \beta_2, \beta_3$  = regression coefficients of  $X_1, X_2, X_3$  and  $X_4$

$\varepsilon$  = error item.

$$Y=0.563+ 0.424X_1 + 0.372X_2 -0.218X_3+0.477 X_4$$

The results from coefficient table 4.19 revealed that the relationship between tax knowledge, taxpayer education, cost of compliance and deterrence sanction on residential rental income tax compliance were statistically significant with p values <0.05. A unit change in tax knowledge increases residential rental income tax compliance by 0.424. A unit change in taxpayer education increases residential rental income tax compliance by 0.372. A unit change in cost of compliance decreases residential rental income tax compliance by -0.218 and unit change in deterrence sanction increases residential rental income tax compliance by 0.477.

#### **4.11.1 Test of Hypotheses**

The first hypothesis  $H_{01}$  stated that Tax knowledge has no significant effect on tax compliance of residential rental income tax by landlords in Nyeri municipality. Tax knowledge has a positive relationship effect on tax compliance of residential rental income tax by landlords in Nyeri municipality. The results on Table 4.19 revealed a  $p < 0.05$  which implies that the relationship was statistically significant therefore hypothesis was rejected.

The second hypothesis  $H_{02}$  stated that Taxpayer education has no significant effect on tax compliance of residential rental income tax by landlords in Nyeri municipality. Taxpayer education has a positive relationship effect on tax compliance of residential rental income tax by landlords in Nyeri municipality. The results on Table 4.19



indicated a  $p < 0.05$  which implies that the relationship was statistically significant therefore hypothesis was rejected.

The third hypothesis  $H_{o3}$  stated that cost of compliance has no significant effect on tax compliance of residential rental income tax by landlords in Nyeri municipality. Cost of compliance has a positive relationship effect on tax compliance of residential rental income tax by landlords in Nyeri municipality. The results on Table 4.19 revealed a  $p < 0.05$ , which implies the relationship was statistically significant therefore hypothesis was rejected.

The fourth hypothesis  $H_{o4}$  stated that deterrence sanction has no significant effect on tax compliance of residential rental income tax by landlords in Nyeri municipality. Deterrence sanctions has a positive relationship effect on tax compliance of residential rental income tax by landlords in Nyeri municipality. The results on Table 4.19 revealed a  $p < 0.05$ , which implies that relationship was statistically significant therefore hypothesis was rejected.

#### **4.12 Discussion of the Findings**

This section presents discussion of the results of various tests carried out on the study. The results of each of the questions in this study were discussed.

##### **4.12.1 Effect of Tax Knowledge on Residential Rental Income Tax compliance**

First objective of the study was to determine the effect of tax knowledge on tax compliance of residential rental income tax by landlords in Nyeri municipality. The findings of this study indicated that tax knowledge was statistically significant at a  $p$  value of 0.000 which is less than 0.05 the conventional probability significance level. A study by (Palil, 2010) also agreed that tax knowledge is necessary to increase public awareness on taxation rules and the role of taxation in national development. Once

individuals have the knowledge pertaining the importance of taxation, they will be influenced to comply without any enforcements or pressure on them.

#### **4.12.2 Effect of Taxpayer education of Residential Rental Income Tax compliance**

The second objective of the study was to establish the effect of taxpayer education on tax compliance of residential rental income tax by landlords in Nyeri municipality. The findings of this study revealed that tax education was statistically significant at a p value of 0.002 which is less than 0.05 the convectional probability significance level. (Amayi & Machogu, 2013) argued that through taxpayer education, the taxpayer is aware of the rights, obligations, and the procedures of paying taxes as well as the consequences of non- compliance.

#### **4.12.3 Effect of Cost of Compliance on Residential Rental Income Tax compliance**

The third objective of the study was to assess the effect of cost of compliance on tax compliance of residential rental income tax by landlords in Nyeri municipality. The findings of this study concluded that cost of compliance was statistically significant with a p value of 0.000 which is less than 0.05 the convectional probability significance level.

The study was in agreement with (Muturi and Thiga, 2015) who studied the factors that influence tax compliance among Small and Medium sized Enterprises in Kenya.

Their finding revealed that tax compliance cost and tax rates have the most significant effect on tax compliance. In other words, Kenyans are not ready to incur extra cost for them to pay tax.

#### **4.12.4 Effect of Deterrence Sanctions on Residential Rental Income Tax compliance**

The fourth objective of the study was to evaluate the effect of deterrence sanctions on tax compliance of residential rental income tax by landlords in Nyeri municipality. The findings of this study confirmed that deterrence sanctions were statistically significant at a p value of 0.000 which is less than 0.05 the conventional probability significance level. The study concurred with (Muoki & Osebe, 2014) who argued that taxpayers, when made to pay higher fines for evading taxes, deters them from future evasion. Tax penalties may have both positive and negative impact on taxpayers. If tax penalties are fair and acceptable, they strengthen taxpayers' compliance.

## **CHAPTER FIVE**

### **SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter presents a discussion of the summary based on the earlier established research questions. It further discusses major study findings, conclusions and eventually provides directions in the form of recommendations.

#### **5.2 Summary of Findings**

##### **5.2.1 Effect of tax knowledge on residential rental income tax compliance**

The first objective of the study was to determine the effect of tax knowledge on residential rental income tax compliance by landlords in Nyeri municipality. The findings on correlation analysis showed that tax knowledge and tax compliance of residential rental income tax are positively as well as significantly related. In respect to the Regression analysis the significance was also found positive as far as the relationship between tax knowledge and tax compliance of residential rental income tax was concerned with evidence of  $p=0.000$ ,  $p<0.05$ . Tax knowledge was found to be satisfactory in explaining tax compliance of residential rental income tax by landlords in Nyeri municipality.

##### **5.2.2 Effect of taxpayer education on residential rental income tax compliance**

The second objective of the study was to establish the effect of taxpayer education on residential rental income tax compliance by landlords in Nyeri municipality. The findings of correlation analysis showed that taxpayer education and tax compliance of residential rental income tax are positively as well as significantly related. In respect to the Regression analysis, the significance was found positive as far as the relationship between taxpayer education and tax compliance of residential rental income tax was concerned as evidence by  $p=0.003$ ,  $p<0.05$ .

Taxpayer education was found to be satisfactory in explaining tax compliance of residential rental income tax by landlords in Nyeri municipality

### **5.2.3 Effect of Cost of Compliance on residential rental income tax compliance**

The third objective of the study was to assess the effect of cost of compliance on residential rental income tax compliance by landlords in Nyeri municipality. The findings of correlation analysis confirmed that cost of compliance and tax compliance of residential rental income tax are negatively but significantly related. In respect to the Regression analysis, the significance was found to be positive as far as the relationship between cost of compliance and tax compliance of residential rental income tax was concerned evidence by  $p=0.000$ ,  $\rho<0.05$ . The cost of compliance was found to be satisfactory in explaining tax compliance of residential rental income tax by landlords in Nyeri municipality.

### **5.2.4 Effect of deterrence sanctions on residential rental income tax compliance**

The last objective of the study was to evaluate the effect of deterrence sanctions on residential rental income tax compliance by landlords in Nyeri municipality. The findings of correlation analysis suggested that deterrence sanction and tax compliance of residential rental income tax are positively as well as significantly related. In respect to the Regression analysis, the significance was positive as far as the relationship between deterrence sanctions and tax compliance of residential rental income tax was concerned as evidenced by  $p=0.001$ ,  $\rho<0.05$ . Deterrence sanctions were found to be satisfactory in explaining tax compliance of residential rental income tax by landlords in Nyeri municipality.

### **5.3 Conclusion**

The study concluded that tax knowledge has a significant effect on residential rental income tax compliance among landlords in Nyeri municipality and was found to play a significant role in the tax compliance. Respondents agreed that Taxpayers Knowledge about residential rental income tax contributed to high levels of tax compliance by property owners and maintaining proper books and records helped them to be tax compliant.

The study also confirmed that taxpayer education has a significant effect on residential rental income tax compliance among landlords in Nyeri municipality and was found to play a significant role in the tax compliance. The agreement was made that respondents understood their rights and obligations as taxpayers.

Thirdly, the study resolved that cost of compliance has a significant effect on residential rental income tax compliance among landlords in Nyeri municipality and was found to play a significant role in the tax compliance. Respondents agreed that, maintaining records of not less than five years is cumbersome and Cost of hiring a tax auditor is high.

Lastly, the study concluded that deterrence sanctions have a significant effect on residential rental income tax compliance among landlords in Nyeri municipality and was found to play a significant role in the tax compliance. Taxpayers agreed that they choose to pay tax penalties rather than payment of actual taxes and also argued that the penalties imposed by KRA are harsh and that prompted them to be tax compliant.

## **5.4 Recommendations**

### **5.4.1 Tax Knowledge**

The study recommends that KRA should come up with a policy to enhance tax knowledge among taxpayers to improve tax compliance levels.

### **5.4.2 Tax Education**

The study also recommends that KRA should create more awareness through the media i.e. electronic and print and training taxpayers to make them more tax compliant.

### **5.4.3 Cost of compliance**

The study recommends that KRA should pay attention and focus on a policy of compliance cost which includes among others reducing costs of compliance.

### **5.4.1 Deterrence sanctions**

Based on the study, the government should have policy on deterrence measures to enhance tax compliance and improve on revenue collection.

## **5.5 Limitations of the Study**

The study was limited by the availability of the residential landlords in Nyeri municipality, who were too busy during working hours to reply to the study research questionnaires. To mitigate this problem, the researcher made numerous phone calls and emails to increase the response rate. Due to the sensitivity of the information, the respondent may have had an imaginary fear of giving the information to KRA. In regard to the said fear, the respondents were assured that their feedback would be confidential, and the sole purpose was for academic purposes. An introduction letter from Moi University was attached to the questionnaires to affirm confidentiality.

### **5.6 Suggestions for Further Research**

The focus of the study was only on factors affecting residential rental income tax compliance among landlords in Nyeri municipality, with regards to tax knowledge, taxpayer education, and cost of compliance and deterrence sanction. Therefore, studies need to be done on similar topic but on different variables on effect of stakeholder sensitization programme on tax compliance of residential rental income tax in Nyeri Municipality.



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**APPENDICES****Appendix I: Introduction Letter****TO WHOM IT MAY CONCERN**

Dear Sir/Madam,

**INTRODUCTORY LETTER FOR RESEARCH****NGUNJIRI JANET WANJIKU – KESRA/105/0030/2019**

Moi University enrolled for a degree of Masters in Tax and Customs administration programme. As part of the University requirement for this programme, I am required to complete a research project in the field of tax.

I will be carrying out research on “Factors affecting residential rental income tax compliance by landlords in Nyeri Municipality”.

The information given to me will be specifically used for academic purposes only and I assure you that it will be kept confidential.

Your participation and assistance will be highly appreciated.

Yours Sincerely

Ngunjiri Janet Wanjiku

0723 736285

[ngunjiri89@gmail.com](mailto:ngunjiri89@gmail.com)

## Appendix II: Questionnaire

### PART 1: BASIC INFORMATION

Kindly answer all the questions by filling in the spaces provided.

1) Do you have a KRA Personal Identification Number?

Yes ( )      No ( )

2) Do you know about residential rental income tax?

Yes ( )      No ( )

a) If YES do you file your monthly rental income returns?

Yes ( )      No ( )

3) What is your average annual turnover?

Less than 144,000 ( )    144,000 – 10,000,000 ( )    Over 10,000,000 ( )



## PART II: TAX KNOWLEDGE

Please indicate your extent of agreement or disagreement in each part by inserting a tick along every statement where 1=strongly agree, 2=Agree, 3=Neutral, 4=Disagree and 5=strongly disagree.

This section contains statements regarding taxpayer's knowledge towards residential rental income tax compliance.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	(1)	(2)	(3)	(4)	(5)
1) I know about residential rental income tax.					
2) Taxpayers Knowledge about residential rental income tax contributes to high compliance by property owners					
3) I know how to calculate and file a self-assessment residential rental income tax return					
4) I understand the rental income tax threshold and dates for filing a return					
5) Maintaining proper books and records helps you to be tax compliant					
6) I understand my rights and obligations as a taxpayer					

### PART III: TAXPAYER EDUCATION AND AWARENESS

This section contains statements regarding Taxpayer education and awareness towards residential rental income tax compliance.

	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
	(1)	(2)	(3)	(4)	(5)
1) KRA has created awareness among taxpayers on residential rental income tax					
2) I have attended workshops, trainings, and seminars about rental income					
3) Public awareness has not sufficiently been done					
4) Taxpayer education has improved my compliance					
5) I understand my rights and obligations as a taxpayer					
6) KRA should adopt better ways of creating awareness and educating taxpayers					

## PART 1V: TAX COMPLIANCE COSTS

This section contains statements regarding Tax compliance costs associated with rental income tax compliance.

	<b>Strongly Agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly disagree</b>
	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>
1) Cost of hiring a tax auditor is high					
2) Hiring staff to maintain proper records, calculate taxes file returns and be on look out of emerging issues is expensive					
3) The actual tax payable is high					
4) Too much time lost in tax calculations					
5) Maintaining records of not less than five years is cumbersome					
6) Travelling to KRA offices for clarifications is costly					

## PART V: DETERRENCE SANCTIONS

This section contains statements regarding audits, penalties, and fines to enhance tax compliance.

	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
	(1)	(2)	(3)	(4)	(5)
1) Penalties imposed by KRA are harsh and that prompts you to be tax compliant					
2) You are afraid of tax audits, so you keep proper books of accounts and file timely returns					
3) High tax rates deter you from being tax compliant					
4) I choose to pay tax penalty rather than payment of actual taxes					
5) Regular tax audit influences your level of tax compliance					
6) I file nil and incorrect returns to avoid penalties					

**PART VI: TAX COMPLIANCE**

	<b>Strongly Agree</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Strongly disagree</b>
	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>
1) I file returns by or on 20 <sup>th</sup> of every month following receipt of income					
2) I pay tax by or on the due date					
3) I declare and file accurate returns					
4) I are registered for kra Pin					
5) I pay correct taxes					
6) I maintain proper books and records					

### Appendix III: Work Plan

Activity	Dec 2020- Jan 2021	Feb-May 2021	May-Aug 2021	Sep-Nov 2021	Nov-Dec 2021
Proposal writing					
Review of related Literature					
Departmental Défense					
Corrections					
Data collection & pilot testing					
Data analysis and project writing					
Project Défense					
Corrections					
Submission to Graduate School					

### Appendix IV: Budget Plan

Item/Services	No. of Items/Quantity	Unit cost	Total (Kshs.)
<b>1. PROPOSAL PREPARATION</b>			
<b>i) Stationery</b>			
a) Printing			<b>10,000</b>
<b>iii) Subsistence Allowance</b>			
a) Downloading information from the Internet	1	15,000	<b>15,000</b>
b) Collection of secondary data sources in various libraries	1	2,000	<b>2,000</b>
c) Airtime	1	5,000	<b>5,000</b>
Sub total			<b>32,000</b>
<b>2. PILOT STUDY</b>			
i) Transport of the researcher	10	500	<b>5,000</b>
ii) Subsistence allowance	10	300	<b>3,000</b>
<b>Sub total</b>			<b>8,000</b>
<b>3. DATA COLLECTION</b>			
i) Photocopying of questionnaire	300	10	<b>3,000</b>
ii) Subsistence, transport & accommodation for the researcher		5,000	<b>5,000</b>
<b>Sub total</b>			<b>8,000</b>
<b>4. PREPARATION OF THESIS</b>			
<b>i) Stationery</b>			
a) Printing		10,000	<b>15,000</b>
c) Binding of thesis drafts		3,000	<b>3,000</b>
d) Binding of final thesis		3,000	<b>3,000</b>
Sub total			<b>21,000</b>
Total			<b>69,000</b>
Contingencies (10% of the total)			<b>6,900</b>
<b>GRAND TOTAL</b>			<b>75,900</b>

### Appendix V: List of Landlords in Nyeri Municipality

<b>TAXPAYER NAME</b>	<b>EMAIL</b>
Joseph Mwangi Peter Gathua	gathuajoseph01@gmail.com
David Kioko Musau	musaukd2015@gmail.com
Joseph Muthaki Njuguna	mnjugunajoseph1@gmail.com
Tanya Ellen Church	tanyamikey@specializedsafaris.com
George King Omondi Magolo	georgemagolo@yahoo.co.uk
Latifa Zeynab Saleh	salehlatifa42@gmail.com
Kabosi Propertise Limited	ororafn@yahoo.com
James Gachii Chege	jamesgachiechege@yahoo.com
Jgt Holdings Limited	jtgente@gmail.com
Kithinji Dan Charles Marangu	dakithinji@gmail.com
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**Source: Kenya Revenue Authority, Nyeri, (2020).**

## Appendix VI: KESRA Letter



Kenya School of Revenue  
Administration



**KENYA REVENUE  
AUTHORITY**  
ISO 9001:2015 CERTIFIED

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REF: KESRA/NBI/036

27<sup>th</sup> October 2021

TO: WHOM IT MAY CONCERN

RE: REQUEST FOR RESEARCH PERMIT

JANET WANJIKU NGUNJIRI- REG. NO.: KESRA/105/0030/2019.


This is to confirm that the above named is a student at Kenya School of Revenue Administration (KESRA) Nairobi Campus pursuing Masters in Tax and Customs Administration.

The named student is undertaking Research on TOPIC: "FACTORS AFFECTING RESIDENTIAL RENTAL INCOME TAX COMPLIANCE AMONG LANDLORDS IN NYERI MUNICIPALITY, NYERI COUNTY, KENYA."

The purpose of this letter is to request your good office to assist the above student with the information she requires to enable her work on her project.

Your support to KESRA in this regard will be highly appreciated.

Thank you.



**Dr. Marion Nekesa, PHD,**  
Head Academic Research  
KESRA

DEAN OF STUDIES  
27 OCT 2021  
ACADEMIC AFFAIRS  
DIVISION

P. O. Box 48240 – 00100, Nairobi

Email: [kesratraining@kra.go.ke](mailto:kesratraining@kra.go.ke)

Tel: +254715877535/9

**Tulipe Ushuru Tujitegeme!**

## Appendix VII : Moi University Letter



MOI UNIVERSITY  
ISO 9001:2015 CERTIFIED  
SCHOOL OF BUSINESS AND ECONOMICS

Tel: (020) 2211206

P. O. Box 62056

Fax No: (020) 220247

Nairobi

Telex No. 35047 MOI VARSITY

KENYA

Ref: MU/EMBA/RES/14

28<sup>th</sup> October 2021

Dear Sir/Madam,

**TO WHOM IT MAY CONCERN**

**RE: NGUNJIRI JANET WANJIKU  
REG/NO:KESRA/105/0030/2019**

This is to confirm that the above named is a bonafide student of Moi University registered for the Masters in Tax and Customs Administration Programme offered at KESRA - Nairobi.

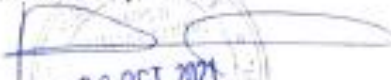
In partial fulfillment for the award of the MTC degree, students are expected to learn to apply theories using the latest tools and techniques and practice making real-world business decisions to help solve a wide range of problems. In this regard they are expected to carry out a **Research Project** on current issues affecting business and society.

Her research topic is ***"Factors Affecting Residential Rental Income Tax Compliance among Landlords in Nyeri Municipality, Nyeri County, Kenya."***

This is to request you to assist her with information from your organization. All the information provided will only be used for academic purposes.

Any assistance given to her will be highly appreciated.

Yours faithfully,

  
28 OCT 2021  
**DR. ROBERT ODUNGA,**  
**CO-ORDINATOR, POSTGRADUATE STUDIES**

**CO-ORDINATOR, POSTGRADUATE STUDIES**

