

**DETERMINANTS OF TAX COMPLIANCE AMONG RESIDENTIAL  
INCOME EARNERS IN EMBAKASI SOUTH SUB-COUNTY,  
NAIROBI, KENYA**

**BY**

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## DECLARATION

### Student Declaration

This research project is my original work and has not been presented for a degree at any other University.

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**DEDICATION**

I dedicate this project to my family for support. You have endured my absence for long hours I had to be away from you during my studies. Thank you very much, God bless you.

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## ABSTRACT

In as much as there is exponential growth in the real estate sector, this growth however does not match with the tax revenue generated from the collection of monthly residential rental income tax. There are several attributable factors to the non-compliance in this sector, and these factors affect revenue collection in different ways. The study, therefore, investigated factors affecting tax compliance among residential income earners in Embakasi sub-county Nairobi. Three specific objectives guided the study to establish the effect of automation of services, taxpayer perception, and level of awareness on tax compliance among residential income earners in Embakasi south sub-county Nairobi. Residential income reports indicate that less than half of property owners and developers comply with residential income tax requirements in Nairobi City County. Despite the tremendous growth from real estate in Embakasi south sub-county, the corresponding tax collection from the sector has remained very low. The contribution by residential income earners has been very low despite all the efforts to enforce residential income tax policies. In Embakasi, several residential owners are under review, which has formed the need for undertaking this study. The study was guided by economic deterrence theory and the ability to pay theory. The study adopted an explanatory research design. The target population was 11,501 residential income earners in Embakasi, South Nairobi. A sample size of 386 respondents was selected using Yamane's formula. Primary data was collected using structured five-point Likert scale questionnaires. Statistical tools for both descriptive and inferential statistical data were applied to evaluate variations as manifested in the variables and test for hypotheses. The findings of the study indicated that the independent variables had a statistically positive significant effect on residential income tax compliance; thus, automation of services ( $\beta_1=0.362$ ,  $p=0.000<0.05$ ), taxpayer perception ( $\beta_2=0.243$ ,  $p=0.000<0.05$ ) and level of awareness ( $\beta_3=0.382$ ,  $p=0.001 <0.05$ ). The results concluded that service automation, taxpayer perception, and level of awareness positively and significantly affected residential income tax compliance. Based on the study findings, the Kenya Revenue Authority should enhance the automation of services for online registration, online filing, and online payment of tax liabilities to improve income tax compliance among earners of residential rental income. Future research was suggested on other factors not covered by this study but could potentially impact tax compliance across other economic sectors.

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**ACRONYMS AND ABBREVIATIONS**

<b>AS</b>	Allingham-Sandmo
<b>DTD</b>	Domestic Tax Department
<b>ICT</b>	Information Communication Technology
<b>IRB</b>	Inland Revenue Board
<b>KRA</b>	Kenya Revenue Authority
<b>NBR</b>	Nairobi.....
<b>OTF</b>	Online Tax Filing
<b>OTR</b>	Online Tax Registration
<b>OTRE</b>	Online Tax Remittance
<b>SPSS</b>	Statistical Package for Social science
<b>TAM</b>	Technology Acceptance Model
<b>TAT</b>	Technology Acceptance Theory

## OPERATIONAL DEFINITION OF KEY TERMS

**Automation of Services** - refers to a tax filing and payment system that use tools of Information and Communication Technology, particularly computers and the internet technology (Syed, Cassy, & Gaurav, 2017).

**Residential Income tax** - The ability and willingness of taxpayers to comply with the relevant tax laws and regulations relating to residential income (Ayuba, Saad & Ariffin, 2016).

**Tax Awareness** - This refers to the process where the revenue departments seek to train taxpayers on their responsibilities and improve their tax compliance (Mukhlis, Utomo, & Soesetio, 2015)

**Tax compliance** - Tax compliance is the fulfillment of all tax obligations as specified by the tax laws or the degree to which a taxpayer complies or fails to comply with the tax rules of his country. According to Brown and Mazur (2003), tax compliance is multi- faceted measure and theoretically, it can be defined by considering three distinct types of compliance such as payment compliance and filing compliance reporting compliance.

**Taxpayer's Perception** - Has been defined as an act of being aware of one's environment through physical sensation which denotes an individual's ability to understand (Analogue, 2007) and it is influenced by the attitude of that individual (Bititci et al, 2006).

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.0 Introduction**

The chapter discusses the background of the study on factors affecting tax compliance among residential income earners from both the global, regional and local viewpoints. The chapter also covers the statement of the problem, the research objectives, the research hypothesis, the justification, and the scope of the study.

#### **1.1 Background of the Study**

Tax compliance is an area that has been researched extensively. However, there has never been a universally agreeable definition of tax compliance. Kirchler (2007) came up with a less difficult definition in which tax compliance is defined as the most unbiased term to depict citizens' ability to willingly pay taxes. Singh (2003), nonetheless, defined tax compliance as an individual's demonstration of their citizenship duty by recording and providing accurate tax information, pronouncing all available pay precisely, and dispensing all payable duties within the specified period without hanging tight for follow-up activities from the tax authority. Moreover, tax compliance has additionally been isolated into two viewpoints: authoritative compliance and exact tax return consistence or compliance (Chow, 2002).

Understanding the compliance of residential income taxation is very important (Berhane & Yesuf, 2013). Residential income taxes are a fundamental source of revenue for the government and local authorities (Ross & McGee, 2012). However, the amount of revenue generated from these sources depends on many factors. According to Kirchler (2007), these factors may be individual, institutional and economic. Rizal (2011) established attitudinal and knowledge differences concerning residential income taxpayers. He posited that high tax rate, taxation system, dishonesty of residential

taxpayers, lack of awareness, and complexity of tax law and regulation might lead to high tax noncompliance (Kuria, 2013). Tax compliance is viewed as how a taxpayer obliges to tax rules and regulations (Sapiei & Kasipillai, 2013).

There is a developing collection of examinations through research into taxpayer compliance conduct that is assisting with fostering a superior comprehension of what rouses citizens to agree, or not, with the prerequisites of a tax framework (Gayer and Mourre, 2012). One of the principal tax avoidance reasons is the high residential income tax rate, which is driving most citizens to sidestep taxes (Mwangi, 2014). It is for the most part accepted that a high tax rate is the primary driver of tax avoidance by the majority of taxpayers. Impetuses to avoid tax rely upon the negligible tax rates because these oversee the additions from avoidance as an amount of the taxes sidestepped. A high duty rate might be a disincentive to work, prompting low expense income assortment (Kołodziej, 2011).

Residential income tax is the tax imposed on income from the rent of land or residential buildings. Berhane and Yesuf (2013), noted that the property owners must declare this income on their tax returns. However, residential income tax compliance is a major problem facing tax authorities. This challenge is attributed to many residential rental income earners who qualify but do not take it as a volitional initiative to declare, remit and pay for their tax liabilities. Even though Jones (2009) declares that tax compliance is the convenient or timely tax filing and reporting of required taxation data, the right self-evaluation of assessments owed, and the installment of those duties without authorization activity, most citizens do not accept it accordingly. Taxation non-compliance is any contrast between the genuine measure of tax paid and how much duties are due (Geremew, 2017). This distinction happens as a result of exaggerating costs or allowances and downplaying pay. Resistance involves both purposeful

avoidance and unexpected rebelliousness because of computation mistakes and a deficient comprehension of tax regulations (Robben *et al.*, 1990; Webley, 2004).

In Singapore, net residential income derived from property located in Singapore is aggregated with other income and is subject to Singapore taxation. Property tax, collected on all steadfast property in Singapore, is payable every year by the proprietor toward the start of the year (Karim, 2010). The property shrouded for tax assessment in Singapore incorporates Housing Development Board flats, houses, workplaces, production lines, shops, and land. The yearly Property tax is determined because of a level of the gross yearly value of the property determined by the tax division (Bobek, Roberts, and Sweeney, 2007). The rates are moderate and reach from 0% to 16% for proprietors involved in private property and from 10% to 20% for non-proprietor involved in private property; a 10% rate applies for nonresidential property (OECD, 2015).

In Malaysia, the administration of taxation in Malaysia is under the Inland Revenue Board (IRB). As in other countries, Malaysia suffers from revenue loss due to the problems of residential income tax non-compliance and income tax evasion (Hassan *et al.*, 2016). About 30 percent of all taxpayers fail to submit their annual returns to the Inland Revenue Board (Inland Revenue Board, 2017). This low level of tax compliance comes from several factors, including high tax rate, low levels of tax literacy, the size of the income tax, complex tax system, and tax laws (Umar, Kasim & Martin, 2012). Palil (2010) noted that tax compliance in Malaysia is influenced by the probability of being audited, penalties, personal financial constraints, and referent groups.

In Bangladesh National Board of Revenue (NBR) embarked on far-reaching reforms of its tax policy and tax administration to improve tax compliance. The latter intended



to centralize and automate tax accounts and the processing of tax returns (Ahmed, 2011). This was coupled with creating an efficient Taxpayer Identification Number (TIN) database as a valuable tool for analyzing taxpayer profiles and behavior. The NBR built strong back-end systems and data management capacity by centralizing accounts, returns receipts and processing, transaction processing and taxpayer registration, and rationalizing tax laws (Ibrahim *et al.*, 2017). The analysis and information enabled by these reforms support an aggressive taxpayer education program to facilitate their obligations to tax compliance.

South Africa laid out a sturdier presence in rustic regions through portable vehicles that carry tax information to individuals in such areas. The South African Revenue Service (SARS) has long perceived the significance of public expense mindfulness and tax awareness for accomplishing a culture of tax compliance (Ali, Fjeldstad, and Sjursen, 2013). SARS has played a lead job in citizen instruction, presenting different drives going from designated courses to longer-term outreach exercises (Adeniran, 2011). Connecting with citizens to increment of tax compliance and the income base is vital for SARS, meaning to improve its effort, training, administration, and implementation (Smulders *et al.*, 2017). The country has been at the forefront of encouraging digital tax services to aid tax compliance.

In Nigeria, compliance has consistently remained very low despite the various tax reforms undertaken by the Nigerian Government to increase tax revenue (Alabede, Zainol & Kamil, 2011). Anyaduba, Eragbhe, and Kennedy (2012) noted that deterrent tax measures are inadequate and have not helped promote tax compliance in the country. Fostering voluntary compliance and enhancing taxpayers' morale enhances tax compliance. Obara and Nangih (2017) noted that lack of appropriate tax policy, low compliance, and poor tax administration are linked to high levels of tax evasion and

avoidance reported in Nigeria. Further, Fakile (2011) noted a significant association between tax compliance and tax morale in Nigeria.

In Kenya, section 6 (a) of the 2015 Finance Act stipulates taxation policies on residential property of 10% on annual residential income of between 144,000 and Kshs. 10 million. And where annual residential income exceeds Kshs 10 million, the tax rate is 30% (Finance Act, 2015). The 10% tax rate on gross residential income is payable by a resident person, whether an individual or an entity and will apply to residential income that has accrued in or is derived from Kenya for the use of residential property where the rent income does not exceed KShs.10 million per annum (The Finance Act, 2015). Despite these provisions, the level of residential income tax compliance remains low. Tax non-compliance remains a major problem in Kenya and is prevalent in many economic sectors, including housing and property developers (Karanja, 2015). Tax non-compliance occurs due to failure to perform a timely filing or submission by taxpayers of all required tax returns. Tax non-compliance also entails late payment on the tax due, an understatement of income, and overstatement of expenses (Sani & Gbadegesin, 2015).

## **1.2 Statement of the Problem**

Residential rental income remains one of the potential economic sectors that would contribute to the effective generation of the much-needed revenue for governments across the world. The real estate sector is one of the investments that is poised to continue growing as the demand for better housing, and rural urban migration increases (OECD, 2021). Kenya has made realistic steps to ensure that real estate development takes root and grows across many towns and cities across the country (PriceWaterCoopers, 2020). Despite this growth and expansion of real development sector, the resultant revenue generated from residential rental income tax, remains a

mirage for the Kenya Revenue Authority to meet (Delloite, 2019). Taxation of residential rental income has consistently posted dismal compliance levels.

As per Kenya Revenue Authority's strategic plan, a recruitment drive aimed at helping landlords declare residential income on their KRA PINs in the FY 2015/16 was kicked off (KRA, 2016). The objective was to recruit 20,000 new landlords by the end of each fiscal year (KRA, 2019). Kenya Revenue Authority exceeded expectations by recruiting 29,000 landlords, representing compliance of 145% in the FY 2015/16. However, the Authority fell way below that compliance by failing to meet the recruitment target in the subsequent fiscal years. For instance, 16,978 landlords were registered in FY 2016/17, representing compliance of 85%, while 12,386 landlords were registered in FY 2017/18, representing compliance of 62% (KRA, 2018). The trend shows falling levels of tax compliance concerning the declaration of residential income on a taxpayer's PIN.

Thananga, Wanyoike, and Wagoki (2013) directed a research study on factors influencing compliance with residential income tax strategy via property managers in Nakuru Municipality, and the consequences of the examination show that the degree of full compliance with the arrangements of the residential income tax policy strategy was low. The review did not however feature the variables causing residential income tax compliance. This research study, subsequently, looks to respond to the examination inquiries by deciding variables influencing tax compliance among private pay workers in the Embakasi sub-county.

The non-payment of taxes arising from the disclosure and filing of residential income tax contributes to revenue shortfalls in the Domestic Taxes Department (DTD). This is a clear indication that residential rental income yield is too low to contribute to the

overall revenue growth and expenditure. Kenya Revenue Authority had targeted to collect Ksh. 190 million residential income taxes in Embakasi Area. However, only Ksh. 77.9 million residential income taxes were collected in the year 2017. These represented a non-compliance rate of 60% as per the KRA's Annual Revenue Performance Report 2018 (KRA, 2018). Within the South of Nairobi tax office, the residential rental income compliance rate was about 48% as per the revenue performance report 2021 (KRA, 2021).

As a result of this phenomenon, the study investigated factors affecting tax compliance among residential rental income earners in Embakasi sub-county Nairobi. As much as tax compliance is a widely researched area, very few studies have focused on compliance concerning the taxation of residential income in the predominantly low-income neighborhoods of a city. Embakasi sub-county is one of the crowded estates within the city's precinct. Understanding the challenges existing between the tax authority and the residential property owners was important. This study would add value to the strategies currently implemented by the revenue authority and contribute to better revenue performance. This can be realized through the enhancement of compliance among residential property owners.

### **1.3 Research Objectives**

The study objectives were divided into general and specific objectives.

#### **1.3.1 General Objective**

The general objective of the study was to investigate factors affecting residential income tax compliance among residential income earners in Embakasi South sub-county Nairobi

### **1.3.2 Specific Objectives**

- i) To establish the effect of automation of services on residential income tax compliance among residential income earners in Embakasi South sub-county Nairobi
- ii) To determine the effect of taxpayer perception on residential income tax compliance among residential income earners in Embakasi South sub-county Nairobi
- iii) To establish the effect of level of awareness on residential income tax compliance among residential income earners in Embakasi South sub-county Nairobi

### **1.4 Research Hypothesis**

The research was guided by testing the following hypotheses.

*Ho<sub>1</sub>* Automation of services does not significantly affect residential income tax compliance among residential income earners in Embakasi South sub-county Nairobi.

*Ho<sub>2</sub>* Taxpayer perception does not significantly affect residential income tax compliance among residential income earners in Embakasi South sub-county Nairobi.

*Ho<sub>3</sub>* Level of awareness does not significantly affect residential income tax compliance among residential income earners in Embakasi South sub-county Nairobi.

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

The study findings showed various levels of significance of the factors that were found to determine compliance across real estate sector and the revenue authority. To the policymakers, study was important, specifically by highlighting major factors influencing residential income tax compliance within the local context. The Kenya

Revenue Authority can formulate policy guidelines to address these factors that determine compliance, and hence increase the amount of revenue collected from residential income. It could enable the authority to address these factors as they were proved to influence residential tax compliance. The tax policies aligned better, particularly the rates imposed so as to encourage tax compliance. Since the findings revealed that automation of services had significant and positive impact on income tax compliance, the revenue authority could enhance technology reach to bring more people in to tax paying bracket.

The findings of the study revealed that automation of services was significant to property owners, in regard to taxation and the established systems for payment of taxes. Because the study found that level of awareness impacted tax compliance positively and significantly, the findings of the study can anchor the bases for increased efforts to educate residential rental income taxpayers. By paying residential income tax on time and complying with tax guidelines, the landlords and other property owners may reduce their chances of ever coming into disputes with the revenue authority. The study could save both the authority and the property owner time and money that could have otherwise been used to address the disputes.

The findings of the study can be used to enhance the existing body of knowledge and offer excellent sources of in-depth information and knowledge as a benchmark for future studies. Researchers could use the findings of this study as their points of reference and to enable general of similar concepts are were in this study. Tax noncompliance is a significant research topic, particularly among tax administrators, and as a result, the results of this study can be of great importance to academics and scholars who may want to understand the factors behind low residential income tax compliance in Kenya and anywhere else around the globe.

## **1.6 Scope of the Study**

This study investigated factors affecting residential income tax compliance among residential income earners in Embakasi sub-county Nairobi. The study specifically established the effect of automation of services, taxpayer perception, and level of awareness on tax compliance among income earners in Embakasi sub-county Nairobi, specifically Embakasi south. The study was supported by adopted three theories which anchored and facilitated the choice of the study concepts. These theories included economic deterrence theory, the technology acceptance model and the theory of ability to pay. These theories were found to be the most relevant and supportive of the study concepts. Even though there are several factors that affect residential income tax compliance among residential income earners, these three; automation of services, taxpayer perception, and level of awareness were found based on the extant literature to be mostly relevant to the Kenya context.

Embakasi South sub-county Nairobi was purposely selected for the study because it was near headquarters where all revenue authority tax collection policies and regulations are made. The study targeted only those residential rental income earners whose annual income ranged from Kenya shillings 288,000 to Kenya shillings 15 million. This was the bracket of rental income earners whose incomes are provisioned for residential rental income tax as per the Finance Act 2020 (KRA, 2021). The study further adopted an explanatory research methodology to facilitate the investigation of the general concepts while still giving room for further inquiries. The target population in this study was 11,501 residential income earners in Embakasi, south Nairobi. The researcher targeted residential income earners mainly because they are directly or indirectly involved in decisions that ensure their tax compliance. The research considered financial years of 2021/2022.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.0 Introduction**

This chapter outlines the concept of the study, a theoretical framework that supports and relates to study variables. It is also looked into the conceptual framework, empirical review and critique of the existing literature, a summary of the literature reviewed, and the knowledge gaps that warranted filling the study.

#### **2.1 Conceptual Review of the Study Variables**

Drawing from the discussed background of the study as supported by the existing literature, the study drew up the concept of residential income tax, automation of services, taxpayer perception, and level of awareness among other determinants to investigate further. These determinants were found to wanting. Some of the reviewed literature showed that they were critical factors while other found that they were not having any correlations with the residential rental income. This made it possible to refocus these concepts into the local context and assess their relationship with residential income tax compliance.

##### **2.1.1 Residential Income Tax Compliance**

The concept of residential rental income tax postulates that this tax is supposed to be imposed on income from the rent collected on the land or residential buildings. The property owners are required to declare this income and pay their due tax liabilities (Berhane & Yesuf, 2013). However, the majority of the property owners have not effectively complied with all the rental income tax compliance requirements. This situation presents a challenge to tax authorities and even the property owners. The majority of these property owners may know that tax compliance is the timely filling



and reporting of required tax information, the correct self-assessment of taxes owed, and the payment of those taxes without enforcement action (Jones, 2009).

The study was interested in understanding the underlying factors that would promote compliance among the property owners. Tax non-compliance is any difference between the actual amount of taxes paid and the amount of taxes due (Geremew, 2017). This difference occurs because of overstating expenses or deductions and understating income. Non-compliance comprises both intentional evasion and unintentional non-compliance due to calculation errors and an inadequate understanding of tax laws (Robben *et al.*, 1990 & Webley, 2004).

### **2.1.2 Automation of Services**

The second concept of the study was that automation of services was one-factor influencing tax compliance. The influence of service automation varies in different economic sectors and the ability of the users to interact with such automated systems effectively. Alibraheem & Abdul-Jabbar (2016) conducted a study in Malaysia on electronic tax filing adoption and its impact on tax employees' performance. The study adopted a descriptive research methodology. The findings of the study revealed that technology adoption not only influences end-users but also improves employee performance. This performance was further associated with improved tax compliance through other integrated ICT platforms. In the study, automation of services primarily supported through electronic means had a positive and significant impact on income tax compliance.

### **2.1.3 Taxpayer Perception**

The third concept of the study was that taxpayer perception influences residential income tax compliance. The perception could be on the tax rates, the complexity of the

tax systems, and the usage of tax revenue by the government. According to Mitu (2018), taxpayers' perception plays a crucial role in correctly fulfilling their obligations. That taxpayer's perception that tax authorities are sincere with the tax collection goals and individual morality or right attitude fosters increased awareness among property owners, according to a study conducted by Sritharan & Salawati (2019) on taxpayers' perception and tax evasion. The study used a convenient sampling technique to select 419 respondents. The study findings revealed that taxpayers' perceptions about government spending are significant factors determining tax evasion, which is the opposite of tax compliance.

#### **2.1.4 Level of Awareness**

The fourth concept of the study was that level of awareness affects residential rental income tax compliance among the residential property owners. Permatasari & Mutoharoh (2021) studied the determinants of tax compliance in Indonesia. The study's findings revealed that tax knowledge had a positive effect on tax willingness. However, transparency in the government system and trust in the existing laws did not have any impact on tax compliance. The level of awareness of the tax laws, requirements, and procedures is important to ensure compliance. Property owners can only be compliant if they have the requisite knowledge about the taxes they must pay, the process needs for declaration, the filing process, and the computation and payment of taxes due. If this requisite knowledge is insufficient or completely lacking, taxpayers may involuntarily be non-compliant.

#### **2.2 Theoretical Framework**

The theoretical framework outlines the theories that anchored the study. The main theory in the study was economic deterrence and supported by the ability to pay and technology acceptance model theory. These were further discussed, and their support

and relevance were postulated accordingly.

### **2.2.1 The Economic Deterrence Theory**

The Allingham-Sandmo (AS) hypothesis, otherwise called the economic deterrence theory, radiated from the fundamental work of Allingham and Sandmo (1972). This model claims that conduct is affected by elements, for example, taxation rate, which decides the advantages of tax avoidance and punishments for extortion and frauds, and the likelihood of discovery, which determines costs (Allingham and Sandmo, 1972). In its fundamental structure, the economic deterrence theory sees the singular citizen as a sane financial specialist who evaluates costs determined by the likelihood of recognition and punishments for fraudulent activities and, on the opposite side, the advantages of dodging taxes. Given the decision of one or the other likelihood, if the advantages of resistance offset the expense, the citizens will limit the economic repercussions to their individual and business elements (Walsh, 2012).

The model in this way decreases the issue to that of objective decision making under vulnerability by which tax avoidance takes care of either lower duties or subjects one to sanctions (Fjeldstad, Schule-Herenberg, and Sjursen, 2012). This assumption implied that when there are low penalties, the tendency for detection is high, penalties for evasion are severe, and fewer people will be non-compliant. This theory concludes that tax compliance depends more on tax audits and the penalties or fines as these come with an economic burden. Thus, it implies that all taxpayers only pay their taxes because they fear being sanctioned. To a certain degree, this works to benefit the tax authority as an increase in sanctions or fines and penalties increase tax revenue, as the observation made by Awa and Ikpore (2015). Based on this assumption, the model advocates stricter audits and heavy penalties for offenders as a basis for deterrence of tax non-compliance (Fjeldstad *et al.*, 2012).

This theory was relevant to the study since it presented a condition for choice for property owners. When the property owner weighs the economic consequences of non-compliance, they are most likely to comply instead of a situation where penalties, fines, and cases would almost be equal to the cost of non-compliance. The theory of economic deterrence supported the variable of income tax compliance, taxpayer perception, and level of awareness. Payment of taxes is a mandatory obligation, and when the property owner evades, the cost consequences could be too extreme, promoting compliance. When taxpayers perceive that non-compliance is heavily punitive, they would mostly be compliant. This situation is also true where the knowledge or awareness is there on the taxpayer's part, which acts as a safeguard against non-compliance.

### **2.2.2 Ability to Pay Theory**

The ability to pay theory was developed by Adam Smith in 1957 and supported by Swiss philosopher Jean, the French political economist Say, and the English economist Mill. According to the ability to pay theory, taxes should be distributed according to the ability of the taxpayers (Hyman, 2014). This theory treats the revenue and expenditure of the government separately. The obligation to pay to the government is taken as a social and collective responsibility, although the question of who shall pay and what amount is necessarily an individualized one. Those who have the means pay should pay according to their ability, and those who do not have the means need not pay (Kennedy, 2012). However, this means to pay is relative and could be a point for further disposition.

According to Kennedy (2012), the ability to pay theory has been justified based on equality of sacrifice. The fundamental precept of this theory is that the citizenry ought to share the weight of tax assessment on the standards of equity and value and that these standards require that the taxation rate is distributed by their relative capacity to pay.

This hypothesis recommends that the payers of residential rental income tax ought to pay genuinely and as indicated by their paying limit (Chigbu et al., 2012). As per Hyman (2014), individual assessments of the capacity to pay are probably going to vary, yet in nations, for example, USA and Kenya, the capacity to pay changes with pay. Taxes are payable on graduated scales and segregated bases.

The posits of the theory of the ability to pay sit well with social thinkers because it follows the ideas and concepts of justice and equity, where those who earn more should pay more to ensure there is growth and development felt across the society. Be that as it may, the tenet got equivalent help from non-social scholars and turned out to be important for the hypothesis of welfare economics. The significant rule of this hypothesis is that the citizenry ought to pay the taxation rate on the standards of equity and value. According to their relative ability to pay theory, these canons demand that the tax burden be apportioned.

The ability to pay theory was relevant to the study because investors in property owners can pay their taxes. Firstly, they can enlist the services of a tax accountant who is in a position to file the returns and pay taxes due properly. Secondly, having developed these properties, the property owners should not fail to pay their taxes as long as there is occupancy. Therefore, whether to comply or not should not arise from the rental income earners. It should be mandatory and regular. The theory supported the study variable of income tax compliance and automation systems. Even if systems were to be complicated, the rental income earners could enlist the services of experts to ensure that they were timely and procedural in all tax matters. The theory further informed the choice of these variables and their respective indicators.

### **2.2.3 Technology Acceptance Model Theory**

The Technology Acceptance Model theory, often referred to as TAT, was first advanced by David in 1986. This model is important in explaining and determining technological behavior (Chem and Chien-Yi, 2011). The theory postulates that the taxpayer can accept or reject a technology if it is considered complicated or infringes on the individual's privacy (David, 1986). The theory implies that once a customer is exposed to automated systems and communication innovations, taxpayers' choices and regular use of the technology improve. This improvement is the acceptance to transfer to and use the existing technology fully. This constitutes its apparent usefulness and effectiveness.

TAT has been largely adopted due to its ability to predict the use of technology by individuals (Fishbein & Ajzen, 2010). Davis (1989) argues that the perceived ease of use affects the intention for adoption and perceived usefulness. TAT has, however, been linked with haddocks despite being resourceful in the study of adoption and use of technology, such as failing to consider the organization's setting, generality, and parsimony during the initial stages of designing the model and disregarding the factors that moderate ICT adoption (Sun & Zhang, 2006).

Franco and Roldan (2005) studied the relationship between perceived usefulness and behavioral intention. The study's findings showed that perceived usefulness and behavioral intention were strong among goal-oriented ICT users. Chau and Hu (2000) compared three models Technology Acceptance Model, the Theory of Planned Behavior, and a decompressed TPB model that had potential adequacy in targeted healthcare professional settings in Hong Kong. The comparison findings showed that TAM was better than TPB in explaining the physicians' desire to use telemedicine technology. TAM has been used by researchers worldwide to agree to and adopt

different types of information and technology systems. Shafeek (2011) evaluated teachers' acceptance of eLearning systems while using TAM. Pavlou (2003) developed a model to predict the acceptance of e-commerce by adding new variables, trust, and perceived risk. When users perceived risks were minimal, there was an increase in information communication technology platforms.

Although TAM is generally utilized and acknowledged among many disciplines, it has a few blemishes. Bagozzi, Davis, and Warshaw (2007) contended that because new advancements, for example, PCs are perplexing and a component of vulnerability exists in the personalities of leaders concerning the effective reception of the ICT, individuals structure mentalities and aim toward attempting to figure out how to utilize the innovation. With these perspectives and aims, when negative, the clients may not acknowledge the innovation by any means. Analysis of TAM as a hypothesis incorporates its problematic heuristic worth, restricted logical and prescient power, technicality, and absence of any useful worth (Chuttur, 2009). Benbasat and Barki (2000) recommend that TAM has redirected scientists' consideration from other significant examination issues and has made a deception of progress in information gathering.

The Technology Acceptance Model theory is related to the study because the Kenya Revenue Authority runs the majority of its tax filing obligations online and using technological platforms. These technological platforms have improved tax compliance because taxpayers can interact with them virtually. Taxpayers can enquire about the systems for clarity. These efforts save time and hence encourage taxpayers to comply. The theory of TAM supported the variables automation of services since most filing tax actions are registered online through the filing system, and payments are made as well online. The theory further informed the study's variables of automation of services

measurement indicators, including online registration, online filing system, and online payment system.

### **2.3 Empirical Review of Variables**

Scholars and other interested researchers have conducted studies on tax compliance by looking into the factors that affect tax compliance. The study reviewed the literature that supported the concepts of the study. These concepts included the automation of services, taxpayer perception, and level of awareness. The existing literature was also critiqued where necessary.

#### **2.3.1 Automation of Services and Residential Income Tax**

Automation of services enables tax authorities to monitor tax compliance. For instance, by checking electricity bills from Kenya Power Lighting Company (KPLC), Kenya Revenue Authority can compare residential income tax paid by residential property owners against the total residential income tax bill. Greater deviation in the electricity and water consumption bills from the actual bills indicates that the residential property owner is not compliant (Serem, Kinanga & Ondiba, 2017).

Moreover, vendors offering digital tax services and tax advisory firms focus on digitalized tax solutions and data analytics. This center features the way that digitalized tax service administrations have decisively changed the duty consistence scene and the capacity of the expense specialists to assemble and break down data; citizens additionally should be ready to digitalize charge administrations to meet their assessment consistence commitments and answer any requests from the duty specialists (Wasao, 2014). New electronic strategies (e-invoicing, e-bookkeeping, e-revealing, and e-inspecting) and high-level expense-centered investigation are top of the psyche of charge specialists and duty chiefs, and computerized charge administrations are



changing the way that tax collection is directed. The utilization of robotization of assessment administrations to work on the adequacy of expense organization, grow citizen administrations, and upgrade charge consistence has come to draw in the rising consideration of tax collection specialists (Dowe, 2008).

The quickly expanding speed of digitalization will altogether affect tax compliance. Data innovation, which incorporates media communications and automated frameworks, looks set to increment charge processes considerably, with investment funds in time as well as cash, while simultaneously managing the cost of clients a superior help (Olaoye and Kehinde, 2017). All the duty data frameworks and data sets ought to be coordinated and have access the instruments required to battle tax non-compliance, work with tax compliance, and fulfill data necessities at the functional and interior control levels to successfully deal with an advanced Tax Administration (Vragaleva, 2015).

Taxation authorities in certain nations have fostered areas of strength to further develop tax compliance through a deeply grounded control component and dynamic utilization of computerized stages. Tax specialists generally looked for ways of working with the utilization of the web to send data and access tax documents by citizens and directly interact with the wellsprings of data (Iordachi and Timus, 2017). They have been carrying out an electronic receipt, handling, and conveyance strategies. In tending to the tax compliance hazard of under or non-statement of turnover, a few financial specialists have created measures given community cognizance or outsider data to check citizen announced information and in this manner battle charge evasion (Adeniran, 2011). These digitalized charge administrations grow valuable open doors for the government to continue with people and organizations electronically, battle tax non-compliance, and fulfill data necessities at the interior control levels for viable

monetary administration.

Mustapha and Sheik's (2014) research on the influence of digitalized charge administrations on the web-based charge framework utilizes the instance of the Self-Employed Nigerian Taxpayer. A poll was managed and broken down utilizing Structural Equation Modeling to decide the critical impact of the variables. The outcome showed that every one of the marks of computerized charge administrations is genuinely critical as proportions of the web-based tax framework. It likewise demonstrates an immediate connection between digitalized charge administrations and the internet-based tax framework.

Lai and Nawawi (2010) reviewed by coordinating ICT Skills and tax programming in tax education in Malaysia. The respondents in the review were tax experts. The review is meant to lay out the important abilities expected by citizens to completely use a web-based tax framework. The investigation discovered that a citizen required three abilities to associate well with an advanced stage-based tax framework: calculation sheet programming, word-handling programming, and email.

Olatunji and Ayodele's (2017) research on the effect of advanced tax administrations on charge organizations in Southwest Nigeria. An enlightening examination configuration was utilized, of which a survey was utilized to assemble information and dissected with different relapse and Pearson item second relationship. The review uncovered that advanced expense administrations (Online Tax Filing-OTF, Online Tax Registration-OTR, and Online Tax Remittance-OTRE) influence tax efficiency and productivity.

Muturi and Kiarie (2015) did a review to lay out the impacts of the web-based tax framework on tax compliance among little citizens in Meru County, Kenya. The review

embraced an unmistakable examination plan. Information was gathered utilizing an organized poll and examined utilizing SPSS (variant 20). Notwithstanding spellbinding insights, connection and relapse investigations were done, and rundowns were introduced. The review discovered that the internet-based charge framework influences charge consistence levels among little citizens in Meru County.

Thananga, Wanyoike, and Wagoki's (2013) study on factors influencing consistence with private annual expense strategy via property managers in Nakuru Municipality. Essential information was gathered utilizing polls. The consequences of the examination showed that the degree of full consistence with the private annual duty strategy arrangements was low. Just 39.0% of the property managers demonstrated that they completely followed the arrangements.

The most widely recognized type of rebelliousness was through exaggeration of costs and derivations that would, thusly, decrease available compensation and how much assessment. Likewise, misrepresentation of salaries was additionally normal. Most landowners stayed away from altogether rebelliousness where they didn't submit returns or cover taxes; all things considered, they had unpredictable installments and tax decreases.

### **2.3.2 Taxpayer Perception and Residential Income Tax Compliance**

Baru (2016) contended that the citizens see and partner paying duty with social obligation, and the organization ought to pay its reasonable portion of taxes. Different examinations through various show that most SMEs do not uphold tax avoidance, particularly in that frame of mind, as it restrains the economy's development. Kirchler (2007) portrayed tax avoidance as a perplexing peculiarity that is affected by financial thought processes as well as by mental elements. He collected charge consistence

research zeroing in on tax avoidance and incorporated the discoveries into a model because of the connection environment between charge specialists and citizens. The association environment was characterized by residents' confidence in specialists and the force of specialists to control citizens really; contingent upon trust and power, deliberate compliance, upheld compliance, or rebelliousness are possible results. Therefore, in this case, if the property owners do not trust the government, they would not comply with tax requirements as opposed to when they the government; the outcome is compliance.

Besel and Gurdal (2017) conducted a study on taxpayers' perception and tax awareness: A case from Kocaeli. The study adopts a survey method where 419 taxpayers in the province of Kocaeli were analyzed. Data were analyzed using regression and correlation analysis. The study's findings revealed that taxpayers' perception positively and significantly affects tax compliance. The more they perceive the importance of tax to the taxpayer, the more likely the taxpayers are to seek more information, increasing their compliance. Amin & Mispa (2020) studied the dimension of taxpayer perception regarding tax evasion actions in the Makassar South Tax Office. Data was collected using a questionnaire from 100 corporate taxpayers with incidental techniques. The study adopted multiple regression analysis models with the help of SPSS tools. The result of the study indicated that the taxation system, the possibility of detecting fraud, justice, and tax sanctions has a negative and significant effect on tax evasion.

Keraro, Oloo, and Ragama, (2015) note that opportunity for tax evasion may influence tax compliance negatively. Jayawardene and Low (2016) revealed that taxpayers' perceptions and attitudes encourage tax compliance, including VAT compliance, in Sri Lanka with a correlation of 0.834=1. This argument is supported by King'oina (2016), who stated that taxpayers' perceptions and attitudes significantly affect Value Added

Tax compliance. VAT compliance among individual SME owners could be directly affected by other SME owners.

Chan, Moorthy, and Choo (2017) directed a research study on citizens' impression of tax avoidance conduct: an exact research study in Malaysia. Information was gathered from 400 citizens using a survey. Information was then investigated utilizing relapse and relationship examination. The review's discoveries recommended that charge information is the main expense framework trademark influencing citizens' perspectives toward charge ethical quality. The review discoveries additionally recommended that citizens' disposition toward charge profound quality is influential for citizens' view of tax avoidance in Malaysia.

Nonetheless, Ogunbade, Enitan, and Adekoya (2021) directed a research study on charge mindfulness, citizens' discernments and perspectives, and tax avoidance in the casual area of Ekiti State, Nigeria. The review utilized an organized survey to gather information from 150 respondents. The review's discoveries showed that mindfulness diminished tax avoidance; nonetheless, citizens' discernments needed scientific help. The discoveries likewise uncovered that citizens' disposition meaningfully affects the connection between citizens' mindfulness and tax avoidance. The research study additionally uncovered that citizens' impression of government spending and tax non-compliance was not statistically significant.

Rantelangi & Majid (2018) studied factors influencing the taxpayer's perception of tax evasion. The purpose of the study was to find out factors that influence taxpayers' perception of tax evasion. The study adopted a purposively sampling technique, and data were analyzed using Partial Least Square. The result of the study indicated that tax knowledge, tax morale, tax system, and tax fairness negatively influenced the taxpayer's

perception of tax evasion. The study, therefore, following the preceding discussion, investigates the influence of taxpayers' perception on tax awareness. To investigate whether age, gender, and level influence perception of tax awareness.

### **2.3.3 Level of Awareness and Residential Income Tax**

Oladipupo and Obazee (2016) examined the effects of citizens' information and punishments on charge consistence among little and medium ventures in Nigeria utilizing a study research plan. The information got from the poll was investigated utilizing the Ordinary Least Square relapse technique. The outcomes showed that charge information essentially affected charge consistence. The concentrate similarly showed that charge information had a higher inclination to advance expense consistence. The concentrate additionally suggested that little and medium-scale entrepreneurs look to propel their assessment information and mindfulness for the common advantage of the legislatures and citizens.

Charge mindfulness is figuring out fundamental duty ideas inside a country (Fauziate *et al.*, 2016). It is vital to decide the right expense risk in the time of self-appraisal and as indicated by the KRA strategy, which is focused on trust and help by which, normally, the citizen would know and be taught the assessment rules and guidelines.

Newman *et al.* (2015) demonstrated that the SMEs in created nations don't agree with the duty regulations and noticed that starting classes ought to be presented at the essential learning levels. McKerchar and Hansford (2015) express that the shortfall of expense information might prompt assessment resistance. Nyamwanza *et al.* (2014) expressed that charge mindfulness isn't the main supporter of expense rebelliousness. Charge mindfulness is the information that is expected to have the option to satisfy the different commitments of an individual, though schooling includes affecting the

expertise of a person to create a positive outcome. Charge mindfulness includes the information, acknowledgment, regard, and acquiescence to appropriate regulations and guidelines concerning tax assessment, as indicated by Mulian and Shewan (2011). Expanding mindfulness through instruction and different methods of help could increment charge consistence. Charge mindfulness is an interterm in that the two remain forever inseparable through training and help, the expense information, and mindfulness for shared advantages of the public authority and public. These endeavors could work on citizens' impression of duty commitments, liabilities, and compliance.

Korndorfer and Schmoke (2014) stated that the taxpayer level of awareness influences compliance, and various research support this argument. Knowledge is categorized based on official education received and tax evasion knowledge. Awareness, one of the variables necessary for tax compliance, is well connected with the taxpayer's ability to comprehend tax laws & regulations and the ability to comply (Poudel, 2017). Taxpayer formal training exists to motivate voluntary compliance through service delivery to taxpayers. A law degree in self-compliance will urge revenue specialists to employ forceful techniques to uphold compliance levels (Fjeldstad & Ranker, 2003). Kimingu and Kileva (2007) noted that the education component would deal with compliance matters in the informal sector. This is premised on the possibility that non-compliance is unintentional due to the ignorance of the law or might be deliberate because of the negative tax compliance mentalities.

#### **2.3.4 Income Tax Compliance in Kenya**

The goal of every revenue authority is to collect the maximum possible taxes in any country. According to Grampert (2001), the tax authorities should endeavor to sustain confidence in the tax system. They should also understand taxpayers' attitudes toward the demand for quality, effective and efficient tax services. In the Kenya context, KRA

attained increased demand for quality taxpayer services since 2000. The increment had forced the authority to be more receptive and adopt the use of technology to aid in addressing the demands of the public. Very few people currently walk in to seek services at the KRA offices due to available information on technological platforms, including websites, social media, and print. The authority has also improved taxpayer interaction through integrated tax management systems. Taxpayers can seamlessly declare, file, and pay for their tax liabilities using these platforms. These have been shown to increase tax compliance in Kenya.

Santoro, Groening, Mdluli & Shongwe (2020) conducted a study on to file or not to file, another dimension of non-compliance, in Eswatini. The study adopted descriptive research methodologies. Data were analyzed using a regression model. The study findings reveal a strong correlation between tax knowledge and income tax compliance. Mascagani, Santoro & Mukama (2019) surveyed teaching to comply, evidence from a taxpayer education program in Rwanda. The survey adopted secondary data analysis methodologies. The study found that taxpayer awareness results in significant and large increases in knowledge, which starts from an exceptionally low level, and that it contributes to improving compliance behavior. Further, the results showed that training new taxpayers help bring them into the habit of filing tax declarations. Further, the study found that the benefits of taxpayer awareness go beyond increased income tax revenue in the short term and include building the habit of sustained income tax compliance.

Ndaka (2017) conducted a secondary data review research into the informal sector and taxation in Kenya; causes and effects. The study adopted desktop research methodology and metadata analysis. The study's findings show that the informal sector is critical to the economy. However, there is a need for the Kenya Revenue Authority



to conduct other administrative reforms like setting up a specialized unit or desk for the informal sector taxation, instilling a culture of compliance, training, and sensitization of taxpayers, and recognizing informal taxpayers, among others to tap into the revenue that would be lost as a result of non-compliance in the informal sector. Verberne (2018) conducted similar desktop research by empirically reviewing recent research on taxation and the informal business sector in Uganda. The study results showed that tax compliance attitudes are influenced by issues related to their trust, knowledge of the tax regime, the perspective of public goods and service delivery, ideas about fairness, and the power of the authorities to enforce compliance.

According to Mascagni and Santoro (2018), a review on the role of taxpayer education in Africa found that level of awareness has many benefits to income tax compliance. When the taxpayer is aware of the reasons behind taxation, laws, and regulations on tax payment, tax payment procedures, and tax non-compliance consequences. The taxpayer is more likely to be compliant and directly impacts income tax compliance. Specifically, the review showed that income tax compliance would greatly improve when tax education is given a priority, especially among the informal sector players such as micro-enterprises. This set of education may include as well on automated processes. The awareness would also dispel the fears surrounding the perceived repercussions of a taxpayer being compliant.

Tax compliance in the real estate sector is mainly achieved when most property owners voluntarily file their tax returns and pay resultant tax liabilities as stipulated in the tax laws, without the intervention of the tax authorities through enforcement. However, if voluntary compliance is low, enforcement measures like audit and collection are reported. Based on the reviewed literature, income tax compliance, especially in the residential rental income sector, was affected by several factors. For the study, the

factors selected as informed by theories and the existing literature were automation of services, taxpayer perception, and level of awareness. These were further measured with indicators that would lead to the attainment of the research objectives.

#### **2.4 Critique of Existing Literature**

Even though most of the literature reviewed revealed that several factors positively influenced tax compliance, this was not always the case. Aronmwan and Eragbhe (2015) studied the effect of taxpayers' income, taxpayer attributes, and personal income tax compliance in Nigeria. The study adopted a survey research design. The data gathered were analyzed using the Ordinary Least Square technique. The study's findings showed that taxpayers gender significantly affected compliance with taxation requirements. Most importantly and relevant to this study, the findings also revealed that taxpayer perception did not significantly impact personal income tax. Therefore, it is not always possible that when perceived economic consequences are weighed, the taxpayer automatically complies, as posited by Baru (2016) and Basel & Gurdal (2017).

Rahmayanti et al. (2020) studied the effect of tax penalties, tax audits, and taxpayers' awareness on corporate taxpayers' compliance when moderated by intention. The study adopted a multiple linear regression model. The findings of the study revealed, however, that as much as penalties, audits, and awareness positively impacted corporate taxpayer compliance, the intention was not able to moderate fines, audits, and taxpayers' awareness. In other words, when taxpayers are aware of their tax compliance obligations, the intention to comply does not always play a role in compliance. Some might be aware and still lacks the intention to comply and hence will not. Since compliance is a behavioral matter, it is incumbent upon the taxpayer to prevail upon their negative perceptions and contribute to revenue collection. This goes against scholars such as Osebe (2013 and Wathira (2016). Many other underlying

factors would contribute to total compliance from the taxpayer's perspective.

Thananga, Wanyoike, and Wagoki (2013) conducted a study on factors affecting compliance with residential income tax policy by landlords in Nakuru Municipality, and the results of the research show that the level of full compliance with the provisions of the residential income tax policy was low. The study did not highlight the factors causing residential income tax compliance. Jemaiyo and Mutai (2016) studied determinants of tax compliance and their influence on the level of tax compliance in the real estate sector, Eldoret Town-Kenya. However, the study found that tax compliance cost, tax knowledge, tax penalties, and tax audit had a significant effect on tax compliance. The study did not employ taxpayer perception in enhancing tax compliance.

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

From the review, conceptual, contextual, and methodological gaps were identified. A study by Geremew (2017) studied factors affecting residential income taxpayers' compliance within the tax system in Ethiopia. The findings of the study established that there were financial constraints, referent group influences, lack of taxpayers' awareness, negative perception of tax fairness, understatement of income, educational status, absence of government incentives, trust in tax assessment, collection procedure, and residential tax audit influenced tax compliance. Nawawi's (2010) study on integrating ICT skills and tax software in tax education established that a taxpayer needed information communication technology skills to interact well with a digital platform-based tax system. However, the study did not point out the effect of electronic taxpayer education usage on tax compliance. Moreover, Fauziati *et al.* (2016), in the study on the impact of tax knowledge on tax compliance, a case study in Indonesia

revealed that tax education has no impact on tax compliance. However, the results seem to conflict with other empirical studies that showed that education significantly impacts tax compliance (Deyganto, 2018; Waithira, 2016; Mukabi, 2014).

Serem, Kinanga, and Ondiba (2017) studied the effect of tax system simplicity on tax compliance among residential income earners in Eldoret Town. The study established that the level of income of the residential income earners influenced their level of tax compliance. However, the study was not exhaustive and did not list all factors influencing residential income tax compliance. The current study includes tax rate, electronic tax system, and taxpayer education as additional factors influencing residential income tax compliance.

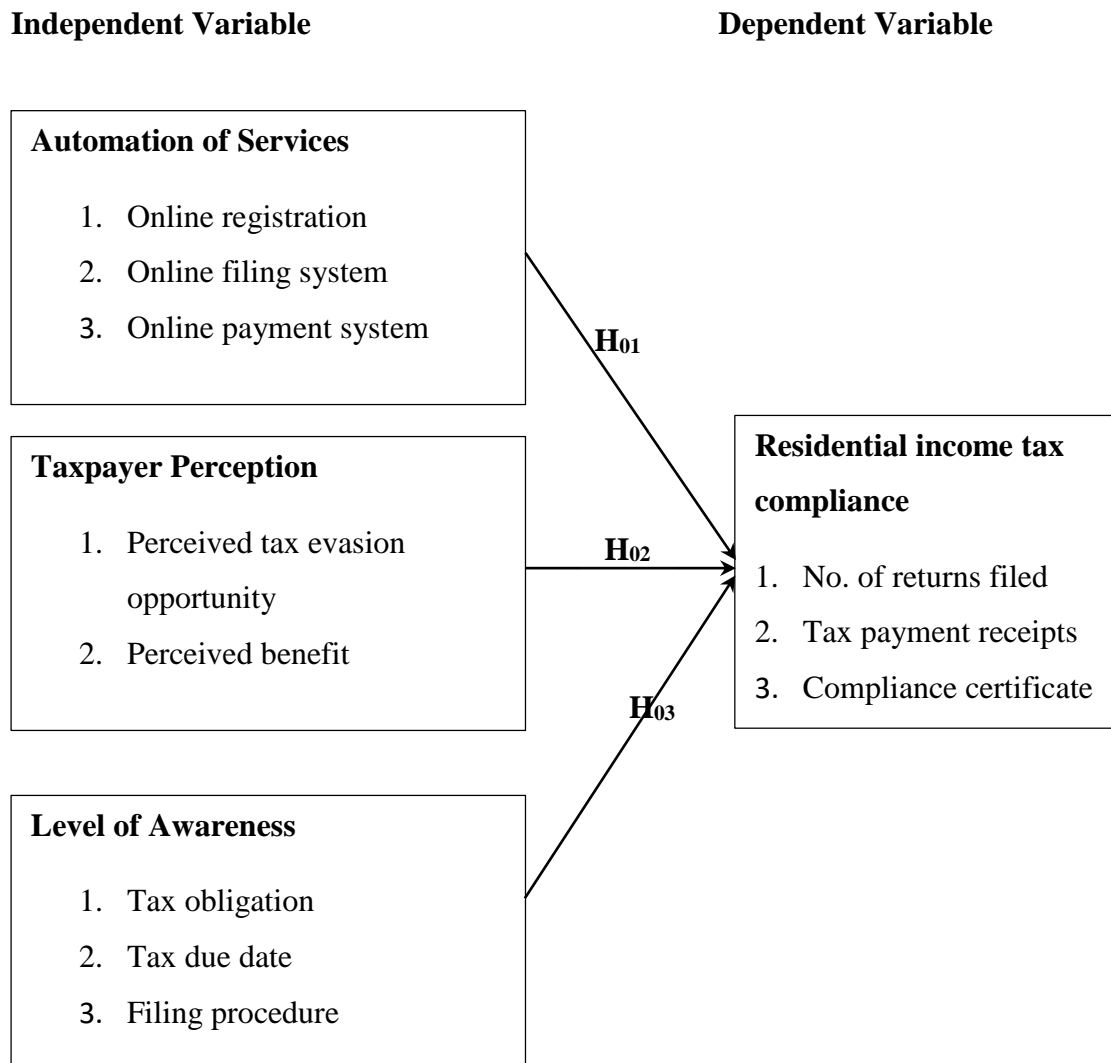
Waithira (2016) studied the determinants of residential income tax compliance by property owners in Thika Town. The study's findings showed a significant positive relationship between tax rate, tax knowledge, and residential income tax compliance and an insignificant positive relationship between attitude and perception and residential income tax compliance. However, the study did not mention any effect of the electronic tax system on residential income tax compliance. Thananga, Wanyoike, and Wagoki (2013) studied factors affecting compliance with residential income tax policy by landlords in Nakuru Municipality. The research results showed that the level of full compliance with the residential income tax policy provisions was low. The study did not highlight the factors causing residential income tax compliance.

Jemaiyo and Mutai (2016) studied determinants of tax compliance and their influence on the level of tax compliance in the real estate sector, Eldoret Town-Kenya. The study found that tax compliance cost, tax knowledge, tax penalties, and tax audit had a significant effect on tax compliance. The study did not include tax rates and taxpayer

education in enhancing tax compliance. Karanja (2014) examined factors affecting voluntary tax compliance of landlords in Nairobi County, Kenya. The study established that attitudes and perceptions of social norms and respondents' income levels strongly influenced tax non-compliance among Kenyan taxpayers on residential income. The study covered the entire Nairobi City County. The study specifically investigated the automation of services, taxpayer perception, and awareness of residential income tax compliance from Embakasi South Sub-County, Nairobi County.

## **2.6 Conceptual Framework**

According to Adom *et al.* (2016), A conceptual framework is a group of concepts that are well organized to provide a focus, a tool, and a rationale for interpretation and integration of information and is usually achieved in pictorial illustrations. The dependent variable residential income tax compliance was illustrated against the three independent variables: the automation of services, taxpayer perception, and level of awareness. This was further illustrated in **Fig. 2.1**



**Figure 2.1: Conceptual Framework**

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter focused on the research methodology employed to deliver the study objectives. It described the research design, the study population, the sampling frame, the sample size, the sampling technique used in data collection, identification of the pilot of the study, statistical assumption tests, data analysis, and presentation.

#### **3.2 Research Design**

According to Khan (2018), it serves as a blueprint of techniques used by the researcher to evaluate the link between the research variables: dependent and independent variables. The measures to be taken in performing the study are indicated by the research design. The exploratory approach was applied in this study. The explanatory research methodology was chosen because the study would aim to identify variables influencing tax compliance among residents of Embakasi South Sub-county, Nairobi, Kenya. An exploratory study sought to explain why events happened and to forecast future occurrences.

Explanatory inquiries are distinguished by hypotheses that describe the type and direction of the connection being explored between or among variables. This approach was ideal for the research since it enabled the results to be generalized to a larger population (Schindler & Cooper, 2003). The design entailed collection of primary data within the Embakasi South sub-county, and during the 2021/2022 financial year. The explanatory research design benched on surveying the study respondents to seek for their opinions on the residential income tax compliance. The survey was conducted among the landlords and ladies who earned income from the collection of rents and met

the minimum thresholds as per the requirements of the law operationalizing the residential income tax.

### **3.3 Target Population**

A population is the entire set of individuals or other entities to which study findings are generalized (Berg, 2009). For this study, the target population from which the sample was drawn were residential property owners either as individual person owners or corporate person owners. From this group of the population, landlords and landladies were subjected to the study instrument to answer to the questions sought. In the event that the owners were corporate, the appointed responsible for the property was considered the landlord or landlady and hence answered questions on behalf of its corporate. A total of eleven thousand five hundred and one (11,501) residential rental income earners in Embakasi South sub-county, Nairobi County were targeted (KRA, 2021). This population fitted the definition by Kothari (2008) which referred to the population as all items in any field of inquiry known as the universe. The ballooning real estate sector should effectively contribute to residential income tax revenue in the Embakasi South sub-county. It was important to investigate the challenges that existence to contribute to improving revenue collection. The majority of the rental income earners in this location were expected to knowledgeable on tax requirements hence the ability to comply. Other reasons for selecting the area were the proximity, time, and costs. Table 3.1 further shows the distribution of the target population across the study area.



**Table 3.1: Target Population**

<b>Embakasi South Wards</b>	<b>Population</b>	<b>Percentage</b>
Imara Daima	3,098	26.9
Pipeline	4,220	36.6
Kwa Reuben	1,181	10.2
Kware	3,002	26.1
<b>Total</b>	<b>11,501</b>	<b>100</b>

Source: KRA, (2021)

### 3.4 Sample and Sampling Techniques

According to Zikmund (2010), a sampling frame may alternatively be thought of as a source list that includes all of the names in the universe. A method of random sampling is used to get the sample size in an unsystematic manner. The formula developed by Yamane (1967) was used to arrive at the sample size of 386. This formula assumes a normal distribution because the Embakasi South is normally distributed concerning the constraints under study. The formula, therefore, is deemed appropriate for determining the appropriate sample size.

The simplified Yamane formula determines the sample size; thus,

$$n = \frac{N}{(1 + N(e)^2)}$$

$$n = \frac{11501}{(1 + 11501(0.05)^2)} = 386 \text{ Residential rental income earners}$$

Where n = sample size, N = population size, e = sampling error or precision/error limit at 95 percent level of confidence, p = 0.5, and 5 percent accuracy is necessary This sample size was deemed appropriate since it represented more than 1% of the study

population (Gravette & Forzano, 2012). The larger the sample size, the more accurate the study results (Mugenda & Mugenda, 2003).

### 3.4.1 Sample size

Thompson (2013) defined a sample as some elements drawn from the research population for studying, and they represent the whole population of the study. In most cases, it is not feasible to undertake a census of all items, making it necessary to select a part of the population of interest for data collection. This small unit of the study population is known as a sample. In the case of this research, the study is sample 386 Embakasi South sub-county Nairobi Kenya to represent the whole study population. The sample was further distributed along the locations of rental income earners as per Table 3.2.

**Table 3.2: Sample Size Distribution**

<b>Embakasi South Wards</b>	<b>Sample Size</b>	<b>Percentage</b>
Imara Daima	104	26.9
Pipeline	141	36.6
Kwa Reuben	40	10.2
Kware	101	26.1
<b>Total</b>	<b>386</b>	<b>100</b>

### 3.4.2 Sampling Technique

A multistage cluster sampling approach was used to identify the locations of the units to be analyzed, and the units that met the survey criteria. This selection procedure effectively ensured study area was effectively covered and every qualifying unit reached. As a result, it generated a sample that is truly representative of the whole population under investigation. Kothari (2004) posited that this kind of sampling is an

unbiased sampling approach for classifying diverse populations into homogeneous subsets and choosing within the individual subset to assure representativeness. Further, systematic random sampling was then adopted to ensure that each unit of observation was effectively reached in a normally distributed way. To reach each respondent, a fixed-point technique was used until the required sample was reached. Beginning from a fixed point, every 29<sup>th</sup> property owner was subjected to the study instrument. Every 29<sup>th</sup> interval was chosen because the population was large enough to produce a sample of 386 respondents. The interval was mathematically reached by dividing the total population by the sample size. This interval was sufficient to produce the sample.

### **3.5 Data Types and Data Sources**

Primary data was collected using structured questionnaires to capture both qualitative and quantitative data based on the variables as developed in the conceptual framework. Structured questionnaires refer to questions that are accompanied by a list of all possible alternatives from which the respondents select the answer that best describes their situation (Mugenda & Mugenda, 2013). According to Orodho & Kombo (2002), structured questions are easier to analyze since they are in immediately usable form. The data collected included demographic characteristics, and as well as objective-based statements that sought to answer the research hypotheses. Each variable had independent sections with statements that sought relative understanding of the respondents. The measures of the variables as designed in the conceptual framework guided the formulation of the statements to which the respondents were required to respond to. Ordinal scales were used to measure the level or the degree to which the respondent agreed with the statements posed in the question. The questionnaire is further referenced to in appendix I.

### **3.6 Data Collection Procedure**

Primary data was obtained through a structured five-point Likert scale questionnaire. Kothari (2004) terms the questionnaires as the most appropriate instrument due to their ability to collect a large amount of information reasonably quickly. According to Mugenda and Mugenda (2003), questionnaires are commonly used to obtain important information about the population under study. The researcher sought permission from the National Commission for Science and Technology Innovation (NACOSTI). The letter of authority was also acquired from the University authorizing the conduct of data collection.

The researcher sought the assistance of two research assistants who were recruited through reference from reliable research entities. These assistants were further trained for two days on the general research area of knowledge, the geographical location of the study, the demographics of the respondents. Further detailed orientation on the study instrument and sampling technique was done. Ethical considerations that guided the study were also brought out clearly and agreed on between the research assistants and the researcher. The questionnaires were administered using a drop and pick criteria. The researcher dropped the questionnaires and then picked them up after two days. The incomplete questionnaires were removed, and those validly filled were carried forward for data cleaning, preparation, and analysis.

### **3.7 Pilot Study**

A pilot test should vary from 1% to 10%, depending on the sample size, (Cooper & Schindler, 2006). To ensure that the research instruments can capture what they sought to answer, the researcher undertook a pilot study involving 39 respondents, .who, in this case, are residential tax income earners from the Kasarani sub-county, to evaluate the suitability of the questionnaire. The supervisors reviewed all the areas that presented

a challenge to respondents during the pilot study. The respondents who took part in the pilot test were not included in the final study sample size. The pilot study findings were also used to test the reliability and validity of the study instruments.

### **3.7.1 Reliability of Research Instrument**

According to Sekaran (2003), reliability assesses the stability and predictability with which the notion is measured. Many variables, according to Nunnally (1978), may preclude measurements from being exactly replicated. Cronbach's alpha was utilized to assess the collection of scale items and compare the two results. Nunnally (1978) contended that a Cronbach's alpha score of 0.7 or above demonstrates that the research instrument is dependable. This research used a coefficient of 0.7 as a standard for dependability. The pilot research found that automation of services was dependable with a coefficient of 0.965, preceded by a level of awareness with a coefficient of 0.872, taxpayer perception with a coefficient of 0.828, and income tax compliance with a coefficient of 0.763. The questionnaire was used for the main research because the results showed that all of the variables were reliable.

### **3.7.2 Validity of the Research Instruments**

The validity, according to Mugenda and Mugenda (1999), indicates that a test or instrument properly measures what it is designed to measure. Thus, construct validity was utilized to assure research validity by ensuring that the measure assesses the construct meant to be measured and no other factors. This form of validity may be examined by an expert panel that is acquainted with the notion. The specialists may inspect the objects and determine what each one is designed to assess. Students may be included in this effort to provide feedback. The research used an exploratory factor analysis matrix to determine the loading associated with each variable and component.

A factor is a dimension that underpins numerous observable variables (Coghlan & Brannick, 2002).

### **3.8 Assumption of Linear Regression**

Some assumptions must be made when utilizing the regression model to represent the connection between the independent and dependent variables. These assumptions must be satisfied before making conclusions or using the model to build a predictive model (Wheeler & Tiefelsdorf, 2005). Normality, multicollinearity, and homoscedasticity tests were performed. The assumption was that the independent and dependent variables had a genuine linear relationship. In addition, the research anticipated that mistakes would be regularly distributed. During the variable analysis, there was equal variation around the regression line. To assess the association between the variables diagnostically, the correlation was independent of one another.

#### **3.8.1 Normality Test**

A normality test is used to determine whether a data set is normally distributed. Visual representation of the distribution of tests results determines whether it conforms to the bell-shaped normal curve (Amata, 2017). The normality test was done using Shapiro Wilk Test. The test revealed that at an alpha level of 0.05 and a p-value of less than 0.05, then the null hypothesis was rejected and there was evidence that the data tested were normally distributed. All the variables showed a p-value greater than 0.05 indicating that data came from a normally distributed population. Further statistical analyses were carried out since the data did not violate the rule of normality.

#### **3.8.2 Multicollinearity Test**

According to Alin (2010), when two or more independent variables are linearly dependent on each other, then one of them should be used in data analysis instead of

the two or more as this increases the standard errors, making the results biased. Using a Variance Inflation Factor (VIF) of values to measure whether the independent variables (IVs) suffered multicollinearity problem, a VIF value  $\geq 10$  shows there is multicollinearity while any VIF value  $\leq 10$  with a tolerance factor of  $\geq 0.2$  is an ideal and acceptable measure of multicollinearity. Zainodin and Yap (2011) note that it is important to test for multicollinearity among independent variables since the presence of multicollinearity leads to multiple errors in the analysis of data.

The assumption was that there was a true linear relationship between residential income tax compliance and automation of services, taxpayer perception, and level of awareness. The study also assumed that errors were normally distributed, there was equal variance around the regression line during the analysis of the variables, and that the relationship was independent of one another to diagnostically test the relationship between the variables. The findings of the multicollinearity test showed that the VIF values were less than 5, indicating that the multicollinearity was violated. Further on the tolerance levels, if one of the variables' tolerances is equal to or less than 0.2, multicollinearity exists. However, in the findings all of the tolerable outcomes were bigger than 0.2, the assumption of multicollinearity was not violated.

### **3.9 Data Analysis**

Following an examination to ensure its precision, coherence, and comprehensiveness, the information that had been gathered was then presented in the form of percentages, pie charts, and tables. The study used a balanced scorecard and comparison to investigate the nature of the connection that exists between the independent and dependent variables. A detailed study that included both descriptive and predictive components was carried out. The analysis of the data in the research was performed

using a multi-linear regression. The information was laid up in tables to make comprehension and examination more straightforward.

### **3.10 Analytical Model Specification**

Multiple Regression Model was adopted for this study and was given as follows:

$$Y = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + \varepsilon$$

Where:

$Y$  = Residential Income Tax Compliance

$B_0$  = Constant term

$B_1$  ,  $B_2$  and  $B_3$  = Beta coefficients of the independent variables

$X_1$  = Automation of service

$X_2$  = Taxpayer perception

$X_3$  = Level of Awareness

$\varepsilon$  = error term

### **3.11 Measurement and Operationalization of Variables**

The study's dependent variable was residential income tax compliance in Embakasi South sub-county Nairobi. Automation of service, taxpayer perception, and level of awareness were the independent variables for the study. The variables were measured and operationalized using various measurement indicators. This was further summarized in Table 3.3.



**Table 3.3: Operationalization of Study Variables**

<b>Variables</b>	<b>Source/ Authors</b>	<b>Data collection instrument</b>	<b>Measurement scale</b>	<b>Types of Analysis</b>
<b>Independent variable</b>				
Automation of service	(Davis <i>et al.</i> , 1989).	Questionnaire	5-point scale	Likert Regression analysis Correlation analysis
Taxpayer Perception		Questionnaire	5-point scale	Likert Regression analysis Correlation analysis
Level of awareness		Questionnaire	5-point scale	Likert Regression analysis Correlation analysis
<b>Dependent Variable</b>				
Tax compliance among residential income	Kirchler (2007) Oladipupo (2016) (KRA, 2015).	Questionnaire	5-point scale	Likert Regression analysis Correlation analysis

### 3.12 Ethical issues

Before commencing any investigation, researchers need to familiarize themselves with the myriad of critical logistical and ethical issues that may arise throughout their work. This assists the researcher in safeguarding their credibility and ensuring that their findings are truthful (Mugenda & Mugenda, 2003). Before collection the data collection process, the researcher will ensure that they have the assent of the respondents, gained via informed consent. The researcher will always ensure integrity and confidentiality by using codes on the data instruments. The researcher will also make certain that the data gathered will be used only for academic reasons, and that the

participants will engage in the study willingly, without being coerced or bribed in any way.

The researcher bounded and adhered with all ethical issues of honesty, privacy, cultural sensitivity, informed consent, and voluntary participation. Ethics of the study was ensured by protecting the rights of the respondents that is anonymity and confidentiality. This was done through informing them in advance of the importance of the study and participation was on willing basis. Respondents were at liberty to pull out from the study any time they feel not comfortable proceeding with the survey. Personal particulars like name and address were not disclosed.

### **3.13 Limitations of the Study**

The study was limited to the Embakasi South sub-county only. This was due to the constraints of cost, time, and research specifications. However, this overcame by ensuring that the research design fitted well within limitations. This limitation did not affect the quality of the data collected, prepared, and analyzed and the accompanying findings. The study was limited to only residential rental income tax compliance. Many other tax bases could be investigated. However, the study overcame this challenge as it was impossible to broaden the study into other areas within cost and time. The findings could be extrapolated and generalized to other study areas in the wider knowledge area of tax compliance.

## CHAPTER FOUR

### DATA ANALYSIS, PRESENTATION, AND INTERPRETATION

#### 4.1 Introduction

The chapter deals with the data analysis and findings of the study on factors affecting tax compliance among residential income earners in Embakasi sub- county Nairobi. It is divided into response rate, diagnostic tests, the presentation of findings, the tests of hypotheses, interpretation of results, and regression analysis results. Descriptive statistics present the preliminary findings, while inferential statistics are used to test hypotheses.

#### 4.2 Response Rate

Data analyzed in this chapter was obtained from 319 rental income earners out of the targeted 386 residential income earners in Embakasi sub- county Nairobi. In comparison to comparable research, the response return rate was 82 percent, which was satisfactory. According to Sekaran (2004), any response rate greater than 75% is considered optimum and adequate for any study. According to Mugenda & Mugenda (2012), a response rate of 50% is sufficient, 60% and above is good, and 70% is very good. According to Table 4.1, the 82 percent response rate reported in this study was quite satisfactory. 18% of respondents may not have replied as anticipated due to business engagements or other reasons unknown to the researcher.

**Table 4.1: Response Rate**

	<b>Total Number</b>	<b>Percentage</b>
Response rate	319	82
Non-response rate	67	18
<b>TOTAL</b>	<b>386</b>	<b>100</b>

Source: Research Data, (2021)

### 4.3 Demographic Profile of Respondents

The study sought to understand the general demographics of the respondents. Even though this was not statistically significant to the study, it gave the researcher some general understanding of the nature and composition of the respondents. These demographics included gender, age and level of education of the respondents. Residential income tax compliance is a requirement of the tax laws and as such, demographics do not affect them much, but could help the study make some important deductions to policy makers and tax practitioners.

#### 4.3.1 Gender of the Respondents

The respondents' gender was enquired. According to the data collected, the bulk of respondents (59.5 percent) were male (190), while the remainder (40.5 percent) were female (129). The findings imply that the majority of income earners were male, as indicated in Table 4.2. Even though the difference between the gender was about 9%, this showed that female gender have also ventured into the residential property for rental incomes. However, the study was limited to ascertain whether gender was of any significance to residential income tax compliance.

**Table 4.2: Respondent Gender**

<b>Gender</b>	<b>Frequency</b>	<b>Percentage</b>
Male	190	59.5
Female	129	40.5
<b>Total</b>	<b>319</b>	<b>100</b>

#### 4.3.2 Age of the Respondents

The study sought to determine the age of the respondents. Table 4.3 shows that the majority (28%) were between the ages of 51 and 60, 24.1 percent were over 60, 23.5 % were between the ages of 31 and 40, and 20.1 % were between the ages of 41 and 50,

and 4.4 % were under 30. It was generally observed that young persons of age 30 years and below do engage in residential property for income earning, however their engagement is minimal. Using the general knowledge that is in the public domain, investment in residential property is an expensive venture, where only those who have accumulated wealth, mostly found within the 50 plus years can invest in residential property for income generation purposes. These findings still might indicate that young investors, view investment in residential income as long term and hence not able to meet their immediate financial needs. Further studies might be called for to investigate the reasons for such age formations in residential property.

**Table 4.3: Respondents' Age**

<b>Age Group</b>	<b>Frequency</b>	<b>Percentage</b>
Below 30 years	14	4.4
31 – 40 years	75	23.5
41 – 50 years	64	20.1
51 – 60 years	89	28
Above 60 years	77	24.1
<b>Total</b>	<b>319</b>	<b>100</b>

#### **4.3.3 Level of Education**

The researcher also sought to find the level of education of the respondents from residential income earners. Table 4.4 shows that majority (57.7%) of the respondents from the income earners had at least obtained technical level of education, 22.2% were secondary education holders, 16.3% had attained an undergraduate degree, 2.8% had a postgraduate degree, and only 1.5% of the income earners had the primary level certificate. the respondents level of education revealed that those with technical level of education were the majority in residential property investment for income generation. These responses also revealed that undergraduates and post-graduates did

not fair well in residential property. Based on the cross examination and tabulation of these three demographics, it could be possible that age and investment in residential property have some relationship. Because undergraduate and postgraduate university education take some considerable amount of time, investors might come to invest in real property later in life once they settle. Equally, the findings might show that many that invest in real property were those that pursued their education in the early years, where university education was very expensive for majority of the people. Hence most of the potential learners opted for technical colleges to arrive at their employment opportunities, leading to saving and investment in real property.

**Table 4.4: Highest Level of Education**

<b>Qualification</b>	<b>Frequency</b>	<b>Percentage</b>
Primary level	5	1.5
Secondary education	71	22.2
Technical level	184	57.7
Undergraduate	52	16.3
Postgraduate	7	2.8
<b>Total</b>	<b>319</b>	<b>100</b>

#### **4.4 Descriptive Statistics**

##### **4.4.1 Effect of Automation of Service on Income Tax Compliance**

The section herein presents the findings of the descriptive analysis on the first variable, automation of services. Table 4.5 summarizes the results in the form of means. The respondents agreed that the automation of services has enhanced Online Registration and had a mean score of 3.48. Online Filing is more efficient and effective for taxpayers, with a mean score of 4.17. Lastly, participants agreed that Online Payments had enhanced Tax compliance among residential income earners with a mean score of 3.96. Automation of service had an overall mean of 3.87.

Findings show a moderately high ranking concerning various automation of services indicators (Mean scores above 3.0 were recorded for most automation of services statement descriptions). The statement " Online Filing is more efficient and effective for taxpayers had the leading mean score of 4.17, and Automation of services had an overall mean of 3.87. Implying those residential owners moderately high ranking concerning various automation of services.

**Table 4.5: Effect of Automation of Service on Income Tax Compliance**

Statement	Mean	Std. Deviation
The automation of services has enhanced Online Registration.	3.48	1.070
Online Filing is more efficient and effective for taxpayers.	4.17	.677
Online Payments have enhanced Tax compliance among residential income earners.	3.96	.988
<b>Mean</b>	<b>3.87</b>	

#### **4.4.2 Effect of taxpayer perception on Income Tax Compliance**

Descriptive statistics results on the second variable, taxpayer perception, are presented in Table 4.6. Respondents agreed that Fair distribution of public services/resources to motivate property owners to be tax compliant had a mean score of 4.33. Additionally, respondents agreed KRA is perceived to be efficient in tax administration and, therefore, likely to catch up with tax evaders with a mean score of 3.17. Regarding the link between the taxpayers and tax authority's influences, the willingness of taxpayers to comply had a mean score of 4.21. Property owners who have a negative attitude towards tax evasion had a mean score of 4.04. While the improvement of government expenditure encourages property owners to be tax adherent, it had a mean score of 3.07. Lastly, on Payment of taxes is perceived by property owners as a contribution to

economic growth and had a mean score of 3.20. Taxpayer perception had an overall mean of 3.67.

Findings show the agreement and high ranking concerning various taxpayer perception indicators (Mean scores of 3.17, 3.07, and 3.20 were recorded for taxpayer perception statement descriptions). The statements “I perceive Fair distribution of public services/resources to encourage property owners to be tax compliant” had a mean score of 4.33, Relationship between the taxpayers and tax authorities influences the willingness of taxpayers to comply had a mean score of 4.21, And Property owners have a negative attitude towards tax evasion had a mean score of 4.04. Taxpayer perception had an overall mean of 3.67. Implying those residential owners moderately high ranking concerning various taxpayer perception

**Table 4.6: Effect of taxpayer perception on Income Tax Compliance**

Statement	Mean	Std. Deviation
I perceive Fair distribution of public services/resources to encourage property owners to be tax compliant.	4.33	.688
KRA is perceived to be efficient in tax administration and, therefore, likely to catch up with tax evaders.	3.17	1.102
The relationship between the taxpayers and tax authorities influences the willingness of taxpayers to comply.	4.21	1.009
Property owners have a negative attitude towards tax evasion.	4.04	1.053
The improvement of government spending encourages property owners to be tax compliant.	3.07	.952
Property owners perceive the payment of taxes as a contribution to economic growth.	3.20	1.128
<b>Mean</b>	<b>3.67</b>	

#### 4.4.3 Effect of Level of Awareness on Income Tax Compliance

Descriptive statistics results on the second variable level of awareness are presented in Table 4.7. Respondents agreed that tax knowledge acquired through training and social



media to traders has helped in Tax compliance among residential income with a mean score of 4.15. With a mean score of 4.52, respondents agreed that I had received appropriate training on the need of completing tax returns. I frequently learned a mean score of 3.84 from brochures, publications, or seminars on Tax compliance among household income. The KRA has played an important part in informing traders on tax compliance among residential income, with a mean score of 4.41. While I was fully informed about the filing process, my returns received a mean score of 3.28. Finally, I was fully informed about the procedure of paying my taxes and received a mean score of 3.67.

Findings show the agreement and high ranking concerning the various awareness indicators (Mean scores of 3.84, 3.28, and 3.67 were recorded for the level of awareness statement descriptions). The statements " Tax knowledge acquired through training and social media to traders have helped in Tax compliance among residential income had a mean score of 4.15, I have been adequately trained on the importance of filing tax returns had a mean score of 4.52, And KRA has played a significant role in enlightening traders on Tax compliance among residential income had a mean score of 4.41. The level of awareness had an overall mean of 3.97. Implying those residential owners moderately high ranking concerning the various level of awareness.

**Table 4.7: Effect of Level of Awareness on Income Tax Compliance**

<b>Statement</b>	<b>Mean</b>	<b>Std. Deviation</b>
Tax knowledge acquired through training and social media to traders has helped in Tax compliance among residential income.	4.15	.729
I have been adequately trained on the importance of filing tax returns.	4.52	.691
I often learn through brochures, booklets, or seminars on Tax compliance among residential income.	3.84	.349
KRA has played a significant role in enlightening traders on Tax compliance among residential income	4.41	.686
I have been adequately made aware of the process of filing my returns.	3.28	.1167
I have been adequately made aware of the process of paying my taxes	3.67	.468
<b>Mean</b>	<b>3.97</b>	

#### 4.4.4 Effect of Income Tax Compliance

Descriptive statistics results in independent variable income tax compliance. Respondents agreed I always file a return on time and, as required by law, had a mean score of 4.11. Additionally, the respondent agreed I declared correct monthly residential income with a mean score of 2.93. Regard KRA has provided a conducive environment for tax filing, had a mean score of 4.07. While, as a residential income earner, I file tax returns every month and have a mean score of 3.085. Lastly, I enjoy paying taxes, and I am always taxed compliant and had a mean score of 4.46. Income tax compliance had an overall mean of 3.88.

Findings show the disagreement concerning I declare correct monthly residential income (Mean scores of 2.93 indicating that taxpayer disagreed) and moderately on As a residential income earner I file tax returns every month had a mean score of 3.85 The statements” I always file the return on time and as provided by law had a mean score of 4.11, KRA has provided an enabling environment for tax Filing had a mean score of

4.07. And I enjoy paying taxes, and I am always taxing compliant had a mean score of 4.46. Income tax compliance had an overall mean of 3.88, an implicature that residential owners' moderately high-ranking regarding income tax compliance. This is summarized in Table 4.8.

**Table 4.8: Effect of Income Tax Compliance**

<b>Statement</b>	<b>Mean</b>	<b>Std. Deviation</b>
I always file the return on time and as required by law.	4.11	.737
I declare the correct monthly residential income	2.93	.800
KRA has offered an enabling environment for tax Filing	4.07	1.063
As a residential income earner, I file tax returns every month	3.85	.987
I enjoy paying taxes, and I am always taxed compliant	4.46	.657
<b>Mean</b>	<b>3.88</b>	

#### **4.5 Reliability Test**

Reliability refers to how an instrument yields consistent measurement across time and items (Sekaran, 2010). The Cronbach alpha ( $\alpha$ ) test in the statistical package for social sciences (SPSS) program was used to determine the internal consistency or average correlation of items inside the test. When all elements measure only the real score and there is no error component, Alpha equals 1.0. The optimal value for the individual constructs is often set at or above the standard level of 0.7. To improve the dependability of this investigation, a Cronbach alpha coefficient of 0.7 was used. The reliability statistics for the study variables are shown in Table 4.9.

**Table 4.9: Results of Cronbach Alpha of the Study variables**

<b>Reliability Statistics</b>			
<b>Variable</b>	<b>Cronbach's Alpha</b>	<b>No. of Items</b>	<b>Conclusion</b>
Automation of service	0.965	3	Reliable
Taxpayer perception	0.828	6	Reliable
Level of awareness	0.872	6	Reliable
Income tax compliance	0.763	5	Reliable

Automation of services had the highest reliability coefficient of 0.965, preceded by the level of awareness with a coefficient of 0.872, taxpayer perception had 0.828, and income tax compliance had the lowest coefficient.

#### **4.6 Statistical Assumptions**

Certain assumptions regarding the variables employed in the analysis are made by statistical tests. According to Osborne and Waters (2014), the results may be invalid if certain assumptions are not met. They further claim that this may result in a type I or type II inaccuracy, as well as an over or underestimation of significance or effect size (s). As a result, it is critical to validate these hypotheses for the veracity of their outcomes. According to Osborne, Christensen, and Gunter (2001), few articles claim to have tested the assumptions underlying the statistical tests they use to make their results. According to Osborne and Waters (2014), failing to test for these assumptions has resulted in a scenario in which there is a plethora of literature in education and social science, but questions about its validity remain. Assumption testing is useful because it confirms that an analysis meets the related assumptions and helps to eliminate type I and II mistakes (Osborne and Waters, 2014). Before data analysis, the linear regression assumptions were validated using the multicollinearity, normality, and homoscedasticity tests.

#### 4.6.1 Test of Normality

By definition, metric statistics assume that the data under consideration is evenly distributed, thus the use of the measure of central tendency (Zikmund, 2010). Several statistical processes, such as correlation, regression, t-tests, and f-tests, are based on the assumption that the dataset reflects a standard distribution (Ghasemi & Zahediasl, 2012). Normality can be tested using multiple methods, including Shapiro-Wilk, Kolmogorov-Smirnov, Lilliefors, and Anderson Darling.

Shapiro-Wilk is the most powerful normality test (Razali & Wah, 2011). It was used in this investigation. Table 4.10 summarizes the results of the testing. In this study, the test was utilized to validate the data. A Shapiro-Wilk test value of less than 0.05 indicates that the data deviates significantly from a normal distribution. A normality test was performed on the study's data set. Table 4.6 summarizes the results of the testing. In this study, the test was utilized to validate the data. A Shapiro-Wilk test result of more than 0.05 indicates that the data was normally distributed. The results of the normality tests revealed that service automation had a p-value of  $0.062 > 0.05$ , indicating that the data is normally distributed. It was also determined that the p-value for taxpayer perceptions was  $0.237 > 0.05$ , while the p-value for the level of awareness was  $0.095 > 0.05$ . Finally, income tax compliance showed a p-value greater than 0.05. The normality test results showed that the data were normally distributed, thus additional analysis was performed.

**Table 4.10: Tests of Normality**

	<b>Shapiro-Wilk</b>	
	<b>Statistic</b>	<b>Sig.</b>
Automation of services	0.953	.062
Taxpayer perception	0.968	.237
Level of awareness	0.987	.095
Income tax compliance	0.843	.390

#### **4.6.2 Multicollinearity Test**

Multicollinearity is an unfavorable scenario in which the correlation between the independent variables is substantial. It uses collinearity statistics to enhance the standard errors of the coefficients to obtain the acceptability and variance inflation factor (VIF). To assess for multicollinearity, VIF was calculated using statistical software for social science (SPSS). Multicollinearity raises the standard errors of the coefficients, rendering some variables statistically insignificant when they should be (Osborne and Waters, 2014). Tolerance is the variance in one independent variable that cannot be explained by the other independent variable.

The results as shown in Table 4.11, reveal that all of the VIF values were less than 5, indicating that the collinearity was not detrimental. If no two variables are associated, all VIFs equal one (Hansen, 2013). Multicollinearity exists if the VIF for one of the variables is equivalent or greater than five. Because all of the VIFs are smaller than 5, the assumption of multicollinearity was not infringed. VIF is the inverse of tolerance. As a result, if one of the variables' tolerances is equal to or less than 0.2, collinearity exists. Again, because all of the tolerable outcomes were bigger than 0.2, the assumption of multicollinearity was not broken.

**Table 4.11: Multicollinearity Test**

Variable	Collinearity Statistics	
	Tolerance	VIF
Automation of service	0.906	1.495
Taxpayer perception	0.889	1.107
Level of awareness	0.793	1.410

#### 4.6.3 Homogeneity Test

Homoscedasticity occurs when the variance of the dependent variable is constant across data (Ghasemi & Zahediasl, 2012), whereas heteroscedasticity occurs when the variance of the dependent variable changes across data (Ghasemi et al., 2012). This investigation used the Levene test to test for homogeneity; if the Levene value is greater than 0.05, the variability is regarded as the same. A Levene test was performed on the study variables, and the results are reported in Table 4.12. This study used the Levene test to test for homogeneity; if the Levene value is greater than 0.05, the variability is regarded as the same. A Levene test was performed on the study variables, and the results are reported in Table 4.8 below. Homoscedasticity occurs when the variance of the dependent variable is constant across data (Ghasemi & Zahediasl, 2012), whereas heteroscedasticity occurs when the variance of the dependent variable changes across data (Ghasemi *et al.*, 2012).

**Table 4.12: Homogeneity Test**

Test of Homogeneity of Variances	Levene Statistic	Sig.
Automation of service	1.696	.185
Taxpayer perception	1.881	.148
Level of awareness	1.238	.308

Source: Research Data, 2021

## **4.7 Inferential Statistics**

### **4.7.1 Correlation Analysis**

This section included a correlation analysis of the study's variables. Pearson's correlation was employed, which is a quantitative measure of association, strength, and direction between two variables. According to the Pearson's correlation data in Table 4.13, automation of services was significantly and positively correlated with residential income tax compliance ( $r=0.358$  and  $p=0.0090.05$ ). Thus, automation of services exhibited a had a stronger relationship with residential income tax compliance of up to 35.8 percent. The findings also revealed that taxpayer perception was favorably and significantly related to residential income tax compliance ( $r=-0.379$ ,  $p=0.0010.05$ ). The results further indicated that taxpayer perception had a 37.9% positive connection with residential income tax compliance. Finally, results suggest that residential income tax compliance is positively and significantly associated with a level of awareness ( $r=0.409$  and  $p=0.0030.05$ ). Therefore, the level of awareness had a 40.9% positive relationship with residential income tax compliance.



**Table 4.13: Correlation Coefficients**

		Income tax compliance	Automation of service	Taxpayer perception	Level of awareness
Residential Income tax compliance	Pearson Correlation Sig. (2- tailed) N	1 319			
Automation service	of Pearson Correlation Sig. (2- tailed) N	.358** .009 319	1		
Taxpayer perception	Pearson Correlation Sig. (2- tailed) N	.379** .001 319	.165** .004	1	
Level of awareness	Pearson Correlation Sig. (2- tailed) N	.409** .003 319	.320** .007	.192** .000	1

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

Source: Research Data, (2021)

#### 4.7.2 Regression Analysis

Regression analysis produced a range of values for the tests performed in the study. R, R<sup>2</sup>, F ratio, t-values, and p-values were among them. The R-value represents the strength of the association between the research variables, whereas R<sup>2</sup> represents the amount to which fluctuations in the indicators may be explained. The F-values show the overall statistical significance of the model, whereas the t-values represent the statistical significance of the individual variables. Beta ( $\beta$ ) values indicate whether the independent variable has a positive or negative effect on the dependent variable. As a result, the p-value shows the level of significance. The study examined the confidence level at 95% and the F ratio, a significant level ( $p = 0.05$ ), after which a judgment was

made to affirm or reject the hypothesis. Results that produced p values  $p > 0.05$  led to the rejection of the hypotheses.

**Table 4.14: Model Summary for automation of service, taxpayer perception, and level of awareness on income tax compliance**

Model	R	R Square	Adjusted R Square	Std. The error in the Estimate
1	.858 <sup>a</sup>	.736	.711	.22670

The results in table 4.14 prove that automation of service, taxpayer perception, and level of awareness had a positive relationship with income tax compliance up to 85.8% ( $R = 0.858$ ). These findings show that the independent variable, automation of services, taxpayer perception, and level of awareness, caused a variation of 73.6% ( $R^2 = 0.736$  and adjusted  $R^2 = 0.711$ ) in the residential income tax compliance. This implies the remaining 26.4 percent is explained by other variables which were not considered in this model. These variables could include religious issues in taxation, other demographic factors, the economic status of taxpayers, and others.

#### 4.7.3 Analysis of Variance

Table 4.15's ANOVA results reveal a significant association between the independent variables (service automation, taxpayer perception, and level of awareness) and the dependent variable, income tax compliance. Table 4.15 results reveal an F statistics value of 16.063 with a significance level of 0.000, which is less than the standard probability of 0.05 significant levels. The discovery proved that the model is statistically significant. The inference is that each independent variable has a substantial impact on changes in the dependent variable.

**Table 4.15: ANOVA**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.945	1	5.945	16.063	.000 <sup>b</sup>
	Residual	3.794	318	0.011		
	Total	9.739	319			

#### 4.7.4 The Overall Effect of automation of service, taxpayer perception, and level of awareness on income tax compliance

Regression was carried out to determine the combined influence of service automation, taxpayer perception, and level of awareness on income tax compliance. This is further shown in table 4.16.

**Table 4.16: Regression Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.571	.085	.386	6.717	.002
	Automation of service	.362	.045	.243	8.044	.000
	taxpayer perception	.237	.061	.382	3.885	.000
	Level of awareness	.218	.039		5.589	.001

a Dependent Variable: Income Tax Compliance

b Independent Variables: (of automation of service, taxpayer perception and level of awareness)

#### Regression Equation

$$Y = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + \epsilon$$

Where:

Y = Residential Income Tax Compliance

$B_0$  = Constant term

$B_1$  ,  $B_2$  and  $B_3$  = Beta coefficients of the independent variables

$X_1$  = Automation of service

$X_2$  = Taxpayer perception

$X_3$  = Level of Awareness

$\varepsilon$  = errors term

Therefore,

$$Y = 0.571 + .386X_1 + .243X_2 + .382X_3$$

The results show a constant term ( $\beta_0$ ) of 0.571 and a significant p-value of 0.002  $p < 0.05$ . The regression equation shows that the independent and dependent variables were statistically significant. A single change in automation services improves income tax compliance by ( $\beta_1$ ) 0.386 at a significant p-value of 0.000  $p < 0.05$ . A unit change in taxpayer perception elevates income tax compliance by ( $\beta_2$ ) 0.243 at a significant p-value of 0.000  $p < 0.05$ . A unit change in the level of awareness increases income tax compliance by ( $\beta_3$ ) 0.382 at a significant p-value of 0.001  $p < 0.05$ .

#### 4.7.5 Test of Hypotheses

The study hypotheses were tested based on the regression results between the independent and dependent variables. The rejection criteria for insignificant variables were to reject a null hypothesis if the p-value of the t-statistic of the independent variable was less than 0.05 level of significance.

$H_{01}$  Automation of services does not significantly affect residential income tax compliance among residential income earners in Embakasi South sub-county Nairobi. From the study results in Table 4.18, the p-value of the t-statistic for this independent variable was 0.000 with a beta value of 0.386. Since the p-value of 0.000 was less than

0.05, the null hypothesis was refuted. The alternative hypothesis concluded that service automation significantly influenced the tax compliance among residential income earners in Embakasi South sub-county Nairobi.

*Ho<sub>2</sub>* Taxpayer perception does not significantly impact residential income tax compliance among residential income earners in Embakasi South sub-county Nairobi. From the study findings in Table 4.18, the p-value of the t-statistic for this independent variable was 0.000 with a beta value of 0.243. Since the p-value of 0.000 was less than 0.05, the null hypothesis was rejected, and the alternative hypothesis was taken to conclude that taxpayer perception significantly influenced the tax compliance among residential income earners in Embakasi South sub-county Nairobi.

*Ho<sub>3</sub>* Level of awareness does not significantly affect residential income tax compliance among residential income earners in Embakasi South sub-county Nairobi. From the study results in Table 4.17, the p-value of the t-statistic for this independent variable was 0.001 with a beta value of 0.382. Since the p-value of 0.001 was less than 0.05, the null hypothesis was rejected, and the alternative hypothesis was taken to conclude that level of awareness significantly influenced the tax compliance among residential income earners in Embakasi South sub-county Nairobi.

**Table 4.17: Summary of Hypotheses Testing**

<b>Hypothesis</b>	<b>Coefficient P Values</b>	<b>Conclusion</b>
H <sub>01</sub> : Automation of services does not significantly affect tax compliance among residential income earners in Embakasi sub-county Nairobi.	P=0.000<0.05	Reject H <sub>01</sub>
H <sub>02</sub> : Taxpayer perception does not significantly affect tax compliance among low-income earners in Embakasi sub-county Nairobi.	P=0.000<0.05	Reject H <sub>02</sub>
H <sub>03</sub> : Level of awareness does not significantly affect tax compliance among residential income earners in Embakasi sub-county Nairobi.	P=0.001<0.05	Reject H <sub>03</sub>

#### **4.8 Discussion of the Findings**

Based on afore reported findings, discussions were done in alignment with the study objectives. The findings of each of the objectives in this investigation were discussed and compared to what findings were found in other scholars' studies.

##### **4.8.1 Effect of Automation of Service on Income Tax Compliance**

The study's primary objective was to determine the effect of service automation on tax compliance among residents of Nairobi's Embakasi sub-county. The study's findings revealed that service automation was statistically significant at a p-value of 0.000, which is less than the normal probability significance level of 0.05. The findings matched with the findings of Mustapha and Sheikh (2014), who researched the impact of digitalized tax services on the online tax system using the case of the Self-Employed Nigerian Taxpayer. To evaluate the substantial influence of the factors, a questionnaire was given and evaluated using structural equation modeling.

The findings revealed that all digitized tax service indicators are statistically significant as metrics of the virtual tax system. It also suggests a link between electronic taxation

and the online tax structure. According to Mustapha and Sheik (2014), the automation of services required to comply with tax rules has had a substantial impact on compliance. Compliance would improve if residential income taxpayers could adopt the technology.

#### **4.8.2 Effect of Taxpayer Perception on Income Tax Compliance**

The study's second goal was to investigate the impact of taxpayer perception on tax compliance among residents of Nairobi's Embakasi sub-county. The study's findings revealed that taxpayer conception was statistically significant at a p-value of 0.000, which was less than the conventional probability significance level of 0.05. The results agreed with Kirchler (2007) that tax avoidance is a complex phenomenon driven by both financial and psychological variables. As a result, if the property owners distrust the government, they will not pay their taxes, whereas if they do trust the government, they will comply.

Amin and Mispa (2020) investigated taxpayer perceptions of tax evasion operations in the Makassar South Tax Office. Data were acquired from 100 corporate taxpayers using a questionnaire and incidental procedures. Using SPSS tools, the study used numerous regression analysis models. The study found that the taxation system, the ability to detect fraud, justice, and tax sanctions all have a negative and significant impact on tax evasion. Tax compliance, as opposed to tax evasion, leads to increased revenue collection.

#### **4.8.3 Effect of Level of Awareness on Income Tax Compliance**

The study's third objective was to determine the effect of tax awareness on tax compliance among residential income earners in Nairobi's Embakasi sub-county. According to the study's findings, the level of awareness was statistically significant at

a p-value of 0.001, which is less than the conventional probability significance level of 0.05. The findings aligned with the findings of Mulian and Shewan (2011), who discovered that increasing knowledge through education and other ways of facilitation may boost tax compliance or have no effect.

Tax awareness is an interterm in the sense that the pair go in handy through education and promotion of tax knowledge and awareness for the shared benefit of the government and public and may improve the way taxpayers view and implement tax laws. Oladipupo and Obazee (2016) investigated the effects of taxpayer information and fines on tax compliance among Nigerian small and medium-sized businesses. The questionnaire data were examined using the Ordinary Least Square regression approach. The findings revealed that tax knowledge has a significant impact on tax compliance. Nonetheless, the study found that tax education had a higher potential to increase tax compliance. According to the study, small and medium-sized business owners should improve their tax knowledge and awareness.



## CHAPTER FIVE

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter summarizes the study and its findings, the conclusions, implications of the study, and recommendations for future studies.

#### 5.2 Summary of Findings

The study's main objective was to investigate factors affecting tax compliance among residential income earners in Embakasi South sub-county Nairobi. The specific objectives were to investigate the effect of service automation on tax compliance among residential income earners in Embakasi South sub-county Nairobi. To determine the effect of taxpayer perception on tax compliance among residential income earners in Embakasi South sub-county Nairobi. To establish the level of awareness on tax compliance among residential income earners in Embakasi South sub-county Nairobi.

##### 5.2.1 Automation of Service on Income Tax Compliance

The first objective was to establish the effect of Automation of service on tax compliance among residential income earners in Embakasi sub-county Nairobi. The independent variable automation of services was measured using three statements that were reliable to measure automation of services as confirmed by the Cronbach alpha reliability coefficient. The correlation and regression analyses showed a positive linear relationship between service automation and residential income tax compliance with a p value of 0.000 and a beta coefficient of 0.386.

### **5.2.2 Taxpayer Perception of Income Tax Compliance**

The second objective was to determine the effect of taxpayer perception on tax compliance among residential income earners in Embakasi sub-county Nairobi. The independent variable taxpayer perception was measured using six statements that were reliable in measuring taxpayer perception, as confirmed by the Cronbach alpha reliability coefficient. The correlation and regression analyses showed a positive linear relationship between taxpayer perception and residential income tax compliance with a p value of 0.000 and a beta coefficient value of 0.243.

### **5.2.3 Level of Awareness of Income Tax Compliance**

The third objective was to establish the level of awareness on tax compliance among residential income earners in Embakasi sub-county Nairobi. The independent variable level of awareness was measured using six statements that were reliable in measuring the level of awareness as confirmed by the Cronbach alpha reliability coefficient. The correlation and regression analyses showed a positive linear relationship between the level of awareness and residential income tax compliance with a p value of 0.0001 and a beta coefficient value of 0.382.

## **5.3 Conclusion**

The study's main objective was to test the factors affecting residential income tax compliance among residential income earners in Embakasi sub-county Nairobi. The specific objective was to investigate the effect of automation of services on residential income tax compliance. Based on the findings, the results indicated that automation of services affects residential income tax compliance. Based on the findings, the respondents agreed that online filing is more efficient and effective for taxpayers, and online payments have enhanced residential tax compliance among residential income earners. Therefore, drawing from the hypothesis that, the study concluded that indeed

automation of services had a significant impact on the residential income tax compliance among residential income earners in the Embakasi South, sub-county, Nairobi, Kenya.

The second objective was to establish the effect of taxpayer perception on residential income tax compliance. The study also concluded taxpayer perception affects residential income tax compliance among residential income earners. Respondents agreed that they perceive fair distribution of public services/resources to encourage property owners to be tax compliant and relationship between the taxpayers and tax authorities influences the willingness of taxpayers to comply. The study had hypothesized that there was no significant relationship between the taxpayer perception and residential income tax compliance, however the findings revealed that, actually taxpayer perception has significant effect on residential income tax compliance. The study further concluded that perception should be dealt with by the revenue authorities to improve on income tax compliance.

The third objective of the study was to investigate the effect of level of awareness on residential income tax compliance among residential income earners. The study had also hypothesized that there was no significant effect of level of awareness on residential income tax compliance. However, the study it established that level of awareness affects significantly residential income tax compliance to a great extent taxpayers agreed that they have been adequately trained on the importance of filing tax returns, and KRA has played a significant role in enlightening traders on Tax compliance among residential income. Therefore, the study further concluded that level of awareness is a knowledge area that needs to be understood by the practitioners and policy formulators to enhance compliance among residential income earners in Kenya.

#### **5.4 Recommendations**

The main aim of collecting taxes is to improve the economic growth and development of the nation. Countries over the world depend on taxes to meet their expenditure requirements. The country's citizens must pay taxes, and other individuals derive economic benefits from their activities. However, the majority of the people perceive that tax is a burden that must be associated with benefits. These, among other factors, affect the collection and administration of taxes. Many economic sectors should contribute to the pool of revenue in Kenya. Just as is in other countries, especially in Africa, many tax authorities grapple with non-compliance, hindering them from achieving their revenue targets. This study aimed at investigating some of these factors that lead to non-compliance among real estate property owners in Nairobi County, Embakasi South sub-county. From the findings of the study, the following recommendations are made.

Drawing from the theory of economic deterrence posits that taxpayers perceived economic consequences of non-compliance outweighing the gains made from evasion would be compliant. This deterrence leads to better compliance. The findings still revealed that automation of services needed, such as online registration, online filing, and online payment of taxes, facilitate compliance. Taxpayers would be discouraged from non-compliance if they knew that the automated systems would reveal their inaccuracies. Therefore, the study recommends that Kenya Revenue Authority enhance the interaction between the taxpayers and the automated systems to increase the reach among the taxpayers. The deepened reach would increase compliance by deterring non-compliance. To the policy regulators, the study recommends concrete policies should be formulated to rope in potential taxpayers who currently are elusive to the taxation

bracket for improved revenue performance. More government services should be automated to seal loopholes that give room for tax cheats.

Drawing from the technology acceptance model theory, the study findings revealed that technology is critical and significant to tax compliance. However, technology must be accepted among the users; the use and interface should be easy and need not have detailed training to understand its operations. Taxpayers would compare the cost of filing taxes manually versus doing it virtually and then accept the technology. However, several barriers might disable the complete penetration of technology across parts of Kenya. Therefore, the study recommends that the government of Kenya, in close partnerships with the revenue authority, and technology services providers to enhance the technological infrastructure to reach more people and increase tax compliance, which translates to more revenue. In particular the fintech and communication firms, should aid the government by making transparent financial transactions among taxpayers, so that incomes that would not ordinarily be declared are automatically captured and reported by the established systems of automation.

The study's findings revealed that taxpayer perception and level of awareness were both statistically significant and positively correlated. Perception is a behavioral issue, and to deal with behavior that affects tax compliance, there is the need to increase the level of awareness. Borrowing from the theory of ability to pay posits that one should be able to pay taxes based on their economic and capacity abilities. In other words, those who have the economic means should employ mechanisms to comply, whether this means seeking knowledge on their own or employing those with the know-how to enable them to comply. They should be compliant. Those who know should use their knowledge to comply without involving their perceptions about the government and the tax authority. The study recommends that awareness should be a continuous process running through

the tax systems. This will increase compliance levels among rental income earners and go a long way in reducing perceptions that contribute to non-compliance.

### **5.5 Suggestions for Further Research**

This study focused on three factors affecting residential rental income tax compliance. These factors included the automation of services, taxpayer perception, and level of awareness. These factors were not exhaustive as per the correlation analysis. There are several factors including religious issues in taxation, demographic factors, economic and social statuses of taxpayers, and others. The study, therefore, suggests that to enhance the body of knowledge in the challenging area of taxation, these other factors could be investigated. There is need to investigate the impact of religious beliefs, the role of demographic factors, social and economic factors that influence compliance in particular among residential income earners in the entire country.

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## APPENDICES

### Appendix I: Questionnaire

This questionnaire is designed to collect information on the “FACTORS AFFECTING TAX COMPLIANCE AMONG RESIDENTIAL INCOME EARNERS IN EMBAKASI SOUTH

SUBCOUNTY NAIROBI”. Kindly answer the following questions as honestly and accurately as possible. The information given will be treated with a lot of confidentiality.

Please do not write your name anywhere on this questionnaire.

### SECTION A - RESPONDENT’S BACKGROUND

#### Instructions

Where necessary put this sign [] for a correct answer of your choice

1. Gender of respondent

Female    []    Male        []

2. Age of respondent

Below 30                    []        31-40    []        41-50[ ]  
51-60                        []        Above 60        []

3. What is your level of education?

Primary education                    []        Secondary education    []  
Technical level                        []        Undergraduate            []  
Postgraduate                            []

## SECTION B: AUTOMATION OF SERVICE

On a scale of 1-5 where 1=strongly disagree, 2= disagree, 3= Neutral, 4= agree and 5=strongly agree, kindly tick where appropriate to indicate your level of acceptance with the statements that:

Item	Statements	1	2	3	4	5
1	The automation of services has enhanced Online Registration					
2	Online Filing is more efficient and effective for taxpayers					
3	Online Payments have enhanced Tax compliance among residential income earners					

## SECTION C: TAXPAYER PERCEPTION

On a scale of 1-5 where 1=strongly disagree, 2= disagree, 3= Neutral, 4= agree and 5=strongly agree, kindly tick where appropriate to indicate your level of acceptance with the statements that:

Statement	1	2	3	4	5
I perceive fair distribution of public services/resources to encourage property owners to be tax compliant					
KRA is perceived to be efficient in tax administration and therefore likely to catch up with tax evaders.					
Relationship between the taxpayers and tax authorities influences the willingness of taxpayers to comply					



Property owners have a negative attitude towards tax evasion					
The improvement of government spending encourage property owners to be tax compliant					
Payment of taxes is perceived by property owners as a contribution to economic growth.					

#### **SECTION D: LEVEL OF AWARENESS**

On a scale of 1-5 where 1=strongly disagree, 2= disagree, 3= Neutral, 4= agree and 5=strongly agree, kindly tick where appropriate to indicate your level of acceptance with the statements that:

<b>Taxpayer Awareness</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Tax knowledge acquired through training and social media to traders have helped in Tax compliance among residential income					
I have been adequately trained on the importance of filing tax returns					
I often learn through brochures, booklets, or seminars on Tax compliance among residential income					
KRA has played a significant role in enlightening traders on Tax compliance among residential income					
I have been adequately made aware of the process of filing my returns					
I have been adequately made aware of the process of paying my taxes					

**SECTION E: RESIDENTIAL INCOME TAX COMPLIANCE**

On a scale of 1-5 where 1=strongly disagree, 2= disagree, 3= Neutral, 4= agree and 5=strongly agree, kindly tick where appropriate to indicate your level of acceptance with the statements that:

<b>Statements</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
I always file return on time and as required by law					
I declare correct monthly residential income					
KRA has offered an enabling environment for tax Filing					
As a residential income earner, I file tax returns every month					
I enjoy paying taxes and I am always tax compliant					

**Thank you**

## Appendix II: List of Study Respondents

No.	PIN No.	Location	No.	PIN No.	Location	No.	PIN No.	Location	No.	PIN No.	Location
1.	02839S	South of Nairobi	30.	62774H	South of Nairobi	59.	04245V	South of Nairobi	88.	84488W	South of Nairobi
2.	03224K	South of Nairobi	31.	63737M	South of Nairobi	60.	04518L	South of Nairobi	89.	84806I	South of Nairobi
3.	03793E	South of Nairobi	32.	64126Z	South of Nairobi	61.	04808U	South of Nairobi	90.	87291X	South of Nairobi
4.	03933N	South of Nairobi	33.	64240N	South of Nairobi	62.	04956A	South of Nairobi	91.	88245E	South of Nairobi
5.	04287F	South of Nairobi	34.	65881I	South of Nairobi	63.	05952D	South of Nairobi	92.	88459V	South of Nairobi
6.	04917O	South of Nairobi	35.	65980V	South of Nairobi	64.	06014G	South of Nairobi	93.	91146M	South of Nairobi
7.	05638A	South of Nairobi	36.	66140B	South of Nairobi	65.	07730U	South of Nairobi	94.	92636U	South of Nairobi
8.	05953I	South of Nairobi	37.	66194V	South of Nairobi	66.	07824E	South of Nairobi	95.	92663M	South of Nairobi
9.	06355K	South of Nairobi	38.	66251L	South of Nairobi	67.	08452I	South of Nairobi	96.	93045R	South of Nairobi
10.	06959U	South of Nairobi	39.	66349D	South of Nairobi	68.	08816W	South of Nairobi	97.	93282A	South of Nairobi
11.	07028W	South of Nairobi	40.	66480Y	South of Nairobi	69.	09728E	South of Nairobi	98.	93309F	South of Nairobi
12.	07374E	South of Nairobi	41.	66629C	South of Nairobi	70.	10969Y	South of Nairobi	99.	94037T	South of Nairobi
13.	07755K	South of Nairobi	42.	67036E	South of Nairobi	71.	11055I	South of Nairobi	100.	94253E	South of Nairobi
14.	07769Q	South of Nairobi	43.	67133V	South of Nairobi	72.	12148N	South of Nairobi	101.	95611D	South of Nairobi
15.	08058G	South of Nairobi	44.	67189A	South of Nairobi	73.	12149Z	South of Nairobi	102.	96277Y	South of Nairobi
16.	08227B	South of Nairobi	45.	67365C	South of Nairobi	74.	12286W	South of Nairobi	103.	97118W	South of Nairobi
17.	08800U	South of Nairobi	46.	68843G	South of Nairobi	75.	14136S	South of Nairobi	104.	97616A	South of Nairobi
18.	09426C	South of Nairobi	47.	68928P	South of Nairobi	76.	14592B	South of Nairobi	105.	98668S	South of Nairobi
19.	10862Z	South of Nairobi	48.	70178V	South of Nairobi	77.	14739J	South of Nairobi	106.	99898D	South of Nairobi
20.	10891Y	South of Nairobi	49.	70306S	South of Nairobi	78.	15849Z	South of Nairobi	107.	00080Y	South of Nairobi
21.	11254J	South of Nairobi	50.	70489I	South of Nairobi	79.	15944X	South of Nairobi	108.	00929Y	South of Nairobi
22.	11282Q	South of Nairobi	51.	70814O	South of Nairobi	80.	16497Z	South of Nairobi	109.	00981A	South of Nairobi
23.	11578S	South of Nairobi	52.	71260L	South of Nairobi	81.	16625G	South of Nairobi	110.	02299L	South of Nairobi
24.	11762R	South of Nairobi	53.	72182E	South of Nairobi	82.	17818A	South of Nairobi	111.	02845D	South of Nairobi
25.	11905D	South of Nairobi	54.	73222D	South of Nairobi	83.	18920A	South of Nairobi	112.	06107G	South of Nairobi

26.	11932G	South of Nairobi	55.	74394O	South of Nairobi	84.	20019G	South of Nairobi	113.	06228A	South of Nairobi
27.	11932G	South of Nairobi	56.	74695J	South of Nairobi	85.	20913J	South of Nairobi	114.	06969Q	South of Nairobi
28.	12023S	South of Nairobi	57.	76553L	South of Nairobi	86.	21719M	South of Nairobi	115.	07113I	South of Nairobi
29.	12048P	South of Nairobi	58.	76573V	South of Nairobi	87.	22847Z	South of Nairobi	116.	07570J	South of Nairobi
117.	12205Z	South of Nairobi	118.	81270Z	South of Nairobi	119.	23346D	South of Nairobi	120.	07685R	South of Nairobi
121.	12467A	South of Nairobi	122.	82336X	South of Nairobi	123.	24276Q	South of Nairobi	124.	08250A	South of Nairobi
125.	12743V	South of Nairobi	126.	83849C	South of Nairobi	127.	25253Z	South of Nairobi	128.	08672W	South of Nairobi
129.	12848S	South of Nairobi	130.	87185L	South of Nairobi	131.	25390R	South of Nairobi	132.	09227N	South of Nairobi
133.	13166W	South of Nairobi	134.	87848L	South of Nairobi	135.	25619Y	South of Nairobi	136.	10055Q	South of Nairobi
137.	14344S	South of Nairobi	138.	88005H	South of Nairobi	139.	26137A	South of Nairobi	140.	10448K	South of Nairobi
141.	14400H	South of Nairobi	142.	89287F	South of Nairobi	143.	27090K	South of Nairobi	144.	11377R	South of Nairobi
145.	14886G	South of Nairobi	146.	91547S	South of Nairobi	147.	27186T	South of Nairobi	148.	11896E	South of Nairobi
149.	15186I	South of Nairobi	150.	91746S	South of Nairobi	151.	27962G	South of Nairobi	152.	12521J	South of Nairobi
153.	15300K	South of Nairobi	154.	93566E	South of Nairobi	155.	29528J	South of Nairobi	156.	14709D	South of Nairobi
157.	15717W	South of Nairobi	158.	94046V	South of Nairobi	159.	30301L	South of Nairobi	160.	15305M	South of Nairobi
161.	15872J	South of Nairobi	162.	94513N	South of Nairobi	163.	31009F	South of Nairobi	164.	15736E	South of Nairobi
165.	16376D	South of Nairobi	166.	95618X	South of Nairobi	167.	31395Y	South of Nairobi	168.	16060B	South of Nairobi
169.	16497W	South of Nairobi	170.	96113P	South of Nairobi	171.	31586H	South of Nairobi	172.	16364I	South of Nairobi
173.	17042D	South of Nairobi	174.	96320A	South of Nairobi	175.	32007I	South of Nairobi	176.	17692V	South of Nairobi
177.	17583L	South of Nairobi	178.	97443E	South of Nairobi	179.	32443Y	South of Nairobi	180.	17830H	South of Nairobi
181.	18275S	South of Nairobi	182.	97629O	South of Nairobi	183.	32604L	South of Nairobi	184.	19426H	South of Nairobi
185.	18308Y	South of Nairobi	186.	98293P	South of Nairobi	187.	33229U	South of Nairobi	188.	22033R	South of Nairobi
189.	18604S	South of Nairobi	190.	98466Z	South of Nairobi	191.	33707Z	South of Nairobi	192.	22713J	South of Nairobi
193.	19530I	South of Nairobi	194.	98905E	South of Nairobi	195.	34099D	South of Nairobi	196.	23652G	South of Nairobi
197.	20842Z	South of Nairobi	198.	99141J	South of Nairobi	199.	34880P	South of Nairobi	200.	25751S	South of Nairobi
201.	21298Z	South of Nairobi	202.	99645Y	South of Nairobi	203.	35534A	South of Nairobi	204.	27339E	South of Nairobi
205.	21298Z	South of Nairobi	206.	00089X	South of Nairobi	207.	36352E	South of Nairobi	208.	27636Z	South of Nairobi
209.	22219S	South of Nairobi	210.	03125U	South of Nairobi	211.	36572D	South of Nairobi	212.	27802A	South of Nairobi
213.	23203J	South of Nairobi	214.	05339G	South of Nairobi	215.	36621Y	South of Nairobi	216.	32106F	South of Nairobi

217.	23664I	South of Nairobi	218.	06476S	South of Nairobi	219.	36743D	South of Nairobi	220.	33855G	South of Nairobi
221.	23747Y	South of Nairobi	222.	07176C	South of Nairobi	223.	38009A	South of Nairobi	224.	33855G	South of Nairobi
225.	24090T	South of Nairobi	226.	08152D	South of Nairobi	227.	38368W	South of Nairobi	228.	35697U	South of Nairobi
229.	25769W	South of Nairobi	230.	08474S	South of Nairobi	231.	39813B	South of Nairobi	232.	36679L	South of Nairobi
233.	26455F	South of Nairobi	234.	08922F	South of Nairobi	235.	40750T	South of Nairobi	236.	39155R	South of Nairobi
237.	26597L	South of Nairobi	238.	09060Z	South of Nairobi	239.	40857J	South of Nairobi	240.	39680R	South of Nairobi
241.	27023Z	South of Nairobi	242.	09893V	South of Nairobi	243.	41694W	South of Nairobi	244.	40587E	South of Nairobi
245.	27092M	South of Nairobi	246.	12287V	South of Nairobi	247.	42885R	South of Nairobi	248.	40721O	South of Nairobi
249.	27694S	South of Nairobi	250.	12692Y	South of Nairobi	251.	44011B	South of Nairobi	252.	41834P	South of Nairobi
253.	27851J	South of Nairobi	254.	15214J	South of Nairobi	255.	45868S	South of Nairobi	256.	41948W	South of Nairobi
257.	28241Z	South of Nairobi	258.	18203A	South of Nairobi	259.	45901Y	South of Nairobi	260.	43311R	South of Nairobi
261.	29067P	South of Nairobi	262.	18832Y	South of Nairobi	263.	45978B	South of Nairobi	264.	43472C	South of Nairobi
265.	29331E	South of Nairobi	266.	21829L	South of Nairobi	267.	45984R	South of Nairobi	268.	44689N	South of Nairobi
269.	31025F	South of Nairobi	270.	22525Z	South of Nairobi	271.	47296L	South of Nairobi	272.	47312U	South of Nairobi
273.	31421P	South of Nairobi	274.	25996D	South of Nairobi	275.	48182P	South of Nairobi	276.	47633L	South of Nairobi
277.	33450T	South of Nairobi	278.	29120V	South of Nairobi	279.	48838W	South of Nairobi	280.	48627R	South of Nairobi
281.	33615X	South of Nairobi	282.	30582Y	South of Nairobi	283.	48962X	South of Nairobi	284.	49455P	South of Nairobi
285.	34046V	South of Nairobi	286.	30993A	South of Nairobi	287.	49190R	South of Nairobi	288.	50227O	South of Nairobi
289.	34065Y	South of Nairobi	290.	32243Q	South of Nairobi	291.	51036O	South of Nairobi	292.	51551U	South of Nairobi
293.	34760X	South of Nairobi	294.	36477Q	South of Nairobi	295.	52896G	South of Nairobi	296.	54320Q	South of Nairobi
297.	34772B	South of Nairobi	298.	37338Z	South of Nairobi	299.	52952Z	South of Nairobi	300.	54598S	South of Nairobi
301.	35059G	South of Nairobi	302.	41360Q	South of Nairobi	303.	54081Z	South of Nairobi	304.	55201Q	South of Nairobi
305.	35383H	South of Nairobi	306.	42506I	South of Nairobi	307.	55316J	South of Nairobi	308.	56067K	South of Nairobi
309.	35793R	South of Nairobi	310.	42609D	South of Nairobi	311.	55563P	South of Nairobi	312.	58413H	South of Nairobi
313.	35939E	South of Nairobi	314.	43316W	South of Nairobi	315.	56584Q	South of Nairobi	316.	59398A	South of Nairobi
317.	37214A	South of Nairobi	318.	46635F	South of Nairobi	319.	57084N	South of Nairobi	320.	59423M	South of Nairobi
321.	37947N	South of Nairobi	322.	48814W	South of Nairobi	323.	57655H	South of Nairobi	324.	62298D	South of Nairobi
325.	38315W	South of Nairobi	326.	50443Q	South of Nairobi	327.	57744Q	South of Nairobi	328.	62535W	South of Nairobi
329.	39466P	South of Nairobi	330.	52147Z	South of Nairobi	331.	59646P	South of Nairobi	332.	62710M	South of Nairobi

333.	39489A	South of Nairobi	334.	52957H	South of Nairobi	335.	60880C	South of Nairobi	336.	64992P	South of Nairobi
337.	39548O	South of Nairobi	338.	61544L	South of Nairobi	339.	61015R	South of Nairobi	340.	65095G	South of Nairobi
341.	41238V	South of Nairobi	342.	61805Q	South of Nairobi	343.	61410G	South of Nairobi	344.	66558R	South of Nairobi
345.	41376A	South of Nairobi	346.	61806R	South of Nairobi	347.	61954A	South of Nairobi	348.	67141I	South of Nairobi
349.	42908B	South of Nairobi	350.	62635X	South of Nairobi	351.	62043R	South of Nairobi	352.	67506F	South of Nairobi
353.	43104J	South of Nairobi	354.	66194P	South of Nairobi	355.	62167I	South of Nairobi	356.	69293V	South of Nairobi
357.	44583I	South of Nairobi	358.	66312N	South of Nairobi	359.	63968P	South of Nairobi	360.	69323Z	South of Nairobi
361.	45580J	South of Nairobi	362.	67613A	South of Nairobi	363.	64149I	South of Nairobi	364.	69811Q	South of Nairobi
365.	48079R	South of Nairobi	366.	69927J	South of Nairobi	367.	64402Y	South of Nairobi	368.	69896X	South of Nairobi
369.	49398H	South of Nairobi	370.	72558Z	South of Nairobi	371.	65136U	South of Nairobi	372.	70089X	South of Nairobi
373.	49681B	South of Nairobi	374.	73945Y	South of Nairobi	375.	65794V	South of Nairobi	376.	71271V	South of Nairobi
377.	50718P	South of Nairobi	378.	79304X	South of Nairobi	379.	66223S	South of Nairobi	380.	71459B	South of Nairobi
381.	50846Q	South of Nairobi	382.	89678C	South of Nairobi	383.	66287X	South of Nairobi	384.	74390B	South of Nairobi
385.	52374C	South of Nairobi	386.	90779L	South of Nairobi	387.	67708P	South of Nairobi	388.	75924G	South of Nairobi
389.	53002P	South of Nairobi	390.	91362R	South of Nairobi	391.	68529U	South of Nairobi	392.	76060Y	South of Nairobi
393.	53227W	South of Nairobi	394.	91747T	South of Nairobi	395.	68529U	South of Nairobi	396.	77512S	South of Nairobi
397.	53660J	South of Nairobi	398.	92693F	South of Nairobi	399.	69919N	South of Nairobi	400.	77543J	South of Nairobi
401.	53793T	South of Nairobi	402.	93819U	South of Nairobi	403.	71025N	South of Nairobi	404.	77885Y	South of Nairobi
405.	54074W	South of Nairobi	406.	94283E	South of Nairobi	407.	71866E	South of Nairobi	408.	79989H	South of Nairobi
409.	54628B	South of Nairobi	410.	94697N	South of Nairobi	411.	73395L	South of Nairobi	412.	80202I	South of Nairobi
413.	54886P	South of Nairobi	414.	95784N	South of Nairobi	415.	74975P	South of Nairobi	416.	81153T	South of Nairobi
417.	55274R	South of Nairobi	418.	95875N	South of Nairobi	419.	76045M	South of Nairobi	420.	81272Q	South of Nairobi
421.	55494I	South of Nairobi	422.	97790P	South of Nairobi	423.	77002Z	South of Nairobi	424.	82968Z	South of Nairobi
425.	55664L	South of Nairobi	426.	00297F	South of Nairobi	427.	78844P	South of Nairobi	428.	85880J	South of Nairobi
429.	56599X	South of Nairobi	430.	00552P	South of Nairobi	431.	79763B	South of Nairobi	432.	88204C	South of Nairobi
433.	57172D	South of Nairobi	434.	00810B	South of Nairobi	435.	79990I	South of Nairobi	436.	91227L	South of Nairobi
437.	57214C	South of Nairobi	438.	00970X	South of Nairobi	439.	80531W	South of Nairobi	440.	92473A	South of Nairobi
441.	58860I	South of Nairobi	442.	01184A	South of Nairobi	443.	80556U	South of Nairobi	444.	94131O	South of Nairobi
445.	60484K	South of Nairobi	446.	01561K	South of Nairobi	447.	80791G	South of Nairobi	448.	94990J	South of Nairobi

449.	61452M	South of Nairobi	450.	01669M	South of Nairobi	451.	80884U	South of Nairobi	452.	95808H	South of Nairobi
453.	61578E	South of Nairobi	454.	02911E	South of Nairobi	455.	81324W	South of Nairobi	456.	97606B	South of Nairobi
457.	62117N	South of Nairobi	458.	03348B	South of Nairobi	459.	82716C	South of Nairobi	460.	98490O	South of Nairobi
461.	62155R	South of Nairobi	462.	03371E	South of Nairobi	463.	82814M	South of Nairobi	464.	99366W	South of Nairobi
465.	62286Z	South of Nairobi	466.	03909U	South of Nairobi	467.	82818Q	South of Nairobi			

### Appendix III: University Letter of Authority



REF: KESRA/NBI/036

25<sup>th</sup> January 2022

TO: WHOM IT MAY CONCERN

**RE: REQUEST FOR RESEARCH DATA**

**LUCIAH WANJUHI KIHUHA - REG. NO.: KESRA105/0041/2019**

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: "DETERMINANTS OF TAX COMPLIANCE AMONG RESIDENTIAL INCOME EARNERS IN EMBAKASI SUB-COUNTY NAIROBI"

The purpose of this letter is to request your good office to assist the above student with the information 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



P. O. Box 48240 – 00100, Nairobi      Email: [kesratraining@kra.go.ke](mailto:kesratraining@kra.go.ke)      Tel: +254715877535/9

**Tulipe Ushuru Tujitegeme!**



### Appendix IV: National Commission for Science & Technology Innovation Permit



REPUBLIC OF KENYA



NATIONAL COMMISSION FOR  
SCIENCE, TECHNOLOGY & INNOVATION

**RESEARCH LICENSE**

Ref No: 526534

Date of Issue: 14/February/2022



**This is to Certify that Ms. LUCIAH Wanjuki KIHULA of Moi University, has been licensed to conduct research in Nairobi on the topic: DETERMINANT OF TAX COMPLIANCE AMONG RESIDENTIAL INCOME EARNERS IN EMBAKASI SUB-COUNTY NAIROBI for the period ending 14/February/2022.**

License No: NACOSTI/P/22/15009

526534

Applicant Identification Number



Director General  
NATIONAL COMMISSION FOR  
SCIENCE, TECHNOLOGY &  
INNOVATION

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Last line: 020 4007000, 020 2241349, 020 3310571, 020 8001077  
Mobile: 0713 788 787 / 0735 404 245  
E-mail: dg@nacosti.go.ke / registry@nacosti.go.ke  
Website: www.nacosti.go.ke

## Appendix V: Plagiarism Report

### DETERMINANTS OF TAX COMPLIANCE AMONG RESIDENTIAL INCOME EARNERS IN EMBAKASI SOUTH SUB-COUNTY NAIROBI

#### ORIGINALITY REPORT

<b>10</b> %	<b>11</b> %	<b>2</b> %	<b>6</b> %
SIMILARITY INDEX	INTERNET SOURCES	PUBLICATIONS	STUDENT PAPERS

#### PRIMARY SOURCES

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