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**STRATEGIES FOR ENHANCING THE EFFECTIVENESS OF TAX AUDITS IN  
KENYA REVENUE AUTHORITY, NAIROBI REGION: MODERATED BY  
ORGANIZATIONAL CULTURE**

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**ADM NO. 169087**



**A THESIS SUBMITTED TO THE SCHOOL OF BUSINESS STUDIES (SBS) IN  
PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF THE  
DEGREE OF MASTER OF COMMERCE FORENSIC ACCOUNTING AND  
INVESTIGATION.**

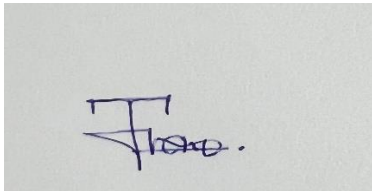
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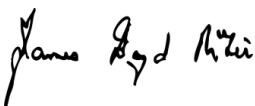
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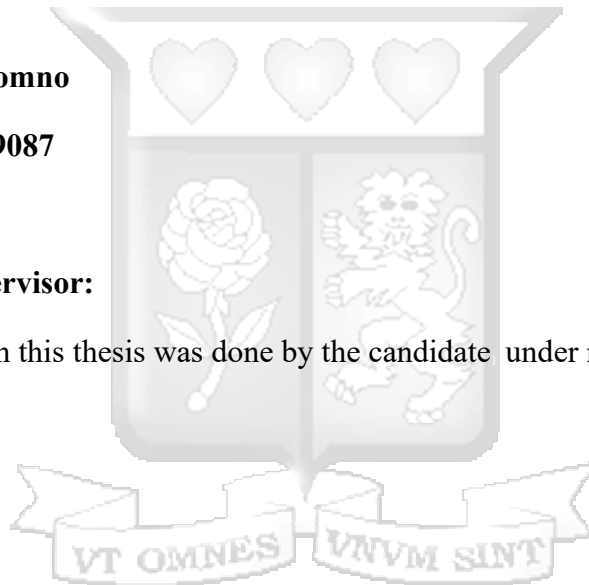


**Date:** 21<sup>st</sup> May 2025

**Dr. James Boyd McFie**

**Strathmore Business School (SBS)**

**Strathmore University**



## DEDICATION

My first dedication goes to my Almighty God for the gift of life, good health and wisdom to complete my proposal.

Secondly to my family including my parents, husband and children, from whom I would not have done much without their love, financial support, prayers, words of encouragement and their understanding as I sat long hours studying and writing.

And lastly I dedicate this work to my supervisor Dr. James Boyd McFie for his scholarly support, patience, guidance and encouragement in the planning, development and completion of this thesis. It is without doubt that his perpetual sacrifice all along that has helped me manage to complete this thesis.



## ABSTRACT

Ineffective tax audits can reduce government revenue, and undermine the integrity of the tax system. The significant gap between potential and actual tax revenue, frequent occurrences of tax evasion and avoidance, and a general lack of compliance among taxpayers points to the inefficiency and ineffectiveness of tax audits at the KRA. While there may be studies on the effectiveness of automation, whistleblower programs, taxpayer education, and continual professional training of tax audit strategies globally, limited research exists on its specific application and impact on tax audits within Kenya. The purpose of this study was to evaluate strategies for enhancing the effectiveness of tax audits in the Nairobi Region of the Kenya Revenue Authority. Specifically, the study sought to assess the influence of automation, whistleblower programs, taxpayer education and continual training on the effectiveness of tax audits in the KRA. The study also assessed the moderating role of organizational culture in the relationship between the implementation of tax audit strategies and the effectiveness of tax audits at the KRA, Nairobi Region. The study was anchored on the Technology Acceptance Model, Deterrence theory and the Human capital theory. The research adopted a positivist philosophy and utilized a descriptive correlational research design. The target population was the 10271 employees of the Kenya Revenue Authority in Kenya. The sample size was 214 employees from the KRA Nairobi Regional Audit Centres. Data collection was conducted through structured questionnaires and analyzed using both descriptive and inferential statistics. The presentation of the data was in the form of tables. The findings of the study may inform policy-makers and contribute to the academic field on the effectiveness of tax audits. The study found that automation, whistleblower programs, taxpayer education have a significant positive impact on the effectiveness of tax audits at KRA. The study revealed that organizational culture plays a significant moderating role in the relationship between tax audit strategies and audit effectiveness. The study recommends that KRA should continue to invest in the development and regular upgrading of automated systems, strengthen the whistleblower program and enhance its training programs. KRA should also continue to foster a positive organizational culture by promoting collaboration, shared goals, and adaptability to change.

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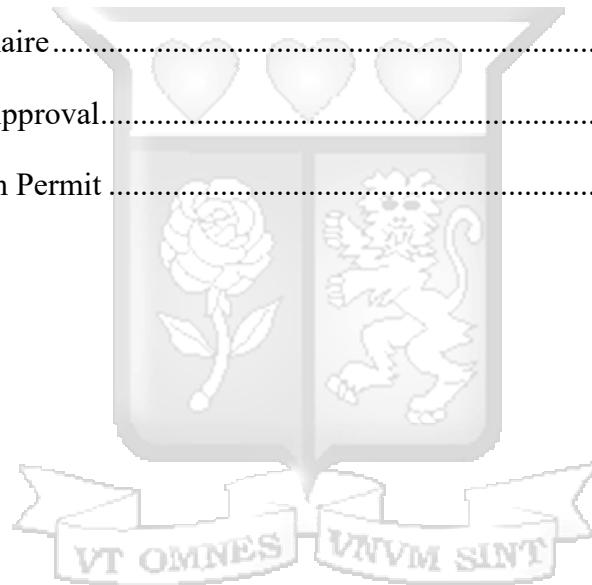
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## LIST OF ABBREVIATIONS

CBT	Central Bureau of Taxation
FIRS	Nigerian Federal Inland Revenue Service
FIRS	Nigerian Federal Inland Revenue Service
KPMG	Klynveld Peat Marwick Goerdeler
KRA	Kenya Revenue Authority
OECD	Organization for Economic Co-operation and Development
SOEs	State-Owned Enterprises
SPSS	Statistical Package for Social Sciences
TAM	Technology Acceptance Model



## DEFINITION OF OPERATIONAL TERMS

- Automation:** Automation in tax auditing refers to the use of technology to perform audit processes with minimal human intervention, enhancing efficiency and accuracy (Brezina et al., 2021).
- Continual Training:** Continual Training refers to the ongoing training programs for tax auditors to keep them updated with the latest practices and technologies in tax auditing (Mirzadeh et al., 2021).
- Organizational culture:** refers to the shared values, beliefs, norms, practices, and behaviors that shape how employees within an organization interact with one another, make decisions, and approach their work. It is the underlying fabric that guides how things are done within an organization and can be shaped by leadership, traditions, history, and the collective experiences of the workforce (Assoratgoon & Kantabutra, 2023).
- Tax Audit Effectiveness:** Tax Audit Effectiveness refers to the effectiveness of tax audits in identifying non-compliance and enhancing revenue collection (Kasper & Alm, 2022).
- Taxpayer education:** Taxpayer education refers to the initiatives aimed at informing taxpayers about tax laws, obligations, and the importance of compliance (Mascagni et al., 2024).
- Whistleblower Program:** A Whistleblower Program is a system that encourages individuals to report tax evasion or fraud, playing a crucial role in tax compliance enforcement (Wiedman & Zhu, 2023).

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background to the Study

Tax audits are critical tools for ensuring compliance with tax laws and optimizing revenue collection for governments (Advani et al., 2023). The importance of effective tax audits cannot be overstated. They not only improve compliance with tax laws and help prevent tax evasion but also contribute to a fair and equitable tax system, where all entities pay their rightful share (Araújo et al., 2020). According to Rahmayanti and Prihatiningtias (2020), effective tax audits reduce the difference between the amount of taxes owed to the government and the amount actually collected and deter potential non-compliance through the presence of a functional audit system.

To enhance the effectiveness of tax audits, various strategies can be adopted, each tailored to address specific aspects of tax administration (Kasper & Alm, 2022). Globally, different countries have implemented various tax audit strategies. In the United States, the Internal Revenue Service (IRS) uses sophisticated data analytics to identify high-risk areas and prioritize audits, which enhances the effectiveness of its enforcement activities (Nessa et al., 2020). In India, the implementation of a centralized computer system for selecting audit candidates has significantly improved the objectivity and efficiency of tax audits, reducing corruption and enhancing compliance (Serikova et al., 2020). Japan's tax authority employs a mix of comprehensive audits for large corporations and targeted audits focusing on specific sectors or issues, thereby enhancing thorough coverage and efficient use of resources (Yamada & Fujita, 2022). Brazil has effectively used electronic invoicing and digital bookkeeping to streamline audit processes, allowing for real-time data collection and faster identification of discrepancies (Silva et al., 2022). In Nigeria, the integration of technology in audit processes has been coupled with increased public education on tax compliance, enhancing the overall effectiveness of audits (Okonye & Akujor, 2023). Rwanda has seen success through implementing electronic filing and payments, reducing errors, and increasing the ease of compliance, which supports more effective audits (Harelimana & Gayawira, 2020).

In Kenya, the Kenya Revenue Authority (KRA) is tasked with overseeing and implementing tax audits, particularly in regions with significant economic activities such as Nairobi (KRA, 2020). The capital city, Nairobi, represents a unique challenge for tax authorities due to its large and

diverse economic base that includes everything from multinational corporations to small and medium-sized enterprises (Kandie, 2020). Furthermore, there is a complexity of economic transactions due to the rapidly growing metropolitan area. Thus, enhancing the strategies for conducting tax audits in Nairobi is not just a fiscal necessity but also a strategic imperative to assist in fair and efficient tax collection.

### **1.1.1 Tax Audit Strategies**

Tax audit strategies refer to the plans and methods employed by tax authorities to conduct audits effectively (Okonye & Akujor, 2023). These strategies can vary widely depending on the type of taxes, the taxpayer segments, and available resources (Kasper & Alm, 2022). In a tax audit, available data typically includes the taxpayer's financial statements, filed tax returns, business invoices and receipts, bank statements, accounting records, contracts and agreements, payroll records, previous audit reports, supporting documentation for deductions, and inventory and asset records (OECD, 2017). This data is used to verify income, expenses, deductions, and compliance with tax laws. The accuracy and comprehensiveness of data are foundational to the success of tax audits (Advani et al., 2023). Efficient data management systems ensure that auditors have access to reliable and timely data, which is critical for identifying discrepancies and potential non-compliance. According to Ismail et al. (2020), data quality significantly affects audit quality and outcomes, emphasizing the need for robust data governance practices.

Various scholars and authors have acknowledged the importance of different strategies in tax audit effectiveness. These include automation (Brezina et al., 2022; Ramírez-Rosas et al., 2024), whistleblowers (KPMG, 2018), taxpayer education (Nurebo & Lakew, 2019) and auditor training (Abera, 2016). Automation plays a pivotal role in improving the efficiency and accuracy of tax audits. Automation allows for the identification of patterns and anomalies that may indicate tax non-compliance, significantly enhancing the speed and precision of audits. According to Rahman and Sultana (2020), automating audit processes not only boosts accuracy but also lightens the workload for auditors, making the entire audit process more efficient and cost-effective. While existing research (Nthenge (2020; Atayah & Alshater, 2021) highlights the benefits of automation, there's a gap in understanding the effectiveness of specific technologies used by the KRA for tax audits.

Whistleblowing plays a critical role in promoting transparency and accountability in organizations (Mirzamani & Mehrzadian, 2024). Whistleblowing programs are designed to encourage individuals to report unethical or illegal activities without fear of retaliation. The effectiveness of whistleblower programs hinges on their ability to protect whistleblowers, ensure anonymity, and provide a clear and effective process for handling reports (Okafor et al., 2020). The primary purpose of whistleblower programs is to detect and prevent fraud, corruption, and other types of wrongdoing. Whistleblowers can significantly enhance tax audit effectiveness by providing crucial information that may not be easily accessible through conventional auditing methods (Mehrzadian, 2024). Their role can help uncover fraudulent activities, tax evasion, and other non-compliant behaviors that might otherwise go unnoticed. Whistleblowers can serve as a valuable source of intelligence, enabling tax authorities to target their audits more effectively, reduce the risk of fraud, and increase overall compliance (Ntiamoah et al., 2024). By offering protection and incentives to whistleblowers, authorities can encourage more individuals to come forward with information, thereby improving audit outcomes (Berger et al., 2020). Studies by Berger et al. (2020) and Gaydon & Boyle (2023) focus on the deterrent effect of whistleblowing programs in different contexts. The current study will delve into whistleblowing in Kenya. This could help identify areas for improvement in the KRA's whistleblower program.

Educating taxpayers about their tax obligations and the audit process plays a significant role in enhancing voluntary compliance (Oloyede & Nwachukwu, 2021). When taxpayers are well-informed about their obligations, the tax laws, and the audit process, they are more likely to comply voluntarily, reducing the need for extensive audits (Hanapi, 2022). Effective taxpayer education helps prevent common errors, misunderstandings, and intentional evasion, leading to more accurate tax filings and fewer discrepancies during audits (Greenham et al., 2024). Additionally, educated taxpayers can provide more accurate and organized documentation during an audit, allowing auditors to focus on higher-risk areas instead of spending time clarifying misunderstandings or correcting mistakes (Amaning et al., 2021). When taxpayers are informed about their rights and obligations, they are more likely to cooperate with auditors, making the audit process faster and less contentious. Suryanggala et al. (2022) highlight the positive impact of taxpayer education on improving compliance rates across various taxpayer segments. Studies by Oktaviani et al. (2020) and Ayub & Mincu (2020) examine the influence of taxpayer education

on compliance. This presents conceptual gaps as no evidence was brought concerning tax audit effectiveness.

Continuous professional training on new auditing techniques and regulatory changes are essential for maintaining high standards of audit quality (Rumasukun, (2024). Lohapan (2021) discusses how auditor training enhances the effectiveness of audits by equipping auditors with the necessary skills to perform their duties proficiently. The competency of auditors is crucial in interpreting data, understanding complex transactions, and applying tax laws effectively (Aslan, 2021). Bawa & Addai-Asante (2024) highlight the importance of training for tax auditors. However, the study does not explore the effectiveness of training programs designed to equip auditors with specialized skills for handling complex tax issues in specific sectors.

Hebous et al. (2023) stipulate that random audits serve as a vital component of auditing strategy by adding an element of unpredictability to the audit selection process. Unlike risk-based audits, which are targeted based on specific risk indicators, random audits are selected without prior indicators of non-compliance (Feliciano & Quick, 2022). This method is crucial for maintaining the integrity of the tax system because it discourages taxpayers from assuming they will not be audited if they do not meet certain risk criteria (Ocak et al., 2022). Random audits help to deter potential non-compliance across the board by creating an environment where any taxpayer could be audited at any time, regardless of their perceived compliance level. This unpredictability helps to level the playing field and ensures that all taxpayers adhere to tax laws more diligently (Murdock, 2021).

While there may be studies on the effectiveness of automation, whistleblower programs, taxpayer education, and continual professional training of tax audit strategies globally (Oktaviani et al., 2020; Atayah and Alshater, 2021; Kasper and Alm, 2022; Gaydon and Boyle, 2023), limited research exists on its specific application and impact on tax audits within Kenya. This study could fill this gap by providing empirical evidence on how these strategies have enhanced the effectiveness of tax audits in the Nairobi region. This study will focus on automation, whistleblower programs, taxpayer education, and continual professional training of tax audit strategies.

### **1.1.2 Effectiveness of Tax Audits**

The effectiveness of tax audits is a critical measure of how well a tax authority like the Kenya Revenue Authority manages to enforce tax laws and ensure compliance among taxpayers. Effective tax audits help to maintain the integrity of the tax system by identifying and correcting discrepancies in tax filings, thus preventing revenue loss through fraud or evasion (Kasper & Alm, 2022). One of the primary indicators of the effectiveness of tax audits is the rate of successful audits (Advani et al., 2023). This measure reflects the proportion of audits that successfully identify and correct non-compliance with tax laws. A high rate of successful audits indicates that the auditing process is effective in detecting discrepancies and ensuring that taxpayers meet their legal obligations or could also indicate that there is low rate of compliance (Blaufus et al., 2023).

The amount of revenue recovered through audit activities is also a significant measure of audit effectiveness (Kotsogiannis et al., 2024). This metric highlights the financial impact of the audits and demonstrates the direct contribution of auditing to enhancing the revenue of the government (Belnap et al., 2024). Effective audits often lead to significant recovery of owed taxes that were previously unreported or underreported, thus boosting overall revenue collection. However, focusing solely on revenue recovery can lead to aggressive auditing practices that may harm taxpayer relations and trust (Flagmeier et al., 2023).

The inefficiency of tax audits at the Kenya Revenue Authority (KRA) is a significant problem that hampers the country's ability to effectively collect revenue and curb tax evasion (Thyaka & Kavale, 2021). Despite the growing need for improved revenue collection, KRA's audit processes often face challenges such as inadequate resources, insufficient training, and outdated technology. These shortcomings lead to delayed audits, incomplete assessments, and the failure to identify and address tax evasion or avoidance effectively. As a result, many taxpayers, especially large corporations and high-net-worth individuals, manage to underreport their taxable income or evade taxes altogether (Makau et al., 2024). According to the Auditor general's report (2024), KRA has current liabilities amounting to KSh 13.4 billion, which significantly exceeds its current assets of KSh 3.9 billion, suggesting that the authority is operating in a net liability position. This means KRA may not have enough liquid assets to cover its short-term obligations. This could indicate inefficient financial management, where resources are not being managed effectively to ensure that liabilities are met when due. This can affect KRA's ability to carry out its tax audits effectively

(Auditor General's report (2024). When resources are not managed well, it could impact the staffing, technology, or training needed for KRA's audit function, leading to poor audit coverage, delays, or inadequately conducted audits.

According to Utegenova and Rozumova (2024) beyond immediate financial outcomes, the effectiveness of tax audits is also reflected in the improved compliance rate of audited entities over time. Effective audits should lead to a lasting change in taxpayer behavior, with audited entities maintaining higher compliance rates in subsequent years. This long-term compliance is crucial as it reduces the need for repeated audits of the same entities and signifies a successful deterrence effect, which is essential for sustainable tax administration (Hagenimana & Niyibizi, 2022). Furthermore, the effectiveness of tax audits can be assessed by their broader impact on the taxpayer community. This involves observing changes in voluntary compliance rates among all taxpayers, not just those audited. Effective audit programs can generate a general deterrence effect, where the knowledge that audits are being conducted effectively encourages compliance across the board (Kasper & Rablen, 2023). This study will assess the effectiveness of tax audits as measured through the rate of successful audits and audit-related revenue recovery.

### **1.1.3 Organizational Culture**

The success of any organization's strategy, especially one aimed at enhancing operational efficiency and effectiveness, is often influenced by the organizational culture (Lubis & Hanum, 2020). Organizational culture refers to the shared values, beliefs, norms, practices, and behaviors that shape how employees within an organization interact with one another, make decisions, and approach their work. It is the underlying fabric that guides how things are done within an organization and can be shaped by leadership, traditions, history, and the collective experiences of the workforce (Assoratgoon & Kantabutra, 2023).

Values and Beliefs are the core principles that guide how employees behave and make decisions. For example, a culture that values transparency, integrity, and ethical behavior will encourage staff to adhere to high standards of conduct in their work (Grover et al., 2022). Norms and Practices refer to the habitual ways of doing things within the organization, such as how meetings are conducted, how decisions are made, and how performance is managed. A culture with strong norms for collaboration might see higher teamwork, while one that emphasizes individual achievement may promote competition (Anning-Dorson, 2021). Leadership plays a significant role

in shaping organizational culture. A leadership style that is inclusive, communicative, and values employee contributions can create a culture that fosters innovation and responsiveness. Organizational culture also dictates how information flows within the organization. In open, transparent cultures, communication is frequent and inclusive, while in closed cultures, information might be more top-down (Akpa et al., 2021).

The Denison Organizational Culture Model developed by Daniel Denison and is widely used to understand and assess the relationship between organizational culture and performance (Kokina, & Ostrovska, 2013). This model provides a framework for measuring culture in organizations and is designed to help organizations align their culture with their strategic goals to enhance performance. Denison's model emphasizes the importance of culture in driving organizational success and highlights four key traits that organizations need to focus on to be more effective; Mission, consistency, involvement and adaptability (Wahyuningsih et al., 2019).

In the context of the study, organizational culture can act as a moderating variable in the relationship between tax audit strategies and the effectiveness of those audits. This means that the culture within the Kenya Revenue Authority (KRA) could influence the degree to which the implemented audit strategies are effective. The impact of audit strategies may vary based on the nature of the organizational culture. For example, a culture that promotes transparency, accountability, and professionalism among employees may lead to more effective audits, as staff will be more committed to upholding the standards and processes critical to the tax audit function (Siswadi et al., 2023). Conversely, a culture that tolerates inefficiency, a lack of communication, or resistance to change could undermine even the most well-structured audit strategies (Jiang & Shen, 2023).

Thus, understanding the influence of organizational culture on the effectiveness of tax audits is crucial to comprehensively evaluating the strategies for enhancing these audits. This study will explore how organizational culture moderates the relationship between the implementation of audit strategies and their effectiveness in the KRA, particularly in the Nairobi Region. It will also examine the various cultural dimensions that may either support or impede the smooth execution of audit processes, providing a more holistic approach to improving tax administration. The study will thus adapt the four dimension of organization culture as developed by Denison.

#### **1.1.4 The Kenya Revenue Authority**

The Kenya Revenue Authority (KRA) is the principal government agency responsible for tax collection and enforcement of tax laws in Kenya (KRA, 2025). The Kenya Revenue Authority was established in 1995 through the Kenya Revenue Authority Act, as a semi-autonomous government agency, taking over the functions of the Central Bureau of Taxation (CBT) and the Income Tax Department from the Ministry of Finance. These departments, which previously handled tax collection and administration, were deemed inefficient and incapable of addressing the evolving needs of the country's growing economy. KRA was created to enhance the efficiency of tax administration, increase revenue generation, and improve compliance with tax obligations. KRA's mandate includes collecting taxes on behalf of the national government, managing customs duties, and ensuring that individuals and businesses comply with tax laws (KRA, 2025). The authority operates under the Ministry of Finance and is instrumental in the formulation and implementation of fiscal policies aimed at promoting economic growth. Over the years, KRA has grown to become a critical institution in Kenya's economic development, providing the necessary resources for government expenditure in sectors such as education, healthcare, infrastructure, and security (KRA, 2025).

KRA has continually embraced modernization and innovation in its operations, particularly in the area of tax audits. In response to challenges such as tax evasion, underreporting, and a large informal economy, the Authority has been integrating technology into its auditing processes (KRA, 2019). This includes the implementation of automated systems, data analytics, and other advanced tools aimed at improving the effectiveness and efficiency of tax audits (KRA, 2023). Additionally, KRA has introduced programs to enhance taxpayer education, foster voluntary compliance, and support whistleblowers in reporting tax fraud (KRA, 2020). Despite these efforts, however, the effectiveness of tax audits remains an ongoing challenge, with issues such as resource constraints, inadequate training, and manual processes still hindering the full potential of KRA's audit capabilities. As such, strategies to enhance the effectiveness of tax audits are crucial to improving revenue collection and ensuring a fair and transparent tax system in Kenya.

#### **1.2 Research Problem**

The central problem addressed in this study was the inefficiency and ineffectiveness of tax audits at the Kenya Revenue Authority. This inefficiency is manifested in several ways, including a

significant gap between potential and actual tax revenue, frequent occurrences of tax evasion and avoidance, and a general lack of compliance among taxpayers (Ritei, 2021; Kanini, 2021). The liquidity problem (current liabilities of KSh 13.4 billion against current assets of KSh 3.9 billion) in the Auditor General's report (2024) suggests a financial mismanagement issue. This points to inefficiencies in resource allocation, which can affect KRA's ability to carry out its tax audits effectively. Poor resource management could impact the staffing, technology, or training needed for KRA's audit function, leading to poor audit coverage, delays, or inadequately conducted audits.

The consequences of this inefficiency are multifaceted and have a profound impact on the Kenya Revenue Authority's mandate on revenue collection and the broader Kenyan economy. Inefficient tax audits lead to a substantial loss of revenue for the government, which in turn limits the government's ability to invest in critical public services such as healthcare, education, and infrastructure (Juma et al., 2020). Similarly, ineffective tax audits have wide-ranging implications, including lost revenue, increased inequality, and diminished capacity for governments to fund public services and the maintenance of existing infrastructure and construction of new infrastructure. This revenue shortfall can lead to increased borrowing, escalating the national debt, and potentially resulting in economic instability (Adane, 2020).

Addressing the inefficiency of tax audits in Kenya is crucial not only for improving revenue collection but also for fostering a culture of compliance and trust in the tax system. Enhancing audit effectiveness can lead to a more equitable tax system, where all entities contribute their fair share. According to the Auditor General's report (2024), there are significant challenges in managing public finances in Kenya which include mismanagement, corruption and misallocation of resources which point to systemic inefficiencies and, in some cases, outright theft of government funds. The explanation for such behaviors often lies in weak accountability structures, inadequate oversight, and a lack of transparency in public spending. Without a robust system to track and control expenditures, opportunities for mismanagement and corruption multiply. Competent tax collection is a part of the solution. By improving the efficiency of tax collection, such as through enhanced audits and the use of technology, the government can ensure that more resources are collected from those who can afford to contribute. This can provide the funds necessary for public goods and services and reduce the dependency on inefficient government spending. At the same time, increased tax revenue can help the government invest in long-term development projects,

social services, and infrastructure that benefit the entire population, driving sustainable growth and improving overall welfare.

While prior studies have highlighted the role of automation, whistleblower mechanisms, and taxpayer education in enhancing audit outcomes (Ayub & Mincu, 2020; Nthenge, 2020; Atayah & Alshater, 2021; Betri, 2021), few have examined these strategies holistically within the Kenyan context. Even more critically, organizational culture has received limited empirical attention as a moderating factor, despite its proven influence on audit efficiency and strategic implementation across public institutions (Seno et al., 2022; Muya et al., 2025). Moreover, existing literature lacks real-time, Kenya-specific data and fails to address how these audit-enhancing strategies interact within the institutional environment of the KRA. Therefore, this study sought to bridge these conceptual, contextual, and methodological gaps by evaluating the strategies for enhancing the effectiveness of tax audits in KRA, while also interrogating the moderating role of organizational culture.

### **1.3 Research Objectives**

#### **1.3.1 General Objective**

The objective of the study was to evaluate strategies for enhancing the effectiveness of tax audits in KRA, Nairobi Region: moderated by organizational culture.

#### **1.3.2 Specific Objectives**

The specific objectives of this study were:

- i. To assess the consequence of automation on the effectiveness of tax audits in KRA in the Nairobi Region.
- ii. To determine the influence of Whistleblower Programs on the effectiveness of tax audits in KRA in the Nairobi Region.
- iii. To establish the effect of Taxpayer Education on the effectiveness of tax audits in KRA in the Nairobi Region.
- iv. To determine the influence of Continual Training on the effectiveness of tax audits in KRA in the Nairobi Region.
- v. To assess the moderating effect of organizational culture in the relationship between the tax audit strategies and the effectiveness of tax audits at the KRA, Nairobi Region.

## 1.4 Research Questions

The research questions of this study were:

- i. What is the consequence of automation on the effectiveness of tax audits in the KRA in the Nairobi Region?
- ii. How do whistleblower programs affect the effectiveness of tax audits in the KRA in the Nairobi Region?
- iii. To what extent does taxpayer education influence the effectiveness of tax audits in the KRA in the Nairobi Region?
- iv. What is the effect of continual training on the effectiveness of tax audits in the KRA in the Nairobi Region?
- v. What is the moderating effect of organizational culture in the relationship between tax audit strategies and the effectiveness of tax audits at the KRA, Nairobi Region?

## 1.5 Scope of the Study

This study focused on the effect of automation, whistleblower programs, taxpayer education and continual training of tax auditors on tax audit effectiveness in KRA in the Nairobi Region and the moderating role of organizational culture. The study population was made up of employees of the KRA at the KRA Regional Audit Centres in the Nairobi Region. The study was conducted in March 2025.

## 1.6 Significance of the Study

### 1.6.1 Policy Makers

Insights from the study may provide evidence-based recommendations that are critical for policymakers, especially in designing strategies to increase the efficiency of tax audits. This can lead to more effective tax administration policies that are responsive to the dynamics of the Nairobi region. By identifying key areas where improvements are needed, such as technology or training, the study can guide policy-makers on where to allocate resources effectively, thus optimizing the impact of fiscal policies.

### **1.6.2 KRA Management**

The study provides a detailed analysis of current challenges and potential improvements in tax audit strategies. This can lead to better strategic decisions and operational enhancements. Findings related to the training needs of audit staff can lead to more focused and effective training programs, thus building a more competent audit workforce. By highlighting the role and impact of technology in tax audits, the study may encourage the KRA to invest in and adopt advanced technologies that streamline audits and improve accuracy and efficiency. KRA management can thus use the insights from the study to make informed decisions about audit strategies.

### **1.6.3 Academic Significance**

This study contribute to the academic field by providing empirical data and analysis concerning the effectiveness of tax audits, a critical area in public finance and administration. It may enrich existing literature by addressing specific challenges and solutions within the Kenyan context, thereby offering insights that can be compared and contrasted with global practices. The findings and methodologies of this study can serve as educational resources for students and academics interested in tax policy, public administration, and governance, enhancing their understanding and sparking further research initiatives.

### **1.7 Chapter Summary**

This chapter introduces the study and is organized into seven sections. Section 1.1 covers the background of the study, while Section 1.2 provides a comprehensive analysis of the problem statement. Section 1.3 outlines the study's objectives, including both the general and specific objectives. Section 1.4 presents the research questions, and Section 1.5 describes the study's scope. Section 1.6 highlights the significance of the study, explaining how it benefits different stakeholders. Finally, Section 1.7 offers a summary of the chapter.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

The chapter presents the literature review of the study. The chapter presents the theoretical framework, empirical literature, knowledge gap and conceptual framework. It presents a comprehensive literature review that explores studies related to the strategies for enhancing tax audit effectiveness.

#### **2.2 Theoretical Framework**

A theoretical framework is a structure of concepts, definitions, and existing theories that provides a framework for a study (Zamboni, 2018). It is like a roadmap that guides researchers in their investigation, ensuring a systematic and focused approach. The study was anchored on the Technology Acceptance Model (TAM), Deterrence theory and the Human capital theory. Incorporating multiple theories in the study allows for a more comprehensive understanding of the complex factors influencing the effectiveness of tax audits. Each theory offers a unique perspective. TAM focuses on technological adoption, helping us understand how automation can improve audit processes. Deterrence Theory provides insights into how enforcement and penalties can shape tax compliance, thus directly impacting the effectiveness of audits. Human Capital Theory emphasizes the role of skilled and knowledgeable personnel, which is critical for the efficient execution of audits. Using these three theories together allows the study to address both technological (automation), behavioral (compliance through deterrence), and human factors (education, training) that contribute to the success of tax audits.

##### **2.2.1 Technology Acceptance Model**

The TAM was developed by Fred Davis in 1989 and is a foundational theory in the field of information systems that seeks to explain how users such as the taxpayers and auditors come to accept and use technology. TAM posits that two primary factors determine an individual's intention to use a technology and subsequently their actual use of it. These are perceived usefulness and perceived ease of use (Davis et al., 2024).

Perceived usefulness is defined as the degree to which a person believes that using a particular system would enhance their job performance (Wilson et al., 2021). If users perceive a technology

as beneficial and capable of improving their efficiency, effectiveness, or productivity, they are more likely to adopt it. For example, in the context of tax audits, if auditors believe that an automated system will make their work easier and more accurate, they are more inclined to use it. Conversely, perceived ease of use is the extent to which an individual thinks that utilizing a specific system would be effortless (Nuseir et al., 2022). A technology that is user-friendly and requires minimal effort to learn and operate is more likely to be accepted by taxpayers. If the automation tools in the Kenya Revenue Authority are easy to navigate and understand, auditors are more likely to incorporate them into the auditing process (Putri et al., 2023).

Technology Acceptance Model also considers external variables that can influence perceived usefulness and perceived ease of use. These variables can include factors such as features and functionality of the technology, user training and availability of technical support and resources. According to the technology acceptance paradigm, consumers' behavioral intention to use a technology is directly impacted by its perceived utility and simplicity of use. In turn, behavioral intention is a powerful indicator of real technology use (Panergayo, 2021).

The model is simple and easy to apply in various organizational settings (Granić & Marangunić, 2019). It has been widely used to explain technology adoption behavior, which makes it relevant for analyzing the impact of automation in tax audits. However, the model is criticized for being overly focused on individual adoption behavior and not adequately addressing organizational or cultural factors that might influence technology acceptance. It may overlook external factors that could affect the success of automation such infrastructure and political climate (Alshammari & Rosli, 2020).

In the Kenyan context, the TAM is highly relevant as KRA continues to adopt and expand digital solutions such as iTax, mobile platforms, and AI-assisted audit tools. TAM posits that perceived usefulness and perceived ease of use influence user acceptance of technology. For tax auditors in Kenya, these perceptions determine how effectively digital systems are integrated into audit processes. Resistance to new systems due to complexity or lack of adequate training may limit the full potential of automation. Therefore, ensuring that staff find audit technology both helpful and user-friendly is essential for successful implementation, especially given the rapid digital transformation in public service delivery in Kenya.

In the context of enhancing the effectiveness of tax audits at the Kenya Revenue Authority, TAM can be particularly useful in evaluating the acceptance of automation technologies. By assessing how auditors perceive the usefulness and ease of use of these technologies, the study can identify potential barriers to adoption and suggest implementation strategies to address them.

### **2.2.2 Deterrence Theory**

Deterrence theory is most closely associated with Becker's (1968) Economics of Crime and Law Enforcement, although its roots trace back to earlier works in criminology. The deterrence theory suggests that people's behavior can be influenced by the threat of punishment or negative consequences (Sarma, 2017). This theory is deeply rooted in classical criminology, particularly in the works of Enlightenment thinkers such as Cesare Beccaria and Jeremy Bentham. They argued that human behavior is a result of rational calculations of pleasure versus pain. Accordingly, individuals will avoid criminal activities if they believe the consequences will outweigh the benefits. The core components of deterrence theory—certainty, severity, and celerity (swiftness) of punishment are crucial in shaping the effectiveness of deterrence (Kuo et al., 2020).

The certainty of punishment refers to the likelihood that a crime will be detected and punished. It is considered the most critical element of deterrence. Research consistently shows that when individuals believe there is a high probability of being caught, they are less likely to engage in illegal activities (Apel, 2013). This aspect of deterrence theory underscores the importance of robust law enforcement and effective surveillance mechanisms. In the context of tax audits, implementing systems that increase the visibility of audits and the probability of detecting tax evasion can significantly enhance deterrence. Severity of punishment involves the harshness of the penalties imposed on those who are caught committing crimes. While intuitively, one might assume that harsher penalties would be more effective at deterring crime, the relationship is more complex (Abdul-Jabbar & Bin-Nashwan, 2022). Excessively severe punishments can be counterproductive, leading to issues such as judicial leniency or increased defiance among offenders. Effective deterrence relies on finding a balance where penalties are sufficiently severe to deter potential offenders but not so harsh as to be perceived as unjust. For the Kenya Revenue Authority, this could involve working with the parliament to develop laws and policies for imposing fines and penalties that are substantial enough to deter tax evasion without being excessively punitive. Celerity, or the swiftness of punishment, is another crucial element. It posits

that the faster a punishment follows the commission of a crime, the more effective it will be in deterring future offenses (Barnum & Nagin, 2023). This is based on the principle that immediate consequences are more closely associated with the undesirable behavior in the minds of potential offenders. In practical terms, ensuring that tax audits and subsequent penalties are carried out swiftly can enhance their deterrent effect. Delays in enforcement can diminish the perceived connection between the crime and the punishment, reducing the effectiveness of deterrence (Dularif & Rustiarini, 2022).

In addition to these core elements, modern interpretations of deterrence theory also consider the role of informal sanctions and moral judgments. The social and moral costs of being labeled a criminal can serve as powerful deterrents. People are generally motivated to avoid actions that would damage their reputation and standing within their community. This aspect of deterrence theory highlights the importance of publicizing the consequences of tax evasion and fostering a culture of compliance and integrity (Farrar & King, 2023).

In the Kenyan tax environment context where non-compliance, evasion, and corruption have been persistent challenges deterrence theory is significant as it emphasizes on the role of perceived consequences in shaping behavior. The effectiveness of tax audits depends largely on taxpayers believing that there is a high probability of detection and significant penalties for fraudulent activities. In Kenya, where enforcement of tax laws has often been uneven, strengthening whistleblower mechanisms, increasing audit coverage, and publicizing penalties can serve as deterrents. By demonstrating a credible threat of consequences, KRA can foster a culture of compliance, reduce tax evasion, and ultimately enhance audit effectiveness.

Applying deterrence theory to the Kenya Revenue Authority's strategies for enhancing tax audits effectiveness involves creating an environment where the risks of tax evasion are perceived as high, the penalties are appropriately severe, and enforcement is swift and certain. Whistleblower programs can play a significant role in this context. By increasing the likelihood of detection, these programs can significantly enhance the certainty component of deterrence.

The deterrence theory has been criticized for several views. The theory assumes individuals always act rationally, which may not account for behavior driven by psychological or social factors (Kolodziej, 1987). Additionally, it may not address the underlying causes of non-compliance, focusing primarily on the punitive aspect (Tomlinson, 2016).

The deterrence theory is crucial in understanding how tax audits can be more effective in discouraging tax evasion. The theory emphasizes three key elements—certainty, severity, and celerity—which are central to motivating compliance and deterring non-compliance. When applied to the context of tax audits, these principles help to create a framework that discourages taxpayers from attempting to evade their obligations. Implementing these principles in the design of audits and enforcement processes can lead to improved compliance and a more efficient tax system. KRA can increase the frequency of audits and incorporate random sampling to create a perception of inevitability. If businesses and individuals believe that their tax filings could be audited at any time, they are more likely to comply accurately and on time. Through Risk-Based Audits, KRA can identify high-risk sectors and individuals who are more likely to underreport income or inflate expenses. KRA can establish a clear and consistent framework for penalties and fines related to tax evasion and implement streamlined audit processes that speed up the detection of non-compliance. This can include digital reporting and submission systems that allow for quicker review of tax returns and supporting documentation.

### **2.2.3 Human Capital Theory**

The leading proponent of Human capital theory is Gary Becker (1964). The theory highlights the value of investment in human skills, knowledge, and abilities as a form of capital. Human Capital Theory asserts that investing in education, training, and development of employees leads to improved productivity and efficiency. For KRA, this theory would emphasize the need for continual training and skill development to improve the effectiveness of tax audits.

Human capital theory is an economic concept that views investment in human knowledge, skills, and experience as a way to increase an individual's productivity and economic value (Abraham & Mallatt, 2022). It essentially treats human beings like "capital" (assets) that can be improved upon through investments. Investments in human capital can include formal education (degrees, certifications), training programs, on-the-job learning, and even health and well-being improvements. Each contributes to a person's overall human capital stock. Similar to financial investments, human capital investments are expected to yield returns. This could be in the form of higher wages, promotions, better job opportunities, or even increased job satisfaction. Human capital theory suggests that individuals with a higher stock of human capital (more skills and experience) tend to command higher wages in the labor market (Fix, 2021). However, the theory

may overlook other organizational factors like technology and infrastructure that also impact performance. It assumes that more training will always lead to better outcomes, which might not be the case if the training is not relevant or of high quality (Marginson, 2019).

According to Human Capital Theory, investing in knowledge and skills improves outcomes. Educating taxpayers means they are less likely to engage in behavior that would require a tax audit. This reduction in non-compliance allows auditors to focus their efforts on more high-risk cases, making audits more efficient and effective. A well-trained and qualified audit team is essential for conducting effective tax audits. Investments in training programs can equip auditors with the necessary knowledge and skills to analyze complex financial data, identify potential tax evasion schemes, and conduct thorough and efficient audits.

In the Kenyan context, especially in the KRA where the effectiveness of tax audits is closely tied to the technical proficiency and ongoing development of its staff, human capital theory particularly pertinent as it holds that investments in employee knowledge, skills, and capabilities improve organizational performance. In Kenya, where resource constraints and skills gaps are common in public institutions, targeted training programs, professional development, and capacity-building initiatives are crucial. By equipping tax officers with up-to-date knowledge in audit methodologies, tax law, and data analytics, KRA can enhance audit quality, adapt to emerging compliance risks, and better serve its revenue collection mandate.

The theory supports specialization within the KRA's audit department. Auditors with specialized skills in specific industries or tax areas can be more effective in uncovering non-compliance. Investing in ongoing training programs can help ensure that tax auditors stay up-to-date with the latest tax laws, regulations, and accounting practices. This continuous improvement in human capital contributes to the effectiveness of tax audits. By enhancing the skills and knowledge of its audit team, the KRA can expect a return on investment in the form of increased detection of tax evasion, higher tax revenue collection, and improved deterrence against non-compliance. The theory thus provides a strong rationale for investing in the skills and knowledge of tax auditors.

## 2.3 Empirical Literature Review

### 2.3.1 Automation and Tax Audits Effectiveness

Atayah and Alshater (2021) reviewed the existing literature on audit and tax in the context of emerging technologies. It also aimed to propose a future research agenda. In order to examine 154 pertinent English publications published during the previous 35 years, the researchers used a meta-literature technique that combined bibliometric and content analysis. They used RStudio, and Microsoft Excel for the analysis. The findings revealed that employing advanced technologies offers benefits for mitigating tax evasion and improving audit efficiency. While the study offers a global perspective, it lacks focus on developing countries like Kenya where tax administration contexts and challenges may differ significantly. As a meta-literature review, it does not test or explore real-world implementations or challenges in specific tax authorities like KRA.

Wahyudin et al. (2022) examined the effectiveness of tax audits in supporting a self-assessment tax system. The study aimed to describe the real-world experience of tax audits and their impact through a descriptive qualitative approach. The research focuses on a single case (presumably a tax authority or specific tax audit process). The study suggests that tax audits are fairly effective in monitoring the self-assessment system. This is evidenced by a change in taxpayer behavior following audits, implying a potential deterrent effect. The research identifies limitations in using tax audits solely to boost tax revenue. The large volume of data involved in audits can be a bottleneck. Limited capabilities of tax authorities' facilities and infrastructure can hinder audit efficiency. The study Uses a single-case, qualitative design, which limits generalizability to other regions or institutions.

Irefe-Esema and Akinmade (2020) examined the impact of tax automation on tax compliance in Nigeria. It used the tax compliance metrics (registration, filing, reporting, and payments) established by the Organization for Economic Co-operation and Development (OECD) to analyze the situation. The analysis highlighted the existence of many manual procedures involved in tax registration, filing, reporting, and payments, characterizing the Nigerian e-tax system as semi-automated. Targeting tax professionals, such as tax consultants and employees of the Nigerian Federal Inland Revenue Service (FIRS), the researchers used a structured, in-depth interviewing strategy. Automation greatly improved tax registration and payment compliance, according to their findings. The study did not discover any beneficial effects on filing and reporting compliance,

nevertheless. According to the report, this was caused by technological difficulties and a lack of transparency regarding Nigeria's e-taxation rollout. Because tax officials and taxpayers no longer have to interact in person, the study also demonstrated how procedurally efficient tax automation is at lowering tax evasion and unethical activities among tax administrators. The study, does not develop a framework linking automation stages with audit effectiveness—focuses more on compliance than audits specifically.

Angalwa (2022) examined the effects of automating customs systems on revenue performance in Kenya. The study targeted 1132 customs officers and clearing and forwarding firm personnel in Nairobi. The study found that Scanner Technology, ICMS, and ECTS had a significant positive influence on customs revenue performance in Kenya. The combined effect of these automation systems explained 53.8% of the variation in revenue performance, suggesting a substantial increase in revenue collection since their implementation. However, the study concentrates on customs automation and revenue performance, not tax audits specifically.

Githinji (2019) examine the factors influencing the effectiveness of automated tax systems on revenue collection in Kenya. In light of ongoing digital transformation efforts by the Kenya Revenue Authority (KRA), understanding the determinants that impact revenue performance under an automated framework is critical. The study was guided by four objectives: to assess the effects of tax compliance costs, technical skills and knowledge, tax rates, and penalties and interest on revenue collection. Tax compliance cost and technical skills and knowledge were found to positively influence revenue collection. The study was however limited to one tax station (West of Nairobi) and relied solely on self-reported data, which may be prone to bias. The narrow geographic scope limits the generalizability of findings to the broader KRA framework.

### **2.3.1 Whistleblower Programs and Tax Audit Effectiveness**

Berger et al. (2020) investigated the effectiveness of tax whistleblowing programs in deterring aggressive tax behavior by firms. The study specifically focuses on the role of financial rewards in enhancing the deterrent effect. The study relied on cross-country data set on tax aggressiveness of firms. Difference-in-differences design was used to compare tax aggressiveness before and after the implementation of tax whistleblowing programs in different countries. Experiment was used to assess the impact of financial rewards offered through whistleblowing programs. The study found evidence to support the deterrence effect of tax whistleblowing programs. Firms

headquartered in countries with active programs exhibit lower levels of aggressive tax behavior. The experiment shows that financial rewards offered through these programs further deter aggressive tax behavior compared to simply having a program in place. The study is based on cross-country data, predominantly from developed economies, which may not capture institutional and enforcement realities in developing contexts like Kenya.

Gaydon and Boyle (2023) investigated the influence of whistleblower programs on financial managers' reporting judgments in the U.S. The study contributed to the expanding field of accounting whistleblower research, which emerged alongside anti-fraud regulations like Sarbanes-Oxley and Dodd-Frank Acts. The study examined how two key features of whistleblower programs - financial incentives and program administration (internal vs. external) - affect the reporting judgments of financial managers. An experiment involving 91 experienced financial managers was conducted. Financial managers exhibited a greater tendency towards conservative reporting judgments when the whistleblower program offered financial incentives. An interaction effect was identified. Financial managers were most likely to recognize impairment when both financial incentives and internal program administration were present. Supplemental analysis revealed that financial managers from non-profit organizations tended to make less conservative reporting judgments compared to other industries. The study was conducted in the U.S. under Sarbanes-Oxley and Dodd-Frank regulatory context. The findings may not generalize to jurisdictions like Kenya where whistleblower protection laws and regulatory cultures differ.

Betri (2021) investigated the factors influencing the effectiveness of internal audit in non-bank state-owned enterprises (SOEs) located in Palembang, Indonesia. Associative research was employed. Primary data collected through questionnaires and interviews with 35 internal auditors. The study found no significant relationship between the moral character of internal auditors and the effectiveness of internal audit. Ethical awareness of internal auditors was found to have a positive and significant influence on the effectiveness of internal audit. The research suggests a possible quasi-moderating effect of the whistleblowing system on the relationship between moral character and internal audit effectiveness. However, the whistleblowing system did not moderate the relationship between ethical awareness and internal audit effectiveness. The focus is on internal audit in SOEs, not tax audits by national tax authorities limiting its direct applicability to the KRA's context.

Odhiambo (2022) evaluate the effectiveness of whistleblowing as a corruption intervention mechanism within the Ethics and Anti-Corruption Commission (EACC) in Mombasa, Kenya. The findings indicated that whistleblowing has led to an increase in the number of corruption cases prosecuted in Mombasa law courts. Key mechanisms for improving whistleblowing were identified, such as ensuring the anonymity and safety of whistleblowers, increasing awareness of whistleblowing processes. The study focused only on EACC Mombasa, which limits the ability to generalize the findings to other regions of Kenya. Furthermore, the focus was on corruption which differs from tax audit effectiveness which is the focus of the current study.

### **2.3.2 Taxpayer Education and Tax Audit Effectiveness**

Oktaviani et al. (2020) examined the factors influencing tax compliance among freelance workers in West Semarang, Indonesia. Purposive sampling was used to select freelance worker participants. Regression and path analysis were employed to assess the relationships between variables and the mediating effect of taxpayer awareness. The study found that both taxpayer knowledge and taxation socialization have a significant positive impact on taxpayer compliance. Taxpayer awareness partially mediates the relationship between taxpayer knowledge and tax compliance, and between taxation socialization and tax compliance. This suggests that awareness plays a crucial role in translating knowledge and exposure to social programs into actual tax compliance behavior. The study focused on a narrow group (freelancers) in one region of Indonesia. These findings may not be applicable to Kenya's KRA context or to other taxpayer categories.

Ayub and Mincu (2020) investigated the impact of various taxpayer education methods on tax compliance in Malindi Ward, Kenya. The study was a cross-sectional survey. A sample of 300 respondents out of a population of 4,190 taxpayers in Malindi Ward was used. The study found mixed results regarding the effectiveness of different taxpayer education methods. Electronic taxpayer education had a statistically significant and positive effect on tax compliance. Stakeholder Sensitization and Print Media did not show a statistically significant positive effect on tax compliance according to the study's findings. The research suggests that taxpayer education has a partial effect on compliance, implying other factors also influence tax behavior. The study focuses on compliance as an end goal, not audit effectiveness. The study does not examine whether increased compliance leads to fewer or more effective audits.

Kikuvi (2020) assess the influence of taxpayer education on VAT compliance within SMEs operating in Nairobi. The study concluded that all three educational strategies—electronic media, print media, and stakeholder engagement—positively and significantly affect VAT compliance among SMEs in Nairobi CBD. However, electronic education was the most impactful. It further noted that while education improves compliance, other factors such as cost of compliance, audit effectiveness, and trust in tax authorities may also play important roles. The study provides several research gaps. The study did not assess the moderating effect of organizational culture, it was focused on VAT compliance which is different form tax audit effectiveness and focused on SMEs while the current study was on KRA audit department.

Gichohi and Muchira, (2023) examine the impact of electronic taxpayer education on tax compliance among manufacturing small and medium enterprises (SMEs) in Nairobi City County, Kenya. In recognizing the vital role of taxpayer education in improving voluntary compliance and national revenue, the Kenya Revenue Authority (KRA) has prioritized the dissemination of tax information. This is especially important for SMEs, which often suffer from low tax compliance rates, thereby constraining government revenue collection and effective public spending. The study employed a descriptive research design, targeting a population of 641 manufacturing SMEs in Nairobi. The central premise was that by improving access to tax information particularly through digital platforms tax compliance levels could be positively influenced. The findings confirmed this hypothesis: electronic taxpayer education had a statistically significant positive effect on tax compliance. Most SME respondents indicated that electronic platforms provided convenient and accessible means to understand tax obligations, thereby encouraging better compliance with tax law. The reviewed study concentrated solely on electronic taxpayer education as a determinant of tax compliance, without examining tax audits as a broader enforcement and compliance tool.

### **2.3.3 Continual Training and Tax Audit Effectiveness**

Through a laboratory experiment, Kasper and Alm (2022) examined the impact of audit effectiveness on post-audit tax compliance. The study also explored whether a taxpayer's prior reporting behavior influences the effect of audits. Tax audits were found to have varying effects on post-audit compliance, depending on their effectiveness. Audits that successfully detected a significant portion of undeclared income led to increased post-audit compliance. Audits with low

detection rates resulted in a decrease in post-audit compliance, potentially fostering a sense of impunity among taxpayers. The study revealed that taxpayers with a history of relatively compliant behavior displayed the strongest response (both positive and negative) to audits. This suggests that even compliant taxpayers may be discouraged by the experience of an ineffective audit. However, controlled experiments may not reflect the complexity of taxpayer interactions and institutional limitations in real tax audits, especially in developing contexts like KRA.

Bawa and Addai-Asante (2024) investigated the factors influencing the effectiveness of tax audits in Ghana. The study relied on numerical data analysis. Data was collected through a survey targeting tax auditors. Hierarchical regression analysis was employed using SPSS software to assess the influence of various factors. The study identifies two main categories of factors impacting tax audit effectiveness: Organizational and Regulatory factors such as adequate resources, supportive management, and clear regulations, were found to be significant predictors of effective tax audits. Individual characteristics and skills of tax auditors did not show a statistically significant influence on audit effectiveness according to this study. Nonetheless, while highlighting resource and regulatory issues, the study does not suggest specific strategies to address these.

Nthenge (2020) investigated the impact of automation and capacity building on revenue collection performance within the Kenya Revenue Authority. A sample of 384 employees from the Domestic Taxes and Customs departments was selected using systematic sampling. The study found a significant positive relationship between process automation and revenue collection performance. This suggests that automating tasks within the KRA can lead to improved revenue collection. The research also revealed a significant positive relationship between capacity building for KRA employees and revenue collection performance. Investing in training programs for staff can contribute to improved performance. Interestingly, the study identified a moderating effect of capacity building on the relationship between process automation and revenue collection performance. This suggests that the effectiveness of automation might be enhanced by a well-trained workforce. However, the study focuses on revenue collection as the outcome variable rather than audit effectiveness, which may be influenced by different or additional factors.

Kinuu (2023) investigated the effect of tax modernization programs on tax compliance, with a focus on the moderating role of tax training among small and medium enterprises (SMEs) in

Nakuru County, Kenya. The research specifically examined three core modernization components: the tax invoice management system, electronic tax returns, and electronic tax payment systems. Using an explanatory research design, data were collected via pretested questionnaires from a sample of 395 SMEs. All three modernization tools tax invoice management system, electronic tax returns, and electronic tax payment had a positive and significant impact on tax compliance. While the study addresses compliance, it does not examine how audits (as a control mechanism) are affected by or benefit from training programs.

### **2.3.4 Organizational Culture and Tax Audit Effectiveness**

Seno et al. (2022) investigates the relationship between Hofstede's cultural dimensions and ethical decision-making among tax practitioners in Terengganu, Malaysia. The study used a structured questionnaire to gather data from 200 tax practitioners selected using systematic random and snowball sampling technique. The study examined how cultural factors such as power distance (PD), individualism (IND), uncertainty avoidance (UAV), and masculinity (MAS) influence the ethical decisions of tax practitioners while ensuring tax compliance among taxpayers. The findings suggest that low power distance (PD) and low individualism (IND) cultures are more conducive to ethical decision-making. On the other hand, high uncertainty avoidance (UAV) cultures also foster more ethical decision-making among tax practitioners. This study focuses on tax practitioners in Malaysia, a distinct cultural context. The findings are influenced by the unique societal values and practices in Malaysia. The cultural dimensions may have different implications in Kenyan cultural contexts.

Rahmawati et al. (2025) explored the role of tax consultants in making ethical decisions, focusing on three main factors: professional attitudes, organizational culture, and Machiavellianism. It focused on tax consultants who are members of the Malang Branch of IKPI (Indonesian Tax Consultants Association). The analysis uses Structural Equation Modeling (SEM) to assess the relationships between the various factors, providing a sophisticated approach to model complex interactions. Organizational Culture and Machiavellianism have a significant impact on ethical decision-making among tax consultants. Professionalism, however, does not appear to have a significant effect on ethical decision-making. Machiavellianism was not found to be a mediating variable in the relationship between organizational culture and ethical decision-making. This

suggests that while Machiavellian tendencies may affect decision-making, they do not serve as a conduit between organizational culture and ethical behavior.

Allam et al. (2023) investigated the role of Institutional Environment Quality (IEQ) in mediating the relationship between National Culture (NC) and Tax Evasion (TE). This study addresses that gap by focusing on institutional quality as a potential mediating factor in the context of EU countries between 2004 and 2018. The research employs structural equation modeling (SEM) to analyze data collected from European Union countries over the 2004–2018 period. National Culture (NC) significantly impacts Tax Evasion (TE), with cultures characterized by high power distance, uncertainty avoidance, collectivism, and restraint being associated with higher levels of tax evasion. Institutional Environment Quality (IEQ), measured through rule of law, regulatory quality, and government effectiveness, plays a mediating role in the NC–TE relationship. High-quality institutions can reduce the negative impact of culture on tax evasion. The study finds that in newer EU countries, IEQ fully mediates the relationship between NC and TE, while in older EU countries, IEQ shows a partial mediation effect. The quality of national institutions in newer EU countries is more critical in reducing the detrimental impact of cultural values on tax evasion.

Ihenyen (2023) explored the influence of tax morality and tax culture on tax compliance in Nigeria, specifically focusing on Bayelsa State. The study aimed to examine the relationships among tax morality, tax culture, and tax submission (the act of paying taxes). The study employed a survey design, using a structured questionnaire to collect data from participants. The study found that both tax morality (the moral obligation to pay taxes) and tax culture (societal norms and values related to taxation) had a substantial impact on tax submission (compliance with tax regulations) in Nigeria. The study focuses on a single region in Nigeria (Bayelsa State) thus cannot be generalized to all Africa countries to suit Kenya.

Muya et al. (2025) explored the effect of the culture of taxpayers on monthly rental income tax compliance among landlords in Lower Kabete, Kenya. The study used an explanatory research design, aiming to understand the relationship between the culture of taxpayers and tax compliance. The target population comprised 2156 landlords in Lower Kabete, Kenya, and a sample of 337 landlords was selected for the study. The study used questionnaires to collect primary data, and descriptive and inferential statistics were employed to analyze the data. The

study found that the culture of taxpayers had a positive and significant effect on monthly rental income tax compliance. The statistical results indicated a positive relationship with which signifies statistical significance. This suggests that a positive culture of tax compliance, likely influenced by social norms, values, and attitudes towards taxation, encourages landlords in Lower Kabete to comply with tax regulations. The current study focused on the culture of taxpayers and its influence on tax compliance. However, it did not explore the role of organizational culture at KRA (Kenya Revenue Authority) and how it might influence tax enforcement practices or audits.

## **2.4 Summary of Literature Review and Knowledge Gaps**

While existing research (Atayah & Alshater, 2021) highlights the benefits of automation, there was a gap in understanding the effectiveness of specific technologies used by the KRA for tax audits. There was need to explore the impact of technologies like data analytics tools or automated audit selection processes. Nthenge (2020) suggests automation effectiveness is enhanced by a skilled workforce. There is need to investigate how the KRA integrates automation with human expertise for optimal tax audits effectiveness. Studies by Berger et al. (2020) and Gaydon & Boyle (2023) focused on the deterrent effect of whistleblowing programs in different contexts. The current study delved into whistleblowing in Kenya. This could help identify areas for improvement in the KRA's whistleblower program. The effectiveness of whistleblowing programs also depends on proper investigation and follow-up on whistleblower reports. There was need for research to explore how the KRA handles whistleblower reports and translates them into actionable tax audits.

Studies by Oktaviani et al. (2020) and Ayub & Mincu (2020) examine the influence of taxpayer education on compliance. This presents conceptual gaps as no evidence was brought concerning tax audit effectiveness. The study explored how sustained education programs might influence taxpayer behavior and potentially decrease audits requirements. Existing research suggests a one-size-fits-all approach to taxpayer education might not be sufficient. The study investigated the effectiveness of tailored education programs targeting specific taxpayer segments (e.g., small businesses, high-income earners) to improve their understanding of tax regulations and reduce the likelihood of requiring audits. Bawa & Addai-Asante (2024) highlight the importance of training for tax auditors. However, the study does not explore the effectiveness of training

programs designed to equip auditors with specialized skills for handling complex tax issues in specific sectors. This could potentially improve audit efficiency and effectiveness.

By addressing these research gaps, the study provides valuable insights for the KRA in enhancing its tax audits effectiveness and potentially reducing the overall number of audits required to achieve optimal tax compliance.

**Table 2.1: Summary of Knowledge Gaps**

Author	Title	Methodology	Findings	Gaps
Atayah and Alshater (2021)	Audit and tax in the context of emerging technologies	A retrospective analysis, meta-literature approach	Employing advanced technologies offers benefits for mitigating tax evasion and improving audit efficiency	Methodology gaps- Meta-literature approaches provide a broad overview, but they may not be ideal for addressing very specific research questions
Wahyudin et al. (2022)	Effectiveness of tax audits in supporting a self-assessment tax system	Descriptive qualitative approach	Tax audits are fairly effective in monitoring the self-assessment system	Conceptual gaps- no knowledge on strategies to enhance tax audit effectiveness
Irefe-Esema and Akinmade (2020)	Impact of tax automation on tax compliance in Nigeria	Structured in-depth interview approach	Automation significantly increased tax registration and payment compliance	Contextual gaps- conducted in Nigeria thus not generalizable to Kenya's Revenue Authority Methodology gaps- in-depth interview thus difficult to quantify and measure precise relationships between variables.

Gaydon and Boyle (2023)	Influence of whistleblower programs on financial managers' reporting judgments in the U.S	Experimental	Financial managers exhibited a greater tendency towards conservative reporting judgments when the whistleblower program offered financial incentives	Contextual gaps- conducted in the U.S thus not generalizable to Kenya's Revenue Authority
Oktaviani et al. (2020)	Factors influencing tax compliance among freelance workers in West Semarang, Indonesia	Regression and path analysis	Both taxpayer knowledge and socialization have a significant positive impact on taxpayer compliance	Contextual gaps- conducted in the Indonesia thus not generalizable to Kenya's Revenue Authority Conceptual- focused on tax compliance
Kasper and Alm (2022)	Impact of audit effectiveness on post-audit tax compliance.	Laboratory experiment	Audits that successfully detected a significant portion of undeclared income led to increased post-audit compliance	Conceptual Gaps- did not study strategies for enhancing the effectiveness of tax audits Methodology gaps- relatively small sample size limiting statistical power of the findings
Bawa and Addai-Asante (2024)	Factors influencing the effectiveness of tax audits in Ghana	Hierarchical regression analysis	Organizational and Regulatory factors were found to be significant predictors of effective tax audits. Individual characteristics show a	Conceptual gaps- limited knowledge on strategies to enhance tax audit effectiveness

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statistically  
significant  
influence on  
audit  
effectiveness

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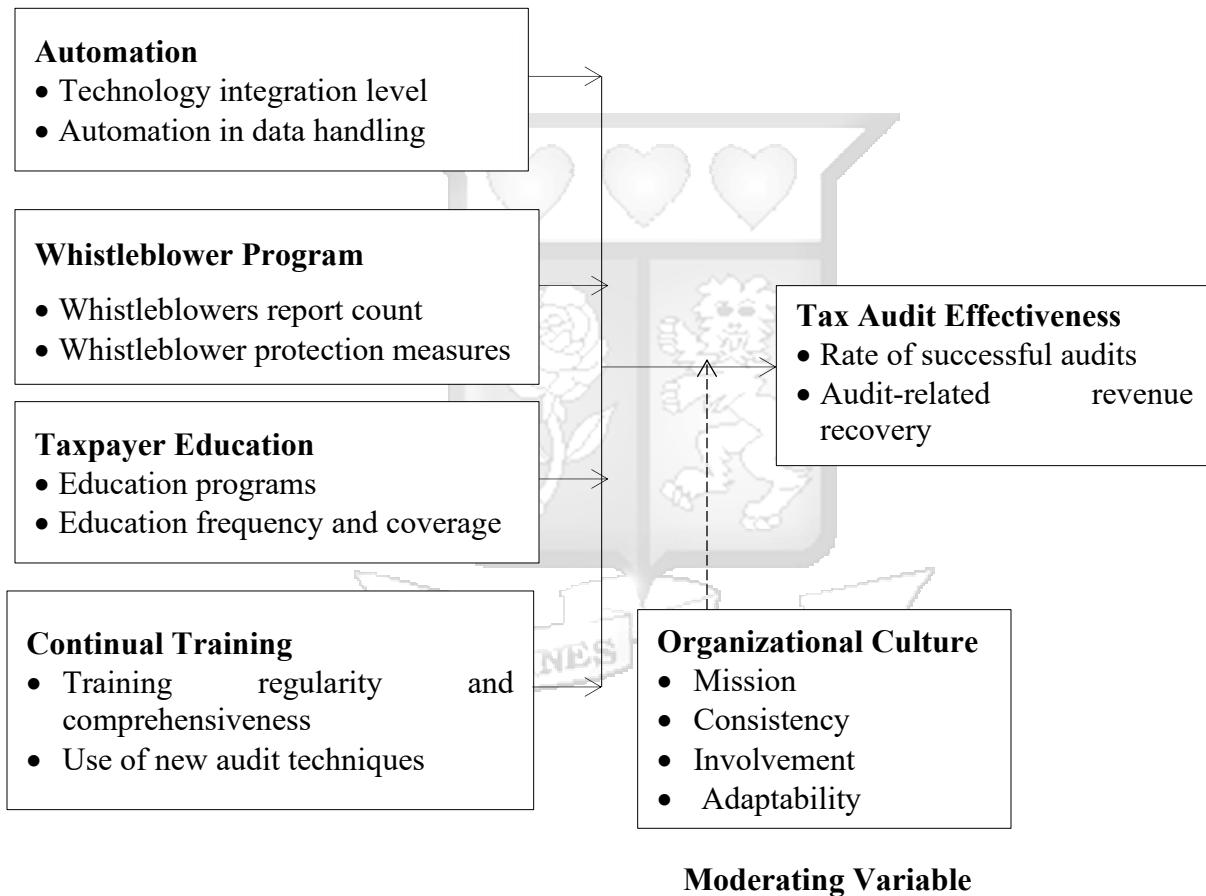


## 2.5 Conceptual Framework

According to Shikalepo (2020), a conceptual framework is a structure of concepts, definitions, and existing theories that provides a framework for a study. A conceptual framework helps researchers identify key variables and relationships to explore. This conceptual framework outlines the key variables and their relationships to be investigated in the study on enhancing tax audits effectiveness in the KRA, focusing on the Nairobi Region.

### Independent Variables

### Dependent variable



**Figure 2.1: Conceptual framework**

**Source: Researcher 2024**

## 2.6 Operationalization of Study Variables

**Table 2.2: Operationalization of study variables**

Variable	Constructs	Definition	Indicator	Measurement	Supporting Literature
Independent	Automation	Use of technology to perform audit processes	<ul style="list-style-type: none"> <li>• Technology integration level</li> <li>• Automation in data handling</li> </ul>	5-point likert scale	Angalwa (2022)
	Whistleblower program	A system that encourages individuals to report tax evasion or fraud	<ul style="list-style-type: none"> <li>• Whistleblowers report count</li> <li>• Whistleblower protection measures</li> </ul>	5-point likert scale	Betri (2021)
	Taxpayer education	Initiatives aimed at informing taxpayers about tax laws, obligations, and the importance of compliance.	<ul style="list-style-type: none"> <li>• Education programs and frequency coverage</li> </ul>	5-point likert scale	Ayub and Mincu (2020)
	Continual training	The ongoing training programs for tax auditors to keep them updated with the latest practices and technologies in tax auditing	<ul style="list-style-type: none"> <li>• Training regularity and comprehensiveness</li> <li>• Use of new audit techniques</li> </ul>	5-point likert scale	Bawa and Addai-Asante (2024)
Dependent	Tax audit effectiveness	Effectiveness of tax audits in identifying non-compliance and	<ul style="list-style-type: none"> <li>• Rate of successful audits</li> <li>• Audit-related revenue recovery</li> </ul>	5-point likert scale	Bawa and Addai-

## 2.7 Chapter Summary

This chapter lays the foundation for the research by establishing the importance of tax audits effectiveness and highlighting the need for further exploration of specific strategies within broader categories like automation and training. The chapter concludes by outlining the research gaps identified in the literature review and how this study aims to contribute new knowledge in this area.



## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

Chapter three provides a comprehensive overview of the proposed methods and approaches to be employed in the study. It begins with an introduction to the research methodology, followed by a detailed discussion of the research philosophy guiding the study. The chapter then delineates the research design, including the strategies for data collection and analysis. It also outlines the population and sampling techniques to be used, ensuring a robust and representative sample. Subsequent sections cover the data collection methods, data analysis techniques, measures to ensure research quality (such as validity and reliability), and the ethical considerations that were adhered to throughout the research process.

#### **3.2 Research Philosophy**

Research philosophy refers to the underlying set of beliefs and assumptions that guide how researchers approach the process of inquiry and knowledge creation. It shapes the way researchers perceive reality, interpret data, and understand the world (Tamminen & Poucher, 2020). In other words, research philosophy is the foundation that influences decisions about research design, methodology, data collection, and analysis. The four main research philosophies are Positivism, Interpretivism, Pragmatism, and Realism.

Positivism is grounded in the belief that reality is objective and can be measured through observable and quantifiable data. Researchers adopting a positivist approach typically aim to test hypotheses or theories using methods like surveys, experiments, or statistical analysis (Maretha, 2023). Interpretivism is the opposite of positivism. It argues that the social world is constructed from human experiences, values, and interpretations, and therefore cannot be studied in the same way as physical phenomena. Researchers adopting an interpretivist approach focus on understanding the meanings behind human actions and social phenomena, usually through qualitative methods like interviews (Lawler & Waldner, 2023). Pragmatism is a more flexible philosophy that recognizes the value of both qualitative and quantitative approaches. Pragmatists believe that the research question should drive the choice of methods, and they are open to using a variety of data sources and methodologies to answer the research problem (Klockner et al., 2021). Realism is similar to positivism in that it believes that reality exists

independently of human perception. However, realism recognizes that our understanding of the world is always mediated by human experiences and interpretations (Hastings, 2021).

The research adopted a positivism philosophy, relying on quantifiable data to derive objective conclusions. This approach is suitable for examining the effectiveness of tax audits, as it allows for the collection of empirical data that can be analyzed statistically. The positivist philosophy supports the use of structured methodologies, such as surveys and statistical analysis, to understand phenomena within their specific contexts (Corry et al., 2019).

### **3.3 Research Design**

Research design refers to the overall plan or blueprint that outlines how a research study will be conducted (Tomaszewski et al., 2020). A research design specifies the methods and procedures for collecting, analyzing, and interpreting data. According to Salter (2023), research design is a roadmap of how one goes about answering the research questions. A well-thought-out research design ensures that the research question is answered in a systematic, reliable, and valid manner. Descriptive research design focuses on describing the characteristics of a phenomenon or a population. It aims to provide an accurate representation of the current state of the variables being studied without manipulating them (Abu-Taieh et al., 2020). Experimental research design is used to establish cause-and-effect relationships between variables (Chali et al., 2021). Quasi-experimental research is similar to experimental research, but it lacks random assignment to treatment groups. This design is often used when random assignment is not possible due to ethical or practical constraints. Correlational research is used to explore the relationships between two or more variables. Unlike experimental research, correlational research does not manipulate variables but rather observes the natural relationships that exist (Huntington-Klein, 2021).

A descriptive correlational research design was utilized in the study. The combination of Descriptive and Correlational research designs is ideal for this study as it provides a comprehensive approach to understanding and analyzing the effectiveness of tax audits at the Kenya Revenue Authority (KRA). The Descriptive design allowed for a thorough examination of the current audit strategies and practices in place, helping to document their strengths, weaknesses, and perceived effectiveness. This design provides a snapshot of the existing state of affairs, offering a clear understanding of how tax audits are conducted in the Nairobi region. The Correlational design, on the other hand, enabled the exploration of relationships between different

variables, such as organizational culture, audit strategies, and audit outcomes, without implying causality. This helped to identify potential strategies that may be influencing the effectiveness of the audits.

### **3.4 Target Population of the Study**

Population refers to the entire group of individuals, items, or data that share a common characteristic or set of characteristics that a researcher is interested in studying including every member of the group that fits the criteria for the research (Stratton, 2021). The target population is a more specific subset of the broader population that a researcher intends to study or from which they will draw a sample (Ackerman et al., 2021). According to Asiamah et al. (2022), a target population is the actual group that the researcher wants to generalize the findings to, based on the research objectives. The study population was made of the 10271 employees of the Kenya Revenue Authority in Kenya.

### **3.5 Sampling Frame**

A sampling frame is a list of all the items or individuals in the population from which a sample is drawn. A sampling frame is essentially the source material for research (Turner, 2020). A well-defined sampling frame ensures that the sample accurately represents the target population. It enables the researcher to randomly select individuals, reducing bias. A good sampling frame streamlines the sampling process and should include all members of the target population (Kalton, 2020). The sampling frame was the list of the 10271 employees of the Kenya Revenue Authority in Kenya.

### **3.6 Sampling Procedure and Sample Size**

In research, sample size and sampling procedure are two important concepts related to selecting participants or units from a population to include in a study. According to Lohr (2021), sample size and sampling procedure concepts help determine how data will be collected and how generalizable the findings are. Sample size refers to the number of participants, observations, or units included in a study (Pandey & Pandey, 2021).

This study employed a purposive sampling method to target a specific subgroup within the Kenya Revenue Authority (KRA) population. The sample population was the 214 KRA employees at the KRA Regional Audit Centres in Nairobi Region. These officers were deliberately selected because they are directly involved in tax audit activities, making them the most relevant respondents for

the study objectives, which focus on enhancing tax audit effectiveness. The sample size is an essential part of research because it affects the reliability and validity of the results. A sample that is too small may not represent the population well, while a sample that is too large may waste resources and time (Gill, 2020). With a population of 214, the study adopted a census survey where all the 214 respondents were the study respondents. The sample distribution was as in Table 3.3

**Table 3.3: Sample size**

Category	Population	Proportion
East & South of Nairobi (Sameer business Centre)	22	10.3
North of Nairobi (Times Tower)	24	11.2
Medium taxpayer Office (Corporate business Centre-Upper Hill)	44	20.6
West of Nairobi (Corporate business Centre-Upper Hill)	26	12.1
Large Taxpayers Office (Fortis Plaza-Westlands)	98	45.8
Total	214	100

(Source; KRA, 2024)

### 3.7 Data Collection Technique

Data collection was conducted through structured questionnaires, designed to gather quantitative data. The questionnaire was developed based on the research objectives, theoretical framework and literature review. The questionnaires comprised of closed-ended questions, which are easy to quantify and analyze statistically. They covered various aspects of tax audits effectiveness and the strategies. The questionnaire had seven sections; Section I was on demographic information of the respondents, section II was on automation, section III was on Whistleblower Programs, section IV was on Taxpayer Education, section V was on Continual Training, section VI was of organizational culture and section VII was on effectiveness of tax audits on effectiveness tax audits in Kenya Revenue Authority.

### 3.8 Data Collection Procedure

The researcher distributed the questionnaires through in-person distribution. In this method, questionnaires are administered face-to-face to ensure accurate completion and to address any questions (Taherdoost, 2021). This method offers the advantage of ensuring accurate completion

since the researchers is present to answer questions and clarify any ambiguities in the questionnaire. In addition, where face-to-face questionnaire administration was not appropriate, drop- and-pick later method would be used where the questionnaire would be handed to the respondents to complete at their convenience independently and the researcher returns later to collect the completed questionnaires.

### **3.9 Research Quality and Reliability**

Research quality and reliability are important considerations when conducting or evaluating research. Research quality refers to how well a study is designed, executed, and interpreted (Noble & Smith, 2015). High-quality research is rigorous, transparent, and produces meaningful results. Key aspects of research quality include clarity of research question, the methods used to collect and analyze data must be appropriate to the research questions, data collection processes should minimize errors and biases. Additionally, data should be analyzed thoroughly to draw reliable conclusions. High-quality research adheres to ethical guidelines, including obtaining informed consent from participants, ensuring confidentiality, and minimizing harm (Golafshani, 2003). A pilot study was conducted before the full-scale research to test the feasibility, methods, and procedures of the study, identify potential problems, and refine the research design. The pilot study was conducted among 21 respondents from the target population but were involved in the main study.

Reliability refers to the consistency of research results. A reliable study is one where repeated measurements or experiments under the same conditions would produce similar results (Kimberlin & Winterstein, 2008). The study relied on internal reliability. Internal Reliability refers to the consistency of the results within the study itself (Meeker & Escoba, 2004). This was tested using Cronbach's alpha, which assesses the internal consistency of scales or measures.

The study also ensured validity of the instruments. Validity refers to the extent to which a research study accurately measures what it intends to measure and how well the findings represent the true relationships between the variables under investigation (Ahmed & Ishtiaq, 2021). To ensure construct validity, the study defined the theoretical constructs clearly and the survey items are developed based on the construct definitions. Each item in the questionnaire are clearly relate to the constructs. For face validity, the questions and items used in surveys are easy to understand by the target population. The pre-test with a small group from the target population

provided their impressions on whether the questions or items appear relevant and easy to answer. Experts in the field including the research supervisor reviewed and provided feedback on the suitability of the research instruments. The reliability results were presented in Table 3.5.

**Table 3.4: Reliability table**

Variable	Cronbach's alpha	Number of items
Automation	0.786	8
Whistleblower program	0.866	8
Education	0.806	8
Continual training	0.917	9
Organizational Culture	0.895	8
Effectiveness of tax audit	0.842	8

The reliability analysis for the variables in this study shows good internal consistency, as indicated by the Cronbach's alpha values. The automation variable has a Cronbach's alpha of 0.786, which is considered acceptable and suggests that the items used to measure automation have a reliable internal consistency. The whistleblower program variable has a higher Cronbach's alpha of 0.866, indicating a strong level of reliability. Similarly, the taxpayer education variable, with a Cronbach's alpha of 0.806, also demonstrates good reliability. The continual training variable has the highest Cronbach's alpha at 0.917, reflecting excellent internal consistency and indicating that the items measuring this construct are highly reliable. Organizational culture, with a Cronbach's alpha of 0.895, also shows strong reliability, indicating that the items are consistently measuring the intended concept. Lastly, the effectiveness of tax audits variable has a Cronbach's alpha of 0.842, which is also a good indicator of reliability. All the variables had acceptable to excellent internal consistency, suggesting that the measurement items used in this study are reliable for assessing the various constructs related to tax audits and organizational factors.

### 3.10 Data Analysis and Presentation

The data that was collected was analyzed using statistical methods. Descriptive statistics, such as frequencies, percentages, means, and standard deviations, were used to summarize the data. The analysis provides a clear and concise overview of the current state of tax audits effectiveness in Kenya as perceived by the study participants. The presentations of the data is in form of tables. The Statistical Package for Social Sciences (SPSS) version 28 was used in the data analysis.

Inferential statistical analysis helped in making inferences about the larger population based on the sample data. Multiple linear regression analysis was used to predict the value of a dependent variable based on the values of the independent variables. The regression model was;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon \dots \dots \dots \text{without moderation}$$

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 Z + \beta_1 X_1 * Z + \beta_2 X_2 * Z + \beta_3 X_3 * Z + \beta_4 X_4 * Z + \epsilon \dots \dots \dots \text{with moderation}$$

Where: (Y): is the dependent variable,  $X_{1-4}$  are the predictors, Z is the moderator,  $\beta_{1-5}$  are the coefficients,  $\beta_0$  is the intercept and  $\epsilon$  is the error term.

### 3.10.1 Diagnostic Tests

To ensure the robustness and reliability of the multiple regression model and the validity of the conclusions drawn from the analysis, several diagnostic tests were performed. These tests help to assess the assumptions behind the regression model and ensure that the results are not distorted by violations of these assumptions (Hoffmann, 2021). Multicollinearity was tested through the Variance Inflation Factor (VIF) to detect multicollinearity. A VIF value greater than 10 suggests a problematic level of multicollinearity. Heteroscedasticity Test: The Breusch-Pagan test was used to detect heteroscedasticity. Normality of Residuals: The Shapiro-Wilk test to check for normality of residuals. Linearity Test: A key assumption in regression analysis is that the relationship between the dependent and independent variables is linear. Linearity was checked by plotting the residuals versus the fitted values. If the plot shows a random pattern, the assumption of linearity is likely met (Gneiting & Resin, 2023).

### 3.11 Ethical Considerations

Ethical considerations included ensuring confidentiality and anonymity of participants. Informed consent was obtained from all participants, and the purpose of the research was clearly communicated. The study adhered to ethical standards in data collection, storage, and reporting, avoiding any potential biases or conflicts of interest.

### 3.12 Chapter Summary

The chapter has provided the research methodology, detailing the various procedures that the study followed. This is inclusive of the research philosophy, the design, the target population,

sampling techniques, data collection procedures data analysis and presentation and finally the ethical considerations.



## CHAPTER FOUR

### RESULT FINDINGS AND INTERPRETATIONS

#### 4.1 Introduction

This chapter presents the result finding interpretations and the discussion of the findings. The analysis was based on both descriptive and statistical analysis. It starts with the response rate the demographic findings and the findings on the automation, whistleblower program, tax payer education and continual training. The chapter also presents findings on organizational culture and how it moderates the tax audit strategies.

##### 4.1.1 Response Rate

The response rate of the survey in Table 4.1 provides valuable insights into the level of participation and engagement of the target population.

**Table 4.5: Response Rate**

Response rate	Frequency	Percentage
Fully filled Questionnaires	177	82.7
Incomplete and or unreturned questionnaires	37	17.3
Total questionnaires administered	214	100

Out of the 214 questionnaires administered, a total of 177 were fully completed, representing 82.7% of the responses. This indicates a high response rate, reflecting a good level of engagement from the participants. However, 37 questionnaires were either incomplete or unreturned, accounting for 17.3% of the total administered. Despite the incomplete or unreturned questionnaires, the overall response rate of 82.7% suggests that the data collected is robust and can be considered reliable for the study's analysis.

#### 4.2 Demographic Information

##### 4.2.1 Gender

Table 4.2 provides the gender distribution of the study participants.

**Table 4.6: Gender**

	Frequency	Percent
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Male	99	55.9
Female	78	44.1
Total	177	100.0

The gender distribution of the respondents shows that there is a higher proportion of male participants (55.9%) compared to females (44.1%). Although the difference is noticeable, it is not overly imbalanced, indicating a relatively equal representation of both genders in the sample. This suggests that gender does not play a dominant role in the data collection process, and the sample is sufficiently diverse to offer perspectives from both male and female employees at the KRA.

#### 4.2.2 Respondents' Age

Table 4.3 provides the distribution of the respondents by age.

**Table 4.7: Respondents' Age**

Age category	Frequency	Percent
below 30 years	8	4.5
31-40 years	90	50.8
41-50 years	70	39.5
above 50 years	9	5.1
Total	177	100.0

From the findings, approximately half of the respondents (50.8%) fall within the 31-40 years age range. The 41-50 years group follows with 39.5%, reflecting a mature workforce with extensive experience. The below 30 years and above 50 years age categories represent smaller portions of the sample (4.5% and 5.1%, respectively), suggesting that younger and older employees are less prevalent within the KRA's audit centers in the Nairobi region. This indicates a significant portion of employees are in their prime working years, likely having several years of professional experience but still at an age where they are adaptable to new ideas and technologies. This age distribution suggests a relatively experienced, yet dynamic workforce that is in the middle of their career paths, which could potentially provide a balanced perspective on the effectiveness of tax audit strategies.

#### 4.2.3 Highest Level of Education

The participants indicated their highest level of education as distributed in Table 4.4.

**Table 4.8: Highest level of education**

Education level	Frequency	Percent
Degree	86	48.6
Postgraduate	91	51.4
Total	177	100.0

The majority of respondents (51.4%) hold postgraduate degrees, while 48.6% hold a degree. This indicates that the workforce at KRA's Nairobi Regional Audit Centres is highly educated, with a slight majority holding advanced degrees. The high level of education in the sample suggests that the employees are well-qualified for their roles, which may contribute to the overall effectiveness of the tax audit processes. Having a highly educated workforce is likely to have a positive impact on the quality of tax audits, as employees with advanced degrees may possess stronger analytical skills, specialized knowledge, and a better understanding of complex tax systems.

### 4.3 Automation and Effectiveness of Tax Audits

The study's first objective was to assess the consequence of automation on the effectiveness of tax audits in KRA in the Nairobi Region. The participants indicated their levels of agreement with statements on automation on a scale of 1-5 where 1 was for strongly disagree and 5 for strongly agree. The findings on the participants' views are presented in table 4.5.

**Table 4.9: Automation and Effectiveness of Tax Audits**

	SD	D	N	A	SA	Mean	Std. Deviation
The Kenya Revenue Authority (KRA) has effectively integrated modern technology in tax audits.	0(0%)	7(4%)	39(22%)	107(60.5%)	24(13.6%)	3.84	.70
The integration of technology has made the audits process more transparent at KRA.	0(0%)	7(4%)	18(10.2%)	117(66.1%)	35(19.8%)	4.02	.68
Automated systems are regularly updated to keep pace with changes in tax laws.	0(0%)	20(11.3%)	27(15.3%)	76(42.9%)	54(30.5%)	3.73	.79
KRA staff are well-trained to use the automated audits systems.	0(0%)	18(10.2%)	61(34.5%)	68(38.4%)	30(16.9%)	3.62	.88

Automated systems help KRA to efficiently store and retrieve audits data.	0(0%)	20(11.3%)	27(15.3%)	76(42.9%)	54(30.5%)	3.93	.95
The automation of data handling has increased the capacity of KRA to handle large-scale audits.	0(0%)	0(0%)	26(14.7)	126(71.3%)	25(14.1%)	3.99	.54
The automation of data handling at KRA has reduced human error in tax audits.	0(0%)	7(4%)	36(20.3%)	123(69.5%)	11(6.2%)	3.78	.61
Automation has improved the accuracy of audit reports at KRA.	0(0%)	7(4%)	31(17.5%)	93(52.5%)	46(26%)	4.01	.77
<b>Composite mean and Std.Deviation</b>						<b>3.87</b>	<b>0.74</b>

The respondents generally expressed agreement that automation has significantly enhanced the effectiveness of tax audits at the KRA. The first statement, regarding the integration of modern technology in tax audits, received a mean score of 3.84 with a standard deviation of 0.70, indicating strong agreement that KRA has effectively incorporated technology into its audit processes. The next statement about the transparency of audits due to the integration of technology scored a mean of 4.02 with a standard deviation of 0.68, suggesting a high level of agreement that automation has indeed made the audit process more transparent.

When asked about the regular updates of automated systems to keep pace with changes in tax laws, the respondents gave a mean score of 3.73 and a standard deviation of 0.79, reflecting a somewhat positive view but also indicating some concerns about whether the systems are updated regularly enough to align with changing regulations.

Regarding the training of KRA staff to use automated audit systems, the statement received a mean of 3.62 with a standard deviation of 0.88, showing a moderate level of agreement. While most respondents agreed that staff are trained to use the systems, there was some variation in opinions, suggesting that improvements in training could be necessary.

On the statement about the efficiency of automated systems in storing and retrieving audit data, respondents strongly agreed, as evidenced by a mean score of 3.93 and a standard deviation of 0.95, reflecting a high level of consensus that automation has made data handling more efficient.

Similarly, regarding the increased capacity of KRA to handle large-scale audits due to automation, respondents gave a mean score of 3.99 with a low standard deviation of 0.54, indicating strong agreement with the statement and a high level of confidence in this area.

Regarding the reduction of human error in tax audits due to automation, the mean score was 3.78 with a standard deviation of 0.61, showing that respondents generally agreed that automation has helped reduce human error in the auditing process. Finally, for the statement on the improvement in the accuracy of audit reports at KRA, the mean score was 4.01 with a standard deviation of 0.77, reflecting strong agreement that automation has contributed to more accurate audit outcomes. Overall, the composite mean score of 3.87 with a standard deviation of 0.74 indicates that the respondents have a positive view of automation’s impact on tax audits at KRA.

#### 4.4 Whistleblower Programs and the Effectiveness of Tax Audits

The study’s second objective was to determine the influence of Whistleblower Programs on the effectiveness of tax audits in KRA in the Nairobi Region. The participants indicated their levels of agreement with statements on whistleblower programs on a scale of 1-5 where 1 was for strongly disagree and 5 for strongly agree. The findings on the participants’ views are presented in table 4.6.

**Table 4.10: Whistleblower Programs and the Effectiveness of Tax Audits**

Items	SD	D	N	A	SA	Mean	Std. Deviation
The number of reports from whistleblowers has increased since the introduction of the program at KRA.	3(1.7%)	10(5.6%)	47(26.6%)	62(35%)	55(31.5%)	3.88	.97
The Whistleblower Program has led to the identification of more cases of tax evasion at KRA.	0(0%)	2(1.1%)	45(25.4%)	82(46.3%)	48(27.1%)	3.99	.76

The Whistleblower Program is effectively used to uncover fraud within the KRA.	0(0%)	5(2.8%)	42(23.7%)	113(63.8%)	17(9.6%)	3.80	.64
The reports from whistleblowers are taken seriously and investigated thoroughly by KRA.	0(0%)	1(0.6%)	18(10.2%)	97(54.8%)	61(34.5%)	4.23	.65
KRA provides adequate protection to whistleblowers against retaliation.	1(0.6%)	2(1.1%)	36(20.3%)	67(37.9%)	71(40.1%)	4.16	.82
The legal framework for whistleblower protection at KRA is strong and clear.	2(1.1%)	3(1.7%)	31(17.5%)	80(45.2%)	61(34.5%)	4.10	.83
KRA has put in place mechanisms to track and address any threats or risks to whistleblowers.	6(3.4%)	21(11.9%)	65(36.7%)	70(39.5%)	15(8.5%)	3.38	.92
Whistleblower protection measures at KRA ensure confidentiality.	4(2.3%)	5(2.8%)	47(26.6%)	43(24.3%)	78(44.1%)	4.05	1.01
<b>Composite mean and Std.Deviation</b>						<b>3.95</b>	<b>0.83</b>

The findings in Table 4.6 reveal a generally positive perception of the program, with respondents indicating agreement on the effectiveness of whistleblower initiatives in enhancing tax audit

processes. Regarding the increase in the number of reports from whistleblowers since the program's introduction, the mean score was 3.88, with a standard deviation of 0.97, suggesting that most respondents agreed that the program has led to more reports, although with some variation in opinions. On the statement that the whistleblower program has led to the identification of more cases of tax evasion, the mean score was 3.99 with a standard deviation of 0.76, indicating a strong consensus that the program has been effective in identifying tax evasion cases at KRA. Respondents also largely agreed that the whistleblower program is effectively used to uncover fraud within KRA, with a mean score of 3.80 and a standard deviation of 0.64, suggesting that the program is perceived as useful in addressing fraud, though with slight variation in opinions. The perception of whether reports from whistleblowers are taken seriously and thoroughly investigated by KRA received a mean score of 4.23 with a standard deviation of 0.65, indicating strong agreement that KRA takes whistleblower reports seriously and investigates them appropriately.

In terms of whistleblower protection, respondents were in general agreement that KRA provides adequate protection against retaliation, with a mean of 4.16 and a standard deviation of 0.82, reflecting strong confidence in the protective measures available to whistleblowers. The statement about the strength and clarity of the legal framework for whistleblower protection at KRA received a mean score of 4.10 with a standard deviation of 0.83, suggesting that most respondents viewed the legal framework as robust and clear, contributing to confidence in the whistleblower program. However, there was indecision on whether KRA has mechanisms to track and address risks to whistleblowers, as reflected by a mean score of 3.38 and a standard deviation of 0.92, indicating some concern or uncertainty about the adequacy of these mechanisms. Finally, the statement that whistleblower protection measures at KRA ensure confidentiality received a mean score of 4.05 with a standard deviation of 1.01, suggesting strong agreement that confidentiality is maintained in the whistleblowing process, although the higher standard deviation indicates some variation in respondents' opinions. Overall, the composite mean score of 3.95 with a standard deviation of 0.83 reflects a positive perception of the whistleblower program at KRA. The respondents agreed that the program contributes to improving the effectiveness of tax audits by identifying tax evasion and fraud, while also noting that the protection measures for whistleblowers are relatively strong, though some concerns about tracking and addressing risks to whistleblowers were noted.

#### 4.5 Taxpayer Education and the Effectiveness of Tax Audits

The study sought to establish the effect of taxpayer education on the effectiveness of tax audits in KRA in the Nairobi Region. The findings on the participants' views are presented in Table 4.7.

**Table 4.11: Taxpayer Education and the Effectiveness of Tax Audits**

Items	SD	D	N	A	SA	Mean	Std. Deviation
The education programs provided by KRA are effective in raising awareness about tax obligations.	2(1.1%)	10(5.6%)	16(9%)	92(52%)	57(32.2%)	4.08	.86
KRA regularly updates its educational content to reflect changes in tax laws.	0(0%)	2(1.1%)	24(13/6%)	76(42.9%)	75(42.4%)	4.27	.73
Taxpayer education programs are an essential component of KRA's audits effectiveness.	0(0%)	0(0%)	9(5.1%)	107(60.5%)	61(34.5%)	4.29	.56
KRA's education programs have improved taxpayers' understanding of their legal obligations	0(0%)	0(0%)	11(6.2%)	113(63.8%)	53(29.9%)	4.24	.55
KRA provides regular education on tax-related matters to the public.	0(0%)	7(4%)	27(15.3%)	87(49.2%)	56(31.6%)	4.08	.79
The frequency of KRA's taxpayer education programs is sufficient to address key issues.	0(0%)	12(6.8%)	63(35.6%)	73(41.2%)	29(16.4%)	3.67	.83
The coverage of KRA's education programs ensures that both individual and corporate taxpayers are adequately informed.	5(2.8%)	9(5.1%)	37(20.9%)	86(48.6%)	40(22.6%)	3.83	.93

KRA's taxpayer education programs effectively cover all sectors of the economy.	7(4%)	18(10.2%)	43(24.3%)	78(44.1%)	31(17.5%)	3.61	1.02
Composite mean and Std.Deviation						4.01	.78

The third objective of the study was to establish the effect of taxpayer education on the effectiveness of tax audits at the KRA in the Nairobi Region. The findings indicate that respondents generally perceive KRA's taxpayer education programs as effective, though there is some variation in opinions regarding the scope and frequency of these programs. The first item, which asked whether the education programs provided by KRA are effective in raising awareness about tax obligations, received a mean score of 4.08 with a standard deviation of 0.86, indicating that most respondents agreed that the programs are effective in raising awareness, though there was moderate variation in the responses. Regarding the regular updates to educational content to reflect changes in tax laws, the mean score was 4.27 with a standard deviation of 0.73, suggesting strong agreement that KRA updates its educational materials to keep up with tax law changes, with relatively low variation in responses. On the statement about taxpayer education being an essential component of KRA's audit effectiveness, respondents strongly agreed, with a mean score of 4.29 and a standard deviation of 0.56, showing a consensus that taxpayer education plays a crucial role in improving the effectiveness of tax audits. Similarly, the perception that KRA's education programs have improved taxpayers' understanding of their legal obligations received a mean score of 4.24 with a standard deviation of 0.55, indicating strong agreement that these programs have positively impacted taxpayer understanding, with minimal variation in responses.

Regarding the regularity of KRA's educational initiatives on tax-related matters, the mean score was 4.08 with a standard deviation of 0.79, suggesting agreement that KRA provides regular educational content to the public, although some variation in opinions was observed. On the adequacy of the frequency of KRA's taxpayer education programs to address key issues, the mean score was slightly lower at 3.67 with a standard deviation of 0.83, indicating that while some respondents agreed, there was noticeable concern or uncertainty about whether the frequency of these programs is sufficient.

When asked whether the coverage of KRA’s education programs ensures that both individual and corporate taxpayers are adequately informed, the mean score was 3.83 with a standard deviation of 0.93, showing a generally positive response, though some variation in opinions was evident, especially regarding how well both types of taxpayers are reached. Finally, on the effectiveness of KRA’s taxpayer education programs in covering all sectors of the economy, the mean score was 3.61 with a standard deviation of 1.02, suggesting moderate agreement that these programs cover all sectors, but with notable variation in responses.

The composite mean score of 4.01 with a standard deviation of 0.78 reflects that the respondents generally agree that KRA’s taxpayer education programs are effective in raising awareness, improving understanding, and contributing to the effectiveness of tax audits. However, there is some variation in perceptions regarding the sufficiency of the frequency and the extent of coverage of these programs.

#### 4.6 Continual Training and the Effectiveness of Tax Audits

The study also sought to determine the influence of training on the effectiveness of tax audits in KRA in the Nairobi Region. The findings on the participants’ views are presented in Table 4.8.

**Table 4.12: Continual Training and the Effectiveness of Tax Audits**

Items	SD	D	N	A	SA	Mean	Std. Deviation
KRA provides regular training sessions for its tax audit staff.	2(1.1%)	15(8.5%)	50(28.2%)	82(46.3%)	28(15.8%)	3.67	.88
KRA staff are regularly updated on the latest auditing standards and practices	7(4%)	16(9%)	54(30.5%)	87(49.2%)	13(7.3%)	3.47	.90
The training programs at KRA are comprehensive and cover both theoretical and practical aspects of auditing.	0(0%)	31(17.5%)	39(22%)	87(49.2%)	20(11.3%)	3.54	.91
KRA ensures that training programs are accessible to	7(4%)	18(10.2%)	33(18.6%)	91(51.4%)	28(15.8%)	3.65	1.00

all relevant staff involved in audits.							
KRA frequently adopts new audit techniques to improve its auditing processes	4(2.3%)	24(13.6%)	28(15.8%)	103(58.2%)	18(10.2%)	3.60	.92
KRA is proactive in adopting technology-driven audit techniques to enhance audit effectiveness.	7(4%)	11(6.2%)	31(17.5%)	103(58.2%)	25(14.1%)	3.72	.92
New audit techniques are incorporated into KRA's training programs to keep auditors up to date.	0(0%)	13(7.3%)	60(3.9%)	64(36.2%)	40(22.6%)	3.74	.89
The use of advanced audit techniques has increased the success rate of KRA's audits	2(1.1%)	9(5.1%)	42(23.7%)	87(49.2%)	37(20.9%)	3.84	.85
<b>Composite mean and Std,deviation</b>						<b>3.65</b>	<b>.91</b>

The findings indicate that respondents generally perceive KRA's continual training initiatives as important for enhancing the effectiveness of tax audits, though there are varying levels of agreement on specific aspects of the programs. On whether KRA provides regular training sessions for its tax audit staff, the mean score was 3.67 with a standard deviation of 0.88, indicating that while many respondents agreed, there was some variation in the perception of how regular the training sessions are. Regarding whether KRA staff are regularly updated on the latest auditing standards and practices, the mean score was 3.47 with a standard deviation of 0.90, suggesting a slightly lower level of agreement and more variation in responses, indicating that some respondents may feel that the updates are not as frequent as needed. On the comprehensiveness of the training programs, which cover both theoretical and practical aspects of auditing, the mean

score was 3.54 with a standard deviation of 0.91, reflecting a moderate level of agreement, with some variation in responses regarding the coverage of both aspects of training.

When asked whether KRA ensures that training programs are accessible to all relevant staff involved in audits, the mean score was 3.65 with a standard deviation of 1.00, indicating general agreement but also noticeable variation in responses regarding the accessibility of training programs to all staff. On the frequency with which KRA adopts new audit techniques to improve auditing processes, the mean score was 3.60 with a standard deviation of 0.92, suggesting that while respondents generally agreed that new techniques are frequently adopted, there was moderate variation in opinions about how often this occurs.

Regarding the adoption of technology-driven audit techniques, the mean score was 3.72 with a standard deviation of 0.92, indicating strong agreement that KRA is proactive in adopting technology-driven audit techniques to enhance audit effectiveness, with some variation in responses. When asked whether new audit techniques are incorporated into KRA's training programs to keep auditors up to date, the mean score was 3.74 with a standard deviation of 0.89, showing strong agreement that KRA incorporates new techniques into its training programs, though there was moderate variation in responses.

Finally, on whether the use of advanced audit techniques has increased the success rate of KRA's audits, the mean score was 3.84 with a standard deviation of 0.85, suggesting strong agreement that the use of advanced audit techniques has positively impacted the success rate of audits, with relatively low variation in responses.

The composite mean score for continual training was 3.65 with a standard deviation of 0.91, indicating that respondents generally agree that KRA's continual training initiatives positively influence audit effectiveness. However, there is moderate variation in the perception of how well some aspects of the training programs are implemented, particularly in terms of regular updates and the accessibility of training to all relevant staff.

#### **4.7 Organizational Culture**

The study further sought to assess the moderating role of organizational culture in the relationship between the tax audit strategies and the effectiveness of tax audits at the KRA, Nairobi Region. The findings on the participants' views are presented in table 4.9.

**Table 4.13: Organizational culture**

Items	SD	D	N	A	SA	Mean	Std. Deviation
There is a shared understanding of the organization's long-term goals among all employees	0(0%)	0(0%)	14(7.9%)	104(58.8%)	59(33.3%)	4.25	.59
The purpose of KRA's tax audits is well understood by all employees	0(0%)	1(0.6%)	28(15.8%)	76(42.9%)	72(40.7%)	4.24	.73
There is a consistent approach to how tax audits are conducted across the organization	7(4%)	8(4.5%)	39(22%)	81(45.8%)	42(23.7%)	3.81	.98
Employees at KRA adhere to a common set of values when performing tax audits	0(0%)	7(4%)	23(13%)	108(61%)	39(22%)	4.01	.72
Employees at KRA are encouraged to contribute their ideas in improving the tax audit process	0(0%)	4(2.3%)	10(5.6%)	105(59.3%)	58(32.8%)	4.23	.65
There is a culture of collaboration among employees in KRA to improve the effectiveness of tax audits	0(0%)	9(5.1%)	27(15.3%)	89(50.3%)	52(29.4%)	4.04	.81
KRA is quick to adapt to changes in tax policies and regulations	5(2.8%)	7(4%)	9(5.1%)	93(52.5%)	63(35.6%)	4.14	.90
KRA is flexible and willing to adjust its strategies when challenges in tax auditing arise	5(2.8%)	7(4%)	36(20.3%)	79(44.6%)	50(28.2%)	3.92	.95
<b>Composite mean and Std,deviation</b>						<b>4.08</b>	<b>0.79</b>

The findings from participants' responses reveal that on the shared understanding of the organization's long-term goals among employees, the mean score was 4.25 with a standard

deviation of 0.59, indicating strong agreement and a low level of variation, suggesting that most employees at KRA are aligned with the organization's long-term objectives. Regarding the understanding of the purpose of KRA's tax audits, the mean score was 4.24 with a standard deviation of 0.73, suggesting that the purpose of tax audits is well understood by employees, with relatively little variation in responses.

On the consistency of how tax audits are conducted across the organization, the mean score was 3.81 with a standard deviation of 0.98, reflecting moderate agreement but with greater variability in responses, indicating that while there is a consistent approach, some employees may perceive variability in the process. When asked whether employees at KRA adhere to a common set of values when performing tax audits, the mean score was 4.01 with a standard deviation of 0.72, indicating strong agreement with this statement and suggesting that there is a shared commitment to values among employees when conducting audits. Regarding the encouragement of employees to contribute their ideas for improving the tax audit process, the mean score was 4.23 with a standard deviation of 0.65, reflecting strong agreement that employees are encouraged to participate, with relatively little variation in responses.

On the culture of collaboration among employees at KRA to improve the effectiveness of tax audits, the mean score was 4.04 with a standard deviation of 0.81, indicating moderate to strong agreement and a fairly low level of variation in responses, suggesting that collaboration is common in the organization. Regarding KRA's adaptability to changes in tax policies and regulations, the mean score was 4.14 with a standard deviation of 0.90, indicating that employees generally agree that KRA is responsive to regulatory changes, with some variation in responses.

Finally, in terms of KRA's flexibility and willingness to adjust its strategies when challenges in tax auditing arise, the mean score was 3.92 with a standard deviation of 0.95, indicating moderate agreement, with slightly more variation, suggesting some differences in perception regarding KRA's flexibility in addressing challenges. The composite mean score for organizational culture was 4.08 with a standard deviation of 0.79, reflecting strong agreement among respondents on the positive role of organizational culture in improving the effectiveness of tax audits at KRA. There is a generally consistent perception that KRA fosters a shared understanding of goals, values, and collaboration, contributing to its success in tax auditing.

#### 4.8 The Effectiveness of Tax Audits

The participants indicated their levels of agreement with statements on effectiveness of tax audits.

The findings on the participants' views are presented in table 4.10.

**Table 4.14: The Effectiveness of Tax Audits**

Items	SD	D	N	A	SA	Mean	Std. Deviation
The success rate of tax audits conducted by KRA has increased in recent years.	1(0.6%)	2(1.1%)	36(20.3%)	87(49.2%)	51(28.8%)	4.05	.77
The overall success rate of tax audits has significantly contributed to increasing government revenue.	0(0%)	0(0%)	14(7.9%)	108(61%)	55(31.1%)	4.23	.58
The KRA has a high rate of identifying tax evasion through audits.	0(0%)	2(1.1%)	28(15.8%)	104(58.8%)	43(24.3%)	4.06	.67
Successful audits by KRA contribute to improved tax compliance in the country.	1(0.6%)	3(1.7%)	11(6.2%)	73(41.2%)	89(50.3%)	4.39	.73
KRA's audits have resulted in significant recovery of unpaid taxes	0(0%)	0(0%)	21(11.9%)	95(53.7%)	61(34.5%)	4.23	.64
KRA's auditing strategies have helped in recovering revenue from large-scale tax evasion.	0(0%)	2(1.1%)	3(1.7%)	106(59.9%)	66(37.3%)	4.33	.57
Tax audits by KRA are effective in identifying sources of lost revenue.	5(2.8%)	5(2.8%)	17(9.6%)	86(48.6%)	64(36.2%)	4.12	.90
KRA's audit-related revenue recovery is regularly monitored and reported to ensure accountability.	0(0%)	5(2.8%)	13(7.3%)	109(61.6%)	50(28.2%)	4.15	.67

<b>Composite mean and Std.Deviation</b>						<b>4.20</b>	<b>0.69</b>
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The study assessed the effectiveness of tax audits at the KRA in the Nairobi Region. The participants' views were gathered on several aspects of tax audits. Regarding the success rate of tax audits conducted by KRA, the mean score was 4.05 with a standard deviation of 0.77, indicating general agreement that the success rate has increased in recent years, with relatively low variability in responses. The statement on the contribution of the overall success rate of tax audits to increasing government revenue had a mean score of 4.23 with a standard deviation of 0.58, reflecting strong agreement and low variation, suggesting that respondents believe the success of KRA's audits plays a significant role in boosting government revenue. In terms of identifying tax evasion, the mean score was 4.06 with a standard deviation of 0.67, indicating that most participants agree that KRA is effective in identifying tax evasion through audits, with relatively low variation in responses. Regarding the contribution of successful audits to improving tax compliance in the country, the mean score was 4.39 with a standard deviation of 0.73, which was the highest among the items, indicating strong agreement that successful audits by KRA lead to better tax compliance in Kenya.

On the recovery of unpaid taxes through audits, the mean score was 4.23 with a standard deviation of 0.64, reflecting strong agreement that KRA's audits have contributed significantly to recovering unpaid taxes, with low variability in responses. The effectiveness of KRA's auditing strategies in recovering revenue from large-scale tax evasion had a mean score of 4.33 with a standard deviation of 0.57, indicating strong agreement that KRA's strategies have been successful in recovering revenue from large-scale tax evasion, with a low level of variation in responses.

Regarding the ability of tax audits to identify sources of lost revenue, the mean score was 4.12 with a standard deviation of 0.90, reflecting moderate to strong agreement and indicating that KRA's tax audits are effective in uncovering sources of lost revenue, though with a slightly higher level of variability in responses compared to other items.

Finally, the statement on the regular monitoring and reporting of audit-related revenue recovery had a mean score of 4.15 with a standard deviation of 0.67, indicating that respondents agree that KRA ensures accountability by monitoring and reporting on revenue recovery, with low variation in responses. The composite mean score for the effectiveness of tax audits was 4.20 with a standard

deviation of 0.69, suggesting a generally positive perception of the effectiveness of KRA’s tax audits. Respondents strongly agreed that KRA’s audits contribute to increasing government revenue, improving tax compliance, and recovering unpaid taxes, with moderate variation in responses across the items.

#### 4.9 Inferential Statistics

Inferential statistics specifically a regression analysis as used to assess the relationship between the independent variable (effectiveness of tax audits) and the multiple predictors (automation, whistleblower programs, taxpayer education). Diagnostic tests were first used to check the model fitness by assessing whether its underlying assumptions were met. A multiple regression analysis was then employed in two stages. In the first stage, an unmoderated regression model was used to assess the direct relationship between the tax audit strategies (automation, whistleblower programs, taxpayer education, and training) and the effectiveness of tax audits. In the second stage, a moderated regression model was employed to investigate how organizational culture moderates the relationship between these strategies and audit effectiveness. By comparing the two models, the study aimed to determine the extent to which organizational culture influences the effectiveness of tax audits in the context of KRA’s tax audit strategies. Before performing the regression analysis, diagnostic tests were conducted.

##### 4.9.1 Diagnostic tests

Multicollinearity was tested through the Variance Inflation Factor (VIF) to detect multicollinearity.

**Table 4.15: Collinearity Statistics**

Variable	Tolerance	VIF
Automation	.578	1.727
Whistleblower	.518	1.931
Education	.496	2.018
Training	.513	1.949
Culture	.519	1.926

Tolerance of 0.578 indicates that Automation is moderately independent from the other variables in the model. It suggests there is no significant multicollinearity with other predictors. VIF of 1.727

is well below the threshold of 10 and suggests that Automation does not have problematic collinearity with the other independent variables.

Tolerance of 0.518 indicates that Whistleblower is reasonably independent of the other predictors, with no major collinearity issues. VIF of 1.931 is also below the threshold of 10, and suggests that Whistleblower is not highly correlated with the other independent variables.

Tolerance of 0.496 indicates that Education has moderate collinearity with other variables but is still independent enough to be considered a distinct predictor in the model. VIF of 2.018 is below 5, suggesting no significant multicollinearity. The variable Education is independent and its effect on the dependent variable can be estimated without significant interference from other variables.

Tolerance of 0.513 indicates that Training is relatively independent from the other independent variables in the model. VIF of 1.949 is less than 2, which is an ideal value. This means that Training does not suffer from significant multicollinearity, and its effect on the dependent variable can be clearly assessed.

Tolerance of 0.519 suggests that Culture is fairly independent of the other variables. It does not show strong collinearity with any of the other predictors. VIF of 1.926 is also below 2, indicating that Culture is not highly correlated with the other variables and its influence can be effectively measured without interference from collinearity issues.

Heteroscedasticity Test: The Breusch-Pagan test was used to detect heteroscedasticity.

**Table 4.16: Breusch-Pagan test for Heteroscedasticity**

Ho: Constant variance	
Variables: Fitted values of Tax audit effectiveness	
Chi2 (1)	0.69
Prob>chi2	0.347

From the findings, the p value of 0.347 was more than 0.05 significant levels thus we fail to reject the null hypothesis. Thus implying that, there was homoscedasticity. Thus the errors are constant along the values of the independent variables.

Breusch-Pagan is used to test for heteroskedasticity in a linear regression model and assumes that the error terms are normally distributed. It tests whether the variance of the errors from a regression is dependent on the values of the independent variables.

Normality: The Shapiro-Wilk test was used to check for normality of the data.

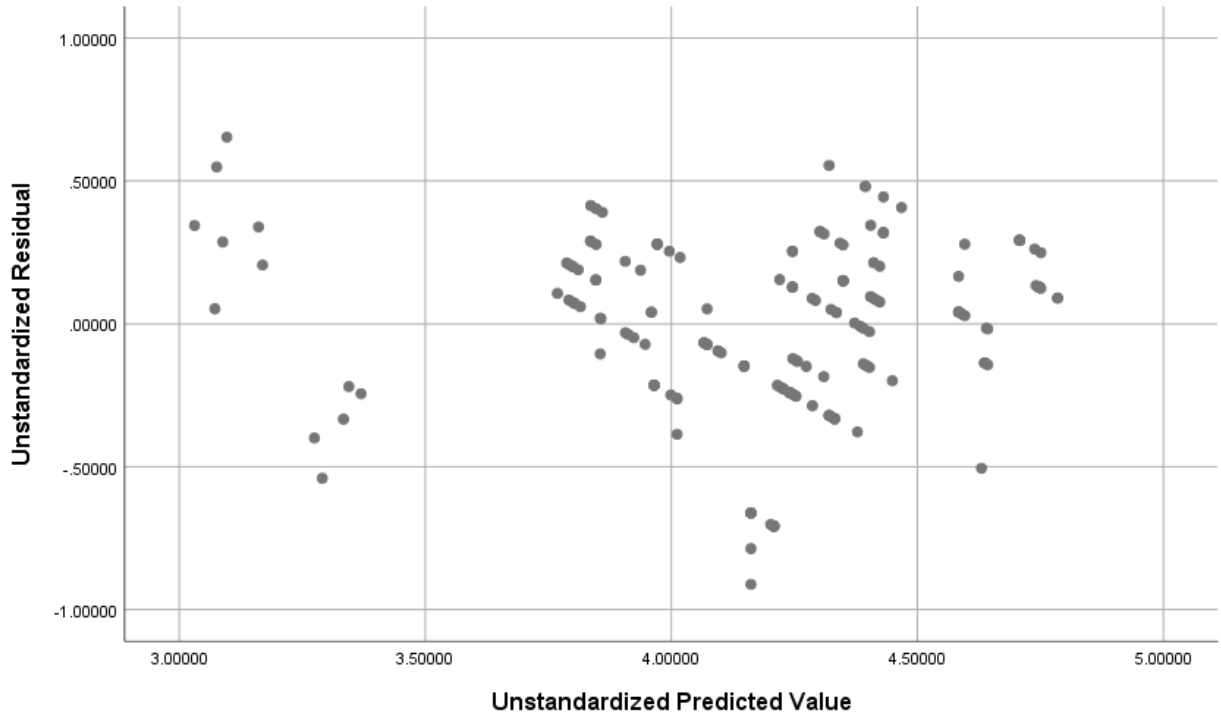
**Table 4.17: Tests of Normality**

Variable	Shapiro-Wilk		
	Statistic	df	Sig.
Automation	.910	177	.176
Whistleblowing program	.938	177	.298
Taxpayer Education	.667	177	.102
Continual Training	.917	177	.214
Organizational culture	.918	177	.222
Effectiveness	.941	177	.304

All the p-values are greater than 0.05, suggesting that there is no significant deviation from normality for any of the variables. Therefore, you would fail to reject the null hypothesis and conclude that the data for each of these variables is likely normally distributed.

Linearity Test: A key assumption in regression analysis is that the relationship between the dependent and independent variables is linear. Linearity was checked by plotting the residuals versus the fitted values. If the plot shows a random pattern, the assumption of linearity is likely met (Gneiting & Resin, 2023).





**Figure 4.2: Plot for residuals versus the fitted values**

The plot showed a random pattern thus the assumption of linearity was likely met.

#### 4.9.2 Multiple Regression

A multiple regression analysis was conducted where the dependent variable is effectiveness of tax audit, and the independent variables are automation, whistleblower programs, education, and training. The analysis provides information about how these variables collectively influence the effectiveness of tax audit.

**Table 4.18: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.778 <sup>a</sup>	.605	.596	.30642

a. Predictors: (Constant), Training, Whistleblower, Education, Automation

The correlation coefficient measures the strength and direction of the relationship between the independent variables and the dependent variable. The value of 0.778 indicates a strong positive relationship between the predictors (automation, whistleblower, education, and training) and effectiveness of tax audit.

The coefficient of determination,  $R^2$  is 0.605, which means that approximately 60.5% of the variance in effectiveness of tax audit can be explained by the independent variables (automation, whistleblower, education, and training). This is considered a fairly high proportion, indicating that the model is explaining a good portion of the variation in the dependent variable.

**Table 4.19: ANOVA**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	24.749	4	6.187	65.895	.000 <sup>b</sup>
	Residual	16.150	172	.094		
	Total	40.898	176			
a. Dependent Variable: Effectiveness of Tax Audit						
b. Predictors: (Constant), Training, Whistleblower, Education, Automation						

The F-statistic (65.895) tests whether the regression model as a whole is statistically significant. A higher value of F indicates that the model is a good fit. The F-statistic of 65.895 suggests that the model is statistically significant. The p-value of 0.000 indicates that the model is statistically significant at the 0.05 level. This means that at least one of the predictors (automation, whistleblower, education, or training) significantly contributes to explaining the effectiveness of tax audit.

**Table 4.20: Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.887	.215		4.122	.000
	Automation	.248	.084	.245	2.944	.004
	Whistleblower	.152	.051	.189	2.964	.003
	Education	.291	.065	.314	4.453	.000
	Training	.148	.052	.190	2.846	.019
a. Dependent Variable: Effectiveness of Tax Audit						

The coefficients show the unstandardized (B) and standardized (Beta) coefficients, which reflect the strength and direction of the relationship between each predictor and the dependent variable. The t-value and Sig. (p-value) indicate the statistical significance of each coefficient. The intercept

is 0.887, which means that when all predictors are zero, the baseline value of Effectiveness of Tax Audit is 0.887.

For every one-unit increase in automation, effectiveness of tax audit increases by 0.248 units, holding all other variables constant. The Sig value of 0.004 indicates that automation has a statistically significant positive effect on effectiveness. For every one-unit increase in the whistleblower program, effectiveness of tax audit increases by 0.152 units, holding all other variables constant. The Sig. value of 0.003 indicates that whistleblower programs also have a statistically significant positive effect on effectiveness. For every one-unit increase in education, effectiveness of tax audit increases by 0.291 units, holding all other variables constant. The Sig value of 0.000 indicates that education has a highly significant positive effect on effectiveness. For every one-unit increase in training, effectiveness of tax audit increases by 0.148 units, holding all other variables constant. The Sig value of 0.019 indicates that training has a statistically significant positive effect on Effectiveness, though the effect is smaller compared to the other variables.

#### 4.9.3 Moderated Regression Model

This subsection presents the output from the moderated regression analysis where the dependent variable is effectiveness of tax audit, and the independent variables include automation, whistleblower programs, education, training, and their respective interaction terms with culture (Z). The model explores how the organizational culture moderates the relationships between these variables and Effectiveness of Tax audit.

**Table 4.21: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.845 <sup>a</sup>	.713	.698	.26502
a. Predictors: (Constant), Automation, Whistleblower, Education, Training, Z(Culture), Z*Automation, Z*Whistleblower, Z*Education, Z*Training				

The correlation coefficient of 0.845 shows a strong positive relationship between the predictors and effectiveness of tax audit. The coefficient of determination, of 0.713 means that 71.3% of the variance in effectiveness of tax audit can be explained by the predictors in this model. This is a very high proportion, suggesting that the model is well-suited to explain the variance in audit effectiveness.

**Table 4.22: ANOVA**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	29.169	9	3.241	46.144	.000 <sup>b</sup>
	Residual	11.729	167	.070		
	Total	40.898	176			
a. Dependent Variable: Effectiveness of Tax Audit						
b. Predictors: (Constant), Automation, Whistleblower, Education, Training, Z(Culture), Z*Automation, Z*Whistleblower, Z*Education, Z*Training						

The F-statistic was 46.144. The F-statistic of 46.144 suggests that the model fits the data well and is statistically significant. The p-value of 0.000 indicates that the model is statistically significant at the 0.05 level. This means that at least one of the predictors or interaction terms significantly contributes to explaining effectiveness of tax audit.

**Table 4.23: Coefficients**

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.527	0.916		3.851	.000
	Automation	0.268	0.103	0.249	2.602	.001
	Whistleblower	0.274	0.099	0.314	2.767	.031
	Education	.293	0.117	0.275	2.504	.000
	Training	0.343	0.124	0.341	2.766	.012
	Z(Culture)	0.311	0.104	0.302	2.991	.003
	Z*Automation	0.385	0.115	0.348	3.345	.001
	Z*Whistleblower	0.338	0.122	0.341	2.747	.002
	Z*Education	0.224	0.077	0.22	2.909	.008
	Z*Training	0.462	0.139	0.452	3.316	.001
a. Dependent Variable: Effectiveness of Tax Audit						

The intercept is 3.527, meaning that when all predictors and interaction terms are zero, the baseline level of effectiveness is 3.527. The interaction term between culture and automation is statistically significant ( $p = 0.001$ ), indicating that culture strengthens the positive effect of automation on effectiveness. The interaction between culture and whistleblower is statistically significant ( $p = 0.002$ ), suggesting that culture also strengthens the effect of whistleblower programs on effectiveness. The interaction between culture and education is statistically significant ( $p = 0.008$ ), indicating that culture strengthens the effect of education on effectiveness. The interaction between culture and training is statistically significant ( $p = 0.001$ ), suggesting that culture strengthens the effect of training on effectiveness. Culture significantly moderates the relationship between automation, whistleblower programs, education, and training and effectiveness. This suggests that a supportive organizational culture enhances the positive effects of these variables on effectiveness.

#### **4.10 Chapter Summary**

This chapter presented and interpreted the results of the study based on both descriptive and inferential statistical analyses. The findings revealed that automation, whistleblower programs, taxpayer education, and continuous training significantly contribute to the effectiveness of tax audits at KRA in the Nairobi Region. Moreover, organizational culture was found to play a moderating role in the relationship between these strategies and tax audit effectiveness. These findings form the basis for the conclusions and recommendations discussed in the next chapter.

## CHAPTER FIVE

### SUMMARY, DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Introduction

This chapter presents the discussions, conclusions, and recommendations based on the findings of the study. The study aimed to evaluate strategies for enhancing the effectiveness of tax audits at the KRA in the Nairobi Region, with a particular focus on the role of automation, whistleblower programs, taxpayer education, training, and organizational culture. The findings from the data analysis are discussed in detail, followed by the conclusions drawn from the study, recommendations for practice, limitations of the study, and suggestions for future research.

#### 5.2 Summary of Findings

##### 5.2.1 Automation and the Effectiveness of Tax audits

The study found that automation has a significant positive impact on the effectiveness of tax audits at KRA. Respondents generally agreed that the integration of technology in the audit process has increased transparency, reduced human error, and improved the accuracy of audit reports. Automated systems also enhanced data storage and retrieval, as well as the capacity to handle large-scale audits, contributing to overall audit effectiveness. The mean score for the automation-related statements indicated strong agreement among the respondents. Furthermore, the regression analysis showed that automation has a direct positive influence on the effectiveness of tax audits, confirming its critical role.

##### 5.2.2 Whistleblower Programs and the Effectiveness of Tax audits

Whistleblower programs were also found to significantly contribute to the effectiveness of tax audits at KRA. Respondents highlighted that the program has led to the identification of more cases of tax evasion. Whistleblower reports are taken seriously, and adequate protection is provided to whistleblowers. The findings underscored the value of whistleblower programs in uncovering fraud. The program was seen as a vital tool for uncovering fraud and improving the effectiveness of tax audits by ensuring confidentiality and safety for informants. The regression analysis revealed that the presence of whistleblower programs significantly enhances the effectiveness of tax audits.

### **5.2.3 Taxpayer Education and the Effectiveness of Tax audits**

Taxpayer education emerged as a vital strategy in improving the effectiveness of tax audits at KRA. Regular updates and the comprehensive coverage of tax education programs were identified as factors that strengthen the effectiveness of audits. Respondents agreed that KRA's educational programs have been effective in raising awareness about tax obligations, leading to improved tax compliance. With the composite mean, the findings suggest that taxpayer education contributes positively to the effectiveness of tax audits. The regression analysis confirmed that taxpayer education has a significant effect on audit effectiveness.

### **5.2.4 Continual Training and the Effectiveness of Tax audits**

The study found that continual training programs at KRA have a moderate but positive impact on the effectiveness of tax audits. Respondents agreed that KRA provides regular training sessions for its staff, ensuring that they are well-equipped with the necessary skills and knowledge for conducting audits. Respondents expressed a moderate level of agreement with statements related to the adequacy and comprehensiveness of the training programs. The composite mean indicated that there is room for improvement in the accessibility and comprehensiveness of these training programs. The regression analysis indicated that while training has a positive influence on audit effectiveness, the impact is less pronounced compared to other strategies such as automation and whistleblower programs.

### **5.2.5 Moderating role of Organizational culture in the Relationship between the Tax audit Strategies and the Effectiveness of Tax audits**

The study revealed that organizational culture plays a significant moderating role in the relationship between tax audit strategies and audit effectiveness. Respondents indicated that there is a shared understanding of KRA's goals and a culture of collaboration among employees, which facilitates the successful implementation of audit strategies. A positive organizational culture helped align the efforts of employees and supported the successful execution of tax audits, enhancing the overall effectiveness of the audits. With a high composite mean, the findings suggest that a positive organizational culture enhances the effectiveness of tax audits. The regression analysis confirmed that while the strategies have a direct impact on audit effectiveness,

organizational culture strengthens these relationships, particularly in terms of aligning the efforts of employees.

### **5.3 Discussion of Findings**

#### **5.3.1 Automation and the Effectiveness of Tax audits**

The current study reveals that respondents generally agreed that automation has significantly enhanced the efficiency of tax audits at KRA, particularly in improving transparency, reducing human error, and increasing the capacity for handling large-scale audits. This finding is consistent with the results from Atayah and Alshater (2021), who also noted the positive role of advanced technologies in mitigating tax evasion and improving audit efficiency. The meta-analysis conducted by Atayah and Alshater (2021) identified that the implementation of emerging technologies can effectively address issues of tax compliance and auditing efficiency, similar to the findings in this study that automation has streamlined data handling and increased the speed and accuracy of audits.

The current study shows that automation improves audit transparency and accuracy, which, in turn, may lead to increased taxpayer compliance. The study by Wahyudin et al. (2022) emphasized the positive behavioral changes resulting from audits, which can be partially attributed to the enhanced audit capabilities provided by automation. However, the current study did not explicitly focus on the change in taxpayer behavior, but it could be inferred that the improvement in audit effectiveness contributes to such outcomes.

The current study indicates that there are still challenges in fully optimizing automation, as some participants expressed concerns about the updating and maintenance of automated systems. This finding is consistent to Irefe-Esema1 and Akinmade (2020), who found that while automation improved tax registration and payment compliance in Nigeria, challenges such as technological difficulties and lack of transparency hindered progress in filing and reporting. In contrast to the study in Nigeria, KRA's systems are reported to be more efficient in handling large-scale audits, but the need for continuous updates to accommodate changes in tax laws remains an ongoing challenge.

The study highlighted that automation has enhanced KRA's ability to store and retrieve audit data efficiently, which contributes to the success of audits. This finding is similar to the results in

Angalwa (2022), where the automation of customs systems, particularly Scanner Technology and ICMS, was shown to significantly improve customs revenue performance in Kenya. Angalwa (2022) found that these automation systems contributed to a substantial increase in revenue collection, demonstrating the potential for automation to enhance not only audit efficiency but also overall tax revenue performance. This supports the notion that effective use of technology in tax audits can result in greater financial benefits for the tax authority.

While the current study indicates that automation at KRA has generally been effective, the study by Irefe-Esema and Akinmade (2020) pointed out that the semi-automated nature of Nigeria's tax system created inefficiencies in compliance, especially with regards to filing and reporting. In contrast, KRA's more robust automation infrastructure has led to greater audit success. However, as noted in the current study, the need for frequent system updates and training remains a key factor that could improve automation's impact.

### **5.3.2 Whistleblower program and the Effectiveness of Tax audits**

The current study found that the introduction of whistleblower programs at KRA significantly contributed to the identification of tax evasion cases, improving the effectiveness of audits. This aligns with the findings of Berger et al. (2020), who also found that tax whistleblowing programs have a deterrent effect on aggressive tax behavior by firms. The study by Berger et al. (2020) showed that firms located in countries with active whistleblower programs exhibited lower levels of tax aggressiveness. Similarly, the current study highlights that the program at KRA has led to an increase in the detection of tax evasion, demonstrating that whistleblowing programs can indeed deter unethical tax practices.

One key feature that was noted in the current study was the effectiveness of the KRA whistleblower program in encouraging reports, with respondents acknowledging the thorough investigation of reports. This finding is consistent with Gaydon and Boyle (2023), who examined the impact of financial incentives on the reporting judgments of financial managers. Their study found that financial incentives significantly influenced reporting judgments, making financial managers more likely to recognize and report issues. While the current study does not explicitly address financial incentives in KRA's whistleblower program, it can be inferred that financial rewards may play a role in motivating individuals to report tax evasion, as they do in other whistleblower systems in different sectors.

The current study found that the effectiveness of the KRA whistleblower program is not just linked to moral awareness but also to the level of protection and the seriousness with which reports are taken. The positive relationship between the functioning of the whistleblower program and audit effectiveness in the current study suggests that factors such as the protection of whistleblowers and the program's credibility may have a stronger influence on tax audit success. In contrast, Betri (2021) research found that a whistleblower system could have a moderating effect on the relationship between ethical awareness and internal audit effectiveness, though it did not significantly moderate the link between moral character and audit effectiveness.

The current study revealed that reports from whistleblowers at KRA are taken seriously and thoroughly investigated, a finding that aligns with Berger et al. (2020), who emphasized the importance of active and well-administered whistleblower programs in promoting better enforcement of tax laws.

### **5.3.3 Taxpayer Education and the Effectiveness of Tax audits**

The study found that KRA's education programs have significantly improved taxpayers' understanding of their legal obligations and contributed to more effective audits. This finding aligns with Oktaviani et al. (2020), who examined the role of taxpayer awareness and knowledge in enhancing tax compliance. Their study found that taxpayer knowledge and socialization programs had a positive impact on compliance, with taxpayer awareness playing a mediating role between knowledge and compliance. Similarly, the current study suggests that KRA's education programs have raised awareness and helped taxpayers understand their tax obligations, contributing to more effective audits. The results suggest that taxpayer education plays an important role in improving both compliance and the audit process by ensuring that taxpayers are better informed about their duties.

The current study, while not focusing on specific methods, implies that the effectiveness of taxpayer education programs in Kenya may depend on their content and how they are delivered. Although the KRA provides various forms of education, including seminars and outreach programs, the current study suggests that the integration of modern technologies and continuous updates to educational content could further enhance the effectiveness of these programs. This finding contrasts with Ayub and Mincu (2020) results, where more traditional methods showed less impact, highlighting the importance of tailoring education to current technological trends and

the digital literacy of taxpayers. The study by Ayub and Mincu (2020) suggests that taxpayer education has a partial effect on compliance, with other factors influencing tax behavior. This is consistent with the findings in the current study, where taxpayer education is seen as a vital component but not the sole factor contributing to improved tax audits. In the current study, taxpayer education is positively correlated with the effectiveness of audits, yet it is understood as one element in a broader strategy.

The findings from the current study suggest that KRA's taxpayer education programs have had a positive impact on the overall audit process, as they help improve the quality of information available to auditors and ensure that taxpayers are more compliant. This outcome is in line with Oktaviani et al. (2020), who found that tax socialization and awareness were linked to improved tax compliance. By educating taxpayers about their obligations, the KRA's programs contribute to a more transparent tax environment, making it easier for auditors to identify discrepancies and enforce tax laws.

#### **5.3.4 Continual Training and the Effectiveness of Tax audits**

The study found that continual training programs for KRA staff significantly improve audit effectiveness by increasing the accuracy and efficiency of audits. When tax auditors are well-trained, they are more likely to detect undeclared income and other discrepancies, enhancing the deterrent effect of audits. This suggests that continuous investment in auditor training not only boosts the technical capabilities of tax auditors but also positively influences taxpayer compliance post-audit. These findings align with the findings by Kasper and Alm (2022) who conducted an experiment that revealed a strong relationship between audit effectiveness and post-audit tax compliance. Specifically, audits that successfully detected a significant portion of undeclared income led to increased post-audit compliance, while ineffective audits contributed to a decrease in compliance.

The current study also finds that training are crucial organizational factors that improve audit effectiveness, emphasizing that the skills and knowledge of auditors significantly affect their performance. Similarly, Bawa and Addai-Asante (2024) identified organizational and regulatory factors, such as resources and management support, as key predictors. However, Bawa and Addai-Asante (2024) noted that individual characteristics and skills of auditors did not significantly influence audit effectiveness. This finding contrasts with the current study, which highlights the

role of continual training as a key factor in enhancing the competence and confidence of auditors. The difference may stem from the context of the study or the specific focus on training programs, which were more systematically analyzed in the current research.

The current research findings showed that training are essential for improving not only revenue collection but also the effectiveness of tax audits, as trained auditors are better equipped to identify tax evasion and enforce compliance. These findings are confirmed by Nthenge (2020) who found a positive relationship between staff training and revenue performance. The study suggested that well-trained staff can leverage automation tools more effectively to improve revenue collection. The current study extends this by showing that continual training for tax auditors directly contributes to improved audit outcomes by enhancing auditors' capacity to utilize advanced audit tools and techniques.

### **5.3.5 Moderating role of Organizational Culture**

The study found that KRA's organizational culture plays a key role in shaping auditors' ethical behavior and overall performance. A culture of integrity, transparency, and supportiveness at KRA was positively correlated with the effectiveness of audits. This mirrors the findings of Seno et al., (2020) who suggested that cultures that value collaboration and lower hierarchical distance lead to more ethical behavior. The implication is that fostering a positive organizational culture within KRA can improve both audit effectiveness and ethical decision-making among auditors.

The current study highlights that an organizational culture at KRA that values transparency, accountability, and continuous improvement directly influences audit outcomes and tax compliance. This suggests that a culture of integrity within the tax authority can have a broader societal impact, fostering better compliance among taxpayers. Similarly, Ihenyen (2023) found that a strong tax culture, including societal norms and values related to taxation, had a significant positive effect on tax compliance. However, while Ihenyen (2023) focused on the societal and regional level of tax culture, the current study emphasizes the role of organizational culture within KRA and its direct link to the success of tax audits.

In the current study, it was observed that the organizational culture at KRA, which encourages transparency and fairness, directly influenced tax auditors' effectiveness in conducting audits and ensuring compliance. This highlights the broader connection between tax culture and compliance,

as suggested by Muya et al. (2025) where fostering a positive tax culture at KRA can encourage greater cooperation from taxpayers and result in more effective audits.

#### **5.4 Conclusion**

The automation of tax audit processes at KRA has contributed significantly to improving audit transparency, reducing errors, and enhancing the accuracy of audit reports. These improvements have, in turn, increased the overall effectiveness of tax audits. This suggests that continued investment in automation will further enhance the efficiency of tax audits. The study aligns with TAM that perceived usefulness and ease of use significantly influence the adoption of new technologies by demonstrating increased efficiency, accuracy, and transparency in audit outcomes. These perceived benefits foster greater acceptance and utilization of automated systems, thereby enhancing audit effectiveness

The whistleblower program has proven to be an effective tool for improving the tax audit process at KRA. It has contributed to uncovering tax evasion and improving the overall effectiveness of audits. The program's success is underpinned by the protective measures in place for whistleblowers and the serious attention given to their reports. The success of KRA's whistleblower program aligns with deterrence theory, as it strengthens detection mechanisms and increases the perceived risk of non-compliance among taxpayers.

Taxpayer education has significantly improved the understanding of tax obligations among the public, which in turn enhances the effectiveness of KRA's tax audits. By ensuring that taxpayers are well-informed, KRA has managed to improve tax compliance and reduce the burden on tax auditors. While primarily a compliance support strategy, taxpayer education also supports Deterrence Theory by reducing unintentional non-compliance and increasing perceived audit risk. Informed taxpayers are more likely to comply voluntarily and less likely to risk penalties due to ignorance. Education thus indirectly enhances audit effectiveness by improving taxpayer behavior before audits even occur.

While training programs are crucial for improving the effectiveness of tax audits, there is a need for greater emphasis on making these programs more comprehensive and accessible to all relevant staff. Regular updates on new auditing techniques and standards should be incorporated to ensure that KRA staff are always equipped with the latest knowledge and skills. Human Capital Theory posits that investment in employee skills and knowledge enhances organizational productivity.

KRA, training audit staff builds critical competencies, enhances technical proficiency, and keeps personnel updated on new audit standards and technologies. This investment ensures that auditors are well-equipped to handle evolving compliance environments, ultimately improving audit quality and outcomes.

Organizational culture has a significant moderating effect on the relationship between tax audit strategies and the effectiveness of tax audits. A culture of shared values, collaboration, and adaptability is essential for the successful execution of tax audits and the achievement of audit goals. Organizational culture influences the uptake of technology (TAM), supports ethical behavior and compliance (Deterrence Theory), and encourages knowledge sharing and professional development (Human Capital Theory). A strong culture, therefore, enhances the overall synergy and implementation of audit strategies.

## **5.5 Recommendations**

### **5.5.1 Policy Recommendations**

KRA should institutionalize a robust policy for continuous investment in and integration of automation across all stages of the tax audit process. This includes allocating sufficient budgetary resources for the procurement and development of cutting-edge audit technologies, such as artificial intelligence (AI) for anomaly detection, machine learning for predictive risk modeling, and real-time data analytics platforms. Additionally, policy should mandate that these systems are periodically reviewed and upgraded to remain compliant with evolving tax laws and international auditing standards. The automation policy should also mandate interoperability between different systems (e.g., tax filing, compliance, audit, and enforcement platforms) to ensure seamless data flow and operational efficiency.

To support and strengthen KRA's whistleblower program, there is a need for national-level legislation that guarantees anonymity, legal protection, and incentives for whistleblowers. KRA should lobby for the formalization and expansion of whistleblower protections through structured policy frameworks that clearly define the rights of informants, the procedures for submitting reports, and the protections against retaliation. Furthermore, the whistleblower program should be promoted across both public and private sectors through national awareness campaigns to increase

visibility and participation. Clear metrics should be established to evaluate the program's effectiveness in identifying and reducing tax evasion.

KRA should develop and implement a formal policy framework for taxpayer education that ensures equitable access, inclusivity, and responsiveness to emerging tax-related issues. This should include the creation of targeted educational content for different taxpayer segments (e.g., SMEs, large corporations, informal sector workers) delivered in multiple languages and formats (e.g., workshops, social media, mobile apps). The policy should also mandate regular curriculum updates in line with tax law amendments and create partnerships with educational institutions, community-based organizations, and the private sector to amplify outreach. Metrics to assess public awareness and compliance behavior should be integrated to inform continuous policy refinement.

### **5.5.2 Recommendations for Practice**

KRA should continue to invest in the development and regular upgrading of automated systems to ensure that they remain in line with the latest tax laws and auditing standards. The automation of tax audits should be expanded to cover all aspects of the audit process, including real-time data analysis, audit reporting, and taxpayer interaction, to further streamline the process and reduce manual errors.

KRA should strengthen the whistleblower program by enhancing the protection and confidentiality of whistleblowers to encourage more individuals to report fraudulent activities. Additionally, the program should be promoted across all sectors to ensure broader participation and to maximize the identification of tax evasion cases.

KRA should expand its taxpayer education initiatives to cover all segments of the population, ensuring that both individual and corporate taxpayers are well-versed in their tax obligations. The education programs should be regularly updated to reflect changes in tax laws and auditing procedures, and more interactive platforms should be explored to reach a broader audience.

KRA should enhance its training programs by including both theoretical and practical components and ensuring that all relevant staff members are trained on the latest auditing techniques and technology. Efforts should also be made to make the training more accessible to staff, including through digital platforms that facilitate continuous learning and development.

KRA should continue to foster a positive organizational culture by promoting collaboration, shared goals, and adaptability to change. Emphasis should be placed on creating an environment that encourages innovation, the sharing of ideas, and the continuous improvement of tax audit strategies to further enhance their effectiveness.

### **5.5.3 Theoretical Contributions and Recommendations**

The TAM posits that users' acceptance and use of technology are influenced primarily by perceived usefulness and perceived ease of use. This study contributes to TAM by empirically validating the model within a public sector context specifically, within the KRA audit function. The study provides evidence that automation technologies are perceived as useful and effective by KRA staff, enhancing audit accuracy, transparency, and efficiency. Findings suggest that perceived ease of use, as reflected in reduced manual errors and improved data handling, significantly drives acceptance of automated audit systems. Future models of TAM in public institutions should integrate organizational culture as a moderating variable, as this study found culture significantly strengthens the relationship between technology use and organizational effectiveness. Furthermore, training and technical support should be considered as antecedents of perceived ease of use in public finance settings.

Deterrence Theory suggests that individuals are discouraged from engaging in non-compliant behavior (e.g., tax evasion) when the perceived likelihood of detection and punishment is high. The study supports this theory by showing how whistleblower programs and automation contribute to audit effectiveness and, in turn, deter fraudulent practices. The presence of a functioning whistleblower program increases the perceived risk of detection among potential tax evaders. Automation enhances surveillance and reduces opportunities for fraud, aligning with deterrence principles. The application of Deterrence Theory in tax administration should be expanded to include informal deterrents such as social stigma, and organizational reinforcements such as rewards for compliance. Future models should consider whistleblower protections and technological surveillance as dual mechanisms for increasing the perceived certainty of detection.

Human Capital Theory holds that investments in employee knowledge and skills yield improved organizational performance. The study affirms this by demonstrating that training although moderately impactful, play a meaningful role in enhancing audit effectiveness. Training improves auditors' capacity to utilize new technologies and perform complex audit procedures. Continuous

learning aligns employee competencies with evolving audit standards and techniques. Public sector human capital models should be updated to account for technological adaptability as a key competency. Investment in digital literacy and adaptive learning strategies is essential in the modern audit environment. Training should not only focus on technical proficiency but also on fostering a culture of innovation and continuous improvement.

### **5.6 Limitations of the Study**

The study primarily relied on self-reported data from KRA employees, which may be subject to response biases. Participants may have overestimated or underestimated their agreement with certain statements, leading to potential inaccuracies in the data collected.

The study used a cross-sectional design, meaning it collected data at a single point in time. This limitation makes it difficult to establish causality or determine long-term effects of the tax audit strategies, such as automation, taxpayer education, and training, on the effectiveness of tax audits at KRA.

The study focused on specific tax audit strategies, such as automation, whistleblower programs, taxpayer education, and training, as well as the moderating role of organizational culture. While these are critical factors, the study did not explore other potential influencing variables, such as external factors (e.g., economic conditions, political climate) or internal factors (e.g., leadership styles, resource allocation). This limited scope could mean that other important elements affecting the effectiveness of tax audits were not considered.

### **5.7 Suggestions for Further Studies**

A longitudinal study could provide deeper insights into the trends and long-term impacts of automation, whistleblower programs, taxpayer education, training, and organizational culture on the effectiveness of tax audits. By examining these factors over an extended period, researchers could assess how these strategies evolve and how their impact changes over time. This would help in understanding whether the observed effects are sustainable and if improvements or setbacks occur as technology, policies, and organizational culture develop.

Future studies could explore additional variables that may explain the differences in the variation of the effectiveness of tax audits. Identifying and analyzing these variables could provide a more comprehensive understanding of the key drivers of audit effectiveness.

## 5.8 Chapter Summary

This chapter summarized the key findings of the study, discussed their implications, and presented conclusions and recommendations on strategies to enhance tax audit effectiveness at KRA Nairobi Region. The study established that automation, whistleblower programs, taxpayer education, training, and organizational culture all play significant roles in audit performance. It concluded that strengthening these areas through targeted reforms can lead to more effective and transparent tax audits, thereby improving compliance and revenue collection.



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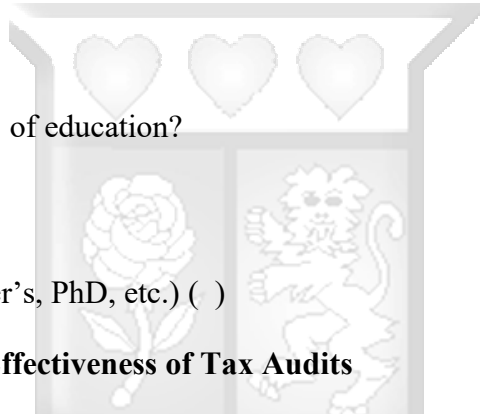
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## APPENDICES

### Appendix I: Questionnaire

#### Section I: Demographic Information

1. What is your gender?  
 Male ( )  
 Female ( )
  
2. What is your age group?  
 Below 30 years ( )  
 31-40 years ( )  
 41-50 years ( )  
 Above 50 years ( )
  
3. What is your highest level of education?  
 Certificate/Diploma ( )  
 Bachelor's degree ( )  
 Postgraduate degree (Master's, PhD, etc.) ( )



#### Section II: Automation and Effectiveness of Tax Audits

Below are Likert scale items on automation of tax Audits in Kenya Revenue Authority. Indicate your level of agreement with statements on a 5-point scale, where:

1 = Strongly Disagree      2 = Disagree    3 = Neutral    4 = Agree    5 = Strongly Agree

Items	1	2	3	4	5
The Kenya Revenue Authority (KRA) has effectively integrated modern technology in tax audits.					
The integration of technology has made the audits process more transparent at KRA.					
Automated systems are regularly updated to keep pace with changes in tax laws.					
KRA staff are well-trained to use the automated audits systems.					
Automated systems help KRA to efficiently store and retrieve audits data.					
The automation of data handling has increased the capacity of KRA to handle large-scale audits.					
The automation of data handling at KRA has reduced human error in tax audits.					
Automation has improved the accuracy of audit reports at KRA.					

**Section III: Whistleblower Programs and Effectiveness of Tax Audits**

Below are Likert scale items on Whistleblower Programs in Kenya Revenue Authority. Indicate your level of agreement with statements on a 5-point scale, where:

1 = Strongly Disagree      2 = Disagree    3 = Neutral    4 = Agree    5 = Strongly Agree

Items	1	2	3	4	5
The number of reports from whistleblowers has increased since the introduction of the program at KRA.					
The Whistleblower Program has led to the identification of more cases of tax evasion at KRA.					
The Whistleblower Program is effectively used to uncover fraud within the KRA.					
The reports from whistleblowers are taken seriously and investigated thoroughly by KRA.					
KRA provides adequate protection to whistleblowers against retaliation.					
The legal framework for whistleblower protection at KRA is strong and clear.					
KRA has put in place mechanisms to track and address any threats or risks to whistleblowers.					
Whistleblower protection measures at KRA ensure confidentiality.					

**Section IV: Taxpayer Education on the Effectiveness of Tax Audits**

Below are Likert scale items on Taxpayer Education in Kenya Revenue Authority. Indicate your level of agreement with statements on a 5-point scale, where:

1 = Strongly Disagree      2 = Disagree    3 = Neutral    4 = Agree    5 = Strongly Agree

Items	1	2	3	4	5
The education programs provided by KRA are effective in raising awareness about tax obligations.					
KRA regularly updates its educational content to reflect changes in tax laws.					
Taxpayer education programs are an essential component of KRA's audits effectiveness.					
KRA's education programs have improved taxpayers' understanding of their legal obligations					
KRA provides regular education on tax-related matters to the public.					
The frequency of KRA's taxpayer education programs is sufficient to address key issues.					

The coverage of KRA's education programs ensures that both individual and corporate taxpayers are adequately informed.					
KRA's taxpayer education programs effectively cover all sectors of the economy.					

### Section V: Continual Training and Effectiveness tax Audit

Below are Likert scale items on Continual Training of tax auditors in Kenya Revenue Authority. Indicate your level of agreement with statements on a 5-point scale, where:

1 = Strongly Disagree      2 = Disagree    3 = Neutral    4 = Agree      5 = Strongly Agree

Items	1	2	3	4	5
KRA provides regular training sessions for its tax audit staff.					
KRA staff are regularly updated on the latest auditing standards and practices					
The training programs at KRA are comprehensive and cover both theoretical and practical aspects of auditing.					
KRA ensures that training programs are accessible to all relevant staff involved in audits.					
KRA frequently adopts new audit techniques to improve its auditing processes					
KRA is proactive in adopting technology-driven audit techniques to enhance audit effectiveness.					
New audit techniques are incorporated into KRA's training programs to keep auditors up to date.					
The use of advanced audit techniques has increased the success rate of KRA's audits					

### Section VI: Organizational Culture

Items	1	2	3	4	5
There is a shared understanding of the organization's long-term goals among all employees					
The purpose of KRA's tax audits is well understood by all employees					
There is a consistent approach to how tax audits are conducted across the organization					
Employees at KRA adhere to a common set of values when performing tax audits					
Employees at KRA are encouraged to contribute their ideas in improving the tax audit process					
There is a culture of collaboration among employees in KRA to improve the effectiveness of tax audits					
KRA is quick to adapt to changes in tax policies and regulations					
KRA is flexible and willing to adjust its strategies when challenges in tax auditing arise					

## Section VII: Effectiveness of tax Audits

Below are Likert scale items on Effectiveness of tax Audit in Kenya Revenue Authority. Indicate your level of agreement with statements on a 5-point scale, where:

1 = Strongly Disagree 2 = Disagree 3 = Neutral 4 = Agree 5 = Strongly Agree

Items	1	2	3	4	5
The success rate of tax audits conducted by KRA has increased in recent years.					
The overall success rate of tax audits has significantly contributed to increasing government revenue.					
The KRA has a high rate of identifying tax evasion through audits.					
Successful audits by KRA contribute to improved tax compliance in the country.					
KRA's audits have resulted in significant recovery of unpaid taxes					
KRA's auditing strategies have helped in recovering revenue from large-scale tax evasion.					
Tax audits by KRA are effective in identifying sources of lost revenue.					
KRA's audit-related revenue recovery is regularly monitored and reported to ensure accountability.					



## Appendix II: Ethical Approval



1<sup>st</sup> April 2025

Mrs Tommo Irene,  
irene.tommo@strathmore.edu

Dear Mrs Tommo,

**RE: Strategies for Enhancing the Effectiveness of Tax Audits in Kenya Revenue Authority, Nairobi Region: Moderated by Organizational Culture**

This is to inform you that SU-ISERC has reviewed and approved your above SU-masters proposal. Your application reference number is SU-ISERC2833/25. The approval period is from 1<sup>st</sup> April 2025 to 31<sup>st</sup> March 2026.

This approval is subject to compliance with the following requirements:

- i. Only approved documents including (informed consents, study instruments, MTA) will be used.
- ii. All changes including (amendments, deviations, and violations) are submitted for review and approval by SU-ISERC.
- iii. Death and life-threatening problems and serious adverse events or unexpected adverse events whether related or unrelated to the study must be reported to SU-ISERC within 72 hours of notification.
- iv. Any changes anticipated or otherwise that may increase the risks or affected safety or welfare of study participants and others or affect the integrity of the research must be reported to SU-ISERC within 72 hours.
- v. Clearance for the export of biological specimens must be obtained from relevant institutions.
- vi. Submission of a request for renewal of approval at least 60 days prior to the expiry of the approval period. Attach a comprehensive progress report to support the renewal.
- vii. Submission of an executive summary report within 90 days of completion of the study to SU-ISERC.

Before commencing your study, you will be expected to obtain a research license from National Commission for Science, Technology, and Innovation (NACOSTI) <https://research-portal.nacosti.go.ke/> and obtain other clearances needed.

Yours sincerely,

A handwritten signature in black ink, appearing to read "Ambrose Rachier".

Mr Ambrose Rachier,  
Chairperson; SU-ISERC

### Appendix III: Research Permit

  
REPUBLIC OF KENYA

  
NATIONAL COMMISSION FOR  
SCIENCE, TECHNOLOGY & INNOVATION

Ref No: **722078** Date of Issue: **08/April/2025**

**RESEARCH LICENSE**



**This is to Certify that Miss. Irene Jemutai Tomno of Strathmore University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: Strategies for Enhancing the Effectiveness of Tax Audits in Kenya Revenue Authority, Nairobi Region: Moderated by Organizational Culture. for the period ending : 08/April/2026.**

License No: **NACOSTI/P/25/418052**

**722078**  
Applicant Identification Number

  
Director General  
NATIONAL COMMISSION FOR  
SCIENCE, TECHNOLOGY &  
INNOVATION

Verification QR Code



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**See overleaf for conditions**