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**COMPLIANCE MANAGEMENT STRATEGIES AND REVENUE PERFORMANCE AT
KENYA REVENUE AUTHORITY.**

RACHAEL WAMBUI KARITU

ADMISSION NUMBER: 168886



**A RESEARCH THESIS TO BE SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENT FOR THE DEGREE OF MASTER OF COMMERCE OF STRATHMORE
UNIVERSITY**

JUNE, 2025

DECLARATION

I declare that this work has not been previously submitted and approved for the award of a degree by this or any other University. To the best of my knowledge and belief, the dissertation contains no material previously published or written by another person except where due reference is made in the dissertation itself.

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Name of Candidate : Rachael Wambui Karitu

Approval

The dissertation of Rachael Wambui Karitu was approved by the following:

Dr. James Ndegwa

Supervisor

Strathmore University Business School

Dr. Caesar Mwangi

Executive Dean

Strathmore University Business School

Prof. Bernard Shibwabo

Director, Office of Graduate Studies



DEDICATION

I dedicate this thesis to my dear husband Jeremiah Gichuhi for your patience and encouragement throughout this journey. To my children Waweru, Wanjira & Waithaka, your smiles and love have brightened even the most challenging days.

I also dedicate this thesis to my father Dr. C. W. Karitu who has constantly taught me the importance of education and this work is a testament. To my mother Mrs. Karitu, your prayers and support have brought me this far. Thank you.



ABSTRACT

Despite revenue collection at Kenya Revenue Authority increasing for the past five years, it still is not at its optimal. The revenue growth has been minimal, given an 11.1% growth in 2024 from 2023, 6.7% growth in 2023 from 2022 and a decline of 4.8% in 2022 from 2021. This study focused on compliance management strategies in the Kenya Revenue Authority and assessed how the strategies impact revenue performance in the Authority. The research objectives are to assess the effect of taxpayer registration, tax compliance monitoring, tax debt collection, tax penalties and tax amnesty on revenue performance. The Ability-to-pay theory and the Economic Deterrence theory guided the study. Additionally, this study adopted a positivist research philosophy and employed a causality research design. The population of the study was Kenyan countrywide and time series data was used for 10 years from 2014 - 2024. The study used secondary data obtained from published KRA & Treasury reports for the period of 10 years from 2014 - 2024. The study adopted a quantitative approach to collecting and analyzing data. Descriptive statistics revealed moderate variability across the variables, with notable fluctuations in Tax Amnesty and Taxpayer Registration levels. Correlation analysis demonstrated significant positive relationships between Revenue Performance and both Tax Amnesty and Taxpayer Registration, while Tax Penalty was found to have a significant negative correlation with revenue outcomes. The Granger Causality test results showed that all independent variables Taxpayer Registration, Tax Compliance Monitoring, Tax Debt Collection, Tax Penalty, and Tax Amnesty Granger cause Revenue Performance, indicating that past values of these variables significantly influence future revenue outcomes. The regression model further affirmed that Taxpayer Registration, Tax Compliance Monitoring, Tax Debt Collection and Tax Amnesty had positive and statistically significant effects on Revenue Performance, whereas Tax Penalty had a significant negative effect. The study concluded that the results indicate a significant and positive relationship between the independent variables (Taxpayer Registration, Tax Compliance Monitoring, Tax Debt Collection and Tax Amnesty) and the Revenue Performance. Further, Tax Penalty had a significant and negative relationship with Revenue Performance. The study recommended strengthening taxpayer registration, investing in compliance monitoring, enhancing taxpayer education and strategically implementing and publicizing tax amnesty programs to boost participation and compliance. The study also recommended integrating fairness (Ability-to-Pay Theory) and deterrence (Economic Deterrence Theory) into tax policy. Future research recommended that future studies employ panel data across different tax regions or sectors to enhance generalizability and policy relevance.

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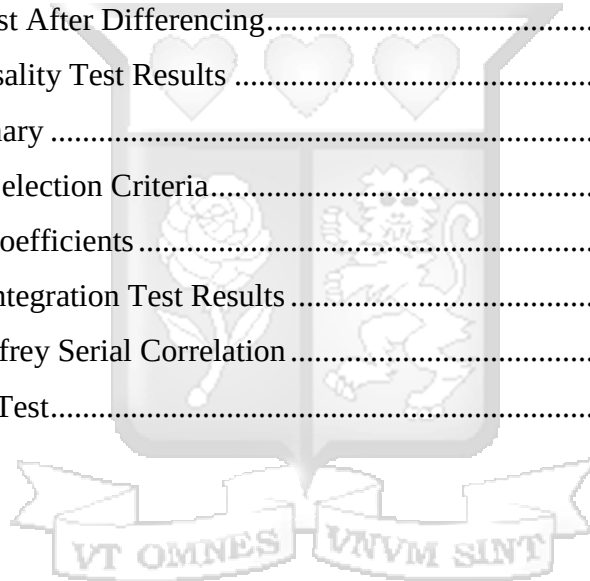
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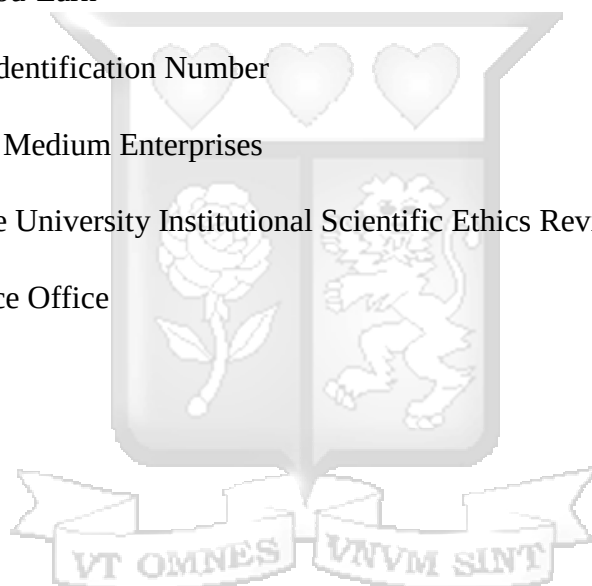
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LIST OF ABBREVIATIONS

GDP:	Gross Domestic Product
KRA:	Kenya Revenue Authority
MTRS:	Medium-Term Revenue Strategy
NACOSTI:	National Commission for Science, Technology & Innovation
OCOB:	Office of the Controller of Budget
OECD:	Organization for Economic Cooperation & Development
PAYE:	Pay-As-You-Earn
PIN:	Personal Identification Number
SME:	Small and Medium Enterprises
SU-ISERC:	Strathmore University Institutional Scientific Ethics Review Committee
TSO:	Tax Service Office



DEFINITION OF TERMS

- Compliance monitoring:** According to this study, compliance monitoring is defined as the process of reviewing, evaluating and supervising the activities of taxpayers to ensure legal compliance with tax laws and encourage voluntary accurate reporting (KRA, 2019).
- Tax Compliance Management Strategies:** According to this study, tax compliance management strategies are the processes, measures, policies and principles put in place by a specific tax authority to ensure compliance with tax laws by taxpayers. (OECD, 2004).
- Revenue Performance:** According to this study, revenue performance means the efficiency of any particular tax authority or government in generating and collecting revenues within a specific period of time. Key indicators include growth in tax revenue and the amount of taxes collected (Ouma, 2019).
- Tax debt collection:** According to this study, it entails interacting with and potentially taking enforcement action against individuals who do not file their taxes on time or do not pay taxes due by the due dates (OECD, 2023).
- Tax Amnesty:** Tax amnesty is a government initiative that offers taxpayers the opportunity to disclose and settle previously unpaid or underpaid taxes without facing the usual penalties, interest, or legal consequences (Ritei, 2021).
- Tax Penalty:** Tax penalties are financial charges or legal consequences imposed by tax authorities on taxpayers who fail to comply with tax laws. These penalties serve as a deterrent to non-compliance and encourage individuals and businesses to meet their tax obligations in a timely and accurate manner (Githinji, 2023).

CHAPTER ONE: INTRODUCTION

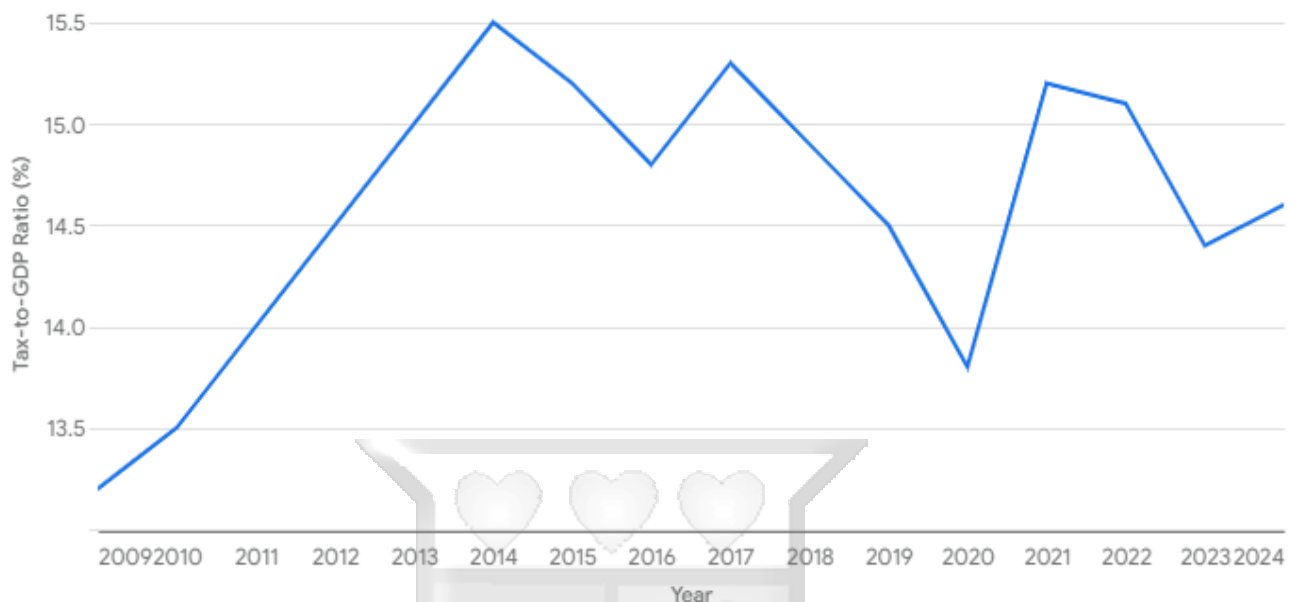
1.1 Background of the Study

Countries primarily generate public revenues through tax collection, which enables them to fund investments in infrastructure, human capital, and services for both their citizens and enterprises (Rachel, 2019). However, in recent years, a number of crises have reduced the income of developing countries while driving up their expenditures (World Bank, 2019). In Kenya, taxation is anchored in Article 209 of the Constitution, empowering the National Government to impose taxes such as Income Tax, Value-Added Tax, Excise Duty, Customs Duties and other duties on imports and exports, and any other tax which may be provided for through an Act of Parliament or County Assembly (Njoroge, 2023).

Articles 209 and 210 of the Constitution of Kenya (2022) also state that County governments have been mandated to charge levies on property, entertainment and any other fees as approved by an Act of Parliament to generate their revenue streams. These streams include land rates, building plan approval fees, single business permit fees, liquor license fees, advertising fees, parking fees, cess, game park and reserve fees among others (KIPPRA, 2024). In spite of this mandate to the National & County governments to collect taxes, revenue shortfalls continue to be reported as escalating pending bills and recurring expenditures continue to exacerbate the situation (OCOB, 2024).

According to an OECD article written in 2023, Kenya's tax-to-GDP ratio dropped from 15.30% in 2021 to 15.10% in 2022, a 0.2% decrease, while the average for 33 African countries remained at 15.6%. Kenya's ratio has dropped by 0.7% since 2010, while the average for African countries has increased by 1.5%. The ratio of taxes to GDP in Kenya ranged from 12.5% in 2002 to 15.30% in 2017.

Kenya's Tax-to-GDP Ratio (2009-2024)



(Source : MTRS, 2023)

Figure 1.1: Kenya's Tax to GDP Ratio 2009-2024

Increasing revenue collection is especially necessary in countries where taxes currently account for less than 15% of GDP. This tax burden is a crucial turning point that puts a country on the path to viability and development (World Bank, 2019). Gaspar et al. (2016) approximated tax to GDP ratio of 12.75% as a minimum percentage required by a government to run its essential services and 17% to achieve its Sustainable Development Goals. Kenya's ratio is still below the desired East African Community target of 25% of GDP and needs to improve its tax to GDP ratio to enable achieve efficiency in service delivery to its citizens (MTRS, 2023).

Revenue collection hinges on effective compliance management strategies, including taxpayer registration, tax compliance monitoring, tax debt collection, tax penalties and tax amnesty. These strategies are pivotal for ensuring taxpayer compliance, expanding the tax base, and improving revenue performance (Okello & Mugisha, 2021).

1.1.1 Tax Compliance Management Strategies

Compliance management is a process encompassing review and management of taxpayer accounts, follow-ups, and rectification to enhance taxpayer compliance with tax laws and

encourage voluntary accurate reporting (KRA, 2019). Compliance monitoring includes conducting return reviews and tax audits to ascertain the correctness of the tax declarations. Its range of functions include determining the accuracy of a filed return and tax declaration, identifying and imposing additional tax liability including penalties and fines.

Globally, a study in Indonesia by Fany et al. (2020) highlighted that greater government commitment to increasing simplified services would have a greater impact than increasing the number of tax audits. The study also revealed that a power-oriented approach is not always an effective method to increase tax compliance, as it might backfire and decrease tax compliance.

Contrastingly, a study in Rwanda highlighted that tax audits are effective in enhancing revenue collected. However, the type of audit matters in that comprehensive tax audits have a significant positive effect on compliance while single issue audits have a net negative impact thus ineffective (Kotsogiannis et al., 2024). Locally, Rotich et al. (2019) conducted a study on the effect of tax audit case selection on tax audit effectiveness in the South Rift Valley region of Kenya and concluded that audit case selection was directly related to tax audit effectiveness and hence has a significant effect on revenue collection.

1.1.2 Taxpayer Registration

Taxpayer registration is one of the initial steps of compliance management whereby recruitment of persons is done and they are registered for tax obligations (Bett & Yudah, 2017). According to World Bank 2019 report, a country's reliance on outside funding sources, such as foreign borrowing, development assistance, and international aid can be reduced by mobilizing domestic resources through tax base expansion and deepening.

Globally, the impact of tax knowledge, modern tax administration and taxpayer awareness has the most significant impact on taxpayer compliance as studied by Dewi et al. (2022) in Indonesia. A similar study needs to be done to bring out the taxpayer registration element which is the starting point that creates tax knowledge and awareness. However, research done by Gallien et al. (2023) depicted contradictory findings, which pointed out that mass taxpayer registration does not work since it targets the smaller firms, which ends up costing more than the revenue meant to be generated, thus not promoting revenue collection. Therefore, there is a need for this study to demystify the contradicting findings.

In Nigeria, automation increased tax registration and payment compliance, but filing and reporting compliance showed no positive response, as studied by Irefe-Esema and Akinmade (2020), who examined the impact of tax automation on tax compliance using registration, filing, reporting and payments as the parameters. Similarly, Cheboi and Bruce (2021) studied the effect of technological uptake of PAYE performance on Medium Taxpayers in Kenya and highlighted that although e-registration affected PAYE performance, it was rather weak. Similar studies can be done highlighting the overall revenue performance and also widen the scope to include small and large taxpayers.

Taxpayer registration is the initial step in building a broad tax base by identifying and registering eligible taxpayers. It fosters tax awareness and compliance, as highlighted in studies like Dewi et al. (2022), which found that tax registration significantly impacts taxpayer compliance. However, other studies, such as Gallien et al. (2023), noted that large-scale registration efforts targeting smaller firms often result in higher costs than the revenue generated. These contradictory findings highlight the need to further explore the relationship between taxpayer registration and revenue performance in Kenya.

1.1.3 Tax Debt Collection

Debt collection is also a key strategy of compliance management. It is elaborated as engaging with and possibly pursuing enforcement action against persons who fail to submit their returns on time or fail to make payments by the due dates (OECD, 2023). Debt collection has also been studied globally on its effect on tax compliance and revenue performance. Globally, the higher the tax penalties, the higher the tax compliance as studied by Nguyen (2022) on the effect of factors affecting tax compliance on Small and Medium Enterprises in Vietnam.

Ndalahwa and Severine (2021) studied the effectiveness of agency notices as a tax recovery measure in the Tanzania Revenue Authority, which indicated that agency notices have a negative influence on taxpayers since they cause cashflow issues to the companies issued. Locally, Muhwa and Omboi (2023) studied penalties and interest as different parameters for tax debt collection and revealed that the application of interest and penalties significantly and favourably affects taxpayer compliance and thus has also led to increased tax payments. However, the extent of uncollected tax debts and their impact on Kenya's revenue performance remain underexplored.

Additionally, Ndung'u and Mutunga (2020) studied the effect of tax penalties and interest on SMEs' compliance in Kenya. They discovered that penalty and interest measure resulted in an additional 15% on the tax amount due. They also found that tighter terms of debt recovery reduced cases of chronic tax evasion by individuals. In 2017, the KRA adopted even higher debt-recovery methods such as agency notices, garnishee orders and public listing of the defaulters. These strategies caused corresponding increase of compliance rates. Going by KRA's annual report (2017), the rate of compliance with the tax laws went up by 12%, thus resulting to additional KES 40 billion in revenue (KRA, 2017).

Nevertheless, problems related to tax debt are still there, KRA's 2022 report identified that over KES 400 billion in taxes remained uncollected, equivalent to 6.4% of the GDP. This unrecovered revenue is a result of long cases in law courts, weaknesses in the recovery frameworks, and poor fiscal health of the collectors. According to the current literature such as Muhwa and Omboi (2023) there is a positive correlation of penalties and interest charges on compliance hence an improvement in revenue collection of about 20% between 2021 and 2023. However, they also caution that excessive penalties can lead to cashflow issues for businesses, particularly SMEs, thereby necessitating a balanced approach.

1.1.4 Tax Penalties

Tax penalties operate worldwide as vital enforcement instruments that encourage tax compliance by preventing non-compliance behaviors and motivating rule compliance (Mujahid & Siddiqui, 2019). Purba et al. (2020) showed that automated penalty enforcement through Indonesian e-filing systems led to substantial improvements in tax compliance. The study demonstrated how e-materials systems can achieve higher revenue performance by implementing embedded penalties. A research study by Okello and Mugisha (2021) examined how different penalty systems affect the tax compliance practices of corporations within Uganda. Higher penalties related to tax evasion produced an annual 10% increase in revenue collection over three years for large corporations, according to their research data. Tax penalties serve as an effective global approach to increase compliance because they function across all jurisdictions.

Research regarding tax penalty impact exists across Africa where multiple contexts have been studied. Chege et al. (2019) conducted research into how SMEs in Kenya reacted to penalty awareness programs. Specific penalty structure education for SMEs increased their on-time tax

filing by 25%, according to research findings, thus proving the value of taxpayer education in penalty effectiveness. Bett and Yudah (2017) conducted research on the Kenya Revenue Authority's (KRA) iTax system to discover how incorporating penalties into its online taxpayer management features led to increased revenue collection. Research findings validate that properly designed penalties need to match regional compliance barriers to achieve desired results.

1.1.5 Tax Amnesty

Tax amnesty programs encourage business and individual owners to submit undisclosed income information while they pay overdue tax responsibilities (Ritei, 2021). The worldwide outcomes of such tax amnesty programs depended on how the programs were structured and executed. Bellon et al. (2022) evaluated Peru's VAT e-invoicing platform when it was used during periods designated as tax amnesties. The shift from paper-based to electronic invoicing by businesses led to an increase of more than 5 percent in VAT revenue, which proves that amnesty programs operate best with strong enforcement structures. Mujahid & Siddiqui (2019) studied a Philippine tax amnesty program across the entire nation, which resulted in voluntary disclosures and tax revenue growing by 25% throughout the amnesty period. The success of amnesty programs depends on transparent messaging combined with streamlined processes, according to research results.

Tax amnesty programs across Africa have achieved different outcomes in their implementations. Research by Osei and Agyemang (2023) revealed that tax amnesty programs in Ghana caused participating SMEs to show 20% superior tax compliance compared to non-participants. The research explored how amnesty programs enabled tax reform while establishing order in the informal sector to expand taxable businesses. The study by Night and Bananuka (2020) demonstrated how the convergence of amnesty incentives with strong enforcement increased tax compliance throughout Uganda's electronic tax system.

A study by Njoroge (2023) in Kenya showed that revenue collections increased by 15% during the time of tax amnesty programs. The research results indicated decreasing taxpayer compliance following the conclusion of the amnesty program, although the study demonstrated the program's temporary revenue enhancing effect on the local economy. The study's results match wider regional along global patterns that demonstrate the necessity of developing locally specific amnesty programs with proper structures.

1.1.6 KRA

Kenya Revenue Authority (KRA) is a government agency established to manage the country's tax and customs systems and is responsible for the efficient and effective administration of tax laws, ensuring that all individuals and businesses comply with their tax obligations. On behalf of the national government, the Kenya Revenue Authority is responsible for the administration of tax and customs laws as well as the collection, assessment, and accounting of all revenues (KRA, 2024).

The Kenya Revenue Authority (KRA) is responsible for administering and enforcing tax laws in Kenya, which serves as the country's economic hub and contributes a significant portion of the nation's tax revenue. The region performs several key functions essential for revenue generation and compliance. These include tax collection, encompassing Income Tax, Value-added Tax (VAT), customs duties, and excise duty from individuals and businesses in Kenya. The region also prioritizes taxpayer education and compliance through extensive awareness campaigns and support services to ensure taxpayers understand and meet their obligations voluntarily (Ritei, 2021).

To address non-compliance and tax evasion, the KRA conducts thorough tax audits and investigations, ensuring fairness and integrity in tax administration. The region also plays a pivotal role in the formulation and execution of tax policies and administrative procedures aligned with national economic objectives. Additionally, it oversees customs and border control operations at key points, such as the Jomo Kenyatta International Airport (JKIA), facilitating the smooth flow of goods and ensuring the collection of import and export duties (Githinji, 2023).

KRA operates through several strategically located offices throughout the country known as Tax Service Offices (TSOs). In Nairobi region for instance, the offices include Times Tower, the main KRA office housing various departments; Sameer Park in Industrial Area, which handles multiple tax-related services; Ushuru Pension Towers in Westlands that handles the large taxpayers and Corporate Business Centre in Upperhill offering services related to tax returns and payments. Taxpayers can access these services by visiting any of these offices, contacting the KRA Contact Centre, or using the iTax Portal, which provides a wide range of online services such as tax return filing, payments, and obtaining tax compliance certificates (KRA, 2023). Through its

comprehensive approach to tax administration and its commitment to promoting voluntary compliance, KRA plays a critical role in supporting Kenya's economic development.

1.1.7 Revenue Performance

Revenue performance is a key aspect of any government's mandate to provide services to its citizens. Kenya Revenue Authority has been mandated to assess, collect and account for revenue for the government (KRA, 2021). The Institute of Economic Affairs (2023) noted that the Government had raised efforts in the imposition of taxes. This is informed by the belief that Kenya's tax collection is still below the EAC's target of attaining twenty-five per cent of GDP. By evaluating the trend shown in Table 1.2, the ratio of tax revenue to GDP reduced from the 2017/18 financial year to 2022/23, with the figure standing at 15.1 per cent, which shows the underperformance of the government in its effort to collect taxes due to various challenges (KRA, 2021).

Likewise, Kenyan authorities' commitment to the original IMF 38-month Programme implemented with the 10-month prolongation has shifted attention to revenue mobilization. The IMF, under the Extended Credit Facility, seeks to offer the government space in the fiscal account to respond to debt risks and COVID-19 shocks without overburdening the balance of payments (Ouma, 2019).

Table 1.1: Revenue Performance and Budget Projection

Category	2022/23 (A)	2023/24 Est. (B)	Change % (B-A)	Budget Projection 2024/25 (C)	Change % (C-B)
Tax Revenue	2,192	2,571	17.3	2,878	12
Domestic Revenue	2,528	2,893	14.4	3,231	11
GDP	14,522	16,290	12.2	18,180	11
Tax Revenue (As a share of GDP)	15.1	15.8	0.7	15.8	0
Domestic Revenue (As a share of GDP)	17.4	17.8	0.4	17.8	0

Source: National Treasury Quarterly Budgetary Economic Review 2022/23

In the financial year 2023/24, the government intended to raise Ksh 2,571.2 billion in tax revenue, registering a 17.3 percent increase over the prior financial year's collection of Ksh 2,192 billion. This target is highly ambitious compared to the overall revenue increase of 9 percent seen during the last three years. The government projected a tax revenue share of 70% of the total financial resources necessary to fund the budget, compared with 63% in both of the prior fiscal years (Davis & DeWitt, 2021).

According to Ouma (2019) to raise taxes, the Finance Act 2023 was adopted by the government. This saw the introduction of key changes in the tax policy, especially on income and the consumption of goods and services. Other changes were necessary in the revenue and collection process. These changes saw the consolidated revenue gain of Ksh 221 billion from these tax policy changes, which accounted for less than 10 per cent of the projected domestic revenue performance, thereby underlining the limited financial measure in contrast to the broad strategic goals.

Table 1.2: Revenue Performance Trend

Year	Tax Revenue (Ksh Million)	Non-Tax Revenue (Ksh Million)	Total Revenue (Ksh Million)	Tax Revenue as % of GDP
2013/14	1,171,280	182,276	1,353,556	15.5
2014/15	1,288,408	191,360	1,479,768	16
2015/16	1,417,249	200,858	1,618,107	16.5
2016/17	1,558,974	210,801	1,769,775	17
2017/18	1,300,000	200,000	1,500,000	15.3
2018/19	1,400,000	300,000	1,700,000	15.4
2019/20	1,600,000	300,000	1,900,000	14.8
2020/21	1,300,000	100,000	1,400,000	13.8
2021/22	1,900,000	200,000	2,100,000	15.2
2022/23	2,000,000	200,000	2,200,000	15.1
2023/24(Est)	2,200,000	210,000	2,410,000	15.4

Source: National Treasury Quarterly Budgetary Economic Review 2022/23

Again, as depicted in Table 1.2, the ability of tax revenues to proportionately respond to changes in GDP has been generally weaker, especially, other than in the case of 2021/22. According to KRA (2024) tax revenue for the first quarter of the FY 2023/24 financial year was Ksh 79 billion below target.

From the above analysis, it is evident that the government needs to shift its focus and reforms toward alternative measures that, if effectively implemented, can enhance revenue performance. Considering that tax revenue has not kept pace with GDP growth, there is a pressing need for the government to design a pro-growth tax system that aligns with and increases as the economy expands (Githinji, 2023).

The above background review highlights conceptual, contextual, empirical and knowledge gaps that have necessitated this study. Gallien et al. (2023), Irefe-Esema and Akinmade (2020), Wilbald (2021) and Kotsogiannis et al. (2024) highlighted an empirical gap since their findings were contradictory. Cheboi and Bruce (2021), Rotich et al. (2019), and Nguyen (2022) bring out a contextual gap since the target population covered in their studies is medium taxpayers, taxpayers in the South Rift of Kenya and SMEs, respectively.

Studies have been conducted about taxpayer registration (Dewi et al., 2022) and audits (Fany et al., 2020) depicting a conceptual gap since they seem to bring out their effect on taxpayer compliance and not directly on revenue performance. This study highlighted the effect of compliance management strategies on revenue performance at KRA, which is a new study that aims to fill a knowledge gap left by past related studies that researched single strategies and not several compliance management strategies (Nguyen, 2022; Muhwa & Omboi, 2023). Also, the study by Retei (2021) is different from the proposed study conceptually since it focused on taxpayer education strategy, law enforcement strategy and taxpayer services strategy and level of tax revenue, while this study focused on taxpayer registration, tax compliance monitoring, tax debt collection, tax penalties, tax amnesty and revenue performance hence different concepts were studied to fill a knowledge gap.

1.2 Problem statement

Despite governments having measures in place for revenue collection, developing countries still face challenges of not meeting their citizen's needs due to low revenue collection (Mascagni et al., 2014). According to the FY 2022/23 Budget Review & Outlook Paper, the 2022/23 fiscal year

ended with a deficit of 800.4B Ksh. This deficit worsens the government's external disequilibrium debts and depreciation, citing austerity measures that deepen the nation's economic woes. For instance, in June, the President refused to sign the Finance Bill 2024, which was expected to bring an additional Ksh 346 billion in tax revenues. The inability to pass this bill created a huge void in the implementation of the Ksh 3.68 trillion national budget and boosted the fiscal burden.

Deficiencies in revenues in important areas once again underline the situation. In the financial year 2023/2024, KRA observed decreases in the collection of revenues in the Financial (2.4 per cent), Insurance (12.3 per cent), and Manufacturing (13 per cent) industries (KRA,2024). Some of the factors that have emerged include a high default rate on loans, devaluation of the shilling, and low demand for manufactured goods due to high and rising production costs. This loss of revenues erodes the government's capacity to meet many emergent problems, which include responding to climatic shocks and addressing matters of climate change and the escalating cost of living, all of which call for boosted budgets (World Bank, 2022).

Kenya has been borrowing both locally and internationally to bridge the revenue gap, which has resulted in the accumulation of debt, leading to an increase in debt to GDP ratio of 48.5% in Financial Year 2013/2014 to 70.6% in Financial Year 2022/2023 (MTRS, 2023). The government relies on KRA's success in its core mandate of revenue collection which is pegged on the tax compliance of its taxpayers. KRA embraced compliance management to improve tax compliance. However, the tax compliance levels still remain low.

The Institute of Economic Affairs (2023) noted that the Government had raised efforts in the imposition of taxes. This is informed by the belief that Kenya's tax collection is still below the EAC's target of attaining twenty-five per cent of GDP. By evaluating the trend shown in Table 1.2, the ratio of tax revenue to GDP reduced from the 2017/18 financial year to 2022/23, with the figure standing at 15.1 per cent, which shows tax revenue underperformance.

According to KRA (2024), tax revenue for the first quarter of the FY 2023/24 financial year was Ksh 79 billion below target. The government needs to shift its focus and reforms toward alternative measures that, if effectively implemented, can enhance revenue performance. Considering that tax revenue has not kept pace with GDP growth, there is a pressing need for the government to design a pro-growth tax system that aligns with and increases as the economy expands.

From the background review, the research highlighted several gaps. Conceptually, research is needed to highlight the effect of taxpayer registration on revenue performance as a starting point besides tax knowledge and awareness (Dewi et al., 2022). Also, other factors affecting revenue performance need to be researched (Rotich et al., 2019). Contextually, wider-scoped research should be conducted on the effect of compliance management strategies on revenue performance (Bett & Yudah, 2017; Cheboi & Bruce, 2021). The research also brought out empirical gaps due to contradictory findings (Gallien et al., 2023; Irefe-Esema & Akinmade 2020; Fany et al., 2020; Kotsogiannis et al., 2024; Rotich et al., 2019). Therefore, there was a need to ascertain the effect of compliance management strategies on revenue performance in Kenya Revenue Authority, so as to improve or adjust it accordingly.

1.3 Research Objectives

The general objective was to assess the effect of compliance management strategies on revenue performance at the Kenya Revenue Authority.

The specific objectives of this study were;

1. To assess the effect of taxpayer registration on revenue performance at the Kenya Revenue Authority.
2. To assess the effect of tax compliance monitoring on revenue performance at the Kenya Revenue Authority.
3. To determine the effect of tax debt collection on revenue performance at the Kenya Revenue Authority.
4. To examine the effect of tax penalties on revenue performance at the Kenya Revenue Authority.
5. To assess the effect of tax amnesty on revenue performance at the Kenya Revenue Authority.

1.4 Research Questions

1. How does taxpayer registration impact revenue performance at the Kenya Revenue Authority?
2. How does tax compliance monitoring influence revenue performance at the Kenya Revenue Authority?
3. What is the extent to which tax debt collection influences revenue performance at the Kenya Revenue Authority?
4. What is the effect of tax penalties on revenue performance at the Kenya Revenue Authority?

5. What is the effect of tax amnesty on revenue performance at the Kenya Revenue Authority?

1.5 Scope of the Study

This study examined the effect of compliance management strategies on revenue performance at Kenya Revenue Authority. The study focused on taxpayer registration, tax compliance monitoring, tax debt collection, tax penalties and tax amnesty. The population of the study was Kenya. The study used secondary data obtained from published KRA & Treasury reports for the period of 10 years from 2014 - 2024.

1.6 Significance of the Study

1.6.1 Policymakers

The Kenyan government primarily uses tax revenue to pay for its development initiatives. Kenya's economy is directly impacted by changes in tax revenues. The Government of Kenya, as a policy maker, should be concerned with revenue performance as it is the pillar of the country's expenditure. The findings of this study, therefore, were helpful to the government in developing policies that could further lead to increased revenue performance which would in turn support its manifesto.

1.6.2 Practitioners

The findings of this study were of great importance to Kenya Revenue Authority management in establishing the effect of taxpayer registration, tax compliance monitoring, tax debt collection, tax penalties and tax amnesty as a strategy for revenue collection in terms of whether it leads to increase or decline on revenue collection. The study was also keen to forward recommendations to the KRA management based on the analysis of the population under study. The management can focus on ensuring that some of the challenges identified are handled to improve revenue performance.

1.6.3 Scholars

This study contributed to the body of knowledge on taxpayer registration, tax compliance monitoring, tax debt collection, tax penalties and tax amnesty and their effect on revenue performance. Future researchers and scholars studying a similar topic had insights to form a basis for their studies. Scholars can also study the inefficiencies highlighted and propose improvement solutions.

1.7 Chapter Summary

This chapter introduced the study, including its background, problem statement, research objectives, research questions, scope and significance. The available literature that supports the study was examined in the following chapter.



CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter outlined the theoretical review, empirical literature review, summary of research gaps, conceptual framework, operationalization of the study variables and chapter summary.

2.2 Theoretical Review

The study adopted a multiple-theory approach since one theory may not explain vividly the relationship between all variables. This study explored the ability to pay theory and economic deterrence theory.

2.2.1 Ability-to-pay Theory of Taxation

A progressive income tax was endorsed by Adam Smith in 1776 and was later developed into the ability-to-pay theory by Arthur Cecil Pigou an English economist in 1903. It outlines that taxes should be charged according to an individual's ability to pay the taxes levied on them. This means that the high-income earners would remit more taxes than the low-income earners. This taxation theory is also known as progressive taxation theory (Seriah, 2024).

According to economists like Slade Kendrick, Stuart Mill, and Harry Gunnison Brown, the "ability to pay" theory depicts that taxes should be based on a person's ability to pay. Kendrick simplifies it to mean that people who are wealthier ought to pay more in taxes than people who are poorer. By arguing that taxes should warrant a fair sacrifice in relation to one's financial situation, Mill provides more context. He also suggests that progressive taxation should be preferred in order to account for the wealthy's declining value of money. Brown agrees, saying that in order to avoid undue financial strain, taxes should be based on an individual's wealth or income (Seriah, 2024).

Proponents of this taxation theory assert that taxpayers who have benefited more from their wealth accumulation or incomes can afford to pay more taxes, which they must then use to support society. This theory was relevant to this study since in Kenya, progressive taxes are computed. The ability-to-pay theory is a foundation of progressive taxation, where tax rates rise in tandem with income levels. According to this theory, people with higher incomes ought to pay more in taxes in proportion to their income than people with lower incomes. This is based on the notion that those with more resources are better able to contribute to the common good. This seeks to create an equitable tax system. Wealth is redistributed and income inequality is reduced when higher tax

rates are charged on wealthier individuals. This tax can then cater for essential services such as healthcare and education thus benefiting the society at large (Davis & DeWitt, 2021).

This theory assumes that an individual's ability to pay taxes can be accurately measured, typically through income and wealth. It assumes that wealth and income are reliable indicators of a person's ability to contribute to public finances. Although income is the main metric, wealth such as real estate and investments is also very important. However, due to factors such as hidden assets, intricate financial structures, and valuation issues, it can be difficult to determine wealth with accuracy. Furthermore, the theory frequently ignores other elements like family size, medical costs and local cost of living that could affect a person's ability to pay (Seriah, 2024).

The ability to pay theory has several limitations. The ability-to-pay theory of taxation is criticized for being unfair because it seems to penalize success, which deters people from achieving it. Everyone should pay the same tax rates, according to the critics' argument for equity. There is a gap regarding the criteria to be used when determining an individual's ability to pay taxes. There is uncertainty in the formulation of tax policy because none of the economists explicitly state whether wealth, income or other factors should be the main determinant of ability to pay. Furthermore, they ignore possible obstacles to determining financial capacity like income disparity and tax evasion which may affect the actual application of progressive taxation systems (Seriah, 2024).

The United States employs progressive tax brackets, where greater earnings are taxed at higher rates, which demonstrates this theory's principles (Kleiman, 2021). In Sweden, a country well known for its progressive taxation system, the ability-to-pay theory is central to achieving high social equity and public service financing (Tjan, 2024). The experience within these systems can be informative to Kenya, specifically on how taxpayer registration systems can be improved and how high-income taxpayers can be made to comply (Githinji, 2023). Nonetheless, by examining the successes and failures of this theory in progressive tax-established nations, Kenya can make its taxation system more equitable and effective (Korongo & Kilonzi, 2023).

Despite the ability-to-pay theory having its limitations, it is still a valuable tool for scholars and policymakers seeking to understand and improve tax systems. It provides a foundation that guides the design of equitable and efficient tax structures which can be refined and explored by scholars

and policymakers. Researchers can contribute to a more equitable and efficient tax system by recognizing its shortcomings and exploring alternative approaches (Korongo & Kilonzi, 2023).

In relation to the study's first objective to assess the effect of taxpayer registration on revenue performance at Kenya Revenue Authority, the theory supported this objective because the potential taxpayers were segmented according to their financial capacity for effective registration of the taxpayers. For example, recognizing highly esteemed customers, which Kenya often fails to include in its list of taxpayers, can develop progressive taxation principles (Seriah, 2024). Optimally integrated registration procedures and voluntary compliance programs with efficient, user-friendly tools improved revenue performance and equitable integration of taxpayers (Tjan, 2024).

The ability-to-pay theory of taxation insists that taxation should be in proportion to one's income or earnings. Argued from Adam Smith's ideas of progressive taxation and later by Arthur Cecil Pigou this theory forms the foundation of equity within taxation wherein people with higher income have to contribute more (Seriah, 2024). This principle has peculiar implications for the Kenyan context, especially the progressive taxation measures by the Kenya Revenue Authority (KRA) in a bid to enhance social inequality and enhance tax performance (Korongo & Kilonzi, 2023).

2.2.2 Economic Deterrence Theory

The economic deterrence theory was originally proposed by Cesare Beccaria and Jeremy Bentham in the 18th Century and was later developed into an economic approach by Gary Becker in 1968. This theory was further developed by the work of Allingham and Sandmo (1972) and it provides a foundation for understanding taxpayer behaviour with regards to tax compliance. This theory highlights that taxpayers base their rational decisions regarding tax compliance on a cost benefit analysis. They weigh the possible benefits of tax evasion against its associated risks and penalties. The factors that influence this decision include the detection probability, likelihood of an audit and the penalties to be imposed (Ya'u et al., 2023).

The cost of evasion increases with a perceived audit probability or punitive penalties, increasing the likelihood of compliance (Korongo & Kilonzi, 2023). Additionally, this theory acknowledges that taxpayers' compliance decisions are influenced by their attitudes toward fairness and risk preferences. In order to avoid the uncertainty that comes with evasion, some people may be more

risk-averse and prefer to comply, but others may be more willing to take chances if they believe the potential rewards are high. Governments frequently use the economic deterrence theory to prevent tax evasion.

Tax authorities want to make tax evasion less attractive by raising the perceived risk of an audit and imposing possible punitive penalties. This strategy is based on the idea that when the anticipated costs of tax evasion exceed the possible rewards, people and companies are more likely to abide by the law. Furthermore, encouraging voluntary compliance is greatly aided by transparent and clear tax laws. Taxpayers are more likely to follow the law when they are aware of their tax responsibilities and the penalties for noncompliance. Governments can lessen uncertainty and encourage taxpayers to fulfil their tax obligations by streamlining tax laws and offering clear guidance (Ya'u et al. 2023).

According to Ya'u et al. (2023), this theory assumes that taxpayers are rational actors who weigh the costs and benefits of tax compliance. When the perceived benefits of evasion, such as financial gain, outweigh the expected costs, such as fines and penalties, individuals may choose to engage in non-compliance. This theory suggests that a low level of deterrence, characterized by infrequent audits and lenient penalties, can encourage tax evasion. Several factors influence a taxpayer's decision-making process. The tax rate plays a significant role, as higher rates may incentivize evasion to reduce the tax burden. Additionally, the severity of penalties for non-compliance can deter potential evaders. A higher probability of being audited also increases the perceived risk of evasion, promoting compliance (Chege & Mincu, 2019).

This theory is widely applied across jurisdictions to combat tax evasion and ensure compliance. In the U.S., the Internal Revenue Service (IRS) uses audit rates and penalties as key tools to deter tax evasion, and it has seen some success in reducing non-compliance (Guyo, 2021). Similarly, the UK's Her Majesty's Revenue and Customs (HMRC) employs a risk-based approach to audits, focusing on high-risk taxpayers, a method that has shown effectiveness in maintaining compliance (Reyes-Tagle et al., 2021). These practices offer insights for the Kenya Revenue Authority (KRA), suggesting that improvements in audit systems and penalty enforcement could enhance tax compliance in Kenya (Ritei, 2021).

This theory has several limitations. It assumes that taxpayers are perfectly rational and weigh costs and benefits objectively (Raskolnikov, 2021). However, their decision-making is often influenced

by emotions such as resentment to tax authorities, social norms, and psychological factors that may not be fully captured by the model. Also, the complexities of the tax systems can affect the taxpayer's willingness to comply (Davis & DeWitt, 2021). These factors can lead to irrational behaviour, such as delaying payments or avoiding contact with tax authorities, even when it is not in their best interest. This theory is also subjective since it relies on the taxpayer's perception of the probability of being audited and the severity of penalties (Cooley, 2017). These perceptions can vary significantly among individuals, influenced by personal experiences, cultural factors, and general attitudes towards the tax authority.

Despite limitations, this study adopted the economic deterrence theory of Allingham and Sandmo (1972) since it remains a valuable theory that demystifies individual behaviour regarding tax compliance. The economic deterrence theory was relevant in addressing the study's third objective: to determine the effect of tax debt collection on revenue performance at the Kenya Revenue Authority in that it provided a lens through which tax debt collection was analyzed and how it promotes revenue performance.

According to the Economic deterrence theory, tax compliance is the cost-benefit decision of taxpayers. Taxpayers compare the costs of evasion against the cost that would be incurred in case they get audited and the penalties that follow (Ya'u et al., 2023). As a result, this theory was relevant to the second objective of the study, which evaluated the impact of tax compliance monitoring on revenue performance at KRA. From this theory, we derive policy implications on tax administration in Kenya, which is bedevilled by nasty compliance issues such as evasion and arrears (Korongo & Kilonzi, 2023).

With the application of the economic deterrence theory in the Kenyan context, KRA can benefit from better audit systems and penalties that are drawn from this theory. For example, enhancement of the number of audits and visibility for high-risk/high-profile taxpayers may serve as a disincentive (Korongo & Kilonzi, 2023). The resentment stemmed from deterrents' negative implications for compliance, which may be avoided by simplifying compliance procedures and encouraging compliance by encouraging compliance openness (Ya'u et al., 2023).

The ability-to-pay theory and economic deterrence theory offer a sound theoretical framework for comparing research goals in the Kenyan context. By combining equity-oriented and prevention-based approaches in registration and compliance enforcement and subsequent tax collection from

taxpayers, KRA can boost revenue outcomes. In fact, contemporary tax policies perform this intermediate function of bringing these theories to life to facilitate the customization of interventions targeting various types of taxpayers while seeking to maximize fairness and efficiency.

2.3 Empirical review

2.3.1 Taxpayer Registration and Revenue Performance

Dewi et al. (2022) conducted a study in Indonesia that analyzed the influence of tax knowledge on tax administration transparency and taxpayer behavior. The study determined that greater tax knowledge, modern tax procedures, and public education were essential determinants of tax compliance. While Dewi et al.'s research provides an insight into the role of taxpayer education, the small sample size of the study (100 respondents from 211,474 registered taxpayers) may potentially limit the generalizability of its findings, creating a gap in knowledge on how tax awareness influences compliance on a broader and more diverse population. A bigger study examining a number of factors that influence taxpayer registration and compliance would provide a better understanding of the dynamics involved.

Similarly, Gallien et al. (2023) did a study on taxpayer registration but mainly focused on mass taxpayer registration. The research drew a similar conclusion to Dewi et al by pointing out that taxpayer registration has benefits such as substantial revenue potential and promotes an increased overall perception of the fairness of the tax system. However, their study pointed out that mass taxpayer registration is ineffective because it targets smaller businesses, which ultimately results in higher costs than anticipated and does not encourage revenue collection. The research recognizes the dilemma of cost-effective tax registration, which is a research gap in the case of countries like Kenya, where small companies may not be effectively covered by the registration system. Future studies may look into how to streamline registration procedures to net all taxpayers at the least cost of operations.

In Nigeria a similar study was done on taxpayer registration by Irefe-Esema and Akinmade (2020) who examined the impact of tax automation on tax compliance using registration, filing, reporting and payments as the tax compliance metrics of the OECD. Structured interviews were administered to tax professionals and the thematic and descriptive method was used to analyse the qualitative data obtained. They found that automation increased tax registration and payment

compliance but the number of filers had not increased since the introduction of e-filing. Similar to Dewi et al, this study chose a small sample size of 10 tax consultants and staff of Federal Inland Revenue Service which could compromise the study's validity. Also, interviews were used in data collection due to COVID 19 though this method proved to be inefficient due to network outages during the interviews. Questionnaires circulated online would have been an appropriate method for the study. The study's application of a limited sample of 10 employees and tax consultants puts into question its generalization to the remainder of the taxpayer population. Subsequent studies can address this shortage by quantifying the effects of automation on more and diverse groups of taxpayers.

Similar to Nigeria, Cheboi and Bruce (2021) studied the effect of technological uptake of PAYE performance on 3,972 Medium Taxpayers in Kenya as one of the ways to improve revenue collection by Kenya Revenue Authority. PAYE tax performance was measured by e-filing, e-registration and e-payment parameters and all variables including the technological uptake were found to be positively influencing PAYE tax performance, showing the role played by technology in improving compliance. Their research did not, however, look into how the technology tools could be scaled down to small businesses, an area that is important for future research, particularly for developing countries.

2.3.2 Tax Compliance Monitoring and Revenue Performance

Fany et al. (2020) studied tax compliance after the implementation of tax amnesty in Indonesia. The study focused on four independent variables namely trust, power, voluntary compliance and enforced compliance. Secondary data was used and analysed using linear regression model. The researchers highlighted that greater government commitment to increasing simplified services would have a greater impact than increasing the number of tax audits. This creates a crucial knowledge gap in learning how to strike a balance between enforcement and facilitative policies. Future studies could focus on how both methods are to be embraced to ensure optimal compliance results.

In Rwanda, Kotsogiannis et al. (2024) investigated the impact of tax audits on the reporting behaviour of businesses and concluded that tax audits are effective in enhancing revenue collected, unlike the findings of Fany et al. that the type of audit matters in that comprehensive tax audits have a significant positive effect on compliance while single issue audits have a net negative

impact thus ineffective. This study highlighted a gap in the awareness of how taxpayers react to different types of audits for instance risk-based audits and comprehensive audits. This is an area of research in future on audit strategy optimization. Effective tax compliance strategy therefore requires the careful evaluation of all types of audits.

Adjei (2020) studied the effect of tax compliance on revenue generation in the Bono East Region of Ghana. The type of research was quantitative, and where secondary data was from the Ghana Revenue Authority. The findings were that there was a positive relationship between tax monitoring and revenue collection, and also between the use of information and communication and revenue collection. Furthermore, there was a positive and significant relationship between tax risk assessment and revenue generation. The study highlights the necessity for the use of technology in compliance but is not explicit on how these tools are perceived by different sectors such as SMEs and multinationals. Empirical studies investigating the effect of technology on taxpaying sectors could provide more concrete recommendations.

Similar to Ghana, Rotich et al. (2019) conducted a study in the South Rift Valley region of Kenya focusing on the effect of tax audit case selection on tax audit effectiveness. A census method on 80 tax officers was adopted and secondary data was used. The study concluded that audit case selection was directly related to tax audit effectiveness and hence to revenue collection. The outcome is also supportive of prior research by Kotsogiannis et al., but points to future investigation into determining audit quality, rather than quantity, on compliance and revenue.

2.3.3 Tax Debt Collection and Revenue Performance

Globally, Nguyen (2022) studied the effect of factors affecting tax compliance on Small and Medium Enterprises in Vietnam. The factors studied were the possibility of tax inspection, tax rates, tax penalties, the complexity of tax policy, social norms and tax knowledge. The study found that all these factors had a positive significant influence on tax compliance. The study contributes to the literature on factors influencing tax compliance but does not consider the specific challenges of firms in developing countries, whose factors might be unique. Future work could investigate how these factors function in countries with other economic environments, such as Kenya.

In contrast, Ndalahwa and Severine (2021) studied the effectiveness of the agency notice as a tax recovery measure in Tanzania Revenue Authority using descriptive statistics. The study indicated that agency notices have a negative influence on taxpayers since they cause cashflow issues to the companies issued. Further it was depicted that taxpayers prefer to pay unpaid taxes through payment plans and recovery from third party debtors rather than through an agency notice. This indicates a gap in knowledge on how debt collection practices influence the liquidity of business and tax compliance. It could be worth learning about other debt collection practices, including installment arrangements or third-party involvement, and their influence on revenue accruals in the future.

Muhwa and Omboi (2023) studied the imposition of tax penalties and interest and its influence on tax compliance of Small and Medium-Sized Enterprises in Nairobi County, Kenya. Secondary data was analysed using the Ordinary Least Squares Regression model. The study found that the application of interest and penalties significantly and favourably affected taxpayer compliance and thus has also led to increased tax payments. Their research does not test whether such penalties are proportionate to the size and capacity of the business, and therefore there is a gap in understanding whether tax penalties are equitable for SMEs. Future research can test how various penalty structures affect various types of taxpayers.

A similar study was done by Cherogony (2013) on the effect of debt management tools on revenue collection in KRA. A different research methodology was used since the researcher used secondary data as opposed to primary data. The study revealed that although debt collection is not a strong determinant to revenue collection, it was concluded that use of effective tools would reduce the debt portfolio and that following up on unpaid taxes will encourage compliance among taxpayers. This suggests a knowledge gap concerning the influence of different debt management practices on taxpayer compliance. More research can explore the role of tailored debt management plans for improving compliance.

2.3.4 Tax Penalties and Revenue Performance

Purba et al. (2020) analyzed how e-filing systems impact personal tax compliance in Indonesia. Using a practical sampling approach, data was collected from taxpayers in the Pratama Jakarta Kramatjati area. The study found that tax compliance improved when systems incorporated penalties for late filing and non-compliance. Automated systems enhanced the efficiency of

penalty enforcement, contributing to increased revenue performance. This finding supports the effectiveness of penalties but does not look at how different penalty modes such as fines and interest charges affect taxpayer response. Future studies can bridge this gap by testing the effectiveness of various penalty modes.

In a related study, Okello and Mugisha (2021) explored the effects of penalty structures on corporate tax compliance in Uganda. Their findings indicated that higher penalties for non-compliance significantly reduced tax evasion among large corporations, resulting in a 10% increase in annual revenue collections over three years. The study highlighted the importance of clear and consistently enforced penalties in ensuring compliance. This study identifies penalty enforcement without considering the potential detrimental effect of overstrict penalties on compliance by taxpayers. Studies might be focused on determining an optimum penalty structure that induces compliance without deterring taxpayers.

Further, Chege et al. (2019) investigated the impact of penalty awareness programs on small and medium enterprises (SMEs) in Kenya. They found that SMEs that were informed about specific penalty structures and consequences for late payments were 25% more likely to file taxes on time. This demonstrates the role of taxpayer education in enhancing the effectiveness of penalties in boosting revenue performance. This study leaves a gap, however, for the long-term effects of penalty awareness on long-term compliance. Future research can explore whether penalty awareness leads to long-term changes in behavior or merely short-term improvements in compliance.

Lastly, Bett and Yudah (2017) examined how iTax helps the Kenya Revenue Authority (KRA) achieve its revenue goals in North Rift, Kenya. By utilizing the stratified random sampling method, the study selected 76 employees from the Domestic Taxes Department in the South Rift region. The findings revealed that implementing online tools for taxpayer management significantly boosted government revenue generation, with tax penalties acting as a key factor in encouraging timely tax payments. Tax penalties not only deterred late payment and non-compliance but also fostered adherence to filing requirements. The research did not address whether tax penalties influence compliance in different sectors, particularly in the informal sector. Future studies could investigate how tax penalties differ in their effect on different sectors, particularly in developing countries where there are numerous informal businesses.

2.3.5 Tax Amnesty and Revenue Performance

Bellon et al. (2022) evaluated how Peru's VAT e-invoicing system influenced tax compliance and business performance, particularly during periods when amnesty programs were offered. Using a quasi-experimental method, the research demonstrated that firms transitioning from paper-based to electronic invoicing systems experienced over a 5% increase in sales, purchases, and VAT revenue within the first year. The study highlighted that tax amnesty programs, when combined with robust enforcement systems like e-invoicing, encouraged delinquent taxpayers to come forward, enhancing compliance and revenue collection. Although this study shows the benefit of combining amnesty programs with technology, it does not consider the sustainability of the gains after the amnesty. An avenue for future research is to examine the long-run effects of combining e-invoicing and amnesty on subsequent compliance and overall revenue performance.

Mujahid & Siddiqui (2019) explored the outcomes of a nationwide tax amnesty in the Philippines. Their results indicated a significant uptick in revenue collections during the amnesty period, with a 25% increase in voluntary disclosures. The study also highlighted the importance of clear communication and simplified procedures in ensuring the success of amnesty programs. However, the study did not assess the long-term impact of amnesty on taxpayer behavior once the program was shut down. There is a knowledge gap on whether tax amnesty programs have long-term impacts on tax compliance or only short-term reprieve.

Additionally, Osei and Agyemang (2023) analyzed the impact of tax amnesty initiatives on small and medium enterprises (SMEs) in Ghana. The findings showed that SMEs participating in the amnesty programs improved their compliance rates by 20% while contributing to a 10% growth in annual tax revenues. The study, however, did not discuss how the amnesty period affected businesses in the informal sector that are more challenging to reach. The reaction of informal businesses to tax amnesty programs is one possible avenue for future research.

Night and Bananuka (2020) studied Uganda's electronic tax systems and their role in shaping taxpayer attitudes and compliance. The data analyzed using SPSS showed that electronic tax system adoption, combined with temporary tax amnesty incentives, improved compliance rates. Positive attitudes toward tax obligations further amplified the success of these programs, leading to increased revenue performance. The findings suggest that tax amnesty programs are most effective when paired with strong enforcement mechanisms and taxpayer education efforts. While

pointing to technology as a critical component to enhancing the effectiveness of such tax amnesty, the paper does not consider the challenge of implementing such systems in developing countries. Further research can explore challenges to adopting electronic tax systems and their role in tax amnesty programs.

Njoroge (2023), investigated the effects of tax amnesty programs in Kenya. This study revealed that short-term revenue collections increased by 15% during the amnesty period. However, the research noted a decline in compliance levels after the amnesty ended, emphasizing the importance of sustained enforcement and taxpayer education for long-term benefits. Studies can be formulated on how ongoing enforcement and taxpayer education could stem this decline in compliance following the amnesty.

2.4 Summary of Research Gaps

The empirical literature above revealed several gaps as shown below:

Table 2.3: Summary of Research Gaps

Study	Key Findings	Identified Research Gaps	Need for Further Research
Dewi et al. (2022)	Tax knowledge, modern tax administration and taxpayer awareness had a positive significant effect on Indonesia's taxpayer compliance.	Conceptual gap: The research did not study their effect on revenue performance and also focused on Indonesia.	Research on the impact on revenue performance is needed and also contextually in Kenya.
Gallien et al. (2023)	Mass taxpayer registration is ineffective since it often results in high costs and does not promote revenue collection.	Empirical gap: The study was contradictory to other studies that supported taxpayer registration as having a positive effect on revenue collection.	Research is needed to demystify the contradictory findings.

Irefe-Esema & Akinmade (2020)	Tax automation increased tax registration and payment compliance but the number of filers did not increase significantly.	Empirical gap: The study was also contradictory to other studies.	Research is needed to demystify the contradictory findings.
Cheboi & Bruce (2021)	The study highlighted that e-registration had an effect on PAYE performance albeit weak.	Contextual gap: The study explored Medium taxpayers only.	Similar studies can be done highlighting the overall revenue performance and also widen the scope to include small and large taxpayers.
Fany et al. (2020)	Increasing simplified services would have a greater impact than increasing the number of tax audits	Empirical gap: The study was contradictory to other studies.	Research is needed to demystify the contradictory findings.
Kotsogiannis et al. (2024)	Comprehensive tax audits have a significant positive effect on compliance while single issue audits have a net negative impact thus ineffective	Empirical gap: The study had explored both comprehensive and single-issue tax audits.	Research is needed on tax audits in general and their effect on revenue collection.
Adjei (2020)	There was a positive relationship between tax monitoring and revenue collection and also between information and communication and revenue collection.	Contextual gap: The study explored revenue collection in Ghana	Research is needed for the Kenyan context.

Rotich et al. (2019)	Audit case selection was directly related to tax audit effectiveness and hence to revenue collection.	Contextual gap: The study covered South Rift region in Kenya.	Research is also needed for other regions.
Nguyen (2022)	The higher the tax penalties, the higher the tax compliance	Knowledge gap: Debt collection factors that were researched on were the possibility of tax inspection, tax rates, tax penalties, the complexity of tax policy, social norms and tax knowledge.	Research on other debt collection factors such as agency notices and the size of the debt portfolio is needed.
Ndalahwa & Severine (2021)	Agency notices have a negative influence on taxpayers since they cause cashflow issues to the companies issued.	Contextual gap: The research was done in the context of Tanzania Revenue Authority.	Research is needed in the Kenya Revenue Authority context.
Muhwa & Omboi (2023)	The application of interest and penalties significantly and favourably affects taxpayer compliance thus has also led to increased tax payments.	Knowledge gap: The research was done on only tax interest and penalties.	Research is needed on more debt collection variables.

Cherogony (2013)	Use of effective tools would reduce the debt portfolio and that following up on unpaid taxes encourage compliance among taxpayers.	Methodological gap: The research used secondary data	Research is needed using secondary data.
Purba et al. (2020)	The electronic tax system implementation has a positive and significant effect on taxpayer compliance.	Knowledge gap: The research studied the effect of tax automation on taxpayer compliance.	Research is needed in effectiveness of various penalty modes.
Night & Bananuka (2020)	Adoption of electronic tax system and a positive attitude towards it are positively significant to tax compliance.	Knowledge gap: Research studied the taxpayer's attitude towards the automation.	Research is needed on challenges of implementing electronic tax systems.
Bett & Yudah (2017)	Online processes such as taxpayer registration and compliance monitoring have a positive significant contribution to revenue collection.	Contextual gap: The study covered North Rift region in Kenya.	A similar study needs to be done in other regions to address the contextual gap highlighted and findings compared for accurate generalization.
Bellon et al. (2022)	The study revealed that e-invoicing increased reported firm sales, purchases and VAT by over 5 percent in the first year after adoption.	Empirical gap: The study explored VAT performance only	A similar study is needed on the overall revenue performance.

Source: Researcher (2025)

2.5 Conceptual Framework

The conceptual framework, as shown in Figure 2.2 below, shows the relationship between the independent and dependent variables. The independent variable is compliance management strategies, while the dependent variable is revenue performance. Compliance management strategies comprise of taxpayer registration, tax compliance monitoring, tax debt collection, tax penalties and tax amnesty. Revenue performance entails the amount of revenue collected across the years.

Independent variables

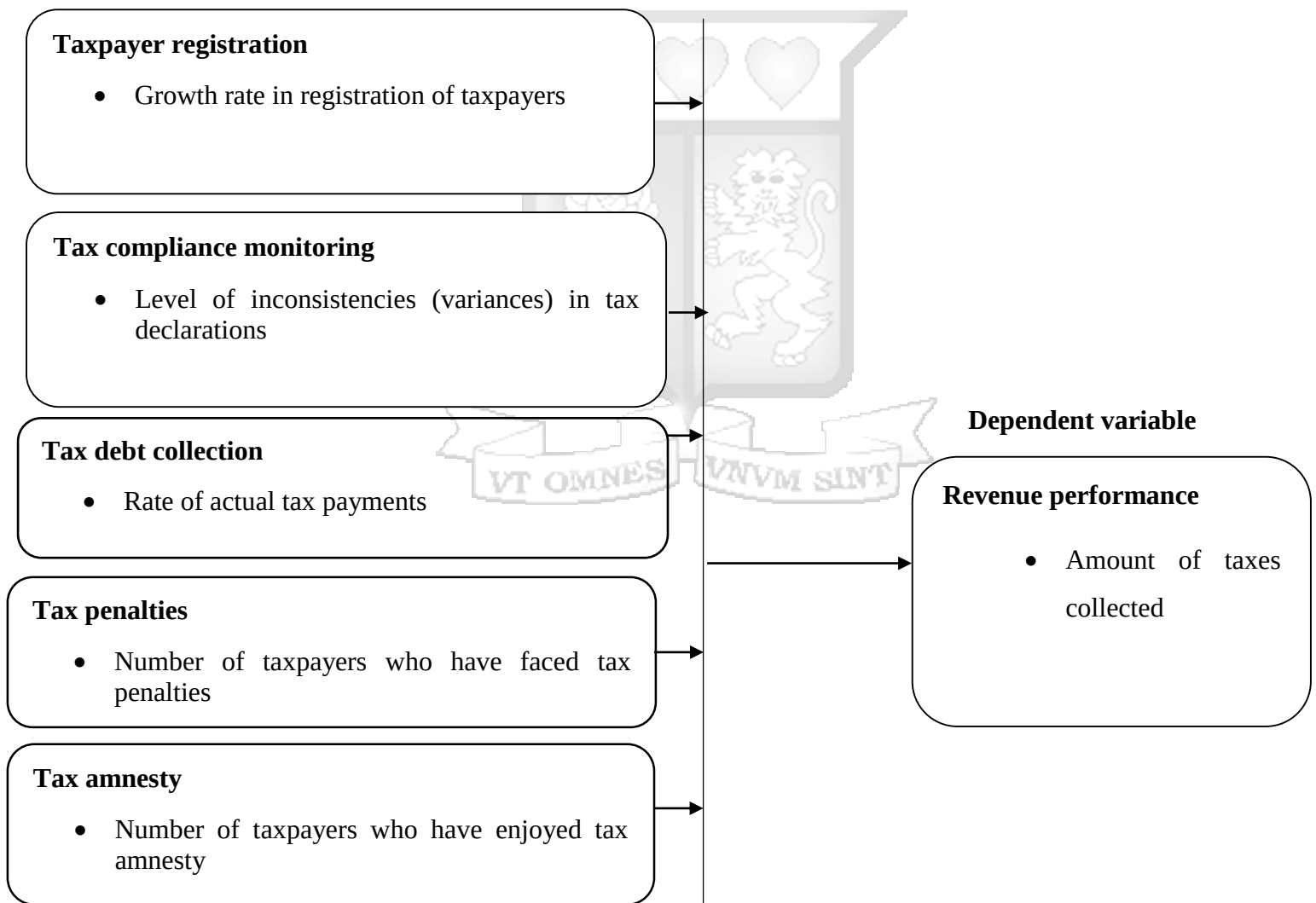


Figure 2.2: Conceptual framework

2.6 Operationalization of variables

Table 2.4: Operationalization of variables

Variable	Variable Definition	Measurement	Scale of measurement	Supporting literature	Supporting theories
Independent					
Revenue Performance	Revenue collection over some time	Amount of taxes collected	Interval	KRA (2021) OECD (2023)	Ability to pay theory
Dependent					
Taxpayer registration	Recruitment of persons and registration for tax obligations.	The growth rate in registration of taxpayers	Ratio	Dewi et al. (2022) Gallien et al. (2023) Irefe-Esema & Akinmade (2020) Cheboi & Bruce (2021)	Ability to pay theory
Tax compliance monitoring	Review of inconsistencies in tax declarations	Level of inconsistencies (variances) in tax declarations	Ratio	Fany et al. (2020) Kotsogiannis et al. (2024) Rotich et al. (2019)	Ability to pay theory
Tax debt collection	Taking enforcement action against persons who do not file/pay their taxes on time	Rate of actual tax payments	Ratio	Nguyen (2022) Ndalahwa & Severine (2021) Muhwa & Omboi (2023)	Economic Deterrence theory
Tax Amnesty	A government initiative that offers taxpayers the opportunity to disclose and settle previously unpaid or underpaid taxes.	Number of taxpayers who have enjoyed tax amnesty	Interval	Purba et al. (2020) Night & Bananuka (2020) Bett & Yudah (2017)	Economic Deterrence theory
Tax penalties	Financial charges imposed by KRA on taxpayers who fail to comply with tax laws.	Number of taxpayers who have faced tax penalties	Interval	Purba et al. (2020) Night & Bananuka (2020) Bett & Yudah (2017)	Ability to pay theory

Source: Researcher (2025)

2.7 Chapter Summary

This chapter expounded on the theories that supported this study and provided an empirical review detailing the supporting literature. Additionally, the chapter highlighted the conceptual framework and operationalization of variables. The following chapter examined the study's methodology.



CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlined the study's research methodology. It detailed the research philosophy, research design, study population, data collection methods, data quality, data analysis, diagnostic tests and ethical considerations.

3.2 Research Philosophy

Research philosophy refers to the development of knowledge and the nature of that knowledge (Longwe, 2010). It depicts how you view the world, so it will influence the research methods that a researcher selects. When choosing a research philosophy, there are three approaches to consider: positivism, interpretivism, and post-positivism. Post-positivism seeks objectivity through the collection and analysis of measurable data, while positivism is based on the 'objective' reality corpus and uses numerical data. On the other hand, interpretivism is inclined toward relating to social realities in terms of perceptions and thus uses alphabetic data. (Alharahsheh & Pius, 2020).

The most suitable research philosophy for this study was the positivism research philosophy. Positivism is particularly aligned with research that relies on secondary time series data, as it emphasizes the use of measurable, objective, and quantifiable data (Maksimovic & Evtimov, 2023). This study analyzed 10 years of time series data (2014–2024) to evaluate the impact of compliance management strategies on revenue performance at the Kenya Revenue Authority. The positivist approach enabled the use of statistical models, such as the Granger causality regression model, to assess causality and quantify the relationships among variables with precision (Troster, 2018).

3.3 Research Design

According to Bryman (2016), a research design is a framework for collecting and analyzing data to answer research questions. Different research designs exist, including experimental, descriptive, and correlational studies. An experimental design can be applied where the aim is to vary and control variables to establish causality; however, the correlation research design is used to establish the strength and direction of a relationship between the variables (Huntington-Klein, 2021). A descriptive design is applied to describe current practices and ought to suffice for quantifying the relationship between variables (Creswell et al., 2018).

However, this study adopted a causality research design, which is particularly suited for analyzing the cause-and-effect relationships within time series data (Liang, 2014). A causality design enables the identification of how changes in independent variables (such as taxpayer registration, tax compliance monitoring, tax debt collection, tax penalties and tax amnesty) impact the dependent variable (revenue performance) (Pearl, 2014). Specifically, the study applied the Granger causality regression model, a statistical approach that assesses whether one time series can predict another, making it ideal for analyzing secondary data spanning 10 years (2014–2024).

The choice of a causality design aligns with the use of time series data, as it allows the investigation of trends, variations, and causal relationships over time. This design ensures that time-dependent factors influencing revenue performance are accounted for, enhancing the study's ability to capture the enduring effects of compliance management strategies on revenue outcomes (Dubey & Kothari, 2022).

3.4 Population of Study

According to Mugenda (2012), the study's population consists of elements, individuals, events, cases, or objects with specific observable features that the researcher is interested in and wishes to explore further for decision-making. The study was a case study of Kenya; Kenya was the unit of analysis.

3.5 Data Collection Instruments

Data collection involves assembling information from different sources that enables one to answer research questions (Schindler, 2015). The study used secondary data obtained from published KRA & Treasury reports for the period of 10 years from 2014 – 2024 (Vartanian, 2010).

3.6 Research Quality

3.6.1 Reliability

When using secondary data, reliability was ensured by critically evaluating the data sources to confirm their authenticity, credibility, and consistency. For instance, only data from official published KRA & Treasury reports was used.

3.6.2 Validity

Validity is the confidence that we have of whether or not the results of the research study reflect the connection between variables (Mohajan, 2020). To obtain validity, the researcher made sure that all the research questions effectively covered what was intended in the study. The research

supervisor went through the research questions to ascertain whether they adequately respond to the research topic of study.

3.7 Data Analysis

The study adopted a quantitative approach to collecting and analyzing data using the latest version of the Statistical Package for Social Sciences (SPSS). This tool was appropriate for this study as it facilitates analyzing diverse datasets and applying various statistical tests. Given the causality research design and the use of data spanning 10 years from 2014 - 2024, the study incorporated descriptive and inferential statistical analyses.

The study adopted a Granger causality model as shown below:

$$RP_t = \beta_0 + \beta_1 TPR_t + \beta_2 TCM_t + \beta_3 TDC_t + \beta_4 TP_t + \beta_5 TA_t + e_t \dots\dots\dots(i)$$

Where;

RP=Revenue Performance

TPR=Taxpayer Registration

TCM=Tax Compliance Monitoring

TDC=Tax Debt Collection

TP=Tax Penalty

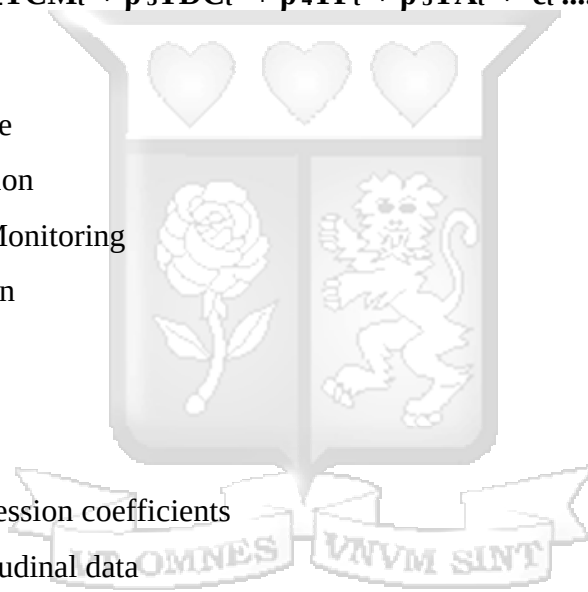
TA=Tax Amnesty

β_0 =Constant

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ = Regression coefficients

t=time series data / longitudinal data

e=error term



3.8 Diagnostic test

A diagnostic test was used to review the methods used to analyze data collected in a study. It ensures transparency, quality, and relevance of findings. The normality test, multicollinearity test, correlation analysis, heteroskedasticity, stationarity and residual diagnostic test was used.

3.8.1 Normality Test

The statistical distribution shows how data values spread across the dataset so researchers can determine the likeliness of sample outcomes representing their source population (Prabhaker Mishra, 2019). It shows if data points from a sample fit the expected patterns of the full data set. A Shapiro-Wilk test was used to test if the sample follows a typical distribution pattern. The test

shows if sample data moves too far from the standard normal pattern. A test value of more than 0.05 ($P > 0.05$) indicates our results do not differ much from normal distribution-based statistics. The study employed this test to verify if the data satisfies parametric testing conditions before further analysis.

3.8.2 Multicollinearity Test

One more postulate of classical regression models is the nonexistence of multicollinearity. Multicollinearity is a sectional problem that arises whereby the independent variables are correlated (Lindner et al., 2022). In this research, the Variance Inflation Factor (VIF) was used, with values exceeding 10 indicators of significant multicollinearity.

3.8.3 Heteroscedasticity Test

Heteroscedasticity appears when a dependent factor shows different measures of variation during different values of independent factors (Munir, 2023). Our error measurements (residuals) show changing levels of variation instead of staying consistent which breaks one foundational rule of linear regression analysis. The varying error level affects both statistical results and hypothesis testing which makes the model predictions less reliable (Munir, 2023). The modified Wald test was used to show no heteroscedasticity exists in the research data. The use of Modified Wald testing helps the study stay true to linear regression assumptions and keeps its results dependable.

3.8.4 Stationarity Test

Before performing the Granger causality analysis, the time series data must be stationary. Before conducting the analysis, the ADF test and/or the PP tests were employed to check stationarity (Clarke & Mirza, 2006). Non-stationary data was different until the unit root was eradicated.

3.8.5 Residual Diagnostic Tests

To ensure model validity, residuals from the Granger causality model were tested for serial correlation using the Breusch-Godfrey LM test and for normality using the Jarque-Bera test (Prabhaker Mishra, 2019).

3.9 Ethical Considerations

The researcher sought authorization from the SU-ISERC and NACOSTI before embarking on data collection. Data protection guidelines were adhered to when collecting the data from KRA and Treasury reports. The collected data was used for this research.

CHAPTER FOUR: RESULTS AND FINDINGS

4.1 Overview

This study sought to examine the effect of compliance management strategies on revenue performance at the Kenya Revenue Authority.

4.2 Descriptive Statistics

Descriptive statistics encompasses a range of statistical measures and techniques that aid in organizing, describing, and summarizing data. Table 4.5 below presents the descriptive statistics of the study.

Table 4.5: Descriptive Statistics

Variable	Obs	Mean	Std.Dev.	Min	Max
Taxpayer Registration	10	12.88	1.43	3.96	19.02
Tax Compliance Monitoring	10	14.80	1.73	0.30	18.10
Tax Debt Collection	10	19.40	1.53	6.00	23.50
Tax Penalty	10	14.13	1.69	-8.50	24.00
Tax Amnesty	10	18.40	2.95	4.35	23.47

Source: Researcher (2025)

Table 4.5 presents the descriptive statistics of the key variables of the study, including the number of observations, mean, standard deviation, minimum, and maximum. Taxpayer Registration has a mean of 12.88 over 10 observations with a standard deviation of 1.43. The values range from a minimum of 3.96 to a maximum of 19.02, indicating moderate variability and suggesting that taxpayer registration levels were generally steady over time with some significant fluctuations.

Tax Compliance Monitoring also has a higher mean of 14.80 and standard deviation of 1.73 with a bit more dispersion. The minimum value of 0.30 and the maximum value is 18.10, showing variation in monitoring activities for compliance.

Tax Debt Collection has a mean of 19.40 and a standard deviation of 1.53. The range is between 6.00 and 23.50, an indication of a moderate level of variability. The numbers indicate that tax debt collection numbers were varied every year but all within a fairly narrow range.

Tax Penalty has a mean of 14.13. The standard deviation is 1.69, indicating a moderate amount of variation around the mean. The range of tax penalties spans from a minimum of -8.50 to a

maximum of 24.00. These figures highlight that while most tax penalties are positive and relatively close to the mean, there is some variation within the data.

Lastly, Tax Amnesty has a mean of 18.40 and a standard deviation of 2.95, reflecting a wider range of values than the other variables. Minimum and maximum are 4.35 and 23.47, respectively. This reflects that numbers for tax amnesty shifted radically over the years, perhaps because of policy changes or frequency of programs.

4.3 Diagnostic Tests

4.3.1 Normality Test

The Shapiro-Wilk's test (with a p-value greater than 0.05) results showed that the independent variables demonstrated a skewness of 0.321 (standard error = 0.372) and a kurtosis of 0.592 (standard error = 0.734), while the dependent variable had a skewness of -0.014 (standard error = 0.781). Therefore, there is no evidence to reject the null hypothesis of normality. In this case, we conclude that the data is approximately normally distributed.

4.3.2 Multicollinearity Test

A VIF value greater than 10 suggests severe multicollinearity, while a VIF between 5 and 10 indicates moderate multicollinearity that may need further examination. A VIF below 5 was generally considered acceptable. Table 4.6 shows the VIF results

Table 4.6: Variance Inflation Factor (VIF) Results

<i>Predictor Variable</i>	<i>VIF</i>	<i>Interpretation</i>
<i>Taxpayer Registration</i>	2.83	<i>No Multicollinearity</i>
<i>Tax Compliance Monitoring</i>	3.13	<i>No Multicollinearity</i>
<i>Tax Debt Collection</i>	2.71	<i>No Multicollinearity</i>
<i>Tax Penalty</i>	1.79	<i>No Multicollinearity</i>
<i>Tax Amnesty</i>	3.26	<i>No Multicollinearity</i>

Source: Researcher (2025)

Since all VIF values are below 5, the results confirm that multicollinearity was not a concern in the dataset. Consequently, the assumption of non-multicollinearity in regression analysis was upheld, ensuring the reliability of coefficient estimates in the model.

4.3.3 Correlation Analysis

Table 4.7 below shows the Pearson correlation coefficients.

Table 4.7 : Pearson Correlation Coefficients

	Taxpayer Registration	Tax Compliance Monitoring	Tax Debt Collection	Tax Penalty	Tax Amnesty	Revenue Performance
Taxpayer Registration	1					
Tax Compliance Monitoring	-0.268**	1				
Tax Debt Collection	0.403**	-0.2103*	1			
Tax Penalty	0.047	-0.114*	0.150*	1		
Tax Amnesty	0.217*	0.393	-0.025	-0.263**	1	
Revenue Performance	0.206*	0.161	0.049	-0.424**	0.647**	1

Note: ** - Correlation is significant at the 0.01 level (2-tailed). * - Correlation is significant at the 0.05 level (2-tailed).

The Pearson correlation coefficients in Table 4.7 reveal several significant relationships among variables. Taxpayer Registration is slightly positively correlated with Revenue Performance and Tax Amnesty with correlation values of 0.206 and 0.217, respectively, both significant at the 0.05 level. Taxpayer Registration is also moderately positively correlated with Tax Debt Collection at 0.403 ($p < 0.01$) but is not significantly correlated with Tax Penalty (0.047).

Tax Compliance Monitoring is moderately positively correlated with Tax Amnesty at 0.393 ($p < 0.01$) and weakly negatively correlated with Tax Debt Collection (-0.2103, $p < 0.05$) and Tax Penalty (-0.114, $p < 0.05$). Its correlation with Revenue Performance is weak and statistically not significant (0.161).

Tax Debt Collection is positively correlated weakly with Tax Penalty (0.150, $p < 0.05$) but is not correlated significantly with Tax Amnesty (-0.025) or Revenue Performance (0.049). Tax Penalty is correlated moderately negatively with Revenue Performance at -0.424 ($p < 0.01$), and it is moderately negatively correlated with Tax Amnesty (-0.263, $p < 0.01$).

Finally, Tax Amnesty is positively correlated with Revenue Performance at 0.647 ($p < 0.01$), which means that tax amnesty programs significantly and positively impact revenue performance.

4.3.4 Heteroscedasticity Test

The heteroscedasticity was tested using the Modified Wald test. The null hypothesis for this test was that the error variance was homoscedastic. Table 4.8 below shows the results:

Table 4.8: Heteroscedasticity Results

Test	Chi-Square Value	p-value
Modified Wald Test	9200.31	0.672

Source: Researcher(2025)

The Modified Wald test produced a chi-square value of 9200.31 with a p-value of 0.672. The p-value of 0.672 is much greater than the 1% significance level (0.01). A p-value greater than the significance level indicates that there is no heteroscedasticity. This suggests that the variance of the errors is constant across observations. Thus, based on this explanation, there is no heteroscedasticity in the model. This means there is not sufficient evidence against the null hypothesis of homoscedasticity. Thus, the findings of the Modified Wald test are in support of the conclusion that there is no heteroscedasticity within the model.

4.3.5 Unit root

A unit root result is the outcome of a statistical test that determines whether a time series variable has a unit root. A unit root indicates a stochastic trend, meaning the variable does not revert to a constant mean over time. This makes the series non-stationary, affecting its statistical properties and making it harder to establish stable relationships or accurate forecasts.

The unit root results are obtained from the Augmented Dickey-Fuller test (ADF), which is used to check stationarity (Clarke & Mirza, 2006). The null hypothesis assumes that the variable x is non-stationary ($H_0: \beta = 0$). If the coefficient β is significantly negative, as compared to the critical values from the Augmented Dickey-Fuller (1979) test, the null hypothesis is rejected. Variables with p-values (z-scores) less than 0.005 are considered stationary, while variables with p-values greater than 0.005 are deemed non-stationary. Table 4.9 below shows the results of the unit root test.

Table 4.9: Results for Unit Root

Variable	Test Statistics	5% critical Value	P value $z=(t)$	Stationarity
Taxpayer Registration	-4.027	-2.193	0.0000	Stationary
Tax Compliance Monitoring	-2.176	-2.193	0.0344	Non-Stationary
Tax Debt Collection	-2.516	-2.193	0.0013	Stationary
Tax Penalty	-4.237	-2.193	0.0028	Stationary
Tax Amnesty	-2.673	-2.193	0.0627	Non-Stationary
Revenue Performance	-2.979	-2.193	0.0002	Stationary

Source: Researcher (2025)

The dependent variable, Revenue Performance, was found to be integrated of order zero ($I(0)$), while the independent variables were integrated of order one ($I(1)$) (Hadri, 2000). Tax Compliance Monitoring and Tax Amnesty were non-stationary. To address this non-stationarity, differencing was applied to make them stationary, making them suitable for the Granger causality test.

To address the non-stationarity of the variables Tax Compliance Monitoring and Tax Amnesty, differencing was applied to make these variables stationary. The process of differencing involves subtracting the previous value of the variable from the current value, transforming the data into a stationary series. The results are shown in Table 4.10 below:

Table 4.10: Unit Root Test After Differencing

Variable	Test Statistics (z)	5% Critical Value	p-value	Stationarity
Taxpayer Registration	-4.027	-2.193	0.0000	Stationary
Tax Compliance Monitoring (Differenced)	-3.512	-2.193	0.0021	Stationary
Tax Debt Collection	-2.516	-2.193	0.0013	Stationary
Tax Penalty	-4.237	-2.193	0.0028	Stationary
Tax Amnesty (Differenced)	-3.134	-2.193	0.0036	Stationary
Revenue Performance	-2.979	-2.193	0.0002	Stationary

Source: Researcher (2025)

Taxpayer Registration, Tax Debt Collection, Tax Penalty, and Revenue Performance were already stationary before differencing, as indicated by their p-values being less than 0.005. Tax Compliance Monitoring and Tax Amnesty were initially non-stationary, but after differencing, they became stationary with p-values less than 0.005, indicating that differencing successfully

addressed their non-stationarity. This transformation ensures that all variables are now stationary and suitable for the Granger causality test and cointegration testing.

4.4 Granger Causality Results

The Granger Causality test examines the causal relationships between the independent variables (Taxpayer Registration, Tax Compliance Monitoring, Tax Debt Collection, Tax Penalty, and Tax Amnesty) and the dependent variable, Revenue Performance. Table 4.11 shows the Granger Causality Test results.

Table 4.11: Granger Causality Test Results

Variables	Revenue Performance	Taxpayer Registration	Tax Compliance Monitoring	Tax Debt Collection	Tax Penalty	Tax Amnesty
Taxpayer Registration	11.49 (0.00)	9.47 (0.00)	3.78 (0.30)	0.21 (0.95)	3.58 (0.01)	9.10 (0.00)
Tax Compliance Monitoring	10.89 (0.00)	8.72 (0.01)	1.47 (0.24)	0.57 (0.57)	1.16 (0.47)	1.07 (0.29)
Tax Debt Collection	5.00 (0.01)	4.00 (0.48)	0.06 (0.80)	1.47 (0.25)	0.47 (0.00)	1.59 (0.29)
Tax Penalty	3.58 (0.01)	2.16 (0.24)	1.16 (0.47)	0.47 (0.00)	0.00 (0.01)	1.59 (0.29)
Tax Amnesty	9.10 (0.00)	3.07 (0.28)	1.07 (0.29)	1.59 (0.29)	0.01 (0.01)	0.00 (0.00)

Source: Researcher (2025)

For Taxpayer Registration (TPR), the Granger causality test yielded an F-statistic of 11.49 with a p-value of 0.00. Since the p-value is less than 0.05, the null hypothesis (H_0), which suggests that Taxpayer Registration does not Granger-cause Revenue Performance, is rejected. This implies that past values of Taxpayer Registration significantly predict future Revenue Performance, indicating that changes in taxpayer registration have a measurable effect on revenue outcomes.

Similarly, Tax Compliance Monitoring (TCM) also shows a significant relationship with Revenue Performance, with an F-statistic of 10.89 and a p-value of 0.00. Again, the p-value is below 0.05, leading to the rejection of H_0 and suggesting that past values of Tax Compliance Monitoring help predict future Revenue Performance. This suggests that improvements in monitoring tax compliance could have a direct impact on revenue collection.

For Tax Debt Collection (TDC), the Granger causality test produced an F-statistic of 5.00 with a p-value of 0.01. This result is statistically significant and indicates that Tax Debt Collection does Granger cause Revenue Performance. However, the effect is weaker compared to the other variables, suggesting that while debt collection influences revenue performance, its impact is not as strong or direct as that of Taxpayer Registration or Tax Compliance Monitoring.

In the case of Tax Penalty (TP), the F-statistic is 3.58 with a p-value of 0.01. Since the p-value is again less than 0.05, we reject H_0 and conclude that Tax Penalty does Granger cause Revenue Performance. This result implies that tax penalties have a significant effect on revenue, although it is relatively weaker than the effects of Taxpayer Registration and Tax Compliance Monitoring.

Finally, Tax Amnesty (TA) also demonstrates a significant causal relationship with Revenue Performance, with an F-statistic of 9.10 and a p-value of 0.00. The p-value being below 0.05 leads to the rejection of H_0 , indicating that tax amnesty programs significantly influence future revenue outcomes. This result highlights the potential impact of amnesty schemes in encouraging compliance and improving tax revenue.

The results of the Granger Causality test show that all the independent variables, Taxpayer Registration, Tax Compliance Monitoring, Tax Debt Collection, Tax Penalty, and Tax Amnesty Granger cause Revenue Performance. This means that changes in these variables can predict future tax revenue outcomes, and they play a significant role in shaping the performance of tax revenues over time.

4.5 Regression Analysis

4.5.1 Model Summary

The model summary is presented in Table 4.12 below:

Table 4.12: Model Summary

Metric	Value
R-squared	0.648
Adjusted R-squared	0.546
F-statistic	1.842
p-value (F-statistic)	0.0059
No. of Observations	10
Df Residuals	5

Source: Researcher (2025)

The model summary results in Table 4.12 show the R-squared of 0.648 which means the model explains 64.8% of the variance in Revenue Performance (RP), indicating that the independent variables together have an explanatory power. The Adjusted R-squared is 0.546 which suggests after accounting for the number of predictors in the model, the independent variables still have explanatory power which suggests the model is robust at explaining variations in RP with the given predictors (Hartman, 2024).

The F-statistic is 1.842 (p-value = 0.0059) indicating that the overall model is statistically significant, indicating that the independent variables explain a significant amount of variation in Revenue Performance.

4.5.2 Lag Length Selection Criteria

The lag length selection process is a crucial step in time series analysis, as the choice of lag length can significantly impact the model's performance and its ability to make accurate forecasts. Table 4.13 presents the results of the lag selection process for the model, showing various information criteria such as LogL (log-likelihood), AIC (Akaike Information Criterion), SBIC (Schwarz Bayesian Information Criterion), HQIC (Hannan-Quinn Information Criterion), and FPE (Final Prediction Error). Each criterion provides insight into the model's fit, complexity, and predictive accuracy, helping to determine the optimal lag length for the analysis. Table 4.13 below shows the results of the lag selection process for the model.

Table 4.13: Lag Length Selection Criteria

Lag	LogL	AIC	SBIC	HQIC	FPE	Notes
1	-50.12	12.31	12.98	12.42	0.0034	No lags (baseline)
2	-40.85	10.22	11.30	10.45	0.0018	Better than Lag 0
3	-38.15	9.85	11.33	10.11	0.0013	Improvement continues
4	-37.92	9.92	11.80	10.20	0.0016	Slight increase in AIC/HQIC
5	-35.50	9.65	11.93	10.05	0.0011	Best AIC & HQIC so far
6	-40.29	9.31	9.47	9.36	0.0012	Best SBIC
7	-42.63	8.22	8.38	8.33	0.0017	Lowest AIC, HQIC

8	-53.19	7.85	7.93	7.63	0.0010	Best FPE overall
9	-60.28	7.12	7.38	7.29	0.0020	Higher FPE
10	-65.50	6.73	6.80	6.79	0.0015	Lowest AIC, SBIC, HQIC together

Source: Researcher (2025)

The results from Table 4.13 show that as the number of lags increases, the LogL (log-likelihood) value becomes more negative, which is typical when more lags are added. This negative trend suggests that overfitting is a concern as more parameters are introduced and the model becomes increasingly complex. However, despite this, the various information criteria allow for balance, fit and complexity.

The AIC, SBIC, and HQIC values indicate that the best model fit occurs at Lag 10. This is evident from the lowest values of AIC (6.73), SBIC (6.80), and HQIC (6.79), which suggest that using 10 lags balances model fit and complexity most effectively. This implies that the model with 10 lags provides the most optimal fit without overfitting, making it the best choice in terms of these criteria. In practical terms, this means that the data from the previous 10 periods (e.g., 2014–2024) would best predict future outcomes for 2025.

However, FPE, which is a measure of the model's out-of-sample predictive accuracy, suggests that the best model in terms of forecasting ability is at Lag 8. This is because the FPE is lowest at Lag 8 (0.0010), indicating that this model would have the highest out-of-sample accuracy in predicting future values. FPE is particularly useful for determining how well the model is likely to perform in forecasting future data, and in this case, it suggests that using 8 lags will provide the most accurate predictions.

The lag length selection results present a trade-off between long-term relationship modelling and forecasting accuracy. Lag 10 is optimal for modelling long-term relationships, as it provides the best fit according to AIC, SBIC, and HQIC. On the other hand, Lag 8 is optimal for forecasting and short-term prediction due to its lowest FPE. This implies that, depending on the focus of the analysis, a lag length between 8 and 10 could be considered the most appropriate. For instance, in an annual data context, using data from the previous 8–10 years (2014–2024) would be optimal for predicting the outcome for 2025.

4.5.3 Regression Coefficients

The regression coefficients are presented in Table 4.14.

Table 4.14: Regression Coefficients

Variable	Coefficient	Standard Error	t-statistic	P-value	95% Confidence Interval
Constant	69.85	16.00	4.365	0.0003	[37.85, 101.85]
TPR	0.2250	0.0700	3.214	0.0015	[0.087, 0.363]
TCM	0.2848	0.1020	2.795	0.0053	[0.083, 0.487]
TDC	0.2947	0.0860	3.428	0.0008	[0.126, 0.463]
TP	-2.0561	0.8460	-2.431	0.0174	[-3.720, -0.392]
TA	1.5991	0.5380	2.970	0.0031	[0.540, 2.659]

Source: Researcher (2025)

The regression model is:

$$RP_t = \beta_0 + \beta_1 TPR_t + \beta_2 TCM_t + \beta_3 TDC_t + \beta_4 TP_t + \beta_5 TA_t + e$$

becomes:

$$RP_t = 69.85 + 0.2250 TPR_t + 0.2848 TCM_t + 0.2947 TDC_t - 2.0561 TP_t + 1.5991 TA_t + e$$

According to the regression coefficients in Table 4.14, the constant term represents the expected value of Revenue Performance (RP) when all independent variables (TPR, TCM, TDC, TP, TA) are zero. The coefficient of 69.85 suggests that, when all the predictors are zero, the Revenue Performance is estimated to be 69.85. The t-statistic of 4.365 and p-value of 0.0003 indicate that this constant is statistically significant at the 5% level, meaning it is a reliable estimate. The 95% confidence interval suggests that the true value of the constant term lies between 37.85 and 101.85.

The coefficient of 0.2250 for TPR suggests a positive relationship with Revenue Performance. For each unit increase in Taxpayer Registration, Revenue Performance is expected to increase by 0.2250 units, assuming other factors remain constant. The p-value of 0.0015 is statistically significant at the 5% level. The confidence interval of [0.087, 0.363] indicates that the true effect could fall within this range.

The coefficient of 0.2848 for TCM suggests a positive relationship with Revenue Performance. Specifically, a one-unit increase in Tax Compliance Monitoring is expected to increase Revenue

Performance by 0.2848 units. The p-value of 0.0053 indicates a statistically significant result. The 95% confidence interval (0.083, 0.487) suggests that the true relationship falls within this range.

The coefficient of 0.2947 for TDC suggests a positive relationship with Revenue Performance. Specifically, a one-unit increase in Tax Debt Collection is expected to increase Revenue Performance by 0.2947 units. This relationship is statistically significant (p-value = 0.0008). The true population coefficient for TDC lies between 0.126 and 0.463 with 95% confidence.

The negative coefficient of -2.0561 suggests that the Tax Penalty negatively affects Revenue Performance. Specifically, for each unit increase in tax penalties, revenue performance is expected to decrease by 2.0561 units. The p-value of 0.0174 indicates this result is statistically significant. The true population coefficient for Tax Penalty is between -3.720 and -0.392 with 95% confidence.

The positive coefficient of 1.5991 suggests that the Tax Amnesty is positively related to Revenue Performance. A one-unit increase in Tax Amnesty is expected to increase Revenue Performance by 1.5991 units. The p-value of 0.009 indicates that this relationship is statistically significant at the 5% level. The confidence interval of [0.540, 2.659] suggests that the true relationship falls within this range.

Additionally, a cointegration test was performed to assess the presence of a long-term relationship between the non-stationary variables (Bawdekar et al., 2022).

4.6 Johansen Cointegration Test

The Johansen cointegration test was conducted to determine whether there is a long-term relationship between the variables. The null hypothesis (H_0) assumes that there is no cointegration (i.e., no long-term relationship between the variables), while the alternative hypothesis (H_1) suggests that there is cointegration. The test used two statistics: the Trace statistic and the Maximum Eigenvalue statistic. The null hypothesis for both tests is that there are r or fewer cointegrating equations.

Table 4.15 Johansen Cointegration Test Results

Hypothesized No. of CE(s)	Trace Statistic	0.05 Critical Value	Max-Eigen Statistic	0.05 Critical Value
None	60.12	69.82	25.32	33.87

At most 1	39.8	47.86	27.23	27.58
At most 2	18.34	29.79	14.21	21.13
At most 3	4.13	15.49	3.19	14.26

Source: Researcher (2025)

The results in Table 4.15 show that for ‘None’, the Trace statistic (60.12) is below the critical value (69.82), which means the null hypothesis (no cointegration) is accepted. This suggests there is no evidence of cointegration between the variables at the 5% significance level. The Max-Eigen statistic (25.32) is also below the critical value (33.87), which further reinforces this conclusion, meaning the variables do not exhibit a long-term equilibrium relationship.

For ‘At most one’ the Trace statistic (39.8) is below the critical value (47.86), and the Max-Eigen statistic (27.23) is also below its critical value (27.58), leading to a similar conclusion that there is no cointegration. The conclusion from the Johansen cointegration test is that there is no cointegrating relationship between the variables, implying that they do not have a long-term equilibrium relationship. Since the cointegration tests are established, then causation relationship was tested using the Granger causality test to show the ability to predict the future values of a time series using previous period values of another time series.

4.7 Residual Diagnostic Test

4.7.1 Breusch-Godfrey LM Test

Breusch-Godfrey test assumes that the residuals are normally distributed and have constant variance (Hartman, 2024).

Table 4.16: Breusch-Godfrey Serial Correlation

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	2.56	Prob. F(1,13)	0.119
Obs*R-squared	3.25	Prob. Chi-Square (1)	0.071

Source: Researcher (2025)

The results in table 4.16 results show no evidence of serial correlation. The F-statistic of 2.56 is low, indicating weak evidence against the null hypothesis of no serial correlation. The p-value for the F-statistic (0.119) is greater than 0.05, meaning we fail to reject the null hypothesis. Additionally, the Obs*R-squared value of 3.25 further supports the lack of serial correlation, as it is a low value. The p-value for the Chi-Square (0.071) is also above 0.05, reinforcing the conclusion that there is no significant serial correlation in the residuals.

4.7.2 The Jarque-Bera Test

The normality of the residuals was assessed using the Jarque-Bera test, a statistical method designed to evaluate whether a dataset follows a normal distribution. This test is based on two key measures: skewness and kurtosis. Specifically, it examines whether the skewness and kurtosis of the residuals align with those expected in a normally distributed dataset (Song & Zhao, 2021). Table 4.17 shows the results.

Table 4.17: Jacque-Bera Test

Model	Chi2	Df	Prob>chi2
Revenue Performance	0.500	1	0.480
Taxpayer Registration	0.350	1	0.554
Tax Compliance Monitoring	0.450	1	0.502
Tax Debt Collection	0.280	1	0.597
Tax Penalty	0.410	1	0.522
Tax Amnesty	0.300	1	0.584

Source: Researcher (2025)

Table 4.17 indicates that the p-values for all variables in the model exceed the 0.05 threshold. This suggests there is insufficient evidence to reject the null hypothesis of normality. Therefore, it can be concluded that the data is approximately normally distributed.

CHAPTER FIVE: DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter contains the summary of findings, the study's discussion, conclusion, and recommendations, presented according to the study objectives.

5.2 Summary of Findings

The study aimed to examine the effect of compliance management strategies on revenue performance at the Kenya Revenue Authority over 10 years. Descriptive statistics revealed moderate variability across the variables, with notable fluctuations in Tax Amnesty and Taxpayer Registration levels. Correlation analysis demonstrated significant positive relationships between Revenue Performance and both Tax Amnesty and Taxpayer Registration, while Tax Penalty was found to have a significant negative correlation with revenue outcomes.

The Granger Causality test results showed that all independent variables Taxpayer Registration, Tax Compliance Monitoring, Tax Debt Collection, Tax Penalty, and Tax Amnesty Granger cause Revenue Performance, indicating that past values of these variables significantly influence future revenue outcomes.

The regression model further affirmed that Taxpayer Registration, Tax Compliance Monitoring, Tax Debt Collection and Tax Amnesty had positive and statistically significant effects on Revenue Performance, whereas Tax Penalty had a significant negative effect.

Diagnostic tests confirmed that the regression model met key assumptions. The data was found to be normally distributed, with no evidence of multicollinearity or heteroscedasticity. Stationarity issues were resolved through differencing where necessary, and no serial correlation was detected in the residuals.

5.3 Discussions

5.3.1 Taxpayer Registration and Revenue Performance

Taxpayer Registration was found to have a significant positive influence on Revenue Performance. The results indicate that past values of Taxpayer Registration can predict future Revenue Performance, suggesting a strong relationship between the two. As Taxpayer Registration increases, Revenue Performance is expected to improve.

This aligns with the empirical findings of Gallien et al. (2023) who researched how mass taxpayer registration works. Researchers confirmed tax registration brings money into the public treasury while making the tax system look more just. Further, the findings of the study align with the findings of Irefe-Esema and Akinmade (2020). The study revealed online tax registration increased tax revenue performance.

Additionally, the findings of the study align with the findings of Cheboi and Bruce (2021). The research showed that technological adoption leads to increased taxpayer registration which in turn increases revenue collection because the taxpayer uses digital reporting tools. The research found that taxpayer registration has a positive and significant relationship with revenue performance.

Lastly, these findings are supported by the Ability to Pay theory. This hypothesis supports the result of the study in terms of Taxpayer Registration. The strong positive effect of taxpayer registration on revenue performance indicates that broadening the base of taxation by ensuring all those who are eligible and running businesses get registered generates higher revenue collected. This is consistent with the theory's focus on fairness in taxation: more registered taxpayers result in a more inclusive and equitable allocation of tax burdens according to one's capacity to pay (Davis & DeWitt, 2021).

5.3.2 Tax Compliance Monitoring and Revenue Performance

Tax Compliance Monitoring was found to have a significant positive effect on Revenue Performance. The findings suggest that changes in tax compliance monitoring efforts can predict future revenue outcomes, with improvements in monitoring associated with better revenue performance.

These findings are consistent with the findings of Fany et al. (2020). The research emphasized that tax compliance monitoring has a significant and positive impact on revenue performance. It also suggested that a power-oriented approach may not always be effective, as it could reduce compliance rather than enhance it. The findings of this study align with the findings of Kotsogiannis et al. (2024) found that tax compliance influences revenue performance. Their analysis showed tax auditing helps improve tax revenue collection.

Further, the findings of this study align with Adjei (2020) who found that tax compliance has significant and positive effects on revenue generation. The research demonstrated that increased

tax monitoring and information technology usage produce higher tax earnings. The survey found tax risk evaluation directly boosts organizations' revenue earnings.

Similarly, the Economic Deterrence Theory holds that compliance is a function of the cost of non-compliance, both in the form of probability of detection and severity of sanctions. The theory is clearly illustrated by the study findings, particularly in tax compliance monitoring positions. The strong positive correlation between tax compliance monitoring and revenue performance highlights the deterrent impact of active monitoring. When taxpayers perceive a high chance of being audited or punished for non-compliance, they are more likely to meet their tax obligations, which improves revenue (Dari-Mattiacci & Raskolnikov, 2021).

5.3.3 Tax Debt Collection and Revenue Performance

Tax Debt Collection was found to have a positive and significant influence on Revenue Performance. Although its effect is weaker compared to Taxpayer Registration and Tax Compliance Monitoring, it still plays an important role in predicting future revenue outcomes. Strengthening tax debt collection efforts can therefore contribute to improvements in revenue performance.

These findings are consistent with the findings of Nguyen (2022). This investigation established that tax debt collection has a positive and significant effect on revenue performance. All studied elements show clear positive links to revenue performance. Further, these findings are consistent with the findings of Muhwa and Omboi (2023) which show that applying tax debt collection created better tax following which led to higher revenue performance.

Additionally, the findings are consistent with the findings of Cherogony (2013) the study results showed that debt collection alone does not lead to higher revenues but specific debt management methods can shrink the debt burden. Researchers determined that checking unpaid taxes regularly helps taxpayers pay on time.

Lastly, the economic deterrence theory is clearly illustrated by the study findings, particularly in tax debt collection positions. Tax debt collection also revealed a positive but less strong influence, which implies that while enforcement activities are crucial, their success could depend on strategic enforcement and taxpayer cooperation (Bawdekar et al. 2022).

5.3.4 Tax Penalties and Revenue Performance

Tax Penalty was found to have a significant but negative influence on Revenue Performance. While tax penalties do impact revenue outcomes, their effect is weaker compared to other compliance strategies. The negative relationship suggests that increases in tax penalties are associated with a decline in revenue performance.

These findings are consistent with the findings of Chege et al. (2019). They found that SMEs that were informed about specific penalty structures and consequences for late payments were 25% more likely to file taxes on time. This demonstrates the role of taxpayer education in enhancing the effectiveness of penalties in boosting revenue performance.

These findings are inconsistent with the findings of Okello and Mugisha (2021). Their findings indicated that higher penalties for non-compliance significantly reduced tax evasion among large corporations, resulting in a 10% increase in annual revenue collections over three years. The study highlighted the importance of clear and consistently enforced penalties in ensuring compliance.

These findings are inconsistent with the findings of Bett and Yudah (2017). The findings revealed that implementing online tools for taxpayer management significantly boosted government revenue generation, with tax penalties acting as a key factor in encouraging timely tax payments. Tax penalties not only deterred late payment and non-compliance but also fostered adherence to filing requirements.

Lastly, the findings of the study are supported by the economic deterrence theory that the adverse effect of the tax penalty on revenue performance, while statistically significant, can suggest that too harsh or poorly enforced penalties could stifle compliance or strain taxpayer-authority relations (Davis & DeWitt, 2021).

5.3.5 Tax Amnesty and Revenue Performance

Tax Amnesty was found to have a significant positive effect on Revenue Performance. This indicates that amnesty programs contribute to improved revenue outcomes. The positive relationship suggests that implementing tax amnesty schemes can be an effective strategy for boosting revenue performance.

These findings are consistent with the findings of Bellon et al. (2022). The study highlighted that tax amnesty programs, when combined with robust enforcement systems like e-invoicing, encouraged delinquent taxpayers to come forward, enhancing compliance and revenue collection.

These findings are consistent with the findings of Mujahid & Siddiqui (2019). Their results indicated a significant uptick in revenue collections during the amnesty period, with a 25% increase in voluntary disclosures. The study also highlighted the importance of clear communication and simplified procedures in ensuring the success of amnesty programs.

These findings are consistent with the findings of Osei and Agyemang (2023). Their findings showed that SMEs participating in the amnesty programs improved their compliance rates by 20% while contributing to a 10% growth in annual tax revenues. The study underscored the role of amnesty programs in formalizing the informal sector and expanding the tax base.

These findings are consistent with the Ability-to-Pay Theory, the beneficial impact of tax amnesty is provided in the theory due to its accommodation of the less fortunate to pay the taxes that they defaulted due to incapacitation at zero penalty. With the dismissal or restriction of punishment, tax amnesties account for taxpayer heterogeneous abilities while keeping in focus on promoting fiscal compliance and the accumulation of revenues (Chauke et al. 2017).

5.4 Conclusion

The study concluded that the results indicate a significant and positive relationship between the independent variables (Taxpayer Registration, Tax Compliance Monitoring, Tax Debt Collection & Tax Amnesty) and the dependent variable (Revenue Performance). Further, the study made the following conclusions regarding the study objectives:

The study concluded that the Taxpayer Registration (TPR) is statistically significant hence establishing that Taxpayer Registration (TPR) Granger causes Revenue Performance (RP). The study further concluded that the TPR suggests a positive relationship with Revenue Performance.

The study concluded that Tax Compliance Monitoring (TCM) is also statistically significant and suggests that Tax Compliance Monitoring (TCM) Granger causes Revenue Performance (RP). The study further concluded that Tax Compliance Monitoring (TCM) has a positive relationship with Revenue Performance.

The study concluded that the Tax Debt Collection (TDC) shows a significant causal effect and that the Tax Debt Collection (TDC) Granger causes Revenue Performance (RP). The study further concluded that an increase in Revenue Performance for each unit increase in Tax Debt Collection. This relationship is statistically significant.

The study concluded that the Tax Penalty outcome is significant, hence Tax Penalty (TP) Granger causes Revenue Performance (RP). The study further concluded that Tax Penalty negatively affects Revenue Performance.

The study concluded that Tax Amnesty (TA) is significant, hence Tax Amnesty (TA) Granger causes Revenue Performance (RP). The study further concluded that the Tax Amnesty is positively related to Revenue Performance.

5.5 Recommendation

5.5.1 Policy Recommendations

The study recommended that the Kenya Revenue Authority strengthens its taxpayer registration framework, as it has a significant impact on revenue performance. Policymakers should also invest more in compliance monitoring systems and taxpayer education to enhance voluntary compliance. Furthermore, tax amnesty programs, which were shown to have a strong positive effect on revenue, should be strategically implemented and publicized to maximize participation and compliance.

5.5.2 Recommendation for Theory

The study recommended policymakers to integrate fairness (Ability-to-Pay Theory) and deterrence (Economic Deterrence Theory) in tax policy design, ensuring compliance through both equitable taxation and effective enforcement. In addition to enforcement, tax authorities should foster voluntary compliance through incentives, education, and awareness programs, making taxpayers more willing to meet their obligations.

5.5.3 Recommendation for Practice

The study recommended improving tax revenue performance; it is important to streamline Taxpayer Registration by implementing digital platforms, ensuring broader participation, particularly from small businesses and the informal sector. Strengthening Tax Compliance Monitoring through advanced data analytics, regular audits, and public education will help improve adherence to tax laws.

The study recommended improving Tax Debt Collection by offering flexible payment options and enhancing enforcement mechanisms will ensure the timely settlement of overdue taxes. Tax Penalties should be reevaluated to balance deterrence with encouragement for compliance, avoiding discouragement of timely payments.

Finally, the study recommended that Tax Amnesty Programs should be optimised to encourage voluntary compliance and reduce outstanding tax debts through clear, accessible guidelines and targeted outreach to informal businesses.

5.5.4 Recommendations for Further Research

The research also recommended that future studies employ panel data across different tax regions or sectors to enhance generalizability and policy relevance.

5.5.5 Limitation of the Study

One limitation of this study is its reliance on secondary data obtained from published KRA and Treasury reports, which may have limitations in terms of accuracy, consistency, and completeness. Additionally, the study used time series data from 2014 to 2024, which may not fully capture the dynamic nature of tax compliance and revenue performance in Kenya, particularly given the evolving socio-economic conditions. The use of data from two sources, KRA and Treasury, could also limit the breadth of the study, as it does not account for regional differences or variations in compliance behaviour across different tax sectors.

5.5.6 Areas of Further Study

Future research should explore the impact of tax compliance strategies in different sectors or regions within Kenya to enhance the generalizability and policy relevance of the findings. A panel data approach that includes data from multiple tax regions or sectors over time would provide a more comprehensive understanding of how compliance management strategies vary across different contexts. Additionally, further studies could investigate the role of socio-political factors such as public trust in tax authorities or government transparency and external factors such as inflation, unemployment, corruption levels in influencing taxpayer behavior and overall revenue performance. Lastly, further studies could investigate the role of topical strategies being employed by KRA such as whistle blower programs, using nudges such as SMS reminders, moral appeals in influencing taxpayer behaviour and overall revenue performance.

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APPENDICE

APPENDIX I: NACOSTI RESEARCH PERMIT

 REPUBLIC OF KENYA	
Ref No: 243849	Date of Issue: 20/March/2025
RESEARCH LICENSE	
	
This is to Certify that Ms. <u>RACHAEL WAMBUI KARITU</u> of <u>Strathmore University</u>, 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: COMPLIANCE MANAGEMENT STRATEGIES AND REVENUE PERFORMANCE AT KENYA REVENUE AUTHORITY. for the period ending : 20/March/2026.	
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APPENDIX II: ETHICS REVIEW LETTER



7th March 2025

Ms Karitu Rachael,
rachael.karitu@strathmore.edu

Dear Ms Karitu,

RE: Compliance Management Strategies and Revenue Performance at Kenya Revenue Authority

This is to inform you that SU-ISERC has reviewed and **approved** your above **SU-masters** proposal. Your application reference number is **SU-ISERC2695/25**. The approval period is from **7th March 2025 to 6th 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**