EFFECT OF INTERNAL AUDITING ON FRAUD MANAGEMENT IN KENYAN STATE CORPORATIONS

BY

MUHUMED YAHYE KALMEY

MASTER OF SCIENCE IN COMMERCE (FINANCE AND ACCOUNTING)

KCA UNIVERSITY

2025

EFFECT OF INTERNAL AUDITING ON FRAUD MANAGEMENT IN KENYAN STATE CORPORATIONS

BY

MUHUMED YAHYE KALMEY

A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF DEGREE IN MASTER OF SCIENCE IN COMMERCE (FINANCE AND ACCOUNTING) IN THE SCHOOL OF BUSINESS AT KCA UNIVERSITY

DECEMBER 2025

DECLARATION

Declaration by the Student

This dissertation represents my original, unpublished work and has never been submitted for a master's degree and PhD award in any previous submission. All original material in this paper emerges from my work alone; I have properly referenced and acknowledged all published or written material sources.

Student Name: **MUHUMED YAHYE KALMEY** Admission No: **15/01213**

Signature Date:23rd Oct 2025

Declaration by the Supervisor

I do hereby confirm that I have examined the master’s dissertation of

MUHUMED YAHYE KALMEY

And have certified that all revisions that the dissertation panel and examiners recommended have been adequately addressed

Signature: .... Date: 23rd Oct 2025

DR. GLADY’S CHEROTICH

EFFECT OF INTERNAL AUDITING ON FRAUD MANAGEMENT IN KENYAN STATE CORPORATIONS

ABSTRACT

Internal auditing provides expert assurance and advisory services that enhance governance, risk management, and control processes. Effective internal audits help organizations achieve their objectives by evaluating control systems and improving accountability. According to the Institute of Internal Auditors (IIA) standards, fraud management involves assessing control systems (Standard 2130), defining audit objectives for fraud detection and prevention (Standard 2210), evaluating fraud risk elements (Standard 2320), monitoring corrective actions (Standard 2500), and reporting detected fraud promptly (Standard 2600). This study seeks to analyze the effect of internal audit services on fraud management in Kenyan state corporations. Specifically, it examines the effects of financial, compliance, operational, and forensic audits on managing fraud. Grounded in Agency Theory and Routine Activity Theory, the study adopted a descriptive research design targeting 280 respondents from 165 state corporations. Data were collected through questionnaires and analyzed using multiple regressions. The findings revealed that financial audits ($\beta = 0.205$, $p < 0.05$), compliance audits ($\beta = 0.209$, $p < 0.05$), operational audits ($\beta = 0.381$, $p < 0.01$), and forensic audits ($\beta = 0.073$, $p < 0.01$) significantly influence fraud management. The study concludes that internal audit services are vital in strengthening fraud detection, prevention, and accountability. Policy implications highlight the need for greater auditor independence, enhanced training, and technology-driven auditing tools in Kenyan state corporations. Future research should explore private-sector and regional comparisons using longitudinal designs and advanced analytics to improve understanding of audit effectiveness in fraud management.

ACKNOWLEDGMENTS

I want to thank Dr. Gladys Cherotich for her essential guidance, encouragement, and support in helping me through my thesis research process. Her professional insights and constructive feedback were fundamental in developing this research project. I would also like to extend my acknowledgment to the KCA University for providing an enabling learning environment.

TABLE OF CONTENTS

DEDICATION

I dedicate this study to my family and friends because their persistent support

LIST OF TABLES

LIST OF FIGURES

ABBREVIATIONS AND ACRONYMS

AIGIA: Association of Indonesian Government Internal Auditors

ANOVA: Analysis of Variance

IRA: Insurance Regulatory Authority

KRA: Kenya Revenue Authority

KPLC: Kenya Power and Lighting Company

LGO: Local Government Organizations

MOH: Ministry of Health

MMR: Mixed Method Research

NASSIT: National Social Security Insurance Trust

NDA: Nigerian Deposit Insurance Corporation

NPOs: Nonprofit Organizations

NNPC: Nigerian National Petroleum Corporation

NSAIs: Supreme Audit Institutions

OLS: Ordinary Least Squares

SOCPA: Saudi Organization of Certified Public Accountants

SOX: Sarbanes-Oxley Act

SPSS: Statistical Package for the Social Sciences

TRA: Tanzania Revenue Authority

VIF: Variance Inflation Factor

OPERATIONAL DEFINITION OF KEY TERMS

Assurance Services	Independent evaluations by internal auditors to enhance reliability of information, risk management, governance, and controls (Global Internal Audit Standards).
Advisory Services	Expert advice to improve governance, risk management, and control processes within an organization (Global Internal Audit Standards).
Compliance Audits	Verifies adherence to internal guidelines and relevant laws/regulations, reducing exposure to legal penalties and damage to reputation (Knechel et al., 2020).
Forensic Audits	Analyzes financial records to detect fraud, unethical behavior, or financial mismanagement, leading to evidence for legal action (Crumbley, 2020).
Financial Audits	Independent assessment of financial statements to ensure accurate representation and compliance with accounting standards like IFRS or GAAP (Yoon, 2020).
Fraud	Deliberate deception for monetary gain through misrepresentation, including asset misappropriation, financial statement fraud, and corruption (Wells, 2021).
Operational Audits	Evaluates organizational workflows for productivity, performance quality, process improvement, and resource optimization (Leung et al., 2020).
Public Sector	Government and publicly funded or controlled entities that provide programs, goods, or services to the public (Global Internal Audit Standards).
State Corporations	Entities controlled by the government, established by law or through government majority ownership (Kenya Law.org, 2025).

CHAPTER ONE: INTRODUCTION

1.1. Background of the Study

Internal auditing offers professional guidance and assurance that improve the processes of governance, risk management, and control to enable organizations to attain their objectives (Oluoch, 2025). The level of knowledge of auditors regarding systems guarantees effectiveness in operations and performance of controls (Mehta, 2024). Risk-based auditing is guided by the Institute of Internal Auditors (IIA, 2020; 2024), where periodic and real-time reviews are performed to identify the high-risk areas of financial and compliance items, enhance objectivity, and compliance (Vicente, 2024; Iqbal and Ramos, 2023; Arndorfer and Minto, 2015). The ability of internal audit is contingent upon complexity, regulation, and exposure to risk by an organization (Budiandru, 2024; Eulerich and Eulerich, 2020). This is optimized with the help of automation and data analytics, used to detect fraud (Abdelrahim and Al-Malkawi, 2022; Alzeban and Gwilliam, 2014). Nevertheless, the threats to independence, poor risk evaluation, and lack of resources are detrimental to audit effectiveness (Blessing, 2024; Rose et al., 2013; Hendrix et al., 2020; Kimotho, 2014). Strong internal auditing constitutes integration of technology, sufficient resourcing, and alignment with the strategy, which maintains the governance, risk mitigation, and performance.

Globally, internal auditing improves governance, risk management, and internal control (Delarue, 2020). Internal auditors inspect numerous corporate sectors to determine risk management effectiveness, rule compliance, organizational flaws, and fraud activity (Anwar 2022). Internal audit services added operational, IT, and compliance assessment audits to their financial reporting tasks (Udoh, 2024). Emerging economies focus on improving their internal audit systems, whereas IIA and SOX set requirements for U.S. and European markets. Integrating technology and data analytics to undertake active and immediate evaluations increase internal audits worldwide (Tawfik et al., 2023). Internal audit services are now recognized internationally because they assist firms address growing complexity and hazards and build resilience and accountability.

Regionally, the quality of internal audit services depends on economic development, regulatory systems, and institutional support. South Africa has one of the world's most advanced internal audit functions due to strong legislation and robust corporate governance frameworks that meet international audit standards (Adebayo and Ackers, 2024). The Institute of Internal Auditors (IIA) helps the country maintain high professional audit standards. Nigeria and Kenya struggle with internal auditing due to limited finances and professional development, while local governments have improved administrative rules (Gramling et al., 2024). Anderhofstadt et al. (2024) state that internal audits are essential to Kenya's transparent public sector. Ghana and other nations are establishing internal audit services to improve public sector performance through better financial management and reduced corruption and attract more investment.

Locally, organizations in Kenya rely on internal audit services for governance and risk management. Since KPLC is vital to national energy supply, internal audits assess operational efficiency, regulatory compliance, and fraud (Omollo & Odari, 2024). Internal audits mitigate risks and give government, consumer, and shareholder group’s visibility. Safaricom, the major telecoms provider, undertakes internal audits to analyze business operations, manage security risks, and comply with Kenyan telecom laws (Safaricom plc, 2022). Safaricom's internal audit mechanism promotes transparency and trust with regulators, consumers, and investors (Ndakala Advisory, 2024). Both organizations demonstrate the core goal of internal audits by maintaining financial stability, enhancing operational performance, and sustaining public trust, which helps long-term sustainability and stakeholder confidence.

1.1.1. Internal Audits Services

Based on the internal audit fraud management standard, organizations should have the systems of control and risk management that will thwart and detect fraud (Demirovic et al., 2021). Standard 1210 requires internal auditors to prove their competence and conduct assessments of internal controls according to Standard 2130 to avoid fraud (The Institute of Internal Auditors, 2016). Standard 2120 focuses on the risk assessment to mitigate the risk of fraud (Halbouni, 2015), Standard 2320 directs the examination of control over fraud management, and Standard 2600 obliges the instant reporting of risks to the management and the board (The Institute of Internal Auditors, 2016). These standards enhance protection of organizations against unlawful operations. Corporate examples show how effective internal auditing can be essential to a company, as in the example of Wells Fargo, the scandals of falsified accounts drove tightening of fraud detection measures (Tayan, 2019; Sudirman et al., 2021), and continuous auditing would enhance control, ethics, and compliance controls (Ong'are and Njeru, 2022).

Likewise, the downfall of such large corporations as Enron illustrated the fact that poorly developed internal control mechanisms can facilitate accounting fraud (Soepeno, 2024; Albeksh, 2016). The Tyco International and HealthSouth Corporation reforms reinforced the detection of fraud by restructuring the internal audit (Bondarenko, 2025). Barclays Bank uncovered its 2012 Libor scandal through severe audits, and subsequently revamped its fraud risk management system (Rose and Sesia, 2014; Obuogo, 2018). Lockheed Martin has internal audit that ensures transparency and compliance with government contracts in the field of defense (Nadir et al., 2024). In all of these instances, effective internal auditing is core to the detection of weaknesses, ethical behavior assurance, good governance, and stakeholder confidence (Melinda et al., 2022).

1.1.2 Fraud Management

Fraud in government-owned organizations is dealt with by the use of well-developed protection systems that prevent, detect, and address fraud programs, which therefore protects the public resources (Ziorklui et al., 2024). These models include effective interior controls, dynamic fraud risk evaluation, and a powerful ethical ethos that dishearten misbehave (Vutumu et al., 2024). Frequent risk assessments highlight any vulnerabilities, which allow the use of specific preventive and detective controls in the form of segregation of duties, audit trails, monitoring, and data analytics. Well-defined systems of governance and error reporting will facilitate transparency and accountability to enable the workers to report any suspicions with no fear (Abei, 2021). In case of fraud, investigations in detail establish the extent of the same and lay down corrective actions to ensure that the same does not happen again. It makes the fraud management systems continuously flexible to changing risks, which allows the government organizations to enhance the effectiveness of the governance system, integrity, and security of the funds (Ziorklui et al., 2024; Vutumu et al., 2024; Abei, 2021).

1.1.3 Fraud in Government Owned Organizations

Governance is corrupted, resources are squandered, and the trust of the population is destroyed by fraud in the public sector, including embezzlement, bribery, falsified documents, and misappropriation of funds (Vian, 2020; Forbes Stowell et al., 2020; Kalubanga et al., 2013). Fraud can be deterred and identified by having strong internal controls, auditing, and transparency (Abei, 2021; Ziorklui et al., 2024). International disasters such as the fall of Enron prompted such reforms as the Sarbanes-Oxley Act (Anastasiades and Fritchie, 2024). The NNPC cases of frauds in Africa and the reforms in Kenya, Insurance Regulatory Authority, demonstrate a necessity of control systems and risk-based structures (Olujobi, 2023; Hossain et al., 2024). Forensic accounting facilitates fraud detection and prosecution in industries (Nursansiwi, 2024; Suleiman, 2018). The scandals of Mumias Sugar, Anglo-Leasing, and KUSCCO in Kenya show that there are weaknesses in the governance (Mumias Sugar Company, 2023; Business Daily Africa, 2025). Reduced internal audits, accountability and forensic oversight are important to safeguard the resources of the people.

1.1.4 State Corporations in Kenya

As provided by the State Corporations Act (2012), Kenyan State Corporations exist in different sectors including energy, finance, transport, agriculture, and manufacturing, play important national roles. Transparency, accountability, and prevention of fraud in these entities are guaranteed by effective internal audit services (World Bank, 2021; Ndakala Advisory, 2025). Internal auditors also assess the control systems, risk management and compliance and find areas of weakness that leave organizations vulnerable to fraud. Nevertheless, the lack of autonomy, weak resources, and political interference are obstacles to the effectiveness of the audit (Alqudah et al., 2023; Jori, 2023). Lack of training and understaffing also compromise the ability to detect fraud (Ndakala Advisory, 2025). Effective governance systems increase the independence of the audit and turn the internal audits into a strategic rather than a compliance oversight (Kontogeorgis, 2018). Better governance and qualified audit committees allow effective adoption of audit recommendations, which increases financial integrity and accountability in Kenyan state corporations (Abdullah et al., 2018).

1.2. Statement of the Problem

The internal audit services are very important in accountability, transparency and prevention of fraud in the public institutions. Irrespective of this significance, fraud is a challenging issue that has been being witnessed in Kenyan state corporations. Financial irregularities and mismanagement in government institutions were reported by the Auditor General (2023) to result in losses of more than KSh 10 billion, which indicated a drawback of the current audit and control systems. Despite the fact that internal audits are meant to improve financial integrity and governance, most state corporations face political interference, lack of sufficient resources, and independence of auditors (Junaidi et al., 2024; Kassem and Turksen, 2021). Earlier attempts to enhance fraud management have been centered on the conventional audit approaches that have not encompassed the maximum use of modern tools and technology (Sargiacomo et al., 2024). Besides, the majority of the existing research is qualitative and focuses on individual audit functions, overlooking the impact of financial, compliance, operational, and forensic audits combined on fraud management (Alqudah et al., 2023; Hegazy and Farghaly, 2021). This paper is thus considered to quantitatively investigate the role of internal audit functions in the management of fraud in the Kenyan state corporations to fill the research gap by offering empirical information to enhance effectiveness of auditing, fraud prevention, and the confidence of the people in the governance mechanisms

1.3 Objectives of the Study

1.3.1 General Objective

To determine the effect of internal audits on fraud management in Kenyan state corporations

1.3.1 Specific Objectives

i. To examine the effect of financial audits on fraud management among state corporations in Kenya.

ii. To evaluate the role of compliance audits on fraud management among state corporations in Kenya.

iii. To assess the effect of operational audits on fraud management among state corporations in Kenya.

iv. To analyze the contribution of forensic audits on fraud management among state corporations in Kenya.

1.4 Research Questions

i. What is the effect of financial audits on fraud management among state corporations in Kenya?

ii. How do compliance audits influence on fraud management among state corporations in Kenya?

iii. What effect does operational audits services on fraud management among state corporations in Kenya?

iv. How do forensic audits services contribute to fraud management among state corporations in Kenya?

1.5 Justification of the Study

The study sought to improve understanding of how Kenyan public institutions and state enterprises' internal audit services combat fraud. Without this research, policymakers and organizations would miss key impediments to audit effectiveness in public Kenyan institutions. This research sought to explore how current technologies, employee involvement, political factors, and culture affect audit findings in Kenya. The research findings will help business administration understand how to integrate audits into fraud management frameworks for organizational governance models in constrained resource environments. Fraud management research is inconsistent and lacks a comprehensive examination of audit types in developing nations. This study covers gaps in research and provides actionable suggestions to improve governance and auditing. Mixed-methods research improves results through advanced rigor, benefiting academic institutions and public sector governance applications.

1.6 Significance of the Study

1.6.1. Contribution to Knowledge and Theory

The research will strengthen existing knowledge about internal audit service operations while specifically demonstrating their fraud-prevention capabilities within public institutions. State corporations in Kenya serve as the study focus to deliver distinct understanding about internal audit procedures along with their performance on reducing fraudulent activities. This study will fill a knowledge gap in academic literature because it delivers empirical research defining the link between internal audits and fraud management within public sector entities. This study will make theoretical contributions to auditing research and fraud management and add new elements to existing models about organizational fraud protection strategies. This research addresses the challenges of developing economies by exploring internal audit service struggles while delivering valuable information about fraud management system enhancement to academic scholars and practical professionals.

1.6.2. Policy and Governance Implications

This study produces critical findings that affect Kenyan officials who need to supervise public organizations. The study evaluates internal audit service effectiveness within state corporations to generate evidence that will assist public sector governance framework development and implementation. The study's findings can serve as a basis to organize reform actions which target the improvement of transparency and accountability together with ethical standards for these organizations. Throughout the study multiple suggestions will be developed to enhance both the audit regulatory context and strategies for detecting and managing fraud in public institutions.

Through the study's outcomes those who create policies can evaluate current audit practices to decide if extra resources and training or new legislations should be implemented to improve fraud risk management. Through the study investigators can influence public sector governance as they work to enhance institutional frameworks which resist corruption.

1.6.3. Practical Recommendations for Organizational Improvement

State corporations will receive usable solutions in this investigation that enable them to build stronger internal audit programs and better battle fraud. The analysis of existing procedures will show weaknesses in internal audits which the study will use to develop strategies to improve these safeguards against fraudulent activities. The proposed recommendations direct state corporations to advance their auditing processes through better methodologies and modern technological selection and enhance communication between auditors and compliance experts as well as legal team members. The research delivers findings about strengthening internal auditor capabilities to create advanced risk assessment frameworks that spot fraudulent activities in their earliest stages. The research uses hands-on strategies to provide organizations with necessary tools for implementing internal control environment enhancements that minimize their fraud exposure. These recommendations function to build both the audit quality and the financial integrity system of state corporations.

1.6.4. Contribution to Professional Development

The research delivers indispensable information to auditors alongside managers and other authorities who embrace fraud management roles in public sector organizations. The research provides an extensive overview of internal audit functions that prevent fraud to improve professional development in auditing together with public administration fields. The research presents useful examples of optimal methods to find and control and stop fraud which helps state corporations enhance their risk evaluation methods. The research will demonstrate why ongoing learning programs should be accessible to internal auditors because they need to maintain proficiency against emerging fraudulent methods and audit procedures. Public sector managers together with their stakeholders should recognize internal audit services as fundamental tools for maintaining organizational integrity while ensuring accountability according to this research. State corporations will achieve better professional standards through enhanced understanding of effective fraud management while developing clear methods to construct these prevention mechanisms.

1.7 Scope of the Study

This research examines Kenyan state corporations' internal audit service protection against fraud by assessing financial audit results alongside operational audits and forensic investigations while examining financial compliance systems in fraud control. The study targeted 280 employees from 165 state corporations operating across Kenya. Through purposive, census, and convenient sampling techniques, 165 participants were selected as sample size by following statistical reliability requirements based on Kenya's complete state corporation population despite research practical limitations. The research period starts in January 2025 and extends until June 2025 to gather sufficient data resources. The research encounters potential restrictions because it faces difficulties with response speed, while audit practices show seasonal patterns, and the resources are limited by staff size and database availability. Despite the study's research limitations, it endeavors to provide necessary insights about Kenya's public sector fraud management, which will enhance anti-fraud strategies and internal audit service quality.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The section examines how Kenyan public sector internal audit services prevent fraud. This chapter is ordered: The introduction explains the chapter structure. Internal audit and fraud management theories are presented in this chapter. Current Kenyan internal audit performance studies are examined. This section compares independent variables of internal audit service to fraud management dependent variables. Last, the chapter summarizes and identifies literature gaps for further research. The study measures internal audits and fraud using specified approaches. This format lets researchers learn everything about their topic while conducting their investigation.

2.2 Theoretical Review

The designed study supports its objectives with four theoretical frameworks. Nyongesa, Mabele, and Murunga (2022) found that research requires solid theoretical frameworks. The theory explains by organizing and connecting notions. Theoretical frameworks conceptualize events and organize new information. This study uses agency theory and routine activity theory to examine public institutions' internal audit and fraud management investigations.

2.2.1 Agency Theory

Jensen and Meckling (1976) introduced agency theory to study the relationship between owners and managers because agents typically prioritize their benefits instead of principals' goals (Jensen & Meckling, 1976). According to the theory, principal-agent conflicts emerge because agents maintain superior information about their activities over principals (Eisenhardt, 1989). Agents implement monitoring tasks and incentivizing processes to achieve organizational goals at a cost to principals per Fama and Jensen (1983). The agency theory argues that proper governance systems with internal audits maintain agency cost control and create matching goals between two parties.

The theory has developed as researchers have applied it across different organizational settings. The theory has shown broad adoption across corporate governance fields, the risk management sector, and financial reporting domains (Shleifer & Vishny, 1997). Researchers study how principals should create contracts and monitoring systems to combat agency issues, especially within complex organizational structures (Eisenhardt, 1989). Modern research validates that external auditors and corporate governance systems and regulatory structures are essential factors in reducing agency costs, according to Alshammari et al. (2018). Scholars have employed agency theory to evaluate internal audit effectiveness when monitoring public organization management activities and managing fraud (Tariq et al., 2019). The development within agency theory continues to demonstrate its capacity for flexible application in contemporary corporate governance systems and fraud management analysis.

The capability of agency theory to explore principal-agent relationships in large organizations has earned recognition from Fama & Jensen (1983). Agency theory creates a valuable structure to grasp interest conflicts and clarify why governance systems, including audits, reduce such conflicts (Jensen & Meckling, 1976). The critics state that agency theory creates simplistic definitions of principal-agent connections without considering social relations or trust between managers (Bosse & Phillips, 2016). The emphasis on self-interest in agency theory garners criticism because it overlooks organization-wide goals together with ethical concerns, according to Tariq et al. (2019). The exclusive use of economic incentives to motivate agents encounters strong criticism throughout non-profit and public sector organizations.

Agency Theory is the theory that explains conflicts when managers (agents) act in the interests of their personal benefit rather than in the interests of stakeholders (principals) who appointed them. It notes how internal audit systems should be used to match goals and minimize agency costs by overseeing and holding agencies accountable. The theory is supported by empirical research that indicates that independent audits decrease managerial opportunism, like Alqudah et al. (2023), and Netshifhefhe et al. (2024), and also indicates that political interference undermines audit effectiveness as shown by Junaidi et al. (2024). Agency Theory pays more attention to incentive alignment than behavioral or situational concerns in comparison with other theories. The way that it has been applied to the Kenyan state corporations highlights the importance of governance and audit systems in bridging the gap between management and accountability to the public to improve the efficiency of fraud management.

2.2.2 Routine Activity Theory

Cohen and Felson's 1979 theory, known as Routine Activity Theory, states that criminal activity emerges from connecting three essential components, including a motivated perpetrator paired with a proper victim next to insufficient protective presence. According to Cohen and Felson (1979), criminal behavior depends on the day-to-day schedules of persons because such activities create optimal conditions for crime when the elements sync in both time and location. The main interest here lies in crime opportunities created by routine activities rather than offender motivations (Felson, 2002). The criminology and security disciplines extensively use routine activity theory to understand crime prevention mechanics and offender behavior patterns from the perspectives of fraud and white-collar offenses.

Routine Activity Theory maintains its development through the integration of social network analysis together with environmental elements affecting criminal activities (Felson, 2002). Recent research utilizes the theory by studying situational elements that include targets accessible to offenders and guardians present to deter criminal acts (Tillyer & Klahm, 2013). The theory has been modified by researchers for fraud management to analyze how organizational environments work in conjunction with routine work practices and surveillance mechanisms such as internal audits to help prevent fraudulent behavior (Lindegaard et al., 2017). The detection of fraud in private and public sector organizations connects to the Routine Activity Theory, as forensic audits serve as guardian systems that inhibit fraudulent opportunities.

Routine Activity Theory stands out for its straightforward nature and attention to crime opportunities, as it enables simple application across different environments (Cohen & Felson, 1979). Felson (2002) establishes through this theory how guardianship is a core factor affecting the probability of committing criminal acts. The critics of this theory claim it fails to measure offenders' psychological elements and deeper societal influences that trigger criminal behavior (Wikström, 2017). According to Lindegaard et al. (2017), effective monitoring mechanisms may not explain why specific organizations and individuals choose to engage in fraudulent activities. The theory underestimates the complexity of organizational structures and determination-making processes that shape fraud risk.

Routine Activity Theory points out that fraud is committed when the motivated offenders have the right target and appropriate guard is not in place. These guardians are the internal and forensic audits, which minimise chances of fraud. Research like Sargiacomo et al. (2024) and Abdelrahim and Al-Malkawi (2022) shows that real-time auditing and data analytics enhance better detection and weak oversight environments present more risk of frauds (Nurleni and Darmawati, 2024). In comparison with the Agency Theory, which concerns incentive conflicts, Routine Activity Theory is concerned with the environmental and procedural protection. This study is in accordance with the theory as it explains why improved audit procedures and technological surveillance diminish possibilities of fraud that can be perpetrated in Kenyan state corporations.

2.2.3 Control Theory

The sociological theory of Control Theory, created by Travis Hirschi in 1969, examines how people maintain compliance with the rules of society. Hirschi laid the foundation of deviance explanation with Causes of Delinquency, which established social control theory by evaluating how strong social bonds maintain deviance prevention. According to the theory, delinquent behavior becomes less likely for people who maintain strong social bonds through family relationships, social and mental norm commitment con, conventional activity involvement, and rule belief. Control Theory has been used in organizational behavior research to evaluate how organizational formal structures and rules, together with employee supervision, help prevent staff from committing fraudulent actions.

Since Hirschi made his original proposition, Control Theory has undergone substantial evolutionary changes. Control theory evolved through additional development to include formal and informal effective controls that reduce prospects for deviant activity (Sutherland, 1983). Organizations maintain integrity through internal audits, governance procedures, and ethical codes of conduct because they act as fundamental control mechanisms to prevent fraud. According to this theory's current understanding, organizations display various evolving characteristics that influence employee conduct. It now includes institutional standards lea, leadership styles, and corporate culture in its analysis of employee behaviors. Gottfredson and Hirschi (1990) and other scholars expanded the theory by examining self-control in relation to crime opportunities and external regulations that influence behavioral control. The concept finds practical use in fraud prevention because organizations must establish control systems that lower the risk of fraud and unethical conduct.

The major advantage of Control Theory stems from its systematic analysis of social structures and institutions that guide human behavior so organizations can properly design fraud prevention controls. The social bonds within organizations represent fundamental aspects that the theory examines to show why governance oversight and ethical culture block fraudulent behavior. The theory has encountered criticism mainly because it focuses too heavily on the behaviors of individuals while paying insufficient attention to organizational pressures and systemic corruption, which can result in deviant actions. Control Theory faces criticism because it fails to demonstrate how environmental elements (including economic factors and political settings) affect fraud, particularly in public institutions with deficient operational structures and insufficient monitoring systems.

The Control Theory considers compliance to be an activity based on social relationships, moral principles, and institutional controls that prevent deviant behavior. The organizational controls that are aimed to prevent fraud are comprised of internal audits, governance structures, and ethical leadership. This opinion is supported by empirical research, which demonstrates that an organization is less likely to have fraud cases when it has a strong ethical culture and has a steady supervision. Contrary to the economic approach of the Agency Theory and the situational approach of the Routine Activity Theory, Control Theory focuses on moral and cultural discipline as a deterrent. It is applicable to Kenyan state corporations because it shows that effective internal audit can strengthen through the provision of robust governance, integrity, and commitment to leadership to prevent fraud over the long term.

2.3 Empirical Review

The section demonstrates a thematic structure of scholarly literature reviews about this topic. These services include financial audits, compliance audits, operational audits, and forensic audits, as well as managing fraud in public organizations.

2.3.1 Financial Audits and Fraud management in Public Organizations

Junaidi et al. (2024) studied public sector institutional fraud detection throughout Indonesia because the country faces higher fraud rates than other ASEAN nations. This report recommends further fraud detection research as an academic priority. The researchers examined how public sector enterprises detect fraud using political skill and large data. Researchers surveyed 147 auditors from Indonesia's Financial and Development Supervisory Board (BPKP RI) and the Audit Board of Indonesia. SmartPLS SEM used data analysis. Research found that political skill increases improve fraud detection, and big data technologies aid public sector organizations in fraud detection. This study underlines the importance of combining political skills with advanced data analytics for fraud detection.

Grigoras-Ichim et al. (2024) examined how financial audits detect fraud and errors in financial reporting to address global economic challenges regarding financial integrity. This study examines auditing practices while exploring detection mechanisms that might prevent auditors from giving truthful opinions across national and international levels. Auditors need to sustain professional doubt and establish strong controls because these measures help them discover fraudulent occurrences effectively. The study calls for strong fraud risk management practices while establishing a culture that promotes transparency and integrity. The authors maintain that such strengthening of these practices will boost financial information trust while enhancing the credibility of financial auditors. Financial audits establish their fundamental position for maintaining worldwide financial systems through transparent, stable operations and complete integrity.

Indonesian local government sector institutions' Internal Audit Function (IAF), Internal Control (IC), Fraud management (FP), and governance (GOV) were examined by Nadirsyah et al. (2024). The study examined whether internal control and fraud management could explain the relationship between internal audits and governance. The research data came from 117 Indonesian government internal auditors (AIGIA) in the internal supervisory apparatus. The research used SEM with PLS for data analysis. The study found that IAF and FP positively affect IC and GOV. While IC did not directly affect GOV, evidence showed that FP linked IAF and GOV. The study shows how fraud management drives governance improvement in the Internal Audit Function.

Agency theory-based independent auditing to uncover public auditor fraud must address principal-agent interactions and management-stakeholder confidence difficulties, according to Kassem Turksen (2021). The study found that authority delegation raises risks from knowledge asymmetry and fraud. Therefore, as International Auditing Standards require, auditors are essential for detecting significant fraud and errors. Public opinion questions auditors ' skills after being mandated to discover public sector fraud. The study compares private and public audits, examines public auditors' legal duties, and examines professional reasons that cause fraud detection audit failures. Public auditors promote openness, fraud prevention, and accountability in public sector entities.

Kurniawan et al. (2024) examined how internal control mechanisms prevent public financial accounting fraud. The analysis emphasizes that internal control systems should include control environments, risk assessments, control activities, communication, and monitoring systems. This trio protects assets, provides accurate financial statements, and maximizes operational productivity. Weak internal controls allow public sector fraud because institutions lack effective separation of roles and oversight. The research recommends regular audits, anti-fraud regulations, ethical conduct promotion, and technical fraud monitoring. The study shows that strong internal controls ensure financial integrity, protect government resources, and enable good public sector governance.

Yaqoub et al. (2023) examined accounting fraud motives, preventative measures, and firm performance from an external auditor's perspective. Qualitative data came from semi-structured interviews with experienced external public auditors. Research shows that personal and environmental factors drive fraud. The findings showed that internal audit systems are vital for fraud detection, but training and auditing are less important. Although it explored the challenges of building systems to combat emerging fraud types, the study showed that contemporary technology reduces fraud risks through quick prevention. Research shows that human auditor competence is vital for fraud detection and company performance protection by protecting corporate revenues, reputation, and consumer trust.

Andia (2024) researched fraud management methods and their influence on Kenya-based insurance company's financial stability. The research analyzed three main weaknesses: false claims, premium misuse, and financial record manipulation that create instability within the industry. The study applied agency, risk management, institutional, and game theories to investigate internal control frameworks tra, transaction monitoring, and financial audits procedures, which help fight fraud and boost organizational strength. Fraud management systems that are strong uphold regulatory compliance and ensure the sound financial health of insurance organizations. Research findings demonstrate how effective fraud controls enhance financial stability and extend sustainability for Kenya's insurance sector.

Vutumu et al. (2024) used the COSO internal control framework to assess Nigerian federal ministries and agencies' internal control system efficacy in discouraging embezzlement and money transfer offenses. Cross-sectional data from 385 accounting managers, internal auditors, and forensic accountants was collected for the descriptive research design. The entire study used PLS-SEM. Research showed that risk assessment, information and communication strategies, and monitoring activities helped avoid fraud, but communication was most important. According to a study, fraud management and control actions are negatively correlated. Internal control systems must improve communication and monitoring to improve governance and fight fraud.

In Nigeria's government, forensic accounting and internal controls prevent public sector fraud, according to Vutumu et al. (2025). The continuing anti-corruption efforts have failed to eliminate fraud, which destroys public faith and slows economic growth. COSO framework and the Fraud Pentagon Model were used to assess internal controls and forensic accounting's fraud risk reduction. A standardized Likert-scaled questionnaire collected responses from 385 finance, accounting, auditing, and forensics specialists. All Fraud Pentagon components have substantial fraud risks, but control and monitoring were most effective. The research advocates improving weak inner controls and using whistleblower mechanisms as crucial forensic accounting tools to avoid fraud and restore public faith in governance institutions.

Yousefi Nejad et al. (2024) explored how audit quality influences financial statement fraud in Indonesia, a developing nation lacking IFRS. The study examined how audit duration of service, audit expenses, and organizational auditors' scale affect financial statement integrity. Researchers used 951 data from 2015–2020 to estimate OLS and GMM. The study found that short audit periods increase fraud risk because auditors lack time to understand firm operational dynamics.

Research shows that audit fee payments raise firm fraud risk. This report suggests high-quality audits and IFRS implementation to reduce financial fraud in developing countries.

Madzivire et al. (2020) assessed forensic audits effectiveness by conducting a study at a Zimbabwe Chartered Accountancy Company. Statutory audits exist, yet fraud incidents keep increasing, increasing the market need for forensic auditing services. Audit firms encounter resistance due to limited training capabilities, restricted human resources, and insufficient experience among their staff members. The research design used mixed methods since it included quantitative Likert scale questionnaires, qualitative open questions, and interview responses. According to research findings, auditor training proved crucial for fraud detection since it creates positive outcomes in fraud examination abilities. The study established that litigation support services are a key mechanism for boosting the effectiveness of forensic audits. Auditor training programs should be upgraded alongside development programs to give practitioners the tools needed to fight fraud more effectively.

Brink et al. (2022) conducted two trials to see how using internal audit functions as a management training ground (MTG) affects internal fraud reporting. Using internal audit as a management training ground in experiment one reduced auditors' willingness to disclose fraud to the CAE and urgency toward significant fraud. Management accountants were asked in the second survey whether they would disclose fraud to an internal audit or an anonymous hotline. Auditors preferred the hotline for reporting over internal audit when it was MTG. Study results showed that individuals preferred hotline reporting when the internal audit was untrustworthy, and MTGs were involved. This research raises fundamental problems about using internal audits as an MTG for fraud reporting.

Abu Mouamer et al. (2020) assessed how fraud detection and prevention tools lowered occupational fraud occurrences in the Palestinian Ministry of Health (MOH) Gaza Strip. The study used descriptive and analytical data from 501 supervisory employees through stratified random sampling. Researchers analyzed the data using multiple regression techniques. The research confirmed that MOH workers deemed its fraud management technology successful at minimizing workplace offenses. The authors proposed two main recommendations, including legislative health sector regulation for conflict-of-interest in medical practitioners by the Palestinian National Authority and governance standards, focused on managing fraud and protecting stakeholders for the Ministry of Health.

Alford (2022) surveyed public and commercial sector accountants and auditors about Saudi Arabian fraud detection programs. The research found that both sectors had good fraud-related guideline awareness, clear responsibility definitions, and reporting routes, but they struggled to create fraud detection systems. The analysis found that firms have invested much in fraud management technologies but lacked a unified training program. SOCPA had not given forensic accountants enough power, so new forensic accounting systems were of little value in Saudi Arabia. The research indicated that auditors and accountants faced legal risks due to their lack of training despite meeting qualifications and experience, which did not guarantee fraud detection with age. Saudi Arabia needs revised legislative regulations to combat fraud, leverage sophisticated technology, and increase human resource capabilities ads.

Munteanu et al. (2024) studied how auditors use the red flags technique during risk assessments for financial fraud. The examination revealed the auditors' vital function: issuing independent and objective verification of financial statement accuracy while detecting fraudulent activities. The study worked to identify financial fraud risk profiles through research on theoretical and practical auditing aspects. The research designed specialized tools using an anti-fraud audit methodology to assist auditors in detecting fraud risks. The examination used a fraudulent corporate entity to assess financial report quality and managerial decision capabilities. The study utilized SPSS 19.0 software to analyze data that generated visual representations that underline the significance of fraud detection systems in auditing practice and their positive impact on audit quality and precision in detecting fraud hazards.

Roszkowska (2021) analyzed the importance of fintech developments for financial reporting, including audit procedures, while emphasizing their potential to prevent fraud against equity investments. Financial scandals, including Enron and Arthur Andersen, were investigated through the study, which revealed that audit failures combined with traditional financial reporting weaknesses led to these major crises. The research evaluated current technological developments, including blockchain, IoT, smart contracts, and artificial intelligence, to explain their solutions for audit and reporting problems. Experimental results demonstrated that implementing these new technologies would enhance the reliability of financial statements, increase transparency, and protect corporations from fraudulent activity. According to the study findings, these innovations have the power to revolutionize business operations through improved financial fraud protection for auditing and financial reporting institutions.

Through their research, Kesuma and Fachruzzaman (2024) reviewed 10 published studies investigating how internal control affects accounting fraud in public sector institutions. The research analyzed domestic and worldwide scholarly materials touching on "internal control," "fraud," and "public sector accounting fraud." Courts of audit studies demonstrated that internal controls represent a critical factor in stopping accounting fraud in public sector organizations. According to the research, strong internal control systems protect financial integrity while creating transparency and reducing fraudulent activities in public sector accounting operations. The study demonstrates how robust internal controls are essential to minimize fraud risks in government and public sector institutions.

2.3.2. Compliance Audits and Fraud management in Public Organizations

Nurleni and Darmawati (2024) analyzed the relationship between auditor professional experience, training, professional skepticism, and integrity against government internal control mechanism fraud detection in Indonesian financial systems. Researchers used quantitative research, collecting data from 53 internal auditors at Selayar Islands Regional Inspectorate Office Jeneponto and Takalar. The results from multiple regression analysis showed that experience did not influence fraud detection. However, the three other factors of auditor training, professional skepticism, and integrity produced significant results. Internal auditors attain effective fraud detection through proper training, professional skepticism, and strong organizational integrity. The research identifies the essential role of specific auditor training and the development of transparent, accountable governmental practices for developing countries.

Abd, Kareem, and Abbas (2020) conducted a study that evaluated audit compliance for administrative and financial corruption reduction in government institutions through their analysis of the Iraqi Federal Office of Financial Supervision. The researchers attempted to understand audit compliance methods and their effectiveness as anti-corruption strategies through compliance audits report evaluations. The research identified a deficiency in independent reports that target corruption specifically because current audits reveal financial statements and performance report non-compliance problems alone. The researchers suggested strengthening compliance audits power through separate independent reports focused on solving administrative and financial corruption issues.

Kamara (2023) researched internal audit's effect on public sector performance by studying NASSIT as the leading example in Sierra Leone. The investigation identified internal audits as essential for examining and enhancing internal control procedures, risk management systems, and governance functions in public institutions. Through independent assessments, senior management obtains accountability and improves resource utilization. The study detailed the working relationship between internal audits and Supreme Audit Institutions (SAIs) because internal audits verify controls and financial reliability, and SAIs examine the complete effect of internal audit work. The research revealed that robust controls must combine internal and external audit frameworks because they deliver good governance, public fund transparency, and efficient utilization.

Urefe et al. (2024) examined government financial management audit processes and compliance systems. The review paper details administrative principles, methods, and standards for public sector audits. The report describes public sector audit processes and the challenges of budget restrictions, sophisticated operations, and staff opposition to change. The research article underlines that risk mitigation and artificial intelligence technologies help overcome these problems. Auditors and compliance officers need ongoing training and capacity building to stay professional. The study suggests new studies to improve government audit procedures for sustainable advancements.

Alqudah et al. (2023) examined Jordanian public sector internal audit success factors from an internal auditor perspective. It examined how internal audit results were affected by empowering methods like management backing, external auditor teams, independence levels, internal audit unit size, and extrinsic compensation. A survey of 117 Jordanian public sector internal auditors and financial management staff found that management support, external auditor cooperation, independent performance, and rewards significantly affected internal auditor work excellence. Research showed that the size of the Internal Audit Department did not affect its effectiveness. Extrinsic rewards reduced the link between empowerment and internal audit effectiveness. This study shows how empowering internal auditors improves their ability to fight corruption and defend public money, supporting Jordanian internal audit norms.

Using the NRA, Kamara (2023) tested how Internal Audits (IA) impact public sector performance. Internal auditors improve governance quality and reduce organizational risks by evaluating internal controls, risk management, and legal compliance. Research shows that internal audit maintains organizational ethics, prevent fraud, and improve operational effectiveness. Since NRA staff members were competent and supported, the Internal Audit Department produced effective results but faced challenges due to resource constraints, the need for automated tools, and late data from modern revenue collection systems. The research found that internal audits improved risk management, internal control, and governance at the NRA while admitting operational limits. Despite its non-generalizability, the research provides valuable insights into public sector internal audit best practices.

Assessing Fraud Risk Governance and Management at the Organizational Level was edited by Lerchner et al. (2022) to help internal auditors assess and manage fraud risks in organizations. To comply with Global Internal Audit Standards™ (IPPF), fraud risk assessments must be incorporated into auditor work. This document provides a complete evaluation approach and guidelines for key stakeholders to prevent, identify, and investigate fraud. According to the guide, a solid fraud risk management system like the COSO Fraud Risk Management Guide is essential. Internal auditors must assess fraud governance processes, undertake comprehensive fraud risk appraisals, and reassure senior leaders and board members. The research aims to increase auditors' sensitivity to fraudulent risks and improve their risk management skills for good corporate governance and fraud prevention.

Hegazy & Farghaly (2021) studied the viewpoints of external auditors (EAs) along with internal auditors (IAs) about the adherence to the Institute of Internal Auditors (IIA) International Standards for the Professional Practices of Internal Auditing. An emerging market survey, in combination with interviews of IAs and EAs working in listed firms, evaluated internal audit departments' IIA standard compliance levels. The research showed different levels of standard compliance among the participants, which demonstrated weak interaction and communication practices between IAs and EAs in these firms. According to the research study findings, following the underlying intentions of IIA standards is essential instead of simply focusing on their formal written content. The research established that communication and cooperation impairments between IAs and EAs create problems that reduce internal audit efficiency while affecting financial reporting quality.

Thottoli (2021) studied how compliance audits affect financial statement disclosure compliance of Muscat Securities Market (MSM) registered companies based in Oman. Research results showed that auditing compliance promotes companies to fulfill their disclosure requirements effectively, thus demonstrating that proper audits drive beneficial regulatory outcomes. According to the study, experienced compliance officers performing their responsibilities would advance corporate governance practices and financial performance. The study advises appointing compliance officers who will both ensure regulatory compliance and demonstrate corporate transparency through proper governance practices. This research generates new findings about compliance audits functions in emerging markets that help guide improvements to regulatory compliance in Oman.

Mishra et al. (2023) examine the key function of internal audits to maintain direct and indirect tax compliance within organizational frameworks. The paper examines research in existing documents through case analysis to showcase how properly designed internal audit protocols boost tax compliance together with risk reduction and tax governance improvements. This review presents audit methodology best practices and explains typical obstacles organizations face during internal audits while providing recommendations for optimizing tax compliance-related audit success. The paper demonstrates how organizations need internal audits to fulfill their tax responsibilities while staying protected from penalties and maintaining their positive image based on current regulatory complexity. Internal auditors, tax professionals, executives, board members, and regulators benefit from these insights to enhance their tax compliance structures.

Shaban Barakat (2023) conducted a study that analyzed the effectiveness of internal audit standards in value-added processes within emerging markets by examining three telecommunications firms in Jordan. The investigated firms demonstrated commitment towards IIA International Internal Audit Standards through the majority application of Attribute Standards, which Application Standards supported. Internal audit standards, known as Performance Standards, experienced limited implementation. The research discovered obstacles with standard implementation, so it proposed a broader coverage, especially for performance standards. This research only shows results from the selected three firms, which makes them unsuitable for generalization in other sectors and markets. This research shows that organizations need to extend their internal audit standards implementation to reach maximum performance benefits in organizational operations.

Yeboah (2020) analyzes the literature on internal audit effectiveness by assessing empirical research that embeds internal auditors' qualities as effectiveness indicators. This research examines the decisive elements that drive successful internal auditing by explaining the connections between internal and external auditors together with chief audit executives and senior management. The research advises that available examinations primarily studied public sector institutions, thus calling for upcoming investigations to conduct parallel assessments between public and private sector entities. The research proposes to analyze the effects of managerial backing on internal audit competence while studying the relationships between internal auditors and other key organizational participants.

Hegazy and Farghaly (2021) explore how external auditors (EA) and internal auditors (IA) see the IIA International Standards for the Professional Practices of Internal Auditing usage and compliance. The study surveys and interviews internal and external auditors of listed corporations in an emerging economy and finds significant disparities in IIA compliance. The study found insufficient communication between IAs and EAs in these markets, decreasing internal audit functions (IAF) and financial report quality. Internal auditors should understand IIA standards correctly rather than literally, improving communication between internal and external teams. The report identifies special obstacles in changing economic conditions and delivers unprecedented IIA standards application findings.

Hut-Mossel et al. (2021) conducted a thorough realist study of audit functionality for hospital care quality improvement. The study examines the elements and mechanisms that determine whether audits improve hospital treatment. Audit functioning is explained by seven context-mechanism-outcome configurations (CMOcs) based on 85 sources. When implemented from the ground up, healthcare audits create lasting organizational change, activate quality improvement (QI) awareness through external assessment procedures, and require professional urgency and champion-style leadership to engage staff. The analysis highlights two major components of audit knowledge-sharing that encourage healthcare workers to participate and use audit data to uncover issues and validate input for greater collaboration. The report helps healthcare leaders and policymakers structure audits and their uses across situations for better audit research.

Xanthopoulou et al. (2024) investigate the growing government interest in public organization financing from public monies while respecting corporate governance norms. Creating a public administrative system requires this strategy to assure accountability, openness, and resource integrity. Effective public governance requires strong internal control systems with audit and risk management activities. The report shows that strategic university governance stabilizes finances, allowing universities to improve research, infrastructure, and teaching. University success depends on finance, which allows specified goals and long-term financial stability. Internal audit services and global university governance show that audit function is essential for financial quality, leadership consistency in resource management, and financial credibility and discipline. The report concludes that universities should foster an audit culture to ensure financial accountability via development.

2.3.3 Operational Audits and Fraud management in Public Organizations

Ziorklui et al. (2024) examine how internal control mechanisms prevent and identify fraud in corporate governance systems. The article states that internal controls protect assets, enable accurate financial records, and streamline operations. The study covers risk appraisal, control, communication, and monitoring systems in the internal control environment. Preventive controls limit fraud, including separation, authorization, and access privileges. Detective control systems, including reconciliations, internal audits, and whistleblower hotlines, are reviewed for fraud detection and operational issues. Control effectiveness assessments use fraud measures and detection rates, while the study includes best practices, including continuous monitoring, personnel training, and advanced technology adoption to improve internal control systems. The study shows that operational audits boost public institution fraud protection programs, and leaders' backing promotes ethical workplaces that strengthen internal audit systems.

Nadir et al. (2024) examine Indonesia's Internal Audit Function (IAF), Internal Control (IC), and Fraud management (FP) to improve local government governance. 117 Indonesian government internal supervisory agents provide data for SEM using Partial Least Squares analysis. According to research, the Internal Audit Function improves IC systems and GOV standards, whereas Fraud management improves GOV outcomes. Internal control does not directly affect governance outcomes, but financial practices successfully link internal audit functions to governance outcomes. As key elements of governance improvement, staff audits increase fraud management measures and internal controls. Operational audits improve fraud management in public companies.

Kamara (2023) investigates the effectiveness of internal audit (IA) for the National Revenue Authority (NRA) by studying how IA strengthens internal control systems risk management and public sector governance. The research evidence points to IA's key position in discovering operational inefficiencies while backing the prevention of fraud activities and maintaining regulatory and legal compliance standards. Through independent assessments, IA improves governance systems while lowering risks and maximizing operational effectiveness. Despite resource scarcity and information equality issues, the National Revenue Authority IA department supports internal control processes and risk management activities. The study proposes using automated audit tools for contemporary audit solutions that help manage automated revenue collection systems. The research investigates the NRA but demonstrates that internal audits are crucial in enhancing governmental control against fraud, which benefits public sector programs.

Abdul Bari et al. (2024) examines internal auditing's effects on corruption control and corporate governance from a board director's perspective. Internal auditors discover control flaws, investigate fraud, and promote ethics within a business. Internal auditors improve corporate governance by assessing risks, ensuring compliance, and detecting misbehavior. The research shows that effective corruption control requires auditors to be objective, independent, and competent. The report recommends data analytics and continual monitoring to improve internal audit efficiency. According to industrial research, solid internal audit functions promote effective governance, organizational profitability, and sustainable growth. According to studies, strong internal audit capabilities and an honest, ethical operational framework reduce misconduct incidences and fraud risks best for public enterprises.

The research by Otoo et al. (2023) examines internal control systems' effects on banking industry outcomes using data from fifteen commercial and twenty rural banks. The study applies structural equation modeling to verify the connections between internal control components and organizational effectiveness. Three important factors- control activities con, troll environments, and risk assessment- demonstrate substantial effects on organizational effectiveness. The study established that monitoring controls and information communication systems failed to generate significant outcomes for the research. This research delivers critical knowledge to banking officials regarding the need for effective internal control systems that drive operational excellence and business competitiveness. The research informs existing literature through empirical data that shows how internal controls enhance organizational performance, specifically regarding operational audits and public organization fraud prevention.

Ong'are and Njeru (2022) researched the effectiveness of internal control in fraud management at state corporations by studying the Kenya Pipeline Company in Kenya. This research bases its design on describing how internal control systems protect assets while enabling financial performance goals. According to the research, internal control effectiveness depends heavily on the basic principle of segregating duties. The study recommends that management establish training programs to teach staff about the effectiveness of control systems. According to the authors, a literature deficiency exists regarding the effectiveness of internal controls in public sector institutions, along with a requirement for additional research. This paper adds to operational audits service research about managing fraud in state corporations and highlights internal controls' role in reducing fraud risks in government parastatals.

To ensure financial stability and humanitarian assistance, Dumoga (2022) examines nonprofit organization (NPO) internal control process effectiveness enhancement methods. The study found that NPO directors struggle to establish internal controls, which leads to financial collapse and service disruptions. The research uses COSO's internal control architecture to assess financial strategies to prevent fraud and mismanagement. A qualitative analysis of CFO interviews at four NPOs and financial statement assessments found that financial strategy assessment is the first essential theme among five others, including NPO frameworks and procedures, control assurance mechanisms, implementation issues, and proposed solutions. The research suggests access limitations, risk assessment techniques, and ethical value promotion to defend NPO missions. Operational audits services and fraud management are crucial for financial sustainability and humanitarian action.

Ghanem and Awad (2023) analyze how internal control systems function to lower fraud incidents in Lebanon's commercial sector. This research evaluates different crime control approaches, specifically the authority split and audit cycle length, together with ethical training as methods to decrease fraud occurrences. The study uses survey data collected from 308 businesses to demonstrate both positive elements and implementation barriers of the fraud management measures while showing what challenges affect effective fraud management system development. According to the research results, operational audits services need strengthening to improve the current fraud management structure. The research delivers essential findings that are important for asset protection strategies businesses can use to enhance their security efforts. However, such knowledge spans past commercial needs to benefit public sector organizations and private institutions.

According to Maaroufi & El Haji (2022), internal control framework components affect the organizational performance of Moroccan state corporations under study through the elements of the COSO framework, which include control environment risk assessment, control activities information, and communication and monitoring. Their study shows that internal control components positively impact organizational performance at different intensities between elements. The research shows that internal control receives significant attention in private-sector enterprises; however, Moroccan state corporations continue to develop their internal control systems. The research findings confirm that operational audits services deliver essential value through performance enhancement and risk management of fraud alongside other dangers across public sector institutions.

Lubis and colleagues (2024) examined how internal audit roles, internal controls, and audit quality prevent public sector fraud at the Inspectorate of North Sumatra Province, Indonesia. This study collected data from 61 government internal auditors using Google Forms and a five-point Likert scale before analyzing it using Partial Least Squares. Research indicates that internal audit and control systems significantly reduce fraud ($p < 0.05$). Audit quality evaluation yielded no statistically significant influence ($p > 0.05$). The research shows that internal audits, controls, and audit quality recommendations improve decision-making and fraud management in Indonesian public organizations.

Boufounou et al. (2024) examined how Greek LGO internal control systems affect corruption reduction and economic development. The study used survey data and regression analysis to examine the efficacy of the LGO revenue department's internal controls. Research showed that proper workforce capabilities, legislative norms, cooperating departments, and technical resources produce optimal results. Staffing, procedures, and information availability have not improved despite ongoing requirements. A study shows that strong internal audits reduce corruption and boost economic growth. The recommendations emphasize formal internal audit operations, professional standard maintenance, and stronger information systems to promote sustainable development and reduce Greek local government corruption.

Ratliff (2022) used Mississippi, USA, company leader case data to study ERP system internal control approaches. The study used COSO internal control to examine how corporate leaders reduce financial report risk and fraud. Semi-structured interviews, observation, and document assessment were used to collect data from seven individuals. The research's three primary areas were business leaders' control methods, implementation problems, and control implementation challenges. Reviewing role-based access controls is essential for transaction access. The study found that firms need strong internal controls to improve financial reports and reduce fraud to create sustainable jobs and serve society.

Ogwiji and Lasisi (2022) used Smart PLS-SEM to study how internal control systems prevent fraud in Nigerian financial services firms. The researchers used structured questionnaires with a five-point Likert scale to survey 284 public exchange-traded financial institutions. Analysis showed that control environment and monitoring were positively associated with fraud prevention, but information and communication links were negatively associated. Risk assessment and control actions showed minimal positive and negative relationships. The study showed that internal controls reduce fraud. The authors recommend that businesses improve their control environment and monitoring systems and that the CBN, EFCC, and ICPC build frameworks for Nigerian financial institutions to follow internal control norms. This structure would help secure financial institutions and prevent crime.

Abei (2021) explored how internal control mechanisms affect fraud detection and prevention in Cameroon MFIs. A qualitative research approach was utilized to collect data from fourteen semi-structured interviews from eight microfinance institutions. Internal control systems minimize fraud incentives, opportunities, rationalization, and capacity by managing fraud. The three main causes of MFI fraud are poor salary structures, lack of monitoring processes, and weak internal controls. According to the report, firms could increase employee pay, improve monitoring, and maintain control mechanisms to reduce fraud. According to Abei, fraud management studies should include more countries and "capability" assessments. The article advances MFI internal control system research, which was previously understudied.

According to Herreros-Martínez et al. (2025), by evaluating massive purchase data, machine learning can identify suspicious patterns in company buying processes. This study used clustering and Isolation Forest techniques to analyze two large real-world datasets. The study used z-score, DBSCAN, k-means, and Isolation Forest algorithms for univariate and multivariate data analysis. Clustering quality was assessed using the Silhouette index to verify results. An ensemble prioritizing framework used numerous methods to improve anomaly detection. SHAP gave specialists explainable insights to better understand outcomes. The approach improves audit processing by ranking abnormalities for additional scrutiny. The research improves internal audits by digitalizing company procurement activities.

2.3.4 Forensic Audits and Fraud management in Public Organizations

Brink et al. (2022) examined forensic accounting's function to detect and stop financial fraud in microfinance institutions throughout Nigeria. A qualitative research design enabled researchers to seek data from 18 microfinance institution employees based in Nigeria. Advanced technological proficiency in forensic accounting strongly improves organizational integrity by keeping fraud at bay while building positive relationships with investors and shareholders. The research predicts that the direction of forensic accounting in microfinance institutions will develop through technological developments, including artificial intelligence, blockchain machine learning, and data analytics. The study demonstrated why forensic accounting serves essential functions within Nigerian microfinance institutions through warning management about their duty to establish anticipatory fraud defense systems.

Nandini and Raju (2021) examined how forensic audits detect and prevent corporate financial performance fraud. Traditional statutory audits failed to detect or stop fraud, resulting in corporate bankruptcies and investor fund disappearances; hence, society needs forensic auditors. The article separated forensic auditors from statutory auditors and examined their impact on corporate governance and fraud prevention. The study included 125 auditors, accountants, and managers who completed structured questionnaires. SPSS used regression, correlation coefficients, descriptive statistics, reliability tests, ANOVA, and factor analysis to analyze the data. Forensic audits reduce fraud, employee fraud, and organizational failures. Forensic auditors improved company governance by holding managers accountable, increasing external auditor independence, and helping audit committees monitor internal audit results. The paper shows that forensic audits improve corporate governance and protect investors.

Manning, Jugu, and Addi (2025) examined traditional auditing methods to assess how forensic auditing prevented fraud in Nigerian government institutions. The study studied how forensic auditing fights public-sector fraud. Positivists did a descriptive survey. Purposeful sampling and simple random selection yielded 341 forensic auditing specialists from 2,306 experts. Specialists examined and tested self-administered questionnaires for dependability using the Cronbach Alpha Technique with a 0.891 coefficient. The study used OLS multiple regressions, basic percentages, mean, and standard deviation. Forensic auditing caught fraud that standard audits missed. Research shows that forensic auditing surpasses traditional fraud detection and prevention methods. The authors suggested that governments train traditional auditors in forensic auditing to improve their skills and equip their departments with fraud-fighting technology.

Madzivire et al. (2020) examined a Zimbabwean Chartered Accountancy Company to assess forensic auditing's fraud detection capabilities. After statutory audits, forensic auditing services were needed due to escalating fraud and corruption. Audit firms struggle due to lacking staff, training, knowledge, and practical experience. Quantitative Likert scale assessments, qualitative open-ended questions, and three interviews were used in the studies. 19 of 20 random-sampled questionnaires were completed. Data in bar graphs and tables was analyzed using multiple regression. The study found that training and education improve fraud detection and prevention. The results showed that litigation support services are essential to forensic auditing. Research suggests that firms should improve auditor training and continual development to assist them in fighting fraud.

Achmad et al. (2024) examined how forensic accounting competencies improve auditor fraud detection in Indonesia using GAS tools and whistleblowing protocols as moderators. This study surveyed 537 Indonesian external auditors using a cross-sectional method. WarpPLS 8.0 analyzed data with multiple linear regressions and moderation models. Practical communication, psychosocial, accounting, and auditing skills boosted auditor self-efficacy, but technical and analytical skills did not. Self-efficacy showed a strong correlation with auditor fraud detection. Both research models found that GAS enhances auditor self-efficacy and fraud detection, not whistleblowing systems. The examination reveals how forensic accounting competencies and GAS implementation boost auditor self-efficacy and fraud detection in Indonesian financial auditss.

Aliyu and Abeki (2024) studied how forensic audits prevent fraud in Nigerian quoted agricultural enterprises. The examination found two fraud-fighting forensic audits methods, good internal control systems, and ethical cultures. Structured questionnaires provided key data for the correlational survey. Five Nigerian Exchange Group-listed agricultural enterprises provided 85 research participants. Using SPSS 27, multiple regression and Pearson Product Moment Correlation analyze data. The study found that proactive and reactive forensic audits improved business internal controls and ethics. The authors found that forensic audits prevent fraud in Nigerian agricultural enterprises listed on stock markets. These firms should conduct forensic audits in addition to external audits to prevent managers' opportunistic fraud.

Nyakundi (2024) examined why OAG forensic audits reports are crucial for corruption case investigations in Kenya. Incomplete forensic audits reports, auditor independence, and restricted access to critical contracts lead to insufficient evidence for corruption investigations. The study examined three key characteristics affecting corruption case investigations: forensic audits report clarity and comprehensiveness, Government Commercial in Confidence contracts information access, and OAG independence. This study used the fraud management lifecycle, public choice, and fraud pentagon theories. Using standardized questionnaires, data was collected from 95 Ethics and Anti-Corruption Commission, Office of the Director of Public Prosecutions, and OAG forensic auditors. Descriptive statistics, Pearson correlation, and multiple linear regression were used for data analysis. Investigators gain from detailed and accessible forensic audits findings during corruption investigations. We found that limiting Government Commercial in Confidence contract availability and independent OAG forensic audits operation improve investigation results. Because the OAG needs full access to sensitive contracts for transparent investigations, well-written and simple forensic audits reports improve efficiency. The OAG's independence is crucial to forensic audits during corruption investigations.

At the Tanzania Revenue Authority Kariakoo headquarters, Kagombora and Mbogo (2024) examined how proactive forensic audits preserve assets. The study assessed forensic auditor qualifications, automated proactive fraud detection, and professional ethics. One hundred forty-four tax officials, lawyers, and auditors completed questionnaires for the study. The research used a case study method with quantitative and qualitative measures and SPSS software for analysis. Deficient forensic auditors and middling automated fraud detection techniques plagued TRA Kariakoo offices. The company regularly assessed employee integrity. The authors advised the organization to increase forensic auditing training, fraud detection systems, and employee fraud awareness to preserve organizational assets.

Vutumu (2024) proposed a new forensic accounting concept to improve fraud management and organizational integrity. Current forensic accounting research has limits because it focuses on governance ethics and accountability but uses fraud diamond theory and agency theory. Modified research illustrates the importance of forensic accounting in fraud detection but does not provide practical techniques. The Vutumu Forensic Accounting Theory combines control systems, litigation assistance, whistleblower hotlines, governance and ethical philosophy, digital fraud reviews, and accounting quality evaluation to fight fraud. This approach allows firms to establish financial control systems and detect fraud proactively. This study proposes a theory for future research and forensic accounting frameworks to protect organizational structure and improve fraud detection.

Guellim et al. (2024) performed a systematic review to assess the perceived worth of forensic accounting through their analysis of existing literature about its development and core functions together with necessary skills requirements, professional guidelines, and educational prerequisites. The research addresses the gap between education expectations in forensic accounting and identifies priorities for future academic investigations. Forensic accounting services have witnessed rising demand worldwide, leading both major firms and regional accounting bodies to create specialized units dedicated to this field. The study offers an extensive view of present-day forensic accounting research and ends with predictions about the direction of the field and its classification systems. The research helps identify forensic accounting's current worldwide role in finance and its demand for additional scholarly work in educational development.

Boyelaye (2021) used forensic audits tools to study Nigeria's government's fraud discovery processes. The study used the Donald Cressey fraud triangle theory. Twenty-three Rivers State ministries and parastatals were surveyed using a cross-sectional field design. Archival record review yielded EFCC data. The study used descriptive statistics, Augmented Dickey-Fuller stationarity, Pairwise Granger Causality, and Multiple Regression Analysis. The study found that LSS had the strongest correlation ($\beta=0.667882$, $p=0.0002$) with IA ($\beta=0.711592$, $p=0.0001$), FAR

(β=0.243885, p=0.0059), and FD (β=0.296696, p=0.0015). The research found that forensic audits are an effective method for detecting Nigerian public sector fraud. To increase fraud detection, the paper recommended integrating litigation support services, investigative accounting, and forensic audits reporting. Research students learn how to construct effective fraud detection systems from the study.

Alhassan (2020) used empirical approaches to examine how forensic accounting detects and prevents fraud in Nigerian public sector entities. Surveys were used to collect data from 50 auditors and accountants from 10 Abuja ministries. The researchers validated their assumptions using ANOVA at 5% significance. This study found strong correlations between forensic accounting and litigation support services in Nigerian courts, proving that forensic accounting can discover public sector fraud. The use of forensic accounting prevented fraud. The report suggested improving internal control systems, compliance monitoring, auditing, and public official accountability. To combat fraud, the author suggests forensic accountants obtain specialized training alongside public sector officers who prioritize honesty, responsibility, and justice.

Ofoje and Aggreh (2023) studied Nigerian public sector fraud detection using computerized forensic investigation methods. The research examined forensic accounting practices' fraud detection perceptions, fraud litigation practice's fraud detection relationships, and computerized forensic methodologies' fraud detection abilities. Using a descriptive survey design, researchers selected 242 professional accountants from Anambra State's 612 workforce. A structured questionnaire collected data for an Ordinal Regression analysis at 5% significance. Analysis showed a significant correlation between forensic accounting techniques and fraud detection (β = 0.4339, p-value = 0.011), while fraud litigation had no significant impact (β = -0.0302, p-value = 0.822). Using data analytics and AI in computer forensics aided fraud detection

($\beta = 0.3089$, p-value = 0.010). The research recommends several automated detection methods for Nigerian public sector entities to improve fraud detection accuracy and operational efficiency.

Akinleye and Akadi (2024) examined how forensic accounting prevents financial misconduct in Nigerian deposit money banks. Purposive sampling was used to collect data from 10 Heads of Operations and Internal Control Officers from 10 Ekiti State banks. Data from self-made questionnaires was analyzed using multiple regression. The outcome analysis showed that forensic surveillance, interview questioning, review inspection, and documenting improved fraud detection and prevention. Forensic inspection and documentation had the greatest impact ($p = 0.000$ each). Banks should engage trained forensic accountants to prevent fraud. Improved research that extends these findings into other industries to examine varied forensic accounting applications would improve the analysis.

Anghel and Poenaru (2023) highlighted the importance of forensic accounting for economic fraud detection and prevention because economic criminal activity continues to escalate. Criminals today use fraud, money laundering, and corruption, and forensic accountants use science and accounting to find illegally obtained funds. The rise in business scams due to technology has increased the need for forensic accountants. The professionals use statistical modeling, big data analysis, machine learning, face-to-face interviews, and physical site investigations to uncover the truth, exceeding typical financial auditss. Fraud investigation and corporate and criminal analytics integrity checks benefit from the comprehensive method. To protect organizations and citizens from economic crime, forensic accounting is essential.

Alshurafat (2024) developed new variables and appropriate measurements to analyze how forensic accounting services affect financial reporting and auditing. Five variables are crucial elements in forensic accounting cases, which include (1) Forensic accounting service index, (2) External auditors with forensic accounting competencies, (3) Audit committee characteristics about forensic services, (4) Litigation risk, and (5) Fraud risk. The study develops suitable metrics to measure these variables to improve forensic accounting research through an enhanced understanding of forensic techniques affecting fraud detection, legal processes, and financial reporting results. The findings bring vital implications to future research, which aids in developing an evidence-based forensic accounting profession while providing research directions for this field.

Mandal and S. (2023) evaluated how forensic auditors value the utility and fairness of the Forensic Accounting and Investigation Standards (FAIS). Descriptive statistics and 2x2 contingency analysis were used to analyze data from 18 accounting professionals. Research showed that professionals evaluated FAIS 410 as the highest for adoption and FAIS 240 as the lowest. The analysis found that most standards met natural justice fairness principles. According to external research, accounting specialists are ready to deploy FAIS since it will improve forensic accounting tasks. The results show why these guidelines are important for standardizing forensic audits processes and fair assessment. This study is the first to analyze FAIS's feasibility and fairness, promoting further research in financial crime prevention and inquiry.

Alkhalaileh et al. (2024) studied the effects of forensic accounting-skilled external auditors on their audited companies' financial results. Linear regression analysis through a quantitative assessment revealed that 74 companies within the service and industrial business sectors listed on the Amman Stock Exchange showed positive results from 2012 to 2021. The financial performance of audited companies improved when they employed auditors with forensic accounting competencies. According to research findings, companies should adopt forensic accounting expertise as part of their auditing procedures because it enhances their performance. The research delivers essential findings related to enhancing financial results through professional forensic investigator expertise, which benefits service businesses and industrial enterprises.

According to Indonesian internal auditors, the qualitative study by Maulidi et al. (2024) examined how organizational control, whistleblowing procedures, fraud awareness, and religiosity practices prevent fraud. The study involved fifteen state internal auditors, including inspectorate staff. The research showed that organizational control is the best fraud management approach, but whistleblower methods, fraud awareness, and religion also help. This study uses interactionist analysis to show how these preventive methods reduce fraud. While most fraud management research examines each aspect independently, the study examines how they work together to avoid fraud. The research provides crucial information on applying comprehensive ways to improve fraud prevention.

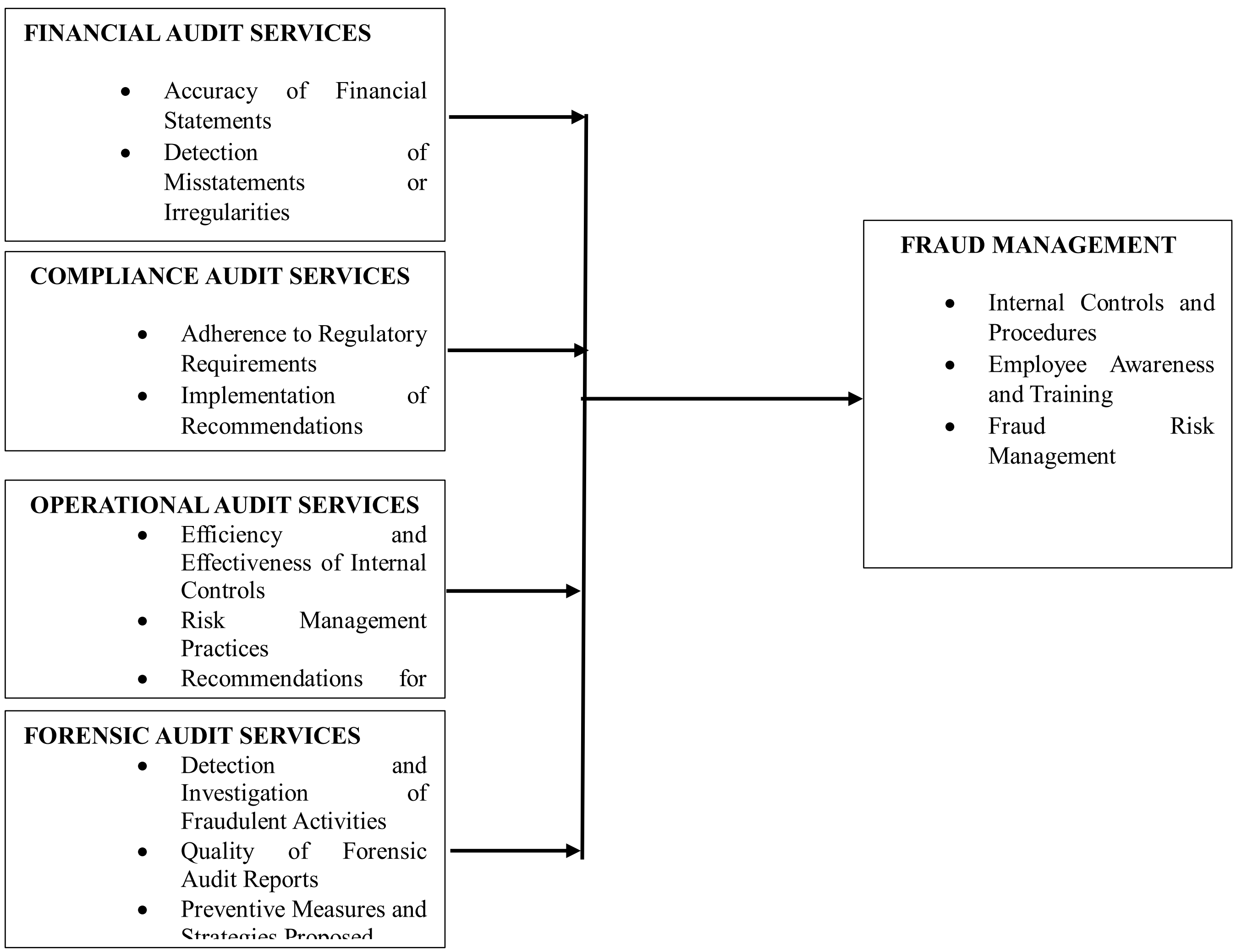
2.4 Conceptual Framework

Analysis frameworks show how independent and dependent variables are linked.

FIGURE 1:

Framework

Independent Variables **Dependent Variable**



Source (Author, 2024)

2.5 Summary of Reviewed Literature and Research Gaps

TABLE 1:

Summary of Reviewed Literature and Research Gaps

Author(s) & Year	Study Title	Findings	Knowledge Gap
Junaidi et al. (2024)	Public Sector Institutional Fraud Detection in Indonesia	Political skill and big data technologies improve fraud detection in public sector organizations.	Further research needed on integrating political skills with big data in other regions.
Grigoras-Ichim et al. (2024)	Financial Audits and Fraud Detection	Auditors must maintain professional doubt and establish strong controls to detect fraud effectively. A culture promoting transparency and integrity boosts the credibility of financial audits.	How auditors can consistently apply fraud detection measures across different national contexts.
Nadirsyah et al. (2024)	Internal Audit and Governance in Indonesian Local Governments	Fraud management drives governance improvements in internal audits. Internal control and fraud management positively affect governance.	Exploring the impact of fraud management in other government sectors outside Indonesia.
Kassem Turksen (2021)	Agency Theory and Independent Auditing for Public Sector Fraud	Delegation of authority increases fraud risks due to knowledge asymmetry. Public auditors play a crucial role in detecting fraud and ensuring transparency.	Need for further exploration of the implications of public sector fraud detection in developing countries.
Kurniawan et al. (2024)	Internal Control Mechanisms and Financial Accounting Fraud Prevention	Effective internal control systems prevent fraud by protecting assets and ensuring accurate financial reporting. Weak controls allow fraud to occur.	Exploration of long-term impacts of internal controls on reducing fraud in the public sector.
Yaqoub et al. (2023)	Accounting Fraud, Preventative Measures, and Firm Performance	Internal audit systems are essential for fraud detection, but training and auditing are less	Need for research into training and systems that

		critical. Contemporary technology reduces fraud risks.	could improve fraud detection further.
Andia (2024)	Fraud Management and Financial Stability in Kenya's Insurance Sector	Effective fraud controls enhance financial stability and sustainability within insurance organizations.	More research on how fraud management can be tailored to different sectors in Kenya.
Vutumu et al. (2024)	Internal Control in Nigerian Ministries to Prevent Embezzlement	Risk assessments, information communication, and monitoring activities help avoid fraud. Communication is the most important factor.	The role of communication strategies in fraud prevention within other public sector institutions.
Vutumu et al. (2025)	Forensic Accounting and Internal Controls in Nigeria's Government	Forensic accounting and internal controls effectively reduce fraud risks. Weak controls need improvement. Whistleblower mechanisms are critical.	Further study on the integration of forensic accounting practices in different governmental frameworks.
Yousefi Nejad et al. (2024)	Audit Quality and Financial Statement Fraud in Indonesia	Short audit periods increase fraud risks due to lack of understanding of operational dynamics. High-quality audits and IFRS implementation reduce financial fraud.	Need for research into how audit quality can be standardized across developing nations with varying legal frameworks.
Madzivire et al. (2020)	Forensic Audits Effectiveness in Zimbabwe	Auditor training is crucial for fraud detection. Litigation support services enhance forensic audits.	More research on overcoming the barriers to effective forensic audit training and the importance of litigation support.
Brink et al. (2022)	Internal Audit as Management Training	Using internal audit as a management training ground reduces auditors' willingness to	The ethical implications of using internal

	Ground and its Impact on Fraud Reporting	disclose fraud. Auditors prefer anonymous hotlines for reporting fraud.	audits for training purposes and its effect on fraud reporting behavior.
Abu Mouamer et al. (2020)	Fraud Detection and Prevention in Palestinian Ministry of Health	Fraud management technology successfully minimizes workplace fraud in the Ministry of Health.	Further investigation into legislative measures for preventing fraud within health sector organizations.
Alford (2022)	Fraud Detection Programs in Saudi Arabia	Good fraud-related guideline awareness exists, but difficulties in creating fraud detection systems persist. Lack of unified training programs limits effectiveness.	Research into how training programs can be standardized and implemented across public sector institutions.
Munteanu et al. (2024)	Red Flags Technique in Risk Assessments for Financial Fraud	The red flags technique helps auditors detect fraud risks. Specialized tools and anti-fraud audit methodologies improve audit quality and fraud detection.	Study on the impact of integrating red flags with other emerging fraud detection tools in the audit process.
Roszkowska (2021)	The Impact of Fintech Developments on Financial Reporting and Fraud Prevention	Technological advancements like blockchain, AI, and smart contracts can enhance audit reliability, increase transparency, and prevent fraud.	How these technological solutions can be universally applied in different organizational contexts.
Kesuma and Fachruzzaman (2024)	Internal Control and Accounting Fraud in Public Sector Institutions	Strong internal control systems protect financial integrity and reduce fraudulent activities in public sector accounting.	Further analysis of global best practices for implementing strong internal controls in various public sector entities.

Rehman and Hashim (2020)	Fraud Risk Assessment and Corporate Governance in Oman	Fraud risk assessments lead to better corporate governance practices and satisfied stakeholders. Governments should integrate fraud risk assessments into governance policies.	More research on integrating fraud risk assessments into governance structures across different public sectors globally.
Nurleni & Darmawati (2024)	Relationship Between Auditor Experience, Training, Skepticism, Integrity & Fraud Detection	Experience had no impact; training, skepticism, and integrity were key for fraud detection.	Lack of understanding of the precise mechanisms behind auditor experience in fraud detection.
Abd, Kareem, & Abbas (2020)	Audit Compliance for Corruption Reduction in Iraqi Government Institutions	Compliance audits mostly address non-compliance, not corruption directly. Independent reports on corruption needed.	Lack of independent corruption audits in current audit processes.
Kamara (2023)	Internal Audit's Effect on Public Sector Performance	Internal audits improve risk management, governance, and accountability. Combined internal and external audits enhance performance.	Limited research on combining internal and external audits for optimal public sector performance.
Urefe et al. (2024)	Government Financial Management Audit Processes & Compliance	AI technologies and training improve audits; capacity building is essential.	The need for more focused studies on AI's role in auditing within the public sector.
Alqudah et al. (2023)	Internal Audit Success Factors in Jordanian Public Sector	Management support, external cooperation, and independence improve auditor effectiveness.	Limited exploration of the role of rewards and external auditor cooperation in improving audit quality.
Kamara (2023, NRA)	Internal Audits at the National Revenue Authority (NRA) in Sierra Leone	Competent staff and adequate support improve audit effectiveness, but challenges with resources and data persist.	More research is needed on overcoming resource constraints in

			tax-related internal audits.
Lerchner et al. (2022)	Assessing Fraud Risk Governance and Management in Organizations	Fraud risk assessments are essential in audits to prevent fraud.	The challenge of integrating fraud risk management comprehensively in audit processes.
Hegazy & Farghaly (2021)	IIA Standards Compliance & Communication Between Auditors	Weak communication between internal and external auditors reduces audit efficiency and financial reporting quality.	Further research on the impact of internal-external auditor communication in emerging markets.
Thottoli (2021)	Impact of Compliance Audits on Financial Disclosure in Oman	Compliance audits enhance corporate disclosure compliance and promote better governance practices.	The role of compliance audits in driving corporate governance practices in emerging markets needs further exploration.
Mishra et al. (2023)	Internal Audits and Their Role in Tax Compliance	Effective internal audits improve tax compliance, reduce risks, and enhance governance.	Need for detailed examination of the obstacles organizations face during tax-related internal audits.
Shaban Barakat (2023)	Internal Audit Standards Implementation in Jordan’s Telecom Industry	Limited implementation of performance standards; need for broader coverage of internal audit practices.	More comprehensive studies on the implementation of IIA standards across various industries.
Yeboah (2020)	Internal Audit Effectiveness: Literature Review on Auditor Qualities	Managerial backing and auditor-executive collaboration are critical for audit effectiveness.	Limited focus on the differences between public and private sector audits and their effectiveness.

Hegazy & Farghaly (2021)	IIA Standards and Communication Between Internal and External Auditors	Lack of effective communication hinders audit quality and reporting; focus should be on understanding IIA standards.	Need for further exploration of IIA standards in different economic conditions and audit practices.
Hut-Mossel et al. (2021)	Healthcare Audit Functionality in Quality Improvement	Healthcare audits create lasting organizational change when led by professional champions.	Further exploration on how audit leadership and knowledge-sharing drive improvements in healthcare.
Xanthopoulou et al. (2024)	Public Sector Financial Management & Governance	Strong internal control systems, including audits, enhance financial integrity and governance in public universities.	Additional research on public university governance and the role of internal audits in resource management.
Ziorklui et al. (2024)	Internal Control Mechanisms for Fraud Prevention in Corporate Governance	Internal controls prevent fraud by implementing preventive and detective controls. Operational audits boost fraud protection and ethical workplace culture.	More research needed on the integration of technology and personnel training for internal control effectiveness.
Nadir et al. (2024)	Improving Local Government Governance through Internal Audit & Fraud Management	Internal audits improve internal control systems and governance, while fraud management positively affects outcomes. Financial practices link internal audit to governance outcomes.	Need for further research on how financial practices impact governance outcomes across different sectors.
Kamara (2023)	Effectiveness of Internal Audits for the National Revenue Authority (NRA)	Internal audits strengthen control systems, risk management, and public sector governance. Automated audit tools can enhance revenue collection systems.	Research is needed on overcoming resource limitations in government audits and

			integrating automation.
Abdul Bari et al. (2024)	Internal Auditing, Corruption Control & Corporate Governance	Internal auditors help detect fraud, promote ethics, and improve corporate governance. Data analytics and continuous monitoring improve audit efficiency.	Further studies are needed on the role of data analytics in internal auditing for fraud prevention.
Otoo et al. (2023)	Internal Control Systems & Banking Industry Outcomes	Control activities, environments, and risk assessments positively impact organizational effectiveness, but monitoring and communication systems need improvement.	More studies needed to investigate the role of internal controls in enhancing organizational performance.
Ong'are & Njeru (2022)	Internal Control & Fraud Management at State Corporations (Kenya Pipeline Co.)	Segregation of duties and internal control systems protect assets and improve financial performance. Management training is essential for control effectiveness.	Lack of research on the effectiveness of internal controls in public sector institutions; more is needed.
Dumoga (2022)	Enhancing Internal Control in Nonprofit Organizations	Weak internal controls in NPOs lead to financial collapse. Financial strategy assessment and internal control mechanisms are essential for fraud prevention.	Need for more research on the application of internal control systems in nonprofit organizations.
Ghanem & Awad (2023)	Internal Control Systems in Lebanon’s Commercial Sector	Control mechanisms like authority separation, audit cycles, and ethical training reduce fraud in commercial sectors.	More research is needed on how fraud management practices can be optimized for different sectors.
Maaroufi & El Haji (2022)	Internal Control Framework & Organizational Performance in Moroccan State Corporations	COSO framework components improve organizational performance in state corporations, though Moroccan corporations need more development in internal control systems.	More exploration needed on how the private sector’s internal control systems can be applied in

			public institutions.
Lubis et al. (2024)	Internal Audits, Controls & Audit Quality in Public Sector Fraud Prevention	Internal audit and control systems reduce fraud in public organizations, but audit quality showed no significant influence.	Further exploration needed on how audit quality impacts fraud prevention in public organizations.
Boufounou et al. (2024)	Internal Control Systems & Corruption Reduction in Greek Local Government	Proper workforce capabilities, technical resources, and cooperation reduce corruption and enhance economic growth.	More research needed on the integration of legislative norms and internal audit practices in public governance.
Ratliff (2022)	ERP System Internal Control Approaches in Corporations	Strong internal controls in ERP systems reduce financial reporting risks and fraud. Challenges include role-based access and implementation issues.	Further research on how internal control frameworks can be adjusted to improve ERP system fraud prevention.
Ogwiji & Lasisi (2022)	Internal Control Systems & Fraud Prevention in Nigerian Financial Services	Control environment and monitoring systems reduce fraud, but information communication links showed negative associations.	More studies needed on the effect of communication links in financial institutions' internal control systems.
Abei (2021)	Internal Control Systems & Fraud Prevention in Cameroon MFIs	Internal controls mitigate fraud by managing incentives, opportunities, rationalization, and capability. Improved monitoring and salary structures reduce fraud.	Need for broader research on internal control systems in microfinance institutions across different regions.
Herreros-Martínez et al. (2025)	Machine Learning for Internal Audits in Company	Machine learning improves audit processing by identifying suspicious patterns in procurement activities. SHAP	Further exploration of how machine learning can be

	Procurement Processes	improves the explainability of anomalies.	universally applied in internal audit frameworks.
Brink et al. (2022)	Forensic Accounting in Microfinance Institutions in Nigeria	Forensic accounting improves organizational integrity and helps prevent fraud in microfinance institutions. Technological advancements (AI, blockchain, data analytics) are predicted to enhance fraud prevention.	Further research is needed to assess the real-world impact of emerging technologies on fraud prevention.
Nandini & Raju (2021)	Forensic Audits in Corporate Financial Performance Fraud	Forensic audits are essential for preventing corporate fraud, enhancing governance, and holding managers accountable. They also improve external auditor independence.	Limited research on how forensic audits specifically influence corporate financial performance in varied industries.
Manning et al. (2025)	Traditional Auditing vs. Forensic Auditing in Government Institutions	Forensic auditing outperforms traditional audits in detecting fraud within public-sector institutions.	A deeper examination of how forensic auditing can be integrated into traditional auditing processes in public institutions.
Madzivire et al. (2020)	Forensic Auditing in Zimbabwean Chartered Accountancy Firms	Forensic auditing improves fraud detection but faces challenges due to inadequate training and lack of practical experience.	More exploration on effective training programs for forensic auditors in developing economies.
Achmad et al. (2024)	Forensic Accounting Competencies and Auditor Fraud Detection in Indonesia	Practical and psychosocial skills enhance fraud detection, while technical skills have a lesser effect. GAS tools improve auditor self-efficacy and fraud detection.	Further research on how different forensic accounting tools affect fraud detection across different industries.

Aliyu & Abeki (2024)	Forensic Audits in Nigerian Agricultural Enterprises	Proactive and reactive forensic audits improve business internal controls and ethics, reducing fraud in Nigerian agricultural firms.	Investigation on the long-term effectiveness of forensic audits in preventing fraud in agricultural enterprises.
Nyakundi (2024)	OAG Forensic Audit Reports and Corruption Investigations in Kenya	Clear and accessible forensic audit reports, alongside independent operations of the OAG, improve the effectiveness of corruption investigations.	Need for more research on improving forensic audit reporting standards for corruption investigations.
Kagombora & Mbogo (2024)	Proactive Forensic Audits in Asset Preservation at TRA Kariakoo	Deficient forensic auditor qualifications and subpar fraud detection systems hinder asset preservation. Increased training and awareness are necessary to improve asset protection.	Further study on the impact of fraud awareness programs in government organizations like the TRA.
Vutumu (2024)	New Forensic Accounting Concept for Fraud Management	Proposed the "Vutumu Forensic Accounting Theory" which integrates control systems, whistleblower hotlines, governance, and digital fraud reviews for proactive fraud detection.	Exploration of practical applications of the Vutumu Forensic Accounting Theory in different sectors.
Guellim et al. (2024)	Systematic Review of Forensic Accounting Literature	Examined the role of forensic accounting, its educational and professional requirements, and future directions for research.	Identification of gaps in forensic accounting education and training to meet the evolving needs of the field.
Boyelaye (2021)	Forensic Audits and Fraud Detection in Nigeria's Public Sector	Forensic audits significantly aid in fraud detection in Nigeria's public sector. Effective forensic auditing strategies include integrating litigation support services and investigative accounting.	Exploration of how forensic auditing practices can be standardized and adopted across various

			government departments.
Alhassan (2020)	Forensic Accounting in Nigerian Public Sector Fraud Detection	Forensic accounting can detect fraud in the public sector, and improved internal controls, monitoring, and auditing practices help prevent fraud.	Further research on the implementation of forensic accounting in diverse public sector environments.
Mvunabandi & Nomlala (2022)	Proactive Forensic Auditing in NGOs	Proactive forensic auditing methods help prevent financial statement fraud in NGOs, providing a comprehensive approach to fraud risk management and financial integrity.	Study on the adoption of proactive forensic auditing methods across various NGOs.
Ofoje & Aggreh (2023)	Forensic Investigation Methods in Nigerian Public Sector	Computerized forensic methods significantly improve fraud detection in Nigeria's public sector. Forensic accounting techniques and data analytics enhance fraud detection abilities.	More research on the integration of AI and data analytics into forensic investigation in public sectors.
Akinleye & Akadi (2024)	Forensic Accounting and Financial Misconduct in Nigerian Banks	Forensic surveillance, interview questioning, and inspection help improve fraud detection and prevention in Nigerian banks.	Need for further research on the scalability of forensic accounting techniques in various banking systems.
Anghel & Poenaru (2023)	Forensic Accounting in Economic Fraud Prevention	Forensic accounting, including big data analysis, machine learning, and physical investigations, is critical in uncovering economic fraud, including corruption and money laundering.	More research on how emerging technologies like AI and machine learning can enhance forensic accounting's role in fraud prevention.
Alshurafat (2024)	Impact of Forensic Accounting Services	Forensic accounting improves fraud detection, litigation processes, and financial	Future research on creating standard

	on Financial Reporting	reporting. Developed metrics for evaluating forensic accounting services in fraud cases.	measures for assessing forensic accounting services in diverse industries.
Mandal & S. (2023)	Forensic Accounting and Investigation Standards (FAIS)	FAIS are crucial for standardizing forensic audits, improving fairness, and making fraud detection processes more consistent.	Investigation into the global adoption and application of FAIS to ensure consistent practices across jurisdictions.
Alkhalaileh et al. (2024)	Forensic Accounting Skilled Auditors and Company Performance	Companies with forensic accounting-skilled auditors show improved financial performance.	Further research on how forensic accounting skills influence financial results in different industries.
Maulidi et al. (2024)	Fraud Prevention Methods among Indonesian Internal Auditors	Organizational control is the best fraud management approach, while whistleblowing procedures, fraud awareness, and religiosity also help prevent fraud.	Exploration of how these combined methods can be optimized across different organizational environments.

Source (Author, 2025)

2.6 Operationalization of Variables

The study analyzed independent-dependent relationships. Financial audits ensure financial statement correctness, timely error detection, audit timeliness, compliance audits for regulatory compliance and capitalizing on recommendations, operational audits evaluate control systems and risk management methods, and forensic audits detect fraud and create prevention strategies to maintain public organization security in Kenya. The study examines how internal controls, staff knowledge, and fraud risk management functions prevent fraud in state corporations and analyzes the audit services' overall success in fighting fraud and increasing organizational accountability. These variables were operationalized in Table 2.1 to show how each component affects public organization fraud prevention.

TABLE 2:

Operationalization of Variables

Variable	Indicators	Data collection instrument	Type of data, scale, measure scale	Research Design / analysis
Financial Audits	Accuracy of Financial Statements	Questionnaire	Quantitative Data Likert Scales (1-5) Ordinal scale Nominal scale	Descriptive Inferential Percentages Frequencies
Compliance Audits	Adherence to Regulatory Requirements	Questionnaire	Quantitative Data Likert Scales (1-5) Ordinal scale Nominal scale	Descriptive Inferential Percentages Frequencies
Operational Audits	Efficiency and Effectiveness of Internal Controls	Questionnaire	Quantitative Data Likert Scales (1-5) Ordinal scale Nominal scale	Descriptive Inferential Percentages Frequencies
Forensic Audits	Detection and Investigation of Fraudulent Activities	Questionnaire	Quantitative Data Likert Scales (1-5) Ordinal scale Nominal scale	Descriptive Inferential Percentages Frequencies
Fraud management In Public Organizations	Evidence of Fraud Prevention	Questionnaire	Quantitative Data Likert Scales (1-5) Ordinal scale Nominal scale	Descriptive Inferential Percentages Frequencies

Source: (Research, 2025)

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

Research methodology serves to connect philosophical designs with specific study methods. The methodology documents research concerns and organizational structure through step-by-step procedure definitions. Through this chapter, the researcher builds connections with study participants by outlining the research design along with study territory res, pendent selection strategies, and data collection methods. The study includes detailed discussions about instrument reliability and validity data, collection procedures, approaches, and ethical practices to guarantee methodical research and protect research integrity.

3.2 Research Design

The study employed a descriptive to evaluate internal audit services and their fraud management effects within Kenyan state corporations. This design proves perfect for social sciences since it describes active procedures while abstaining from variable modification (Nyongesa, Mabele, & Murunga, 2021). The research used descriptive findings to represent current internal audit practices and to demonstrate audit service relations with fraud prevention. The method matched the research's interpretivist framework to deliver precise insights about how internal audits affect fraud prevention.

3.3 Target Population

According to Schutt et al. (2015), the target population includes all potential participants holding information needed to resolve the research question while fulfilling the study's aims. The selected target population comprises 280 state corporation officials who possess essential information about internal audit processes because they actively participate in those procedures. The Inspectorate of State Corporations (ISC) oversees over 280 operational state corporations in Kenya (Inspectorate of State Corporations, 2025). These corporations are established under the State Corporations Act, Cap 446, and are seen as engines for driving the Kenyan economy. Appendix II lists these corporations.

3.4 Sampling and Sampling Procedure

The study employed a stratified random sampling technique to ensure proportional representation of all sectors within Kenyan state corporations. The target population comprised 280 corporations, categorized into key sectors such as energy, finance, transport, agriculture, and manufacturing. Using Yamane's formula at a 95% confidence level and a 5% margin of error, the sample size was determined as n = 165. From each selected corporation, one officer knowledgeable in internal audit functions was randomly chosen to participate. Stratification minimized sampling bias and improved representativeness across different organizational types.

$$n = \frac{N}{1 + N(e)^2} = \frac{280}{1 + 280(0.05)^2} = \frac{280}{1 + 0.70} = \frac{280}{1.70}$$

Thus, n = 165.

3.5 Research Instrument

The research obtained data through the use of a questionnaire. The research instrument includes two sections comprising a designed questionnaire to collect data. The first section of the questionnaire, Section A: Background Information obtains basic demographic data to understand participant responses better. Section B: Study Variables employs a Likert scale for gauging participant responses regarding attitudes, perceptions, and behaviors. The assessment tool consists of a 5-point rating system starting at Strongly Agree (SA) at the top end of the scale and ending at Strongly Disagree (SA) at the lowest point. The values between 2 and 4 (A to N to DA) signify different degrees of agreement and disagreement. The measurement scale helps evaluate emotional responses to generate complex insights about participant opinions. Through the Likert scale, researchers achieve precise and uniform assessment of participants' attitudes towards the study's variables.

3.6 Validity and Reliability of the Instrument

3.6.1 Validity

Expert review and pilot testing were used to establish the content, construct, and face validity of the instrument. The academic experts of the Department of graduate studies at the KCA University decided on the content validity of questionnaire by assessing the suitability of the questionnaire to the study objectives (Lumuli, Mabele, and Murunga, 2022). The face validity was tested in the pilot test when respondents in similar organizations were interviewed to make sure that the questions are clear and understandable (Clapp et al., 2023). Construct validity was ensured by mapping items on four main variables financial, compliance, operational and forensic audits to provide conceptual accuracy (Zreik et al., 2022).

3.6.2 Reliability

A pilot study was done with 28 respondents, which constituted 10 percent of the target population in order to do reliability testing. Cronbachs Alpha was used to measure internal consistency of the instrument, as per recommendations by Chepkoech (2021), in which coefficients of 0.70 and above are considered to be acceptable. This method proved the ability of all constructs to provide consistent and reliable results such as financial, compliance, operational and forensic audits to provide accurate and stable data that can be subjected to quantitative analysis. The results supported the appropriateness of the tool in measuring the internal audit services in fraud management of Kenyan state corporations.

3.7 Data Collection Procedure

The researcher acquired permission from the KCA University ethics review committee to enable proper data collection and execution. Three carefully trained research assistants supported the data collection process the study hired before beginning field activities. The training program taught them about the study aims, their responsibilities, and required data collection requirements. Participants were given a two-week time frame to provide thoughtful answers after questionnaires are delivered to them. Research assistants made their second collection round after the two-week questionnaire period has concluded. The extended period enables interviewees to finish their questionnaires carefully, leading to enhanced response quality. The method ensures data reliability and validity through its capacity to support respondents in examining questions while avoiding hasty or insufficient completion of forms.

3.7.1 Pilot Testing

A pilot test was conducted to assess the efficacy of the study instruments prior to the actual data collection process. Consequently, three state corporations were selected: the Kenya Revenue Authority (KRA), the National Social Security Fund (NSSF), and the Kenya Power and Lighting Company (KPLC). These institutions were deliberately chosen due to their status as substantial state businesses with significant involvement in financial transactions, regulatory compliance, and internal control systems, making them particularly suitable for evaluating instruments linked to fraud management. These 28 officials were randomly picked from the head offices of these three corporations in Nairobi, constituting approximately 10 percent of the target population. The sampling included Internal Auditors, Compliance Officers, Finance Officers, Operation Managers, and other personnel such as risk and legal staff to ensure balanced representation of both supervisory and operational functions. The pilot exercise was employed to identify and correct inconsistencies, ambiguities, and methodological deficiencies in the instruments. The officials' responses facilitated the refinement of the questionnaires, enhancing their clarity, reducing the time required for completion, and ensuring overall reliability, thereby confirming the instruments' acceptability and validity for the main study.

3.8 Data Analysis

Data analysis transformed original information into a proper form to develop conclusions. Cleaning operations by the researcher consist of disposing of extra data and fixing existing mistakes. A statistical description presented demographic data through frequencies, proportions, means, and standard deviations. When conducting inferential tests, multiple linear regressions helped discover interrelations between variables to validate predictions while conducting hypothesis validations. Presented results appeared in tables alongside charts for easy interpretation by the audience.

The study used the following regression analysis model.

$Y= \beta 0 + \beta 1X1+ \beta 2X2 + \beta 3X3 + \beta 4X4 + \epsilon$

Y= fraud management in public organizations

$\beta 0$ =Constant; $\beta 1$-$\beta 4$ = Coefficients of independent study variables; ϵ= error term

X1= financial audits; X2= compliance audits; X3= operational audits; X4= forensic audits

3.9. Diagnostic Tests

Diagnostic tests must be a preliminary step to linear regression because linear regression demonstrates significant sensitivity towards outliers and influential points. The study verified the normality of distribution in addition to linearity, homoscedasticity, and multicollinearity in the data. The Shapiro-Wilk test methods evaluated the data normality distribution. Residuals were evaluated to examine their homoscedasticity during the diagnostic test. The assessment of multicollinearity used Variance Inflation Factor (VIF) and tolerance values. The applied tests validated and authenticate the regression analysis results.

3.9.1 Normality Test for Error Term

The Normality Test of the study examines the distribution pattern between predicted and observed response variables along the dependent scores (Sebikari, 2019). The author used the Shapiro-Wilk Test to evaluate the normality of data distribution. The significance of distribution deviation from a normal pattern was detected through a p-value below 0.05, indicating that the linear regression assumption of normality is being compromised. A p-value of more than 0.05 will show that data points do not deviate considerably from normality, supporting the necessary normal distribution condition for linear regression evaluation. The test established whether it is suitable to proceed with regression analysis involving these data sets.

3.9.2 Heteroscedasticity

Regression disturbances produce variances that differ from observation to observation, producing inefficient estimates (Casinillo & Casinillo, 2020). The presence of heteroscedasticity affects both time-series and cross-sectional analysis by damaging the efficiency of estimated models, according to Khezri, Heshmati, and Khodaei (2021). The Breusch-Pagan Test served as the heteroscedasticity detection method. Heteroscedasticity exists when the p-value from the test becomes less than 0.05, which indicates that residuals show non-constant variance. When heteroscedasticity exists, researchers should apply robust standard errors as a remedy to maintain reliable regression outcomes.

3.9.3 Multicollinearity Test

The Variance Inflation Factor (VIF) method and tolerance value assessment determined multicollinearity presence. According to Field (2009), both tolerance values exceeding 0.1 indicate a lack of multicollinearity between the independent variables, which means they do not significantly correlate with other independent variables. High multicollinearity occurs when VIF exceeds 10, indicating a strong connection between two or more independent variables. The presence of multicollinearity affects the reliability of regression coefficients by disrupting their accurate calculation. To validate the regression analysis, the research adopted corrective measures that include variable removal and combining when detecting multicollinearity.

3.10 Ethical Consideration

McNabb and Murayama (2021) state that researchers must follow ethical guidelines from planning to execution to protect participant rights. Ethical concerns prevent disputes caused by guideline violations and safeguard responders (Payne & Payne, 2004). Ethics issues in research include confidentiality, data manipulation, nondisclosure, personal freedom, and privacy violations (Al-Ababneh, 2020; Rowley, 2014). The researcher needs permission from the KCA University Ethics Review Committee to follow ethical norms. Research participants were told to minimize identifying details on questionnaires and can withdraw their data at any time.

CHAPTER FOUR: FINDINGS AND DISCUSSION

4.1 Introduction

This chapter analyzes data on how internal audit affects fraud management in Kenyan state corporations. It begins with the descriptive statistics to summarize the demographics of the respondents, and then give the outcomes of each study objective. Inferential analysis establishes the linkages between financial, compliance, operational, forensic, and fraud management audits. To simplify interpretation, descriptive and regression findings are compiled and arranged in tables. The study's initial research questions and objectives guide the analysis. This chapter further discusses the findings' relevance to the literature, noting patterns, trends, and variances. The findings provide an empirical foundation for the conclusion and recommendations in later chapters.

4.2 Response Rate

The survey obtained 135 completed questionnaires from the 165 distributed to officers serving in Kenyan state corporations, resulting in a response rate of 81.8%. The individual officers engaged in the internal audit and fraud management functions constituted the unit of observation. Accounting Officers (41), Officers (40), Compliance Officers (35), and Chief Executive Officers (CEOs) (29). This indicates that Accounting Officers constitute the largest group in the organization, closely followed by general Officers. Compliance Officers form a substantial portion of the workforce, reflecting a strong focus on regulatory adherence, while CEOs, being fewer in number, represent the top management responsible for strategic decision-making. The officers were sourced from state corporations listed in Appendix 11 - State Corporations. These selections were deliberate, as they involve professionals who have the greatest direct engagement with the design, implementation, and supervision of internal controls, financial reporting, compliance systems, and operational processes. Their perspectives afforded them direct insight into the challenges and efficacy of approaches in the realm of fraud management. The turnout of 81.8 percent, exceeding the 70 percent threshold recognized for robust generalizations (Mugenda and Mugenda, 2003), not only indicated the respondents' willingness to participate but also proved the legitimacy and validity of the findings.

4.3 Reliability Analysis

TABLE 3:

Reliability Statistics for Study Constructs

Construct	Cronbach's α	Number of Items
Financial Audits	.94	5
Compliance Audits	.93	5
Operational Audits	.95	5
Forensic Audits	.92	5
Fraud Management	.93	5

Note. Cronbach's alpha values above .70 indicate acceptable reliability; values in the .90s suggest excellent internal consistency

Table 3 shows the dependability of the investigative models used to quantify internal audits' influence on Kenyan state businesses' fraud management. Each of the five constructs has Cronbach alpha above.70, indicating high reliability. Financial Audit (.94), Compliance Audit (.93), Operational Audit (.95), Forensic Audit (.92), and Fraud Management (.93) had good internal consistency. This means these constructs' measures were highly correlated and reliable in measuring the intended characteristics. This is high (.90s), indicating that respondents interpreted survey items consistently and coherently to reduce measurement error. The study's results may be statistically sound, making conclusions about internal audit's role in fraud control more credible.

4.4 Demographic Information

Demographic data about respondents was evaluated to contextualize the study's conclusions. Gender, age, education, work experience, and departmental affiliation were discussed. The replies were inclusive because male and female participants were evenly represented. Most responders are busy professionals with substantial job experience, aged 30–45. Most were undergraduates and postgraduates with strong internal audit and fraud management skills. Most participants had over five years of state corporation experience, assuming they are familiar with organizational processes. These demographic data will ensure that respondents were well-informed and could comment on the study objectives.

4.4.1 Current Position

TABLE 4:

Respondents' Current Position

Position	Frequency	Percent
Compliance Officer	29	21.5
Finance Officer	28	20.7
Internal Auditor	34	25.2
Operations Manager	26	19.3
Other	18	13.3
Total	**135**	**100.0**

Note. Percentages are based on valid responses (N = 135).

Table 4 summarizes Kenyan state corporation respondents' status. The largest groups were Internal Auditors (25.2%), Compliance Officers (21.5%), and Finance Officers (20.7). Operation Managers brought 19.3 and 13.3 to other jobs. This distribution indicates that the sample was a diverse group of internal audit specialists. Internal auditors are essential to practice implementation and audit controls, making the study strong. Also, adding Compliance and Finance Officer ensures that key control and monitoring functions are represented. Diverse responsibilities give a balanced view of internal audits by different fraud management positions. This heterogeneity makes the data more generalizable and allows strong inferences about state corporation internal audits' efficacy.

4.4.2 Age

The respondents were asked to indicate their age, and the findings are presented in Table 5 below.

TABLE 5:

Respondents' Age Distribution

Age Group	Frequency	Percent
Below 25	26	19.3
25–34	22	16.3
35–44	32	23.7
45–54	32	23.7
55+	23	17.0
Total	**135**	**100.0**

Note. Percentages are based on valid responses (N = 135).

Table 4.3 indicates Kenyan state corporation respondents' ages. The highest age categories were 35–44 (23.7) and 45–54 (23.7), followed by 35–44 (19.3) and 55+ (17.0). 16.3% of participants were 2534 years old, the youngest age group. This suggestion states that the sample included younger and older workers, ensuring diverse perspectives. The predominance of mid-career respondents (35-54 years) suggests that many had enough field experience to grasp internal audit practices and effective fraud management processes. Younger workers are fresh-thinking, whereas older ones are experienced. This age balance adds credibility to the results by integrating different generational perspectives on internal audits and fraud management in state enterprises.

4.4.3 Level of Education

The respondents were asked to indicate their highest level of education, and the findings are presented in Table 6 below.

TABLE 6:

Respondents' Level of Education

Education Level	Frequency	Percent
High School	26	19.3
Undergraduate	29	21.5
Master's	32	23.7
Doctorate	25	18.5
Other	23	17.0
Total	**135**	**100.0**

Note. Percentages are based on valid responses (N = 135).

Table 4.4 indicates respondents' education. Most of them had advanced degrees, 23.7 percent with masters and 18.5 percent with doctorates. There were 21.5% undergraduate degree holders, 19.3% high school graduates, and 17.0% Others. This dispersion suggests that the research sample was well-educated, as over 40% were postgraduates. Such academic degrees would indicate that respondents were well-rounded analytical and professional specialists interested in internal audit techniques and fraud management. Undergraduate and high school levels are represented, so persons with diverse education levels can be studied, providing a diversified perspective. High education boosts the validity of answers because respondents will be willing to give knowledgeable views regarding the necessity of internal audits in combatting state company fraud.

4.4.4 Years of Experience

The respondents were asked to indicate their years of experience, and the findings are presented in Table 7 below.

TABLE 7:

Respondents' Years of Work Experience

Years of Experience	Frequency	Percent
< 1 year	34	25.2
1–3 years	35	25.9
4–6 years	33	24.4
> 6 years	33	24.4
Total	**135**	**100.0**

Note. Percentages are based on valid responses (N = 135).

Table 4.5 shows years of work experience of the respondents working in state corporations. Experience ranges from 25.9, 25.2, and 24.4 years, reflecting 1-3 years, 4-6 years, and over 6 years. This balance illustrates that the study considered both new and experienced personnel. The high percentage of responders with over 4 years of experience suggests that most were knowledgeable about organization systems, internal audit functions, and fraud concerns. The addition of younger staff offers a fresh perspective, focusing on young professionals at the start of their careers to comprehend internal audit methods. This diversity of work experience ensures that the analysis covers both the experienced and new perspectives, strengthening conclusions on internal audits' fraud management efficiency.

4.4.5 Department

The respondents were asked to indicate the department they work for, and the findings are presented in Table 8 below.

TABLE 8:

Respondents' Department

Department	Frequency	Percent
Compliance	20	14.8
Finance	31	23.0
Human Resources	28	20.7
Internal Audit	20	14.8
Operations	36	26.7
Total	**135**	**100.0**

Note. Percentages are based on valid responses (N = 135).

Table 4.6 indicates the departmental distribution of respondents in the state corporations in Kenya. The Operations Department (26.7%), Finance (23%), and Human Resources (20.7%), created the most. Compliance had 14.8% respondents and Internal Audit 14.8%. This depiction balances operational and oversight roles. Good Finance and Internal Audit representation is particularly important because the two positions detect, prevent, and report fraud. The study is strengthened by including compliance specialists to gather regulatory and risk viewpoints. Operations and Human Resources provide organizational viewpoints, thus insights are not limited to financial control units. This departmental representation gives the study legitimacy by providing a complete understanding of how internal audits affect functional fraud management.

4.4.6. Level of Involvement in Internal Audit Activities

The respondents were asked to indicate their level of involvement in internal audit activities, and the findings are presented in Table 9 below.

TABLE 9:

Respondents' Level of Involvement in Internal Audit Activities

Position	Frequency	Percentage (%)
Accounting Officer	40	29.6
Officer	35	25.9
Compliance Officer	30	22.2
Chief Executive Officer	30	22.2
Total	135	100

Note. Percentages are based on valid responses (N = 135).

Table 9 shows the level of involvement of the respondents in internal audit activities. Accounting Officers represent the largest share of the workforce at 29.6%, followed by general Officers at 25.9%. Compliance Officers and Chief Executive Officers each account for 22.2%, indicating a balanced distribution between operational, compliance, and leadership roles. A relatively high percentage of those very involved indicate that many are involved in audit practices and can contribute an informed perspective to the study. However, the lack of involved and unsure responses suggests black holes in awareness and engagement that may indicate organizational communication or structural concerns. The highly involved and less engaged participants will present the viewpoints of both active audit practitioners and those not intimately tied to internal audit functions, adding diversity to the outcomes.

4.5 Descriptive Statistics

The study data was summarized and interpreted using descriptive statistics. Fraud management responses were assessed using means and standard deviations from financial, compliance, operating, and forensic audits. The mean audit dimensions ratings were high, indicating that respondents valued internal audits for fraud prevention and accountability. Operations and compliance audits have a greater impact on state corporation governance due to their higher averages. Low standard deviations showed response consistency, ensuring reliability. These descriptive results form the basis for inferential analysis, including internal audit practice connections with fraud management results.

4.5.1 Financial Audits

TABLE 10:

Descriptive Statistics for Financial Audit Items

Item	N	Minimum	Maximum	Mean	Std. Deviation
The internal audits in state corporations ensure that financial statements are free from material misstatements.	135	1	5	2.51	1.29
Financial statements in state corporations accurately reflect the financial position and performance of the organization.	135	1	5	2.64	1.32
The internal audit process in state corporations identifies and corrects errors in financial reporting before they affect the final statements.	135	1	5	2.59	1.28
Internal audits in state corporations contribute to the reliability of the financial data used in decision-making.	135	1	5	2.54	1.39
The accuracy of financial statements is significantly improved by the recommendations made during internal audits in state corporations.	135	1	5	2.68	1.38

Note. N = 135. Responses were rated on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree).

Table 10 gives descriptive statistics of financial audit items. The findings show poor agreement in all five statements. Respondents were least confident that internal audits ensure financial statements are not affected by substantial misstatements, with the biggest standard deviation (SD = 1.29) and lowest mean score (M = 2.51). Financial statements may accurately reflect organizational performance was not widely accepted (M = 2.64, SD = 1.32). The capacity to recognize and remedy reporting problems before finalizing rated poor (M = 2.59, SD = 1.28). Audits contributed to decision-making with little reliability (M = 2.54, SD = 1.39). The maximum value (M = 2.68, SD = 1.38) showed considerable recognition that audit recommendations improve statement precision. The responses show ambivalence and weak faith in financial audits' ability to improve reporting and prevent fraud.

4.5.2 Compliance Audits

TABLE 11:

Descriptive Statistics for Compliance Audit Items

Item	N	Minimum	Maximum	Mean	Std. Deviation
Internal audits in state corporations ensure that the organization adheres to all relevant regulatory requirements.	135	1	5	2.59	1.23
Compliance with national laws and regulations is regularly monitored through internal audits in state corporations.	135	1	5	2.57	1.34
The internal audit process effectively identifies areas where the state corporation may not be fully compliant with regulatory requirements.	135	1	5	2.62	1.29
Internal audits contribute to improving the state corporation's adherence to both local and international regulatory standards.	135	1	5	2.45	1.28
The recommendations from internal audits are often implemented to improve compliance with regulatory frameworks in state corporations.	135	1	5	2.67	1.27

Note. N = 135. Responses were rated on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree).

Table 11 provides a descriptive statistic of compliance audit items. Findings show low agreement in five statements. The respondents were not confident in the internal audit procedure to ensure regulatory compliance (M = 2.59, SD = 1.23) or in checking national regulations (M = 2.57, SD = 1.34). The mean (M = 2.62, SD = 1.29) was slightly higher, indicating some recognition that audits find non-compliance. Internal audits' function in improving local and international standards compliance scored lowest (M = 2.45, SD = 1.28), indicating a lack of enthusiasm for its requirements. Maximum score (M = 2.67, SD = 1.27) showed the slightest realization that audit recommendations improve compliance. The replies indicate ambivalence and weak perceptions, suggesting that state business compliance audits may not promote regulatory responsibility as well as they should.

4.5.3 Operational Audits

TABLE 12:

Descriptive Statistics for Operational Audit Items

Item	N	Minimum	Maximum	Mean	Std. Deviation
Internal audits in state corporations assess the efficiency of internal controls in safeguarding assets and managing losses.	135	1	5	2.76	1.29
Internal controls in state corporations are effective in ensuring the accuracy and reliability of operational processes.	135	1	5	2.66	1.38
The internal audit process effectively identifies inefficiencies in internal controls and suggests improvements for better performance.	135	1	5	2.73	1.37
Internal audits contribute significantly to improving the overall effectiveness of operational procedures in state corporations.	135	1	5	2.56	1.27
The internal controls in state corporations are regularly evaluated to ensure they remain efficient and capable of addressing emerging risks.	135	1	5	2.47	1.29

Note. N = 135. Responses were rated on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree).

Table 12 depicts descriptive statistics of the items of operational audit. This section had slightly higher results than financial and compliance audits, but still below neutral. The highest mean (M = 2.76, SD = 1.29) showed moderate agreement that internal audits assess internal controls' asset and loss management effectiveness. Also, awareness that audits expose inefficiencies and provide solutions was poor (M = 2.73, SD = 1.37). In addition, respondents supported operational controls that ensure correctness and reliability (M = 2.66, SD = 1.38). There was less confidence that audits improve operational procedures (M = 2.56, SD = 1.27) and the lowest mean (M = 2.47, SD = 1.29) showed that respondents did not agree that controls are routinely checked for emergent risks. Overall, operational audit perceptions emphasize role recognition but the need to improve audit methods.

4.5.4 Contribution of Forensic Audits

TABLE 13:

Descriptive Statistics for Forensic Audit Items

Item	N	Minimum	Maximum	Mean	Std. Deviation
Forensic audits in state corporations effectively detect fraudulent activities and prevent financial losses.	135	1	5	2.52	1.28
The internal audit team actively investigates potential fraudulent activities within state corporations.	135	1	5	2.71	1.30
Forensic audits contribute significantly to identifying fraud and misconduct that may go unnoticed through regular audits.	135	1	5	2.46	1.30
The forensic audit process in state corporations is efficient in tracing and addressing the root causes of fraudulent activities.	135	1	5	2.56	1.26
Recommendations from forensic audits are effectively implemented to prevent future fraudulent activities in state corporations.	135	1	5	2.44	1.31

Note. N = 135. Responses were rated on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree).

Table 13 shows the descriptive statistics of forensic audit items, which are the perceptions of the respondents about their work on detecting and managing fraud. The average agreement on the items is lower to moderate, indicating that state firms underuse forensic audits. Maximum mean (M = 2.71, SD = 1.30) suggests some understanding that internal audit units investigate fraud.

Forensic audits' ability to identify and address fraud's root causes was somewhat supported (M = 2.56, SD = 1.26). Discovering fraud and preventing financial losses (M = 2.52, SD = 1.28), discovering misconduct that remained unnoticed during routine audits (M = 2.46, SD = 1.30), and following recommendations (M = 2.44, SD = 1.31) had lower values. Such results show that forensic auditing should be improved to prevent fraud and build trust in the company.

4.5.5 Fraud Management

TABLE 14:

Descriptive Statistics for Fraud Management Items

Item	N	Minimum	Maximum	Mean	Std. Deviation
There is clear evidence that fraud management measures are effectively implemented within state corporations.	135	1	5	2.56	1.30
Internal controls and procedures put in place by state corporations are strong enough to prevent fraudulent activities.	135	1	5	2.58	1.26
State corporations regularly assess the effectiveness of their fraud management strategies.	135	1	5	2.66	1.38
There are sufficient training and awareness programs for employees to understand and identify fraud risks.	135	1	5	2.44	1.23
The implementation of fraud management measures has resulted in a noticeable reduction of fraudulent activities in state corporations.	135	1	5	2.64	1.25

Note. N = 135. Responses were rated on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree).

Table 14 represents descriptive statistics of fraud management practices of state corporations. The results reveal moderate fraud management efficacy among responders. Regular examination of fraud management techniques (M = 2.66, SD = 1.38) and perception that fraud management measures reduce fraud (M = 2.64, SD = 1.25) got the highest mean scores. This suggests proactive monitoring. However, employee training and awareness programs had lower means ($M = 2.44$, $SD = 1.23$), suggesting fraud detection capacity-building is still weak. Fraud prevention controls ($M = 2.58$, $SD = 1.26$) and measures ($M = 2.56$, $SD = 1.30$) were also considered ineffective. The results indicate that state firms have significant gaps in awareness, prevention, and strategy use, even with fraud control programs.

4.6 Correlation Analysis

TABLE 15:

Correlations

		Financial	Compliance	Operational	Forensic	Fraud_Management
Financial_Audits	Pearson Correlation	1	.718**	.831**	.805**	.730**
	Sig. (2-tailed)		.000	.000	.000	.000
	N	135	135	135	135	135
Compliance_Audits	Pearson Correlation	.718**	1	.753**	.719**	.696**
	Sig. (2-tailed)	.000		.000	.000	.000
	N	135	135	135	135	135
Operational_Audits	Pearson Correlation	.831**	.753**	1	.802**	.767**
	Sig. (2-tailed)	.000	.000		.000	.000
	N	135	135	135	135	135
Forensic_Audits	Pearson Correlation	.805**	.719**	.802**	1	.694**
	Sig. (2-tailed)	.000	.000	.000		.000
	N	135	135	135	135	135
Fraud_Management	Pearson Correlation	.730**	.696**	.767**	.694**	1
	Sig. (2-tailed)	.000	.000	.000	.000	
	N	135	135	135	135	135

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

Table 15 shows the Pearson correlation coefficients between financial audits, compliance audits, operational audits, forensic audits, and fraud management. All constructs show substantial positive relationships, with values ranging from $r = .694$ to $r = .831$ ($p < .01$). Operational audits had the strongest correlation with fraud management ($r = .767$, $p < .01$), as they play a significant role in asset protection and internal operations efficiency. Financial audits favorably correlate with fraud management ($r = .730$, $p < .01$), enhancing reporting accuracy and finding irregularities. Compliance audits ($r = .696$, $p < .01$) and forensic audits ($r = .694$, $p < .01$) also positively correlated with fraud management, but less so. These findings imply that internal audit techniques improve fraud management, with operational audits being the most beneficial.

4.7 Diagnostic Tests

Diagnostic tests were done before regression analysis to ensure the model met statistical assumptions. Normality, linearity, multicollinearity, and homoscedasticity were tested. The residual values were normally distributed, and the linearity test showed a linear relationship between independent factors and fraud management. No substantial multicollinearity was found between predictors using the Variance Inflation Factor (VIF). Homoscedasticity tests permitted constant error term variance. These results demonstrated that the regression model can accurately analyze and interpret results.

4.7.1 Normality Test for Error Term

TABLE 16:

Tests of Normality for Study Variables

Variable	Kolmogorov–Smirnov Statistic	df	Sig.	Shapiro–Wilk Statistic	df	Sig.
Financial Audits	.056	135	.200*	.984	135	.114
Compliance Audits	.053	135	.200*	.982	135	.068
Operational Audits	.034	135	.200*	.997	135	.988
Forensic Audits	.046	135	.200*	.991	135	.588
Fraud Management	.063	135	.200*	.990	135	.405

*Note. N = 135. The Kolmogorov–Smirnov test used Lilliefors Significance Correction. *p = .200 indicates the lower bound of the true significance.*

Table 16 shows the outcome of the normality test of the study variables under both KolmogorovSmirnom test and ShapiroWilk test. The p-values of Financial Audits, Compliance Audits, Operational Audits, Forensic Audits, and Fraud Management were less than 0.05 (KolmogorovSmirnov =.200; ShapiroWilk =.068 to.988), indicating no significant deviation from normality. These findings support the premise that construct data have a normal distribution, making parametric statistical tests like Pearson correlation and multiple regressions appropriate. Normality ensures those analyses' assumptions are met, reducing the possibility of biased estimates or invalid significance tests. The links between internal audit practices and fraud management are statistically valid.

4.7.2 Homoscedasticity Test

TABLE 17:

Residuals Homoscedasticity Test

Statistic	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	1.67	4.23	2.91	0.54	135
Residual	–1.38	0.99	0.00	0.40	135
Standard Predicted Value	–2.30	2.46	0.00	1.00	135
Standard Residual	–3.37	2.42	0.00	0.99	135

Note. Dependent variable = Fraud Management.

Table 17 reflects the residual statistics applied to determine whether the regression model that predicts fraud management has homoscedasticity. The residuals range from -1.38 to 0.99, with an average of 0.00 and a standard deviation of 0.40, indicating that they are distributed around 0. Standardized residuals range from -3.37 to 2.42 with a mean of 0.00 and a standard deviation of 0.99, indicating a balanced distribution. The anticipated values have an appropriate spread (mean = 2.91, SD = 0.54), indicating that residual variance will be reasonably constant across expected scores. These findings support the homoscedasticity assumption that mistakes varied evenly and were unaffected by expected values. This assumption will improve regression estimates and allow properly assessing the influence of internal audits on fraud management.

4.7.4 Multicollinearity Test

TABLE 18:

Multicollinearity Test for Independent Variables

Variable	Tolerance	VIF
Financial Audits	.250	4.002
Compliance Audits	.387	2.587
Operational Audits	.234	4.272
Forensic Audits	.282	3.549

Note. Dependent variable = Fraud Management. Tolerance values < .10 or VIF > 10 may indicate multicollinearity issues.

Table 18 shows the outcomes of multicollinearity diagnostics of the independent variables in the regression model indicating fraud management. Financial (.250), Compliance (.387), Operational (.234), and Forensic (.282) Audits have tolerance values above the critical limit of.10. Thus, variance inflation factor (VIF) values are 2.587-4.272, below the limit of 10. These results indicate that the independent variables are neither multicollinear or that each internal audit construct contributes differently to fraud management variation. Unproblematic multicollinearity makes regression coefficients reliable and interpretable. Since the research can easily evaluate the personal and group efforts of financial, compliance, operational, and forensic audit to improve fraud control in Kenyan state corporations.

4.8 Inferential Statistics

The study examined Kenyan state firms' internal audit operations and fraud management using inferential statistics. Regression analysis showed that financial, compliance, operation, and forensic audits predicted fraud management, while correlation analysis assessed the intensity and direction of the correlations. The independent variables and fraud management have a substantial link, disproving the idea that internal audits are not essential to improving accountability, transparency, and fraud prevention in public sector enterprises.

4.8.1 Model Summary

TABLE 19:

Model Summary for Regression Predicting Fraud Management

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change
1	.799	.638	.627	.410	.638	57.289	4	130	.000

Note. Predictors: Financial Audits, Compliance Audits, Operational Audits, Forensic Audits. Dependent variable: Fraud Management.

Table 19 displays a regression model summary of financial, compliance, operational and forensic audit fraud management factors. The model's multiple correlation coefficients (R) was 0.799, indicating a strong positive association between audit practices and fraud management. The R 2 = 0.638 shows that the four internal audit factors explain 63.8 percent of fraud management variance. Since a large percentage of variance remains after controlling the number of predictors, the adjusted R 2 of 0.627 shows the model's complexity. The anticipated values are accurate according to the standard error of estimate (0.410). Overall, the F-change (F = 57.289, p <.001) suggests that internal audit techniques significantly impact fraud control in state corporations.

4.8.2 ANOVA Analysis

TABLE 20:

ANOVA for Regression Predicting Fraud Management

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	38.582	4	9.646	57.289	.000
Residual	21.888	130	.168		
Total	60.470	134			

Note. Dependent variable: Fraud Management. Predictors: Financial Audits, Compliance Audits, Operational Audits, Forensic Audits.

The regression model explaining fraud management using financial, compliance, operational, and forensic audits ANOVA output is shown in Table 4.18. The regression sum of squares (38.582) divided by the residual sum of squares (21.888) shows that predictors explain a lot of fraud management variability. The F-value of 57.289, significant at $p < .001$, is based on the ratio of regression mean square (9.646) to residue mean square (0.168). This shows that the generic regression model fits well and that internal audit variables affect fraud management results. That is, financial, compliance, operational, and forensic audits as a whole reduce state corporate fraud statistically, supporting the current study's claim concerning internal audits' effectiveness.

4.8.3 Regression Coefficients

TABLE 21:

Regression Coefficients Predicting Fraud Management

Predictor	B	SE	β	t	Sig.
Constant	.713	.156	—	4.574	.000
Financial Audits	.150	.077	.205	1.940	.054
Compliance Audits	.167	.068	.209	2.462	.015
Operational Audits	.344	.098	.381	3.491	.001
Forensic Audits	.060	.081	.073	0.738	.462

Note. Dependent variable: Fraud Management. B = unstandardized coefficients; SE = standard error; β = standardized coefficients.

Table 21 shows the regression coefficients of forecasting fraud management using financial, compliance, operational and forensic audits. The constant (B = 0.713, p <.001) indicates the minimum fraud management level when all predictors are zero. Operational audits had the most positive and statistically significant impact on fraud management (B = 0.344, 8 = 0.381, p =.001). Compliance audits also had a favorable effect (B = 0.167, 8 = 0.209, p =.015), indicating that regulatory compliance helps prevent fraud. Financial audits had a positive, insignificant influence (B = 0.150, 0.205, p =.054) and forensic audits had a minor, non-significant impact (B = 0.060, 0.073, p =.462). All these data show that operational and compliance audits are the best way to reduce state corporate fraud.

4.9 Discussions

4.9.1 Financial Audits and Fraud Management

Financial audits in Kenyan state enterprises had a positive but small influence on fraud management (β= 0.205, p =.054), suggesting a possible function in fraud prevention. According to the Agency Theory, internal audits prevent principal-agency conflicts by keeping management focused on public responsibility targets. State firms may have organizational complexity, insufficient audit autonomy, or resource constraints. Kurniewan et al. (2024) and Nadirsyah et al. (2024) show that governance requires internal controls and fraud management systems, while Junaidi et al. (2024) show that technical skills and data analytics can improve fraud detection. The findings support the theory that audits are important governance tools, but their performance may depend on organizational context, auditor skills, and control system links.

The findings apply to Routine Activity and Control Theories, which emphasize supervision and hierarchical control in fraud prevention (Hirschi, 1969; Cohen and Felson, 1979). Financial audits prevent opportunistic fraud and identify abnormalities, making them competent guardians within the Routine Activity paradigm (Lindegaard et al., 2017). Internal audit systems, including monitoring methods, reduce fraud risk and increase public sector financial integrity, as shown by Vutumu et al. (2024, 2025) and Andia (2024). Brink et al. (2022) indicate that internal audits might perform poorly when organizational trust or managerial training values of audit services are low. The research shows that financial audits are important theoretically in managing fraud, but they need well-developed control environments, competent auditors, and governance frameworks to have a significant impact.

4.9.2 Compliance Audits and Fraud Management

Compliance audits in Kenyan state corporations show a positive and significant impact on fraud management ($\beta = 0.209$, $p = 0.15$), indicating that following rules, regulations, and procedures protects organizations from fraud. Agency Theory emphasizes monitoring and control to reduce principal-agency conflict (Jensen and Meckling, 1976). Compliance audits ensure management follows legal, financial, and operational standards, protecting public resources. Nurleni and Darmawati (2024) and Abd, Kareem, and Abbas (2020) found that professional training, integrity, and specialized compliance reporting help government systems detect fraud. In contrast to Bichanga and Kamau (2012), which note that low adherence to international standards may undermine audit results, the present results show that efficient compliance audits improve state corporation fraud management and responsibility.

The Control Theory and Routine Activity Theory emphasize supervision, formal regulations, and organizational behaviors to prevent opportunistic behavior (Hirschi, 1969; Cohen and Felson, 1979). Compliance audits minimise fraud environments through control and deterrent. Kamara (2023), Lerchner et al. (2022), and Tumwebaze (2018) concur that compliance audits improve government governance, resource use, and accountability. Contradictions in emerging markets like Shaban Barakat (2023) and Hegazy and Farghaly (2021) suggest that inconsistent standard compliance or lack of internal-external auditor cooperation may impair effectiveness. The existing evidence supports the theoretical assumption that compliance auditing is essential to systematized control, transparency, and fraud prevention in state-owned organizations, especially when auditor competence and institutional backing are prioritized.

4.9.3 Operational Audits and Fraud Management

Operational audits in Kenyan state enterprises significantly impact fraud management (β= 0.381, < 0.001), highlighting their importance in identifying and controlling fraudulent conduct. Agency Theory states that monitoring systems, such as operational audits, reduce the risk of principal-agent conflicts by ensuring that management actions are consistent with organizational and social responsibility. Operational audits assess internal control, operational performance, and process compliance to detect anomalies early and improve governance. Ziorklui, Nadir, and Kamara (2023) agree that operational audits improve internal controls, ethical workplace conduct, and organizational accountability. Otoo et al. (2023) found monitoring and communication gaps, but the overall results support the theory that operational audits reduce public institution fraud.

The Control Theory and Routine Activity Theory similarly emphasize organized regulation, control, and deterrent to prevent deviance (Hirschi, 1969; Cohen and Felson, 1979). Operational audits prevent and identify fraud by ensuring that organizational activities meet internal and regulatory standards. Previous studies by Lubis et al. (2024), Abdul Bari et al. (2024), and Ong'are and Njeru (2022) support the use of operation audits, staffing, and management support to detect fraud and improve efficiency. Inconsistent literature, such as Ogwiji & Lasisi (2022), suggests that inadequate communication or control system utilization may limit audit effectiveness. The current results demonstrate that operational audits improve governance, internal controls, and fraud management in Kenyan state businesses conceptually and practically.

4.9.4 Forensic Audits and Fraud Management

A study found that forensic audit in Kenyan state businesses had a minor, nonsignificant influence on fraud management ($\beta = 0.073$, $p = .462$), suggesting that in practice, forensic auditing may not significantly impact fraud management. According to the Fraud Triangle Theory (Cressey, 1953), forensic audits respond to fraud rather than eliminate it. Nyakundi (2024) and tonui et al. (2018) also noted forensic auditing issues, inaccessibility to vital data, unfinished reports, and a shortage of experienced auditors. Despite using AI, data analytics, and blockchain (Brink et al., 2022; Achmad et al., 2024), forensic audits may not manage fraud as well as one may expect due to the organization's limits. All the foregoing data show the difference between statistical significance and theoretical importance because post-fraud investigations can require forensic audits.

Forensic audits fit into Agency Theory because they provide oversight and accountability checks to identify managerial opportunism (Jensen and Meckling, 1976), but current findings show that this method only works under environmental, organizational, and operational conditions. Nandini and Raju (2021) and Olaoye and Olanipekun (2018) found that auditor training, independence, and full access to organizational records can improve governance, investor trust, and fraud detection in forensic audits. The lack of forensic audit capabilities, digital fraud tools, and interaction with other internal audit processes might make Kenyan audits insignificant. Thus, even though forensic audits are based on the assumption that they improve fraud management systems, their practical implications depend on auditor competency, information access, and auxiliary audit and control systems, requiring capacity-building and systematic integration in government organizations.

CHAPTER FIVE: CONCLUSION AND RECOMMENDATION

5.1 Introduction

The chapter presents the study's conclusion, summary, and suggestions on internal audits' impact on Kenyan state corporations' fraud management. The descriptive, inferential, and regression analysis results are summarized according to the study's objectives. It concludes with conclusions that relate the findings to theoretical frameworks and empirical literature study from earlier chapters. Finally, the chapter offers practical ways to increase audit effectiveness, fraud management, and state corporate governance. Policy makers, management, auditors, and others receive specific recommendations, and further research is also suggested to inform future research.

5.2 Summary

5.2.1 Financial Audits and Fraud Management

The financial audit exhibited a positive and significant correlation with fraud management in Kenyan state enterprises ($\beta = 0.205$, $p = 0.054$). Audits enhance transparency, accountability, and precision in financial reporting, while facilitating the identification of irregularities and reducing the likelihood of fraud. The findings indicate the Agency Theory, wherein control systems connect the interests of managers with organizational objectives. The research conducted by Nurleni and Darmawati (2024) and Abd, Kareem, and Abbas (2020) indicate that good training, audit professionalism, and adherence to audit procedures significantly improve fraud detection processes. The statistical significance underscores the practical need of frequent financial audits in enhancing organizational integrity. These audits facilitate improved decision-making, mitigate resource misappropriation, and enhance stakeholder confidence. A financial audit is an essential preventive strategy for addressing fraud and promoting effective governance within governmental entities.

5.2.2 Compliance Audits and Fraud Management

The compliance audits exerted a favorable and significant influence on fraud control among state enterprises in Kenya ($\beta = 0.209$, $p = .015$). Compliance audits will identify procedural deficiencies and gaps that could enable fraud by ensuring adherence to rules, regulations, and legal frameworks. These findings correspond with Institutional Theory, which emphasizes formal structures and regulations as mechanisms to mitigate opportunistic behavior. Previous research, including Thottali (2021) and Alqudah et al. (2023), indicates that regulatory compliance and accountability are enhanced by skilled compliance officers, managerial support, and independent audit evaluations. Compliance audits assist in preserving the organization's integrity by preventing administrative and financial discrepancies before they arise. The internal and external audit systems are augmented by additional audits, so strengthening the governance structures. Consistent oversight of compliance will foster an ethical culture inside public sector organizations and reduce the likelihood of fraud.

5.2.3 Operational Audits and Fraud Management

A statistically significant effect of operational audit on fraud management in Kenyan state businesses was identified ($\beta = 0.381$, $p = .001$). These audits seek to assess the efficiency and efficacy of internal control processes, revealing operational weaknesses that could facilitate fraudulent activities. Risk-Based Audit Theory posits that operational audits should provide proactive strategies to combat fraud and enhance governance. Kamara (2023), Ziorklui et al. (2024), and Abdul Bari et al. (2024) provide evidence that operational audits improve internal controls, mitigate risks, and foster compliance with regulations. Operational audits indirectly deter fraudulent actions by revealing inefficiencies and promoting resource optimization. Furthermore, the incorporation of technology and continuous auditing enhances the efficacy of audits.

Operational audits are crucial in reinforcing ethical behaviors, management control, and accountability within government management, ultimately contributing to the mitigation of fraud.

5.2.4 Forensic Audits and Fraud Management

The influence of forensic audits on fraud management in Kenyan state businesses was negligible ($\beta = 0.073$, $p = .462$), indicating no significant effect in the short run. Forensic audits ideally align with the Fraud Triangle and Agency Theories, as they concentrate on identifying and investigating fraudulent activities to provide accountability and transparency. Their efficacy may be undermined by restricted applicability owing to practical constraints, including insufficient forensic expertise, limited access to critical information, and inadequate reporting. Research by Nyakundi (2024) and Tonui et al. (2018) indicates that a forensic audit is more effective when integrated with robust internal control systems and advanced technologies such as data analytics and artificial intelligence. Despite the absence of statistical significance, forensic audits possess theoretical importance in post-fraud investigations and the improvement of governance. Enhanced auditor engagement in fraud control inside state institutions could be realized through the augmentation of training, accessibility, and proactive investigative frameworks.

5.3 Conclusion

Financial audits are crucial for enhancing fraud management in Kenyan state companies. These audits mitigate misappropriation and unethical acts by assuring transparency and accountability in reporting and precision in the systematic assessment of financial information. They enable management to promptly spot abnormalities, improve internal controls, and make informed decisions, thereby optimizing resource utilization. Financial auditing fosters stakeholder trust and demonstrates the organization's commitment to ethical and governance norms. Ultimately, such audits possess a deterrent quality as they foster a culture of financial prudence and integrity inside state institutions, which is crucial for sustaining trust and enhancing the efficiency of trust fund management.

Fraud management heavily depends on compliance audits to assure adherence to corporate rules, regulatory frameworks, and statutory obligations by state businesses. Such audits identify deviations from established procedures, enabling the implementation of corrective steps before minor abnormalities escalate into fraud. They advocate for ethical behavior, accountability, and management through adherence to regulations, hence enhancing governance frameworks. Compliance audits raise awareness among staff and management of their responsibilities and foster a culture of transparency to ensure adherence to standards and best practices. Compliance audits enhance operational integrity and foster organizational trust by ensuring adherence to legal requirements and regulations. The audits fulfill preventive and remedial roles that safeguard resources, improve organizational discipline, and strengthen the overall fraud management system inside Kenyan public sector institutions.

An operational audit is crucial for fraud prevention as it evaluates the efficiency, effectiveness, and internal control systems of state businesses. Such audits focus on procedures, systems, and workflows that present chances for fraud. Operational audits assist management in addressing shortcomings, optimizing resource utilization, and enhancing internal control frameworks. They also advocate for ethical conduct, enhance responsibility, and encourage adherence to organizational norms and rules. Operational audits provide proactive risk mitigation and enhance governance by guaranteeing the efficient and transparent achievement of organizational objectives. Consequently, operational audits are vital tools for enhancing integrity, mitigating fraud risk, and ensuring effective management in public organizations.

The fraud management enabled by forensic audits entails perpetrating fraud, investigating, and reporting fraudulent activities in state corporations. They encompass comprehensive details concerning wrongdoing, misappropriation, and non-compliance, which traditional audits may overlook. Forensic audits enhance accountability, strengthen governance structures, and facilitate corrective and legal measures against fraud. They promote transparency and ethical conduct by enhancing the consequences of deception. While primarily investigative rather than preventive, forensic audit responsibilities complement other audit activities, so offering a comprehensive approach to fraud mitigation. Forensic audits enhance organizations' capacity to combat fraud and bolster their integrity by providing evidence-based remedies, improving control systems, and elevating organizational knowledge, thereby safeguarding resources and public trust.

5.4 Recommendations

5.4.1 Financial Audits and Fraud Management

The financial audit procedures of state corporations should be enhanced to aid in fraud management. This involves regular, systematic financial audits, together with the auditors' capacity to perform their duties punctually, competently, and independently. Organizations should adopt modern financial management software to improve transaction accuracy, enable early detection of anomalies, and promote transparency in reporting. Financial audits should be integrated into a comprehensive organizational risk management framework that aligns outcomes with corrective actions, staff training, and enhanced governance protocols. The implementation of financial audits in standard operations will enable state enterprises to promptly detect irregularities, reduce misappropriation, and uphold ethical financial practices.

5.4.2 Compliance Audits and Fraud Management

Compliance audits are essential instruments that firms should prioritize to ensure adherence to internal policies, statutory regulations, and governance frameworks. Recommendations include enhancing auditors' access to organizational records, providing ongoing training for auditors on evolving regulatory requirements, and fostering a culture of accountability among personnel. The results of the compliance audit should be utilized to modify procedures, strengthen control systems, and elevate ethical standards by management. Furthermore, state enterprises must consider the independent assessment to ensure objectivity and enhance public trust. Compliance audits will facilitate the early detection and prevention of fraudulent activities, while ensuring the organization's transparency and integrity through consistent monitoring and corrective actions.

5.4.3 Operational Audits and Fraud Management

To mitigate fraud risk, state businesses must implement operational audits that evaluate process efficiency, internal control effectiveness, and resource use. It is recommended that essential processes be mapped for auditing purposes, vulnerabilities be identified, and the audit findings be utilized to enhance operations. The results of the operational audit should be integrated into risk mitigation plans by management, and accountability must be established for process improvement and remedial actions. Organizations are encouraged to embrace technological solutions for real-time monitoring and reporting. Staff training programs must be integrated with operational audits to ensure personnel are equipped to mitigate fraud. Enhanced audits of operations foster good governance, reduce inefficiencies, and mitigate the risk of fraud in governmental institutions.

5.4.4 Forensic Audits and Fraud Management

State corporations should conduct forensic audits as a supplementary measure to uncover and resolve complex fraud cases. This requires investing in forensic audit training, hiring specialized personnel, and adopting advanced technologies such as data analytics, artificial intelligence, and blockchain for proactive fraud detection. High-risk areas must undergo regular forensic audits with comprehensive investigation, documentation, and reporting. Management should integrate forensic expertise into strengthening internal controls and enforcing legal or disciplinary actions while fostering collaboration among forensic auditors, compliance officers, and legal teams for improved evidence collection and case resolution. These efforts align with Sustainable Development Goal 16 (Peace, Justice, and Strong Institutions) by enhancing transparency, accountability, and ethical governance. Strengthened forensic auditing promotes institutional integrity, deters corruption, and builds public trust in Kenya's state corporations and overall governance systems.

5.5 Limitations of the Study

The research encountered methodological limitations that may influence the interpretation and generalizability of the findings. The employed research strategy was cross-sectional, with data collected at a single point in time. In contrast to long-term trends or dynamic changes inside a public institution, this method provides merely a snapshot of the current state of internal audit activities and fraud management initiatives. The research predominantly employed self-reported questionnaires and survey findings, which may introduce response bias. The participants may have inadvertently overstated compliance, audit effectiveness, or their organization's capacity to avoid fraud. Furthermore, the study's concentration on state businesses in Kenya limits its applicability to non-governmental or private entities. The methodological limitations suggest that the findings may be beneficial, but one should refrain from overgeneralizing the conclusions to broader organizational or national contexts.

The scarcity of resources significantly influenced the extent and range of this investigation. The economic constraints hindered extensive travel and data collection throughout all state enterprises in Kenya, hence limiting the diversity of organizational environments in the study. The research was constrained by time and finance, limiting access to certain remote or tiny public institutions, which may exhibit diverse internal audit capabilities and fraud control procedures. The technology resources were constrained, restricting the utilization of advanced data analysis methods that could provide deeper insights. The constraints on resources were expected to impede the sample size and the scope of qualitative and quantitative data. The study's findings may reflect the conditions of larger or more accessible institutions, while smaller, under-resourced organizations may face distinct challenges not addressed in the research. Addressing resource constraints in future study may yield more representative and robust results.

The research encountered several unforeseen problems that impacted data collecting and processing. Organizing interviews with key personnel proved difficult due to conflicting priorities between the internal audit staff and top management, so limiting the opportunity to obtain comprehensive qualitative insights. The verification of responses and the comprehensiveness of fraud management analysis were constrained by access to sensitive or confidential organizational documents. Participant availability and data stability were affected by unexpected alterations in the institution's activities, such as policy modifications or staff turnover. The challenges may have limited the depth and accuracy of qualitative findings, particularly on internal audit processes and fraud detection methods. Despite these constraints, the research needed to optimize data collection by modifying its methodology; yet, the limitations underscore the importance of adaptable strategies and contingency plans for future investigations into the roles of public sector auditing.

5.6 Suggestion for the Future Research

Future research may further explore the diverse impacts of various internal audit types on fraud management, particularly focusing on operational audits, which shown the most substantial effect in this study. Researchers may investigate how operational audits identify and mitigate fraud, encompassing technology implementation, staff proficiency, and company culture. Furthermore, longitudinal studies may be undertaken to monitor temporal changes and ascertain whether the efficacy of financial, compliance, operational, and forensic audits varies with the enhancement of internal controls inside the business. Based on these findings, academics may provide actionable insights to state businesses and enhance strategies to improve audit effectiveness and reduce fraud.

The methodological shortcomings revealed in this research must be addressed in future studies. For instance, generalizability would improve by augmenting the sample size and include diverse public sector entities in Kenya. Mixed-method methods that incorporate quantitative surveys alongside comprehensive qualitative case studies or interviews may provide a more nuanced understanding of audit procedures and fraud management practices. Employing longitudinal or experimental design may facilitate the establishment of causation between audit interventions and the diminution of fraud. Enhancing result accuracy may be achieved by providing access to sensitive organizational information while maintaining confidentiality. Addressing these methodological deficiencies will strengthen future data concerning the influence of internal audits on the successful control of fraud.

Further research may examine audit and fraud management theories like Fraud Triangle, Fraud Diamond, and COSO Internal Control Framework in new organisations or regions. A comparison between state firms and privates or African countries would show how local factors like governance systems, cultural attitudes, and policies affect audit quality. Researchers can confirm frameworks, find contextual changes, and recommend organizational-appropriate procedures by applying theories in multiple settings.

Research may reevaluate and expand conceptual frameworks on internal audit efficacy and fraud mitigation. To improve the current models, researchers might explore additional variables such as technology adoption, auditor independence, company culture, and stakeholder participation. Theories ought to be expanded to encompass present audit technologies, like AI, data analytics, and blockchain, to provide a modern viewpoint on fraud detection and prevention. Through a reevaluation and enhancement of theoretical frameworks, forthcoming research may offer a more comprehensive approach to enhancing audit quality and improving fraud management in both governmental and non-governmental organizations.

REFERENCES

Andia, S. . (2024). Fraud management Strategies and Financial Stability of Insurance Companies in Kenya. *African Journal of Commercial Studies*, *5*(1), 42-50. https://doi.org/10.59413/ajocs/v5.i1.6

Abraham, S. (2019). Forensic Accounting and Fraud management in Nigerian Public Sector: A Conceptual Paper. *International Journal of Accounting & Finance Review*.

Alfordy, F. D. (2022). Effective detection and prevention of fraud: Perceptions among public and private sectors accountants and auditors in Saudi Arabia. *Finance, 2022*(3), 7. https://doi.org/10.15240/tul/001/2022-3-007

Abd, W. H., Kareem, A. D., & Abbas, F. H. (2020). Audit compliance and its role in reducing the manifestations of administrative and financial corruption of government institutions (Applied research in the Federal Office of Financial Supervision). *Palarch's Journal of Archaeology of Egypt/Egyptology, 17*(7), 16962.

Alqudah, H., Amran, N. A., Hassan, H., Lutfi, A., Alessa, N., Alrawad, M., & Almaiah, M. A. (2023). Examining the critical factors of internal audit effectiveness from internal auditors' perspective: Moderating role of extrinsic rewards. *Heliyon, 9*(10), e20497. https://doi.org/10.1016/j.heliyon.2023.e20497

Abdul Bari, A. H., Abed, R. A., Kahdim, R. M., Hasan, H. F., Sharaf, H. K., & Alwan, A. S. (2024). The role of internal auditing in corruption control and enhancing corporate governance: A board of directors' outlook. *Corporate Board: Role, Duties and Composition, 20*(2).

Alhassan, I. (2020). Forensic accounting and fraud detection and prevention in the Nigerian public sector. *International Journal of Accounting Research, 5*(4). https://www.arabianjbmr.com

Abei, Y. A. (2021). *Impact of internal control on fraud detection and prevention in microfinance institutions* (Master's thesis, Business Administration).

Achmad, T., Huang, C.-Y., Putra, M. A., & Pamungkas, I. D. (2024). Forensic accounting and risk management: Exploring the impact of generalized audit software and whistleblowing systems on fraud detection in Indonesia. *Journal of Risk and Financial Management, 17*, 573. https://doi.org/10.3390/jrfm17120573

Aliyu, A. S., & Abeki, S. (2024). Forensic audits and fraud management of quoted agricultural firms in Nigeria. *GSJ: Global Scientific Journal, 12*(9). https://www.globalscientificjournal.com

Anghel, G., & Poenaru, C.-E. (2023). Forensic accounting, a tool for detecting and managing the economic fraud. *Valahian Journal of Economic Studies, 14*(29) 2, 87. https://doi.org/10.2478/vjes-2023-0018

Alshurafat, H. (2024). New variables and measurements of forensic accounting: Implications on financial reporting and auditing. *Discover Sustainability, 5*, 376. https://doi.org/10.1007/s43621-024-00544-4

Akinleye, G. T., & Akadi, O. V. (2024). Forensic accounting and corporate fraud in deposit money banks in Nigeria. *African Journal of Accounting and Financial Research, 7*(2), 133-149.

Adebayo, A. and Ackers, B. (2024), "The role of auditing in corporate governance practice in emerging economies: insights from South African state-owned enterprises (SOEs)", *Meditari Accountancy Research*, Vol. 32 No. 7, pp. 171-196. https://doi.org/10.1108/MEDAR-11-2023-2237

Anderhofstadt, D., Wesson, N., & Viviers, S. (2024). Corporate governance and the internationalisation of African firms: An institutional investor perspective. *International Journal of Disclosure and Governance*. https://doi.org/10.1057/s41310-024-00262-3

Alshammari, M., Alhaderi, S., & Ahmed, I. (2018). Corporate governance and its impact on financial reporting: Evidence from the Middle East. *Journal of Accounting and Business Research,* 48(3), 243-264.

Abu Mouamer, F. M., Khalil, M. F., Abu Amuna, Y. M., & Aqel, A. M. (2020). Impact of applying fraud detection and prevention instruments in reducing occupational fraud: Case study: Ministry of Health (MOH) in Gaza Strip. *International Journal of Academic Accounting, Finance & Management Research, 4*(6), 35–45.

Alkhalaileh, R., Alshurafat, H., Ananzeh, H., & Al Amosh, H. (2024). The impact of external auditors with forensic accounting competencies on auditee firm performance. *Heliyon*, *10*(11), e32099. https://doi.org/10.1016/j.heliyon.2024.e32099

Arndorfer, I., & Minto, A. (2015, December). The "four lines of defence model" for financial institutions: Taking the three-lines-of-defence model further to reflect specific governance features of regulated financial institutions (Occasional Paper No. 11). Bank for International Settlements.

Abei, Y. A. (2021). *Impact of internal control on fraud detection and prevention in microfinance institutions* (Master's thesis, Business Administration, Spring 2021). Divaportal. https://www.diva-portal.org/smash/get/diva2:1578691/FULLTEXT01.pdf

Anastasiades, B., & Fritchie, W. (2024, August 8). The Sarbanes-Oxley Act: A comprehensive overview. *AuditBoard*. https://www.auditboard.com/blog/sarbanes-oxley-act/

Olujobi, O.J. (2023), "Nigeria's upstream petroleum industry anti-corruption legal framework: the necessity for overhauling and enrichment", *Journal of Money Laundering Control*, Vol. 26 No. 7, pp. 1-27. https://doi.org/10.1108/JMLC-10-2020-0119

Abgonma, E. B., Promise, E., Anietie, O., & Okechukwu, A. E. (2024, April-May). Misappropriation in the Nigerian oil and gas sector: Strategies for the Accountant General of the Federation. *Journal of Social Responsibility, Tourism and Hospitality, 4*(3).

Akinsola, O. K., & Taofeek, A. (2025, January). The role of corporate governance in enhancing investor confidence and promoting financial market stability: Legal perspectives and practical solutions.

Almujamed, I. (2018). The role of institutional pressures in shaping audit practices in the public sector. *International Journal of Public Sector Management*, 31(5), 689-706.

Alqudah, H., Amran, N. A., Hassan, H., Lutfi, A., Alessa, N., Alrawad, M., & Almaiah, M. A. (2023). Examining the critical factors of internal audit effectiveness from internal auditors' perspective: Moderating role of extrinsic rewards. *Heliyon, 9*(10), e20497. https://doi.org/10.1016/j.heliyon.2023.e20497

Abdullah, R., Ismail, Z., & Smith, M. (2018). Audit committees' involvement and the effects of quality in the internal audit function on corporate governance. *International Journal of Auditing, 22*(1). https://doi.org/10.1111/ijau.12124

Anwar, F. R. (2022, December). Analysis of the role of internal audit in enhancing company's internal control. *Golden Ratio of Auditing Research, 2*(1), 33-41. https://doi.org/10.52970/grar.v2i1.370

Abdelrahim, A., & Al-Malkawi, H.-A. N. (2022). The influential factors of internal audit effectiveness: A conceptual model. *International Journal of Financial Studies, 10*(3), 71. https://doi.org/10.3390/ijfs10030071

Alzeban, A., & Gwilliam, D. (2014). Factors affecting the internal audit effectiveness: A survey of the Saudi public sector. *Journal of International Accounting, Auditing and Taxation, 23*(2), 74-86. https://doi.org/10.1016/j.intaccaudtax.2014.06.001

Albeksh, H. (2016) The Crisis of the Ethics of Audit Profession: Collapse of Enron Company and the Lessons Learned. *Open Access Library Journal*, **3**, 1-18. doi: 10.4236/oalib.1103205.

Bondarenko, P. (2025, February 3). *Enron scandal*. *Encyclopedia Britannica*. https://www.britannica.com/event/Enron-scandal

Blessing, M. (2024, October). Objectivity and independence of internal audit. *Obafemi Awolowo University*.

Bosse, D. A., & Phillips, R. A. (2016). Agency theory and stakeholder theory: A comparison and implications for sustainability. *Business & Society Review,* 121(2), 147-173.

Brink, A. G., Eller, C. K., & Green, K. Y. (2022). Fraud reporting within an organization and the use of the internal audit function as a training ground for management. *Behavioral Research in Accounting, 34*(1), 1–22. https://doi.org/10.2308/BRIA-2020-015

Brink, A. G., Eller, C. K., & Green, K. Y. (2022). Fraud reporting within an organization and the use of the internal audit function as a training ground for management. *Behavioral Research in Accounting, 34*(1), 1–22. https://doi.org/10.2308/BRIA-2020-015

Bichanga, W., & Kamau, C. G. (2012). A study to explore internal auditors' compliance with quality assurance standards: A case of state-owned corporations in Kenya. *International Journal of Research Studies in Management, 1*(1), 109-126. https://doi.org/10.5861/ijrsm.2012.v1i1.45

Breger, D., Edmonds, M., & Ortegren, M. (2019). Internal audit standard compliance, potentially competing duties, and external auditors' reliance decision. *Journal of Corporate Accounting & Finance*. https://doi.org/10.1002/jcaf.22434

Boufounou, P., Eriotis, N., Kounadeas, T., Argyropoulos, P., & Poulopoulos, J. (2024). Enhancing internal control mechanisms in local government organizations: A crucial step towards mitigating corruption and ensuring economic development. *Economies, 12*(4), 78. https://doi.org/10.3390/economies12040078

Boyelaye, D. (2021). Forensic audits and fraud detection in Nigerian public sector. *UNIPORT Journal of Business, Accounting & Finance Management, 12*(2). University of Port Harcourt, Choba, Port Harcourt, Rivers State, Nigeria.

Bovens, M. (2020). *Public Accountability: An International Comparison*. Oxford University Press.

Budiandru, B. (2024, July). The impact of internal audit effectiveness, risk management practices, and organizational culture on financial performance. *Journal Name*, *Volume*(Issue), page range. https://doi.org/10.59613/dye5er09

Chang, Y.-T., Chen, H., Cheng, R. K., & Chi, W. (2019). The impact of internal audit attributes on the effectiveness of internal control over operations and compliance. Journal of Contemporary Accounting & Economics, 15(1), 1-19. https://doi.org/10.1016/j.jcae.2018.11.002

Chang, Y.-T., Chen, H., Cheng, R. K., & Chi, W. (2019). The impact of internal audit attributes on the effectiveness of internal control over operations and compliance. *Journal of Contemporary Accounting & Economics, 15*(1), 1-19. https://doi.org/10.1016/j.jcae.2018.11.002

Cohen, L. E., & Felson, M. (1979). Social change and crime rate trends: A routine activity approach. *American Sociological Review,* 44(4), 588-608.

Crumbley, D. L. (2020). *Forensic Accounting and Fraud Examination*. Cengage Learning.

Dr. Ashutosh Mishra1et. Al, (2023), The Role of Internal Audits in Enhancing Compliance with Direct and Indirect Tax Regulations, Educational Administration: Theory And Practice,29(4),), 942 - 953, Doi: 10.53555/kuey.v29i4.6087

Dumoga, A. S. (2022). *Strategies for improving the effectiveness of internal control processes in nonprofit organizations* (Doctoral dissertation, Walden University). Walden University ScholarWorks.

DiMaggio, P. J., & Powell, W. W. (1983). The iron cage revisited: Institutional isomorphism and collective rationality in organizational fields. *American Sociological Review,* 48(2), 147-160.

Delarue, M.-L. (2020, November 18). Managing and detecting fraud: How to strengthen the roles of companies, auditors, and regulators. *EY Global*. Retrieved March 1, 2025, from https://www.ey.com/en_my/insights/assurance/managing -and-detecting-fraud-how-to-strengthen-the-roles-of-companies-auditors-and-regulators

Demirović, L., Isaković-Kaplan, Š., Proho, M. (2021), "Internal Audit Risk Assessment in the Function of Fraud Detection", Journal of Forensic Accounting Profession, Vol. 1, No. 1, pp. 35-49

Congressional Research Service. (2019, February 11). *Mail and wire fraud: A brief overview of federal criminal law* (Report No. R41930). https://crsreports.congress.gov/product/pdf/R/R41930

Eulerich A, Eulerich M (2020) What is the value of internal auditing? – A literature review on qualitative and quantitative perspectives. Maandblad Voor Accountancy en Bedrijfseconomie 94(3/4): 83-92. https://doi.org/10.5117/mab.94.50375

Eisenhardt, K. M. (1989). Agency theory: An assessment and review. *Academy of Management Review,* 14(1), 57-74.

Fama, E. F., & Jensen, M. C. (1983). Separation of ownership and control. *Journal of Law and Economics,* 26(2), 301-325.

Feldman, M. S., Khademian, A. M., Ingram, H., & Skelcher, C. (2016). *Introduction to the special issue: Organizational theory and the systems approach to governance*. *Public Administration Review*, 76(5), 717-723.

Felson, M. (2002). *Crime and Everyday Life: Insights and Implications for Society*. Pine Forge Press.

Forbes Stowell, N., Pacini, C., Wadlinger, N., Crain, J. M., & Schmidt, M. (2020). Investigating healthcare fraud: Its scope, applicable laws, and regulations. *William & Mary Business Law Review, 11*(2), 479-501. https://scholarship.law.wm.edu/wmblr/vol11/iss2/5

Grigoras-Ichim, C.-E., Bordeianu, O.-M., & Morosan-Danila, L. (2024). The importance of the financial audits in the identification of fraud and errors recorded by companies. *European Journal of Accounting Finance & Business, 12*(1), 32-47. https://doi.org/10.4316/EJAFB.2024.12106

Ghanem, M. G., & Awad, G. (2023). The impact of internal control systems on minimizing fraud: The case of Lebanon. *European Journal of Business and Management Research, 8*(5), 69. https://doi.org/10.24018/ejbmr.2023.8.5.2160

Guellim, N., Yami, N., Freihat, A. F., et al. (2024). Evaluating the perceived value of forensic accounting: A systematic review method. *Discovery Sustainability, 5*, 351. https://doi.org/10.1007/s43621-024-00431-y

Gramling, A., Maletta, M. J., Schneider, A., & Church, B. K. (2004). The role of the internal audit function in corporate governance: A synthesis of the extant internal auditing literature and directions for future research. *Journal of Accounting Literature, 23*(1), 194-244.

Hegazy, M. A., & Farghaly, M. (2021). External and internal auditors' perceptions on compliance with internal audit standards and practices: Spirit versus letters? *Corporate Ownership and Control, 18*(3), 31-45. https://doi.org/10.22495/cocv18i3art3

Huang, W. (2019). Internal Controls and Internal Audit. In: Built on Value. Palgrave Macmillan, Singapore. https://doi.org/10.1007/978-981-13-7507-1_15

Herreros-Martínez, A., Magdalena-Benedicto, R., Vila-Francés, J., Serrano-López, A. J., Pérez-Díaz, S., & Martínez-Herráiz, J. J. (2025). Applied machine learning to anomaly detection in enterprise purchase processes: A hybrid approach using clustering and isolation forest. *Information, 16*(3), 177. https://doi.org/10.3390/info16030177

Hegazy, M. A., & Farghaly, M. (2021). External and internal auditors' perceptions on compliance with internal audit standards and practices: Spirit vs. letters? *Corporate Ownership & Control, 18*(3), 31-45.

Hut-Mossel, L., Ahaus, K., Welker, G., & Gans, R. (2021). Understanding how and why audits work in improving the quality of hospital care: A systematic realist review. *PloS one*, *16*(3), e0248677. https://doi.org/10.1371/journal.pone.0248677

Hendrix G, Wai J, Tjin A Sioe J, Hener-Schaminée M, Ottema W (2020) Non-auditors in the internal audit function: better practices for successful implementation. Maandblad Voor Accountancy en Bedrijfseconomie 94(3/4): 103-112. https://doi.org/10.5117/mab.94.48602

Halbouni, S. S. (2015). The role of auditors in managing , detecting, and reporting fraud: The case of the United Arab Emirates (UAE). *International Journal of Auditing, 19*(2). https://doi.org/10.1111/ijau.12040

Hossain, M. , Hasan, L. and Hasan, M. (2024) Corporate Governance as a Global Phenomenon: Evolution, Theoretical Foundations, and Practical Implications. *Journal of Financial Risk Management*, **13**, 342-375. doi: 10.4236/jfrm.2024.132017.

International Federation of Accountants (IFAC). (2020). *International Framework for Assurance Engagements*.

Inspectorate of State Corporations (ISC, 2025). Welcome to Inspectorate of State Corporations website. https://www.isc.go.ke/

Iqbal, A., & Ramos, C. (2023, June 8). Compliance audit: Definition, types, and what to expect. *AuditBoard*. Retrieved March 1, 2025, from https://www.auditboard.com/blog/compliance-audit/

Junaidi, Hendrian, & Syahputra, B. E. (2024). Fraud detection in public sector institutions: an empirical study in Indonesia. *Cogent Business & Management*, *11*(1). https://doi.org/10.1080/23311975.2024.2404479

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs, and ownership structure. *Journal of Financial Economics*, 3(4), 305-360.

Jori, R. (2023). *An analysis of challenges faced by internal audit departments in the public sector: A case study of eThekwini Metropolitan Municipality* (Master's thesis, Durban University of Technology). Durban University of Technology. https://openscholar.dut.ac.za/bitstream/10321/4773/3/Jori_R_2023.pdf

Kassem, R., & Turksen, U. (2021). Role of public auditors in fraud detection: A critical review. In S. Grima & E. Boztepe (Eds.), *Contemporary studies in economic and financial analysis*. Emerald Publishing. ISBN 9781839095092.

Kurniawan, A., Imran, H., & Kusumawati, A. (2024). Internal control analysis and fraud management efforts in public sector accounting. *East Asian Journal of Multidisciplinary Research, 3*(11). https://doi.org/10.55927/eajmr.v3i11.11809

Kesuma, P.A., Fachruzzaman, F. (2024). Analysis of Internal Control and Fraud management Efforts in Public Sector Accounting. EKOMBIS REVIEW: Jurnal Ilmiah Ekonomi Dan Bisnis, 12(1). doi: https://doi.org/10.37676/ekombis.v12i1

Kamara, A.K. (2023) The Study on Effectiveness of Internal Audit on the Performance of the Public Sector in Sierra Leone: A Case Study of the National Social Security Insurance Trust. *Open Access Library Journal*, **10**, 1-30. doi: 10.4236/oalib.1110431.

Kamara, A.K. (2023) An Assessment of the Effectiveness of the Internal Audit on the Performance of the Public Sector: Case Study of the National Revenue Authority (NRA). *Open Access Library Journal*, **10**, 1-28. doi: 10.4236/oalib.1110432.

Katz, D., & Kahn, R. L. (1978). *The Social Psychology of Organizations* (2nd ed.). Wiley.

Luhmann, N. (1995). *Social Systems*. Stanford University Press.

Lerchner, H.-P., Efendioglu, T., Enstrom, J. T., Hjelm, C. L., Pashko, S., & Thogmartin, J. R. (Eds.). (2022). *Internal auditing and fraud: Assessing fraud risk governance and management at the organizational level (3rd ed.)*. Global Practice Guide.

Knechel, W. R., van Staden, C., & Zijl, W. (2020). *The Role of Auditing in the Governance of Public Sector Organizations*. Routledge.

Kamara, A. K. (2023). An assessment of the effectiveness of the internal audit on the performance of the public sector: Case study of the National Revenue Authority (NRA). *SSRN*. https://doi.org/10.2139/ssrn.4492906

Kalubanga, M., Kakwezi, P., & Kayiise, D. (2013, January). The effects of fraudulent procurement practices on public procurement performance. *Makerere University Business School*.

Kimotho, T. N. (2014). Factors affecting internal audit independence: A case study of Technical University of Mombasa. *European Journal of Business and Management, 6*(6), 145. https://www.iiste.org/Journals/index.php/EJBM/article/view/12672

Kimani, H. (2025, January 3). Navigating corporate governance and compliance in Kenya. *Centre for Corporate Governance*. https://ccg.or.ke/corporate-governance-and-compliance/

Kagombora, E., & Mbogo, C. J. (2024). Role of proactive forensic audits in safeguarding assets of an organisation. *Accounting & Finance, 8*(3), 321-338. https://doi.org/10.47772/IJRISS.2024.803023

Kontogeorgis, G. (2018). The role of internal audit function on corporate governance and management. *International Journal of Accounting and Financial Reporting, 8*(4), 100. https://doi.org/10.5296/ijafr.v8i4.13626

Lubis, H. Z., Sari, M., Ramadhany, A. A., Ovami, D. C., & Brutu, I. R. (2024). Effect of internal audit, internal control, and audit quality on fraud prevention: Evidence from the public sector in Indonesia. *Problems and Perspectives in Management, 22*(2), 40–50. https://doi.org/10.21511/ppm.22(2).2024.04

Lindegaard, M. R., Eilertsen, A. G., & Lentz, R. S. (2017). Crime prevention, routine activity theory, and fraud. *Journal of Financial Crime*, 24(3), 429-440.

Leung, P., Coram, P., & Cooper, B. (2020). *Auditing: A Practical Approach*. Wiley.

Munteanu, V., Zuca, M.-R., Horaicu, A., Florea, L.-A., Poenaru, C.-E., & Anghel, G. (2024). Auditing the risk of financial fraud using the red flags technique. *Applied Sciences, 14*(2), 757. https://doi.org/10.3390/app14020757

Madzivire, E. T., Nyamwanza, L., Mushonga, W., Takachicha, M. T., & Mulonda, D. (2020). An investigation on the effectiveness of forensic audits as a tool for fraud detection and prevention. *Journal of Accounting, Business and Finance Research, 10*(2), 49-67. https://doi.org/10.20448/2002.102.49.67

Maaroufi, A., & El Haji, H. (2022). The effect of internal control components on the organizational performance of Moroccan public organizations: A theoretical exploration. *Revue du contrôle, de la comptabilité et de l'audit, 6*(2), 242–262.

Mangniang, M. S., Jugu, Y. G., & Addi, T. S. (2025). Investigating the effectiveness of forensic auditing in fraud detection and prevention in government organisations - The traditional auditing in perspective. *Middle East Journal of Finance and Risk, 7*(7). https://doi.org/10.70382/mejfrbd.v7i7.018

Mvunabandi, J., & Nomlala, B. (2022). The role of forensic auditing techniques in managing nongovernment organisations' financial statement fraud in South Africa using a proactive approach. *ACRN Journal of Finance and Risk Perspectives, 11*, 105-119. https://doi.org/10.35944/jofrp.2022.11.1.006

Mandal, A. and S., A. (2023), "Evaluating the perceived usefulness and fairness of forensic accounting and investigation standards", *Journal of Financial Regulation and Compliance*, Vol. 31 No. 5, pp. 754-769. https://doi.org/10.1108/JFRC-12-2022-0157

Maulidi, A., Girindratama, M. W., Putra, A. R., Sari, R. P., & Nuswantara, D. A. (2024). Qualitatively beyond the ledger: unravelling the interplay of organisational control, whistleblowing systems, fraud awareness, and religiosity. *Cogent Social Sciences*, *10*(1). https://doi.org/10.1080/23311886.2024.2320743

Meyer, J. W., & Rowan, B. (1977). Institutionalized organizations: Formal structure as myth and ceremony. *American Journal of Sociology*, 83(2), 340-363.

Moeller, R. R. (2021). *Brink's Modern Internal Auditing: A Common Body of Knowledge*. Wiley.

Mehta, A. M. (2024, August 7). Role of internal auditing around internal controls. *In Internal Auditing: A Practical Approach*. eCampusOntario. Retrieved March 1, 2025, from https://ecampusontario.pressbooks.pub/internalauditing/chapter/05-06-role-of-internal-auditing-around-internal-controls/

Musyoki, K. M. (2023). Internal control systems and their role in financial fraud management in Kenya. *African Journal of Commercial Studies, 3*(3), 173-180. https://doi.org/10.59413/ajocs/v3.i3.4

Muruu, S. M., & Njoroge, J. (2023). Influence of corporate governance practices on organization performance: case of Kenya Power & Lighting Company, Kenya. *The Strategic Journal of Business & Change Management,* 10 (2), 351 –367.

Madzivire, E. T., Nyamwanza, L., Mushonga, W., Takachicha, M. T., & Mulonda, D. (2020). An investigation on the effectiveness of forensic audits as a tool for fraud detection and prevention. *Journal of Accounting, Business and Finance Research, 10*(2), 49-67. https://doi.org/10.20448/2002.102.49.67

Manginte, S. Y. (2024, May). Fortifying transparency: Enhancing corporate governance through robust internal control mechanisms. *Advances in Management & Financial Reporting, 2*(2), 72-84. https://doi.org/10.60079/amfr.v2i2.173

Melinda, K., Susanti, A., Tarigan, J. K., & Deliana, D. (2022, March). The role of internal audit in fraud management and disclosure: Literature review. *Kajian Akuntansi, 23*(1), 50-66. https://doi.org/10.29313/ka.v23i1.9400

Morgeson, F. P., Mitchell, T. R., & Liu, D. (2015). Event system theory: An event-oriented approach to the organizational sciences. *Academy of Management Review*, 40(4), 515-537.

Nursansiwi, D. A. (2024, January). The role of forensic accounting in detecting financial frauds. *[Journal Name]*. https://doi.org/10.62207/brkz8497

Nadirsyah, Indriani, M., & Mulyany, R. (2024). Enhancing fraud management and internal control: the key role of internal audit in public sector governance. *Cogent Business & Management*, *11*(1). https://doi.org/10.1080/23311975.2024.2382389

Nurleni, & Darmawati, J. (2024). Enhancing fraud detection capacities: The role of auditor training, professional skepticism, and integrity in government internal control mechanisms in Indonesia. *Revista de Gestão Social e Ambiental, 18*(8), e06002. https://doi.org/10.24857/rgsa.v18n8-094

Nadir, N., Indriani, M., & Mulyany, R. (2024). Enhancing fraud management and internal control: The key role of internal audit in public sector governance. *Cogent Business & Management, 11*(1). https://doi.org/10.1080/23311975.2024.2382389

Nandini, N. S., & Raju, A. (2021). A study on impact of forensic audits towards investigation and prevention of frauds. *Asian Journal of Management, 12*(5), 28. https://doi.org/10.52711/2321-5763.2021.00028

Nyakundi, A. N. (2024). Significance of the Auditor General forensic audits reports on effective investigation of corruption cases in Kenya [Strathmore University]. http://hdl.handle.net/11071/15477

Nadir, N., Indriani, M., & Mulyany, R. (2024, July). Enhancing fraud management and internal control: The key role of internal audit in public sector governance. *Cogent Business & Management, 11*(1). https://doi.org/10.1080/23311975.2024.2382389

Ndakala Advisory. (2025, February 28). The role of internal audit in fraud detection and prevention. *Ndakala Advisory*. https://ndakalaadvisory.co.ke/the-role-of-internal-audit-in-fraud-detection-and-prevention/#:~:text=Internal%20auditors%20identify%20weaknesses%20in,and%20accountability%20within%20an%20organization.

Netshifhefhe, K., Netshifhefhe, M. V., Mupa, M. N., & Murapa, K. A. (2024). The role of forensic audits in strengthening corporate governance and mitigating compliance risks. *ICONIC Research and Engineering Journals, 8*(4), 427. ISSN: 2456-8880.

Ndakala Advisory. (2024, September 27). Trends in internal audit in Kenya. *Ndakala Advisory*. Retrieved March 1, 2025, from https://ndakalaadvisory.co.ke/trends-in-internal-audit-in-kenya/

Otoo, F. N. K., Kaur, M., & Rather, N. A. (2023). Evaluating the impact of internal control systems on organizational effectiveness. *LBS Journal of Management & Research, 21*(1).

Ong'are, O. D., & Njeru, A. (2022). Effectiveness of internal control systems on fraud management among state corporations in Kenya: A case of Kenya Pipeline Company. *Strategic Journals, 9*(4), 948–961. Retrieved from www.strategicjournals.com

Ogwiji, J., & Lasisi, I. O. (2022). Internal control system and fraud management of quoted financial services firms in Nigeria: A Smart PLS-SEM approach. *European Journal of Accounting, Auditing and Finance Research, 10*(4), 1–13.

Olaoye, C. O., & Olanipekun, C. T. (2018). Impact of forensic accounting and investigation on corporate governance in Ekiti State. *Journal of Accounting, Business and Finance Research, 4*(1), 28-36. https://doi.org/10.20448/2002.41.28.36

Ofoje, B.C. & Aggreh, M. (2023). Computerized Forensic Investigation Technique and Fraud Detection in the Public Sector: Perception of Professional Accountants in Anambra State, Journal of Global Accounting, 9(1), 407 – 447.

Oliver, C. (1997). Sustainable competitive advantage: Combining institutional and resource-based views. Strategic Management Journal, 18(9), 697-713.

Oluoch, B. O. (2025). *Internal audit*. Kisumu Polytechnic. Retrieved March 1, 2025, from https://kisumupoly.ac.ke/internal-audit/

Omollo, F. O., & Odari, S. (2024, January). Determinants of supply chain performance in the energy sector in Kenya: A case study of Kenya Power. *International Journal of Social Science and Humanities Research (IJSSHR), 2*(1), 12-30. https://doi.org/10.61108/ijsshr.v2i1.66

Ong'are, O. D., & Njeru, A. (2022). Effectiveness of internal control systems on fraud management among state corporations in Kenya: a case of Kenya Pipeline Company. The Strategic Journal of Business & Change Management, 9 (4), 948 – 961.

Obuogo, E. A. (2018). Employee perceptions on the relationship between internal controls and firm performance in Kenya (Thesis). Strathmore University. Retrieved from http://su-plus.strathmore.edu/handle/11071/6010

Okoye, E. I., & Orsaa, D. (2013, March). Forensic accounting: A tool for fraud detection and prevention in the public sector. (A study of selected ministries in Kogi State)

Otoo, A., & Dunkley, R. (2023, March 15). Uncovering fraud: Famous forensic accounting cases that rocked the world. *Apollo Solutions*. https://www.apollo-solutions.com/resources/blog/uncovering-fraud-famous-forensic-accounting-cases-that-rocked-the-world/

Roszkowska, P. (2021). Fintech in financial reporting and audit for fraud management and safeguarding equity investments. *Journal of Accounting & Organizational Change*, 17(2), pp. 164-196. doi: 10.1108/jaoc-09-2019-0098

Rose, A. M., Rose, J. M., & Norman, C. S. (2013). Is the objectivity of internal audit compromised when the internal audit function is a management training ground? *Accounting and Finance, 53*(4). https://doi.org/10.1111/acfi.12025

Rose, C. S., & Sesia, A. (2013, January; revised October 2014). *Barclays and the LIBOR scandal* (HBS Case Collection). Harvard Business School.

Ratliff, T. (2022). *Effective internal control strategies for an enterprise resource planning system* (Doctoral dissertation, Walden University). Walden University ScholarWorks.

Rehman, A., Hashim, F. (2020), "Impact of Fraud Risk Assessment on Good Corporate Governance: Case of Public Listed Companies in Oman", Business Systems Research, Vol. 11 No. 1, pp. 16-30.

Shaban, O. S., & Barakat, A. I. (2023). Evaluation of internal audit standards as a foundation for carrying out and promoting a wide variety of value-added tasks: Evidence from emerging market. *Journal of Risk and Financial Management, 16*(3), 185. https://doi.org/10.3390/jrfm16030185

Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *Journal of Finance*, 52(2), 737-783.

Scott, W. R. (1995). Institutions and Organizations. *Sage Publications*.

Scott, W. R. (2003). *Organizations: Rational, Natural, and Open Systems* (5th ed.). Pearson Education.

Sudirman, S., Sasmita, H., & Djabir, M. D. (2021, April). Effectiveness of internal audit in supporting internal control and prevention of fraud. *Bongaya Journal for Research in Accounting (BJRA), 4*(1), 8-15. https://doi.org/10.37888/bjra.v4i1.271

Soepeno, R. (2024, February). Enron scandal: Essay & lessons in auditing. *Sampoerna University*.

Suleiman, N. (2018, August). Preliminary forensic accounting investigation of economic and financial crimes in Nigeria: Experts' revelations. *International Journal of Innovative Research and Development, 7*(7). https://doi.org/10.24940/ijird/2018/v7/i7/JUL18116

Sargiacomo, M., Everett, J., Ianni, L., & D'Andreamatteo, A. (2024). Auditing for fraud and corruption: A public-interest-based definition and analysis. *The British Accounting Review, 56*(2), 101355. https://doi.org/10.1016/j.bar.2024.101355

Thottoli, M. M. (2021). The relevance of compliance auditson companies' compliance with disclosure guidelines of financial statements. *Journal of Investment Compliance, 22*(2). https://doi.org/10.1108/JIC-05-2021-0071

Tonui, A. K., Kamau, D., & Ombui, K. (2018). Effect of forensic accounting services on fraud detection in microfinance institutions in Bomet County. *International Journal of*

Management and Commerce Innovations, 6(1), 853-859. Retrieved from www.researchpublish.com

Tariq, M., Ali, S., & Nawaz, M. (2019). The role of internal auditing in corporate governance: A literature review. *International Journal of Accounting and Financial Reporting*, 9(2), 123-145.

Tillyer, R., & Klahm, C. F. (2013). Examining the routine activities of white-collar crime. *Journal of Criminal Justice*, 41(3), 160-170.

The Institute of Internal Auditors (IIA). (2024, January 9). *Global internal audit standards*. Retrieved March 1, 2025, from https://www.theiia.org/globalassets/site/standards/globalinternalauditstandards_2024january9.pdf

Tawfik, O. I., Durrah, O., & Aljawhar, K. A. (2023). The role of the internal auditor in strengthening the governance of economic organizations using the three lines of defense model. *Journal of Risk and Financial Management, 16*, 341. https://doi.org/10.3390/jrfm16070341

The Institute of Internal Auditors, Inc. (2016). *Internal audit standards for government departments and offices*. https://www.theiia.org/en/standards/

Tayan, B. (2019, February 6). The Wells Fargo cross-selling scandal. *Harvard Law School Forum on Corporate Governance*. Retrieved March 1, 2025, from https://corpgov.law.harvard.edu/2019/02/06/the-wells-fargo-cross-selling-scandal/

Tumwebaze, Z., Mukyala, V., Ssekiziyivu, B., Tirisa, C. B., & Tumwebonire, A. (2018). Corporate governance, internal audit function and accountability in statutory corporations. *Cogent Business & Management*, *5*(1). https://doi.org/10.1080/23311975.2018.1527054

Uniamikogbo, E., Adeusi, A. S., & Amu, U. C. (2019). Forensic audits and fraud detection and prevention in the Nigerian banking sector. *Accounting and Taxation Review*, 5(2), 1-14. Available online at http://www.atreview.org

Udoh, O. R. (2024, December). Enhancing internal audit efficiency for effective risk management and corporate governance frameworks. *International Journal of Research Publication and Reviews, 5*(12), 3646-3659. https://doi.org/10.55248/gengpi.5.1224.250122

Urefe, O., Odonkor, T., & Agu, E. E. (2024). Methodologies and best practices for audit and compliance in governmental financial management. *Finance & Accounting Research Journal, 6*(8), 1391-1402. https://doi.org/10.51594/farj.v6i8.1383

Von Bertalanffy, L. (1949). *General System Theory: A Critical Review. General Systems*, 4, 1-10.

Vicente, V. (2024, July 26). 5 risk-based internal auditing approaches. *AuditBoard*. Retrieved March 1, 2025, from https://www.auditboard.com/blog/5-approaches-to-risk-based-auditing/

Vutumu, A. (2024). Building the foundation: Towards a theoretical framework for forensic accounting. *International Journal of Accounting, Finance and Risk Management, 9*(4). 10.11648/j.ijafrm.20240904.12

Vian T. (2020). Anti-corruption, transparency and accountability in health: concepts, frameworks, and approaches. *Global health action*, *13*(sup1), 1694744. https://doi.org/10.1080/16549716.2019.1694744

Vutumu, A. , Aregbeyen, O. and Akinteye, A. (2024) Internal Control and Fraud management in the Nigerian Public Sector: A Partial Least Square Structural Equation Modeling Approach. *Journal of Financial Risk Management*, **13**, 703-729. doi: 10.4236/jfrm.2024.134034.

Vutumu, A. , Oshota, S. and Akinteye, A. (2025) Forensic Accounting, Internal Control Impact on Nigerian Public Sector Fraud Prevention: A Descriptive Analysis. *Open Journal of Business and Management*, **13**, 781-808. doi: 10.4236/ojbm.2025.132041.

Wikström, P. H. (2017). The role of self-control in criminal behavior: An exploration of routine activity theory. *Journal of Research in Crime and Delinquency*, 54(3), 358-373.

Wells, J. T. (2021). *Corporate Fraud Handbook: Prevention and Detection*. Wiley.

Institute of Internal Auditors (IIA). (2020). *International Standards for the Professional Practice of Internal Auditing*.

Wayo, A. (2023). *The role of forensic accounting in combating money laundering in Ghana* (Doctoral dissertation, Northcentral University). ProQuest Dissertations & Theses.

World Bank. (2021, August). Kenya State Corporations Review: Corporate governance and fiscal risks of state corporations (Report No. AUS0002291). https://documents1.worldbank.org/curated/en/723761634094500825/pdf/Kenya-State-Corporations-Review-Corporate-Governance-and-Fiscal-Risks-of-State-Corporations.pdf

Xanthopoulou, A., Skordoulis, M., Arsenos, P., Kalantonis, P. (2024). The Effect of Internal Audit on Universities' Reliability and Performance. In: Kavoura, A., Borges-Tiago, T., Tiago, F. (eds) Strategic Innovative Marketing and Tourism. ICSIMAT 2023. Springer Proceedings in Business and Economics. Springer, Cham. https://doi.org/10.1007/978-3-031-51038-0_106

Yaqoub, M., Hamad, S., Alhammadi, H., ElKelish, W. W., Abdalla, Y. A., & Hussain, A. (2023). Understanding accounting fraud motivation, protection procedures, and firms' performance: External auditors' perspective. *Corporate Governance and Organizational Behavior Review, 7*(3).

Yousefi Nejad, M., Khan, A. S., & Othman, J. (2024). A panel data analysis of the effect of audit quality on financial statement fraud. *Asian Journal of Accounting Research, 9*(4). https://doi.org

Yeboah, E. (2020) Critical Literature Review on Internal Audit Effectiveness. *Open Journal of Business and Management*, 8, 1977-1987. doi: 10.4236/ojbm.2020.85121.

Yoon, K. (2020). *Financial auditsing: A Comprehensive Guide to Best Practices*. Springer.

Ziorklui, J. E. K., Ampofo, F. O., Antwi, B. O., & Nyonyoh, N. (2024). Effectiveness of internal controls mechanisms in managing and detecting fraud. *Finance & Accounting Research Journal, 6*(7), 1259-1274. https://doi.org/10.51594/farj.v6i7.1322

Ziorklui, J. E. K., Ampofo, F. O., Antwi, B. O., & Nyonyoh, N. (2024, July). Effectiveness of internal controls mechanisms in managing and detecting fraud. *Finance & Accounting Research Journal, 6*(7), 1259-1274. https://doi.org/10.51594/farj.v6i7.1322

APPENDIX I: LETTER OF INTRODUCTION

Thika Road, Ruaraka
P.O. Box 56808-00200 Nairobi Kenya
Pilot Line: +254 20 8070408/9

Tel: +254 20 3537842
Fax: +254 20 8561077
Mobile: +254 734 888022, 710 888022
Email: kca@kca.ac.ke
Website: www.kca.ac.ke

BOARD OF POSTGRADUATE STUDIES

KCAU/BPS/2025 *Date: Monday, June 09, 2025*

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

RE: MUHUMED YAHYE KALMEY - REG NO. 15/01213

It is my distinct pleasure to introduce Muhumed Yahye Kalmey, a student at our institution pursuing a Master of Science in Commerce- Finance & Accounting degree within the School of Business.

Yahye is conducting research on the topic "***Effect of internal audits on fraud management among state corporations in Kenya.***" which is part of the requirements of the program he is pursuing. The research as well as the data procured thereof shall be used for academic purposes only.

Any assistance accorded to him is highly appreciated.

In case of further inquiry, do not hesitate to contact the undersigned.

Yours faithfully,

DR. JACKSON NDOLO
DIRECTOR, BOARD OF POST GRADUATE STUDIES

APPENDIX II: NACOSTIC LICENSE

REPUBLIC OF KENYA

NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Ref No: **721747**

Date of Issue: **08/June/2025**

RESEARCH LICENSE

This is to Certify that Mr.. MUHUMED YAHYE of KCA University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Nairobi on the topic: EFFECT OF INTERNAL AUDITS ON FRAUD MANAGEMENT AMONG STATE CORPORATIONS IN KENYA for the period ending : 08/June/2026.

License No: **NACOSTI/P/25/4174368**

721747

Applicant Identification Number

Deputy Director
NATIONAL COMMISSION FOR SCIENCE,TECHNOLOGY & INNOVATION

Verification QR Code

NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.

See overleaf for conditions

APPENDIX III: QUESTIONNAIRE

Section A: Background Information

Please provide the following details to help us understand your background. Kindly select the most appropriate response.

1. What is your current position? ______________

2. How old are you?

Below 25 ☐; 25-34 ☐; 35-44 ☐; 45-54☐; 55+☐**;**

3. What is your highest level of education?

High School or equivalent☐; Undergraduate Degree☐; Master's Degree☐; Doctorate☐;

Other (please specify): _______________

4. How long have you worked in your current position?

Less than 1 year☐; 1-3 years☐; 4-6 years☐; More than 6 years☐**;**

5. Which department do you primarily work in?

: _______________

6. What is your level of involvement in internal audit activities?

Very Involved☐; Somewhat Involved☐; Not Involved☐; Not Sure☐;

Section B: Study Variables

7. Financial Audits

In this Likert scale, 1 represents ***"Strongly Agree [1= SA],"*** indicating full agreement with the statement. 2 is ***"Agree [2= A],"*** meaning some level of agreement but not complete certainty. 3 stands for ***"Neutral [3= N],"*** suggesting no strong opinion either way. 4 is ***"Disagree [4= DA],"*** expressing a clear disagreement. 5 means ***"Strongly Disagree [5= SA],"*** indicating complete disagreement with the statement.

Question	**1=SA**	**2=A**	**3=N**	**4=DA**	**5=SD**
1. The internal audits in state corporations ensure that financial statements are free from material misstatements.					
2. Financial statements in state corporations accurately reflect the financial position and performance of the organization.					
3. The internal audit process in state corporations identifies and corrects errors in financial reporting before they affect the final statements.					
4. Internal audits in state corporations contribute to the reliability of the financial data used in decision-making.					
5. The accuracy of financial statements is significantly improved by the recommendations made during internal audits in state corporations.					

8. Compliance Audits

In this Likert scale, 1 represents "Strongly Agree [1= SA]," indicating full agreement with the statement. 2 is "Agree [2= A]," meaning some level of agreement but not complete certainty. 3 stands for "Neutral [3= N]," suggesting no strong opinion either way. 4 is "Disagree [4= DA]," expressing a clear disagreement. 5 means "Strongly Disagree [5= SA]," indicating complete disagreement with the statement.

Question	**1=SA**	**2=A**	**3=N**	**4=DA**	**5=SD**
1. Internal audits in state corporations ensure that the organization adheres to all relevant regulatory requirements.					
2. Compliance with national laws and regulations is regularly monitored through internal audits in state corporations.					
3. The internal audit process effectively identifies areas where the state corporation may not be fully compliant with regulatory requirements.					
4. Internal audits contribute to improving the state corporation’s adherence to both local and international regulatory standards.					
5. The recommendations from internal audits are often implemented to improve compliance with regulatory frameworks in state corporations.					

9. Operational Audits

In this Likert scale, 1 represents "Strongly Agree [1= SA]," indicating full agreement with the statement. 2 is "Agree [2= A]," meaning some level of agreement but not complete certainty. 3 stands for "Neutral [3= N]," suggesting no strong opinion either way. 4 is "Disagree [4= DA]," expressing a clear disagreement. 5 means "Strongly Disagree [5= SA]," indicating complete disagreement with the statement.

Question	**1=SA**	**2=A**	**3=N**	**4=DA**	**5=SD**
1. Internal audits in state corporations assess the efficiency of internal controls in safeguarding assets and managing losses.					
2. Internal controls in state corporations are effective in ensuring the accuracy and reliability of operational processes.					
3. The internal audit process effectively identifies inefficiencies in internal controls and suggests improvements for better performance.					
4. Internal audits contribute significantly to improving the overall effectiveness of operational procedures in state corporations.					
5. The internal controls in state corporations are regularly evaluated to ensure they remain efficient and capable of addressing emerging risks.					

10. Forensic Audits

In this Likert scale, 1 represents "Strongly Agree [1= SA]," indicating full agreement with the statement. 2 is "Agree [2= A]," meaning some level of agreement but not complete certainty. 3 stands for "Neutral [3= N]," suggesting no strong opinion either way. 4 is "Disagree [4= DA]," expressing a clear disagreement. 5 means "Strongly Disagree [5= SA]," indicating complete disagreement with the statement.

Question	**1=SA**	**2=A**	**3=N**	**4=DA**	**5=SD**
1. Forensic audits in state corporations effectively detect fraudulent activities and prevent financial losses.					
2. The internal audit team actively investigates potential fraudulent activities within state corporations.					
3. Forensic audits contribute significantly to identifying fraud and misconduct that may go unnoticed through regular audits.					
4. The forensic audit process in state corporations is efficient in tracing and addressing the root causes of fraudulent activities.					
5. Recommendations from forensic audits are effectively implemented to prevent future fraudulent activities in state corporations.					

11. Fraud management

In this Likert scale, 1 represents "Strongly Agree [1= SA]," indicating full agreement with the statement. 2 is "Agree [2= A]," meaning some level of agreement but not complete certainty. 3 stands for "Neutral [3= N]," suggesting no strong opinion either way. 4 is "Disagree [4= DA]," expressing a clear disagreement. 5 means "Strongly Disagree [5= SA]," indicating complete disagreement with the statement.

Question	**1=SA**	**2=A**	**3=N**	**4=DA**	**5=SD**
1. There is clear evidence that fraud management measures are effectively implemented within state corporations.					
2. Internal controls and procedures put in place by state corporations are strong enough to prevent fraudulent activities.					
3. State corporations regularly assess the effectiveness of their fraud management strategies.					
4. There are sufficient training and awareness programs for employees to understand and identify fraud risks.					
5. The implementation of fraud management measures has resulted in a noticeable reduction of fraudulent activities in state corporations.					

THANK YOU FOR YOUR PARTICIPATION

APPENDIX IV: STATE CORPORATIONS

1	Lake Victoria North Water Works Development Agency
2	Postal Corporation of Kenya
3	Kenya Ports Authority
4	South Nyanza Sugar Company (Sony Sugar)
5	Kenya Shipyards Limited
6	Central Rift Valley Water Works Development Agency
7	Kenya Wildlife Service
8	Geothermal Development Company
9	National Cereals and Produce Board
10	Kenya Meat Commission
11	Maseno University
12	Chemelil Sugar Company
13	National Water Harvesting and Storage Authority
14	Kenya Trade Network Agency
15	Nairobi Centre for International Arbitration
16	Kenya Development Corporation
17	Kenya Bureau of Standards
18	Independent Policing Oversight Authority
19	Kenya Literature Bureau
20	Dedan Kimathi University of Technology
21	Insurance Regulatory Authority
22	Coast Water Works Development Agency
23	Kenya Marine and Fisheries Research Institute
24	Kenya Ordnance Factories Corporation
25	Pharmacy and Poisons Board
26	Kenya School of Law
27	Kenya National Highways Authority
28	Kenya Marine and Fisheries Research Institute
29	Kenya Industrial Research & Development Institute
30	Nzoia Sugar Company
31	Athi Water Works Development Agency
32	Capital Markets Authority
33	Mumias Sugar Company
34	Kenya National Bureau of Statistics
35	Kenya Industrial Estates
36	Central Bank of Kenya
37	Kenyatta University Teaching, Referral and Research Hospital
38	National Housing Corporation
39	Moi Teaching and Referral Hospital
40	Kibabii University
41	Retirement Benefits Authority

42	Kenya Electricity Transmission Company Limited
43	Kenya Industrial Property Institute
44	Kenya National Highways Authority
45	Kenya School of Government
46	Nzoia Sugar Company
47	Public Procurement Administrative Review Board
48	Kenya School of Law
49	Kenya Water Institute
50	Jomo Kenyatta University of Agriculture and Technology
51	Technical University of Kenya
52	National Authority for the Campaign Against Alcohol and Drug Abuse
53	Geothermal Development Company
54	Tourism Fund
55	Kenya Veterinary Vaccines Production Institute
56	Agriculture and Food Authority
57	Water Resources Authority
58	National Research Fund
59	Kenya Broadcasting Corporation
60	Anti-Doping Agency of Kenya
61	Pyrethrum Processing Company of Kenya
62	Agricultural Finance Corporation
63	Capital Markets Authority
64	Nairobi Centre for International Arbitration
65	Kenya National Commission for UNESCO
66	Technical University of Mombasa
67	Retirement Benefits Authority
68	Kenya Industrial Research & Development Institute
69	Kenya Yearbook Editorial Board
70	Ethics and Anti-Corruption Commission
71	Media Council of Kenya
72	Kenya Medical Training College
73	Tourism Fund
74	Wildlife Research and Training Institute
75	Postal Corporation of Kenya
76	Dedan Kimathi University of Technology
77	National Gender and Equality Commission
78	Kisii University
79	Tanathi Water Works Development Agency
80	Kenya Bureau of Standards
81	Media Council of Kenya
82	Anti-Doping Agency of Kenya
83	Energy and Petroleum Regulatory Authority
84	National Police Service Commission

85	University of Nairobi
86	Kenya National Bureau of Statistics
87	Kenya Plant Health Inspectorate Service
88	National Authority for the Campaign Against Alcohol and Drug Abuse
89	Kenya Forest Service
90	Kenya Railways Corporation
91	Geothermal Development Company
92	Kenya Dairy Board
93	Kenya Universities and Colleges Central Placement Service
94	Kenya Medical Supplies Authority
95	Tourism Regulatory Authority
96	National Council for Persons with Disabilities
97	Kenya Civil Aviation Authority
98	Kenya School of Government
99	Pwani University
100	Kenya Institute of Special Education
101	Kenya National Trading Corporation
102	Kenya Broadcasting Corporation
103	Kenya Marine and Fisheries Research Institute
104	Kenyatta National Hospital
105	Insurance Regulatory Authority
106	National Hospital Insurance Fund
107	Moi University
108	Konza Technopolis Development Authority
109	Kenya Film Commission
110	Consolidated Bank of Kenya Limited
111	Technical University of Mombasa
112	Kenya Rural Roads Authority
113	Commission for University Education
114	Industrial and Commercial Development Corporation
115	Lake Victoria North Water Works Development Agency
116	National Cohesion and Integration Commission
117	Kenya Maritime Authority
118	Higher Education Loans Board
119	TVET Curriculum Development, Assessment & Certification Council
120	Kenya Medical Research Institute
121	Lake Victoria South Water Works Development Agency
122	Egerton University
123	Lake Victoria North Water Works Development Agency
124	Kenya Fisheries Service
125	National Water Harvesting and Storage Authority
126	Kenya National Highways Authority
127	Egerton University

128	Kenya National Library Service
129	Kenyatta National Hospital
130	Kenyatta University
131	Kenya Reinsurance Corporation Limited
132	National Housing Corporation
133	Kenya Urban Roads Authority
134	Kenya Bureau of Standards
135	Kenya Roads Board
136	Consolidated Bank of Kenya Limited
137	LAPSSET Corridor Development Authority
138	Anti-Counterfeit Authority
139	Kenya Institute for Public Policy Research and Analysis
140	Nuclear Power and Energy Agency
141	Kenya Roads Board
142	Numerical Machining Complex Limited
143	Water Resources Authority
144	Kenya Forestry Research Institute
145	University of Embu
146	Kenya Dairy Board
147	Maseno University
148	Kenya National Commission on Human Rights
149	National AIDS Control Council
150	Competition Authority of Kenya
151	Business Registration Service
152	Kenya National Commission on Human Rights
153	Tourism Promotion Fund
154	Nairobi Centre for International Arbitration
155	Policyholders Compensation Fund
156	Kenya Water Institute
157	East African Portland Cement PLC
158	Kenya Universities and Colleges Central Placement Service
159	Tana Water Works Development Agency
160	National Social Security Fund
161	Kenya Reinsurance Corporation Limited
162	Kenya National Bureau of Statistics
163	Kenya Deposit Insurance Corporation
164	Public Service Commission
165	North Rift Valley Water Works Development Agency