

**EFFICACY OF FORENSIC AUDITING IN MITIGATING
OCCUPATIONAL FRAUD AMONG KENYAN COUNTY
GOVERNMENTS MODERATED BY ORGANIZATION CULTURE**

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DECLARATION AND APPROVAL

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

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ABSTRACT

This study examined the efficacy of forensic auditing in mitigating occupational fraud within Kenyan county governments, with organizational culture incorporated as a moderating variable. Occupational fraud remains pervasive in devolved units, undermining public trust, fiscal discipline, and service delivery despite existing audit frameworks and regulatory interventions. Anchored on the Fraud Hexagon Theory, Technology Acceptance Model, and Social Exchange Theory, the study adopted a convergent parallel mixed-methods design. Data were collected from 154 respondents across 30 county governments and the Office of the Auditor-General using structured questionnaires, key informant interviews, and audit report reviews. Quantitative data were analyzed using multiple linear regression, while qualitative data were analyzed thematically. Empirical findings confirmed that all four forensic auditing tools significantly and positively influenced occupational fraud mitigation. The moderated regression model demonstrated strong explanatory power ($R^2 = 0.7892$; Adjusted $R^2 = 0.7645$), indicating that approximately 79% of the variance in fraud mitigation is explained by the combined effects of forensic auditing techniques and organizational culture. The regression coefficients revealed that forensic interviews exert the strongest direct effect ($\beta = 0.4532$, $p < 0.01$), followed by computer-assisted audit tools ($\beta = 0.3421$, $p < 0.05$), fraud risk assessment ($\beta = 0.2345$, $p < 0.05$), and internal control evaluation ($\beta = 0.1876$, $p < 0.05$). Organizational culture independently demonstrated a statistically significant effect on fraud mitigation ($\beta \approx 0.3156$, $p < 0.01$), confirming its role as both a direct predictor and a moderating variable. The moderation analysis further revealed the differential interaction effects: fraud risk assessment exhibited the strongest culture-dependent explanatory power ($R^2 \approx 0.83$), suggesting that its effectiveness is highly contingent on ethical climate and governance structures, while CAATs showed comparatively moderate interaction with culture ($R^2 \approx 0.59$), indicating that technological effectiveness is less sensitive to behavioral context. These findings underscore a critical complementarity between technical audit mechanisms and organizational culture in strengthening fraud mitigation outcomes. The study concludes that while forensic auditing tools are empirically effective, their impact is significantly amplified or constrained by organizational culture. Weak ethical environments, political risks, inadequate training, and limited management support were identified as key inhibitors to effective fraud mitigation. The persistence of fraud despite forensic audit interventions reflects systemic governance deficiencies rather than mere technical gaps. From a policy perspective, the study recommended: (i) institutionalization of forensic auditing frameworks within county governments through statutory reinforcement and alignment with the Public Finance Management framework; (ii) strengthening the independence and capacity of internal audit functions, including mandatory adoption of CAATs and continuous professional training in forensic techniques; (iii) embedding ethical leadership and accountability systems through enforceable codes of conduct, whistleblower protection mechanisms, and tone-at-the-top initiatives; and (iv) enhancing the mandate of oversight institutions such as the Office of the Auditor-General to initiate forensic audits proactively rather than on request. For future research, the study recommends longitudinal designs to assess causal stability of forensic auditing interventions over time, comparative cross-county or cross-country studies to enhance generalizability, and deeper exploration of moderating variables such as political risk, auditor independence, and institutional capacity. This study contributes to the forensic auditing and public sector governance literature by providing robust, context-specific empirical evidence on the interaction between forensic audit techniques and organizational culture within decentralized systems, and offers actionable insights for strengthening anti-fraud frameworks in Kenya's public sector.

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LIST OF ABBREVIATIONS AND ACRONYMS

ACBs:	Anti-Corruption Bodies
ACFE:	Association of Certified Fraud Examiners
AGSA:	Auditor General South Africa
ANOVA:	Analysis of Variance
CAATs:	Computer-Assisted Audit Tools
CAATs:	Computer Assisted Audit Tools and Techniques
CPA:	Certified Public Accountants
CPAIC:	County Public Accounts and Investment Committee
CPI:	Corruption Perception Index
CRF:	County Revenue Fund
DMBs:	Deposit Money Banks
DTMs:	Deposit-taking Microfinance Institutions
EACC:	Ethics and Anti-Corruption Commission
ICPAK:	Institute of Certified Public Accountants of Kenya
IDEA:	Interactive Data Extraction and Analysis
INTOSAI:	International Organization of Supreme Audit Institutions
LMS:	Learning Management System
MI:	Material Irregularity
MOH:	Ministry of Health
NACOSTI:	National Commission for Science, Technology, and Innovation
NFA:	National Fraud Authority
OAG:	Office of the Auditor General
PEOU:	Perceived Ease of Use
PLS-SEM:	Partial Least Square-Structural Equation Modeling
PSASB:	Public Sector Accounting Standards Board
PU:	Perceived Usefulness
PwC:	Price Waterhouse Coopers
SAIs:	Supreme Audit Institutions
SESRC:	Strathmore Institutional Ethics and Scientific Review Committee
SMEs:	Small and Medium-Sized Enterprises
SOEs:	State-Owned Enterprises
SPSS:	Statistical Package for the Social Science
TAM:	Technology Acceptance Model
TOE:	Technology-Organization-Environment
UK:	United Kingdom
WRMA:	Water Resources Management Authority

DEFINITION OF OPERATIONAL TERMS

Computer-Assisted Audit Tools:	Utilizing software and data analysis techniques to examine large datasets for anomalies or patterns indicative of fraudulent activity (Coderre, 2019).
Forensic Audit Process:	The systematic analysis and examination of financial transactions, records and other pertinent evidence to uncover potential financial irregularities, fraud or misconduct (Rufus et al., 2015) through the use of specialized auditing, accounting, and analytical techniques to identify, quantify, and document findings that may be used for legal or regulatory purposes
Forensic Interviews:	Conducting interviews with employees and other stakeholders to gather information and evidence related to suspected fraud (Wells, 2014).
Fraud Risk Assessment:	Detecting vulnerable points where fraudulent activity may occur within the organization and evaluating both the probability of such incidents and their potential consequences (Singleton & Singleton, 2019).
Internal Control Evaluation:	Reviewing and testing the efficacy of an institution's internal controls to prevent and detect fraud (COSO, 2013).
Occupational Fraud:	Exploiting one's professional role for personal gain by intentionally misusing or misappropriating an organization's assets or resources (ACFE, 2024).

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DEDICATION

I dedicate this research to my family and more particularly to my beloved Mother Mrs. Millicent Omondi - the Senior Teacher, whose steadfast encouragement and constant support has provided me with invaluable strength throughout this life journey. The constant reminder of never to give up and to always live by the constructs of hard work, determination, and persistence. I would also like to dedicate this work to the diligent public servants and policymakers striving for transparency and accountability in governance, whose efforts motivate the essence of this study. And finally, to all those committed to combating occupational fraud, may this research contribute to the collective pursuit of integrity and justice.

CHAPTER 1: INTRODUCTION

1.1 Background of the Study

Occupational fraud presents a persistent global threat, impacting both developing and established economies (Singleton & Singleton, 2019; Davis & Harris, 2020). Historical high-profile cases involving Enron, Tyco, and WorldCom underscores the catastrophic potential of fraudulent activity, leading to a worldwide demand for enhanced preventative mechanisms (Thomas, 2002; Sidak, 2003). According to the Association of Certified Fraud Examiners (ACFE, 2022), businesses lose approximately 5% of annual revenue to fraud.

The ACFE (2024) defines occupational fraud as the deliberate exploitation or improper use of an organization's resources or assets for personal gain. This encompasses asset misappropriation, corruption, and financial statement fraud. The World Bank defines fraud as any intentional act of deception designed to obtain financial or personal benefit or to avoid an obligation. In the public sector context, occupational fraud refers to the misuse of public office or organizational position for personal gain through the misappropriation of resources, corruption, or fraudulent financial reporting (World Bank, 2016). Notably, asset misappropriation is the most prevalent scheme, appearing in 86% of cases (ACFE, 2022). In the public sector, corruption remains the dominant threat, accounting for 56% of reported instances (ACFE, 2024). In the European Union, cyber-related fraud (47%) and procurement irregularities are particularly common (PricewaterhouseCoopers, 2023). Data from the European Anti-Fraud Office (OLAF, 2021) indicated that fraudulent activities involving EU funds totaled €527.4 million in 2021 alone, emphasizing the need for robust internal controls (Audit Scotland, 2024)

According to Transparency International report on the Corruption Perception Index (CPI) 2023, two-thirds of the 180 nations had scores lower than 50%. This demonstrates that corruption is still a major problem for the majority of governments across the globe. Public sector organizations in Africa are highly vulnerable due to weak governance, limited technological capacity, and inadequate internal controls (Deloitte East Africa, 2023). The African Union's High-Level Panel on Illicit Financial Flows (2023) estimates that fraud costs the continent approximately \$88.6 billion annually. While the global average for corruption and bribery schemes sits at 35%, Africa reports a significantly higher rate of 48% (Deloitte East Africa, 2023).

Sub-Saharan Africa continues to struggle, with a stagnant Corruption Perception Index (CPI) score of 33 out of 100. While nations like Seychelles (71) and Botswana (59) show relative

strength, others such as Somalia (11) and South Sudan (13) rank among the lowest globally (Transparency International, 2023). Despite some positive reforms in countries like Côte d'Ivoire and Angola, impunity and restricted civic spaces continue to hinder substantial progress across the region. The report reveals that most countries have made minimal to no progress in combating corruption over the past decade, largely due to weakened justice systems.

In East Africa, the public sector lost an estimated \$2.8 billion to occupational fraud between 2021 and 2022 (East African Community Secretariat, 2023). Kenya leads the region with median losses of \$175,000 per case. The Kenyan context presents particularly concerning statistics. The Ethics and Anti-Corruption Commission (EACC) Annual Report 2023 revealed that county governments lost approximately Ksh 28.3 billion to occupational fraud in the 2022/2023 financial year. Asset misappropriation accounted for 45% of cases, followed by procurement fraud (30%) and payroll fraud (15%). The report noted that only 23% of county governments had implemented comprehensive forensic audit programs, highlighting a significant gap in fraud prevention mechanisms.

Despite the enactment of various laws and regulations, such as the Proceeds of Crime and Anti-Money Laundering Act 2009, (POCAMLA), the Public Finance Management Act 2012, the Public Procurement and Asset Disposal Act 2015, the Public Finance Management Regulations 2015, and the Anti-Bribery Act 2016, businesses and individuals continue to encounter demands for bribes to access services from governmental departments (EACC, 2023). According to Quli (2023), research on the effectiveness of criminal laws in deterring crime presents mixed findings. While some studies indicate that the possibility of punishment can discourage criminal behavior, others emphasize that such elements including the apprehension likelihood and likely gains from crime may significantly play a more important part in influencing an individual's decision to commit an offense. Additionally, the effectiveness of laws in preventing crime may vary depending on the type of crime in question. Overall, while criminal laws can contribute to crime prevention, they are just one of many factors that may influence criminal behavior.

In response to the pervasive issue of occupational fraud, forensic auditing has emerged as one of the most effective measures for identifying and deterring fraud in the public sector, given its thorough approach to financial scrutiny and fraud risk assessment (ACFE, 2021; Transparency International, 2023). Previous studies have demonstrated the effectiveness of

forensic auditing in detecting and preventing occupational fraud in both the public and private sectors (Osagie & Iyoha, 2021; Mohammad et al., 2020; Alao et al., 2023; Kaur et al., 2022; Navarrete & Gallego, 2022). But most of these investigations were conducted in developed countries or in regions with different socio-political and legal contexts, thereby creating a contextual gap in understanding their applicability to Kenyan county governments. The unique dynamics of Kenya's decentralized governance, characterized by bureaucratic inefficiencies and political interference, demand context-specific research.

1.1.1 Occupational Fraud

Occupational fraud remains a major obstacle for businesses around the world, with its impact particularly severe in the public sector (Transparency International, 2023). Asset misappropriation involves the misuse or theft of an organization's assets. Although this is the most profound form of occupational fraud, it often results in the smallest median loss. This category includes schemes such as cash theft, fraudulent disbursements, inventory theft, and the misuse of company property. Corruption schemes arise when an employee exploits their position to manipulate a business transaction in a manner that breaches their professional duties, ultimately seeking personal or financial gain. Typical forms of such misconduct include conflicts of interest, bribery, and the unlawful acceptance of gratuities (ACFE, 2020).

The impact of occupational fraud in the public sector is both significant and complex. Citizens' confidence in the public sector continue to be threatened if rising fraud cases are not effectively addressed. In many emerging economies, including South Africa, Kenya, Ghana, and Nigeria, public sector entities have experienced a decline in performance and even failure due to occupational fraud. As noted by Kinyua (2019), Gitau and Samson (2016), and Uwaoma and Ordu (2019), this decline is largely due to these organizations' inability to implement stringent internal controls that adequately counter the advanced fraud techniques employed by perpetrators. Combating corruption is widely recognized as a political priority in both developed and developing economies; however, no single action or institution can eradicate it alone. Corruption often flourishes in environments with weak institutions and morally compromised individuals, and it can become deeply embedded in a country's cultural, social, political, and economic spheres.

Countries across various regions have enacted legislation to aid the fight against occupational fraud. Supreme Audit Institutions (SAIs) are increasingly being tasked with a pivotal role in uncovering malpractices such as corruption. Traditionally, this role has been primarily

fulfilled by entities like the police and other Anti-Corruption Bodies (ACBs). Notably, in jurisdictions like Germany, Sweden, and the United Kingdom, SAIs are expressly mandated to report suspected instances of corruption (Schöberlein, 2020). The Hungarian State Audit Office contributes to anti-corruption efforts by focusing on identifying corruption risks and considering them in audit planning. Additionally, it sanctions corruption charges when its findings provide substantial evidence and refers cases to the relevant authorities. In Bolivia, the anti-corruption coordination mandate has been assigned to its supreme audit institution (Transparency International, 2023).

Over time, countries have altered the legal frameworks governing the functioning of Supreme Audit Institutions (SAIs) and audits to explicitly incorporate investigations and surcharges within their SAI duties. For instance, Section 16(1) of the Ghanaian Audit Service Act of 2000 permits the Auditor-General to perform special reviews or audits in the public interest that go beyond the ordinary audit of public accounts; the Auditor-General is required to provide audit or review reports to Parliament; in addition, section 17(1) requires the Auditor-General to advise the relevant head of department or institution of any amount owed by an individual subject to disallowance or surcharge, as well as the reasons for these actions (OAG, 2023). South Africa implemented the Public Audit Amendment Act in 2019. This change was required due to the increasing amount of irregular, unapproved, pointless, and wasteful expenditures reported annually by the Office of the Auditor-General of South Africa (AGSA) at all government levels. The term material irregularity (MI) was introduced by the Public Audit Amendment Act, and it is defined as any breach of fiduciary duty, theft, fraud, or legal violation that may result in significant loss, misappropriation, or loss of a major public assets or significant harm to the general population or a public sector organization.

Kenya is currently reviewing the Public Audit Act of 2015 with several proposed amendments. The amendments will include modifications to Section 37 of the Act. This clause as currently stipulated in the Act, specifies that *the Auditor-General may perform forensic audits upon Parliament's request to detect financial irregularities, corruption, or fraud*. This therefore leaves the Auditor-General “handicapped” in instituting forensic audits on institutions. The amendment to section 37 will however allow the Auditor General to institute forensic audits of entities on its on motion (Public Audit Amendment Bill, 2024).

1.1.2 Forensic Auditing

The specialty area of accounting known as "forensic auditing" is devoted to the investigation, identification, and prevention of financial malpractices and fraud (Polo et al., 2022), by using thorough investigative methods to identify fraudulent activity and bring offenders accountable. This strategy restores public confidence and protects the integrity of public institutions (ACFE, 2020). It is a crucial instrument in the fight against occupational fraud. Public as well as private sectors are using this strategy more frequently due to the increasing complexity and sophistication of financial crimes (ACFE, 2023).

Previous studies have operationalized forensic auditing by focusing on the application of specific methods of investigation and methodologies to identify and stop financial deception. These include fraud risk assessment (Demirović et al., 2021; Munteanu et al., 2024; Adebayo et al., 2022; Mosoti et al., 2022); internal control evaluation (Lachney, 2022; Shakeel et al., 2023; Amutha & Shankari, 2021; Mosoti et al., 2022); computer-assisted audit tools (CAATs) (Awuah et al., 2021; Alfatah & Tobing, 2020; Gatabi, 2022; Adeyanju & Adenikinju, 2023; Olasanmi, 2013); and forensic interviews (Ibadin & Embele, 2021; Vennila & Ravichandran, 2022; Racheal et al., 2023; Mohamed & Muhammed, 2024). The current study sought to examine the efficacy of these tools with organizational culture as a moderating variable.

In the context of Kenyan county governments, the Constitution makes it clear that OAG, which is anchored under Article 229, shall audit the financial records of all governments- both national and local- and state agencies. In line with Section 37 of the Public Audit Act, 2015, the Auditor-General may carry out forensic audits upon request from Parliament in order to investigate financial irregularities or corruption. The Public Audit Act's Section 7 designates the AG as the person responsible for providing assurance of the efficacy of internal oversight and risk administration, and general governance at the local and national levels. Typically, the AG's approach to a forensic audit would include among others, risk identification by focusing on the what, who, where, how and when of what happened with a view to frame the risk areas for the management and forensic accountant to deliberate on the course of action; conducting extensive review of client's digital files and documents for evidence of fraud; as well as interview key employees both informally and formally (OAG, 2017). As such, the AG's approach to forensic audit reiterates the operationalization of forensic auditing by previous studies, as including fraud risk management, internal control

evaluation, computer assisted auditing tools, and forensic interviews. However, the current study enhanced this approach using organizational culture as a mediating variable.

1.1.3 Organizational Culture

Organizational culture refers to the shared values, norms, attitudes, and behaviors that influence how employees make decisions and conduct their duties within an institution. It plays a critical role in determining the effectiveness of forensic auditing in mitigating occupational fraud. Globally, organizational culture is recognized as a key factor in strengthening internal controls and fraud prevention mechanisms. Studies such as Irawan et al. (2024) show that a strong ethical culture enhances the effectiveness of internal control systems, demonstrating that formal control systems alone are insufficient without a culture that promotes accountability and integrity. In developed countries such as the United Kingdom and the United States, organizations that emphasize ethics, transparency, and compliance tend to detect and prevent fraud more effectively through robust forensic audit practices (Trevino et al., 2006).

The effectiveness of internal audit and forensic audit functions in Sub-Saharan Africa is often undermined by organizational cultures that tolerate corruption, discourage whistleblowing, and weaken auditor independence (Adegbe & Fakile, 2012; Van Vuuren, 2014; Sudharma et al., 2023). In such environments, organizational culture acts as a mediating factor that can either strengthen or weaken the impact of forensic audits (Soares et al., 2023).

In Kenya, particularly in county governments, organizational culture significantly influences the effectiveness of forensic audits. Some counties have embraced transparency and accountability, while others are affected by political patronage, weak enforcement of audit recommendations, and cultures that tolerate fraud.

From a global to local perspective, organizational culture is a foundational pillar in the fight against occupational fraud. It influences not only how forensic audits are conducted but also whether their findings lead to meaningful action. In Kenya, cultivating an environment of ethics, honesty and openness are crucial to empower forensic investigators, support the use of digital tools, and ultimately strengthen fraud prevention efforts across county governments (Soares et al., 2023; Sudharma et al., 2023; Yegon & Jepkorir, 2023).

1.1.4 Internal Control Evaluation

According to Mohd-Sanusi (2015), internal controls are formal procedures established by the board, management, and employees in order to give a fair level of assurance that operational objectives are effectively met, financial reporting is accurate, and the organization remains compliant with the relevant laws and rules. Similarly, Rae, Sands, and Subramanian (2017)

argue that robust internal controls are critical to governance frameworks, as they support transparency, accountability, and fraud prevention.

Globally, the COSO framework remains a widely adopted standard for evaluating internal control effectiveness across sectors. In developed countries, organizations regularly conduct internal control evaluations to identify weaknesses, mitigate risk, and enhance operational resilience. These evaluations are often technology-driven, utilizing advanced audit tools, data analytics, and automation to streamline monitoring and improve control effectiveness. Additionally, regulatory frameworks in countries such as the United States and the United Kingdom legally mandate internal control reporting, especially for publicly listed companies, highlighting the strategic role of internal controls in risk management and corporate integrity. In Sub-Saharan Africa, internal control systems are increasingly recognized as important tools for addressing corruption and financial mismanagement, although implementation remains inconsistent due to weak oversight, limited capacity, and inadequate technological support. In East Africa, including Kenya, Uganda, and Tanzania, internal control reforms have been introduced, particularly in public financial management, but challenges such as underfunding, staff shortages, and inconsistent application across decentralized government units persist.

In Kenya, the relevance of internal control is particularly pronounced within the context of devolved governance. Oguda, Odhiambo, and Byaruhanga (2015) found that in Kenyan district treasuries, internal control failures often stem from poor documentation, low staff collaboration, and weak supervisory frameworks. These issues not only hinder transparency and accountability but also open the door to financial mismanagement and occupational fraud.

1.1.5. Computer-Assisted Audit Tools (CAATs)

Computer-Assisted Audit Tools and Techniques (CAATs) are increasingly being recognized as transformative enablers in modern auditing. These software-based solutions allow auditors to efficiently execute a range of critical tasks, such as regulatory compliance, risk assessment, fraud detection, and data analysis by enabling the analysis of large datasets that would otherwise be difficult to manage manually (Braun & Davis, 2003). Globally, CAATs are an essential component of data-driven auditing in both the public and private sectors. In developed countries such as the United States, Canada, and the United Kingdom, tools like Audit Command Language (ACL) and Interactive Data Extraction and Analysis (IDEA) have become standard in both external and internal audits, making it easier to identify irregularities, fraud patterns, and compliance gaps (Debreceeny et al., 2005; Alles et al., 2006).

The widespread adoption of CAATs in these countries is strongly underpinned by institutional support, technological infrastructure, and auditor training. The Technology Acceptance Model (TAM) helps explain this adoption, with Janvrin et al. (2008) emphasizing that perceived utility and simplicity of usage are critical drivers in encouraging auditors to integrate CAATs into their workflow.

In Sub-Saharan Africa, the adoption of Computer-Assisted Audit Tools (CAATs) is gradually increasing, particularly in countries such as South Africa, Ghana, and Nigeria, where national audit institutions and major accounting firms use these tools for fraud detection and compliance audits. However, adoption is still limited by poor ICT infrastructure, budget constraints, lack of skilled personnel, resistance to technological change, and inadequate training. Although there is growing recognition of the importance of CAATs in improving audit effectiveness, stronger institutional frameworks, regional cooperation, and capacity-building are necessary to support wider implementation.

Regionally, particularly in Tanzania, Uganda, and Rwanda, the adoption of digital auditing tools has been supported by broader e-government reforms and donor-funded public sector modernization programs. CAATs are being used in areas such as tax compliance, procurement audits, and real-time budget monitoring. Despite this progress, implementation remains uneven and heavily reliant on donor support, indicating the need for greater local ownership, sustainable funding, and stronger policy alignment to ensure long-term integration of CAATs in public sector auditing.

In the Kenyan context, the adoption of CAATs is still in a developing but promising stage, particularly within county governments. Kenya's Public Finance Management (PFM) framework encourages automation and transparency, providing a foundation for CAATs to enhance audit quality and accountability. However, implementation varies widely across counties due to differing levels of technological readiness, financial resources, and auditor competence. According to Yegon and Jepkorir (2023), the application of forensic accounting and CAATs in fraud detection in Nakuru County proved instrumental in improving compliance and identifying procurement-related fraud. The study highlighted that CAATs enabled real-time monitoring and pattern recognition, enhancing the effectiveness of audit functions.

Despite these gains, several Kenyan counties still struggle with fundamental barriers such as limited access to audit-specific software, underinvestment in ICT infrastructure, and insufficient training for audit personnel. Moreover, political interference and bureaucratic inertia often hinder innovation in public financial management. These challenges mirror

broader issues in governance and institutional capacity observed in decentralized systems across Africa.

1.1.6. Forensic Interviews

Forensic interviews are investigative techniques designed to gather accurate, comprehensive, and legally admissible information while minimizing suggestibility and psychological harm to the interviewee (Lamb et al., 2007; Powell et al., 2014). Globally, forensic interviewing is widely employed in diverse contexts such as criminal investigations, child protection cases, workplace misconduct, and financial fraud. In countries like the United States and the United Kingdom, forensic interviewers are often professionally trained and follow standardized protocols, such as the NICHD (National Institute of Child Health and Human Development) protocol, to ensure the reliability and admissibility of collected information (Hershkowitz et al., 2014). These protocols emphasize open-ended questioning, neutrality, and the use of non-coercive methods to elicit truthful responses.

Regionally, within sub-Saharan Africa, forensic interviewing is gaining ground, particularly in countries working to strengthen rule-of-law institutions and justice systems. For example, in South Africa, the integration of forensic interviewing in both law enforcement and corporate investigations has been linked to improved fraud detection and prosecutorial success (Van der Merwe & Malan, 2019). However, difficulties like inadequate training, lack of standardized protocols, and limited resources still hinder the widespread use and effectiveness of forensic interviews across many African nations.

Across the East Africa, countries such as Uganda, Tanzania, and Rwanda have begun integrating forensic interviewing into broader criminal justice and public sector accountability frameworks, particularly in cases of corruption and economic crimes. However, the practice remains underutilized due to a lack of skilled personnel and limited institutional support (EACC, 2020).

In Kenya, forensic interviews are becoming increasingly important in investigations of occupational fraud and corruption within county governments. Given the complexity and collusive nature of many fraud schemes in devolved units, forensic interviewing serves as a vital tool for gathering reliable evidence that can withstand legal scrutiny. Kenyan investigative agencies such as the Ethics and Anti-Corruption Commission (EACC), the Directorate of Criminal Investigations (DCI), and internal audit units are increasingly recognizing the value of structured interviews in extracting detailed, corroborative testimonies from suspects, whistleblowers, and witnesses (EACC, 2021). According to Ndung'u and Wambua (2022), the effectiveness of forensic interviews in Kenyan counties is

directly tied to the interviewer's skill, the presence of institutional safeguards, and the degree of independence afforded to the investigative process.

Despite its growing relevance, the adoption of forensic interviewing in Kenya faces challenges including limited training opportunities, political interference, and fear of retaliation among potential informants. As Lamb et al. (2007) note, the reliability of forensic interviews is highly dependent on interviewer competence and adherence to ethical standards—factors that need systematic improvement in the Kenyan public sector. Strengthening forensic interviewing practices through capacity building, legal reforms, and protection mechanisms for interviewees can greatly enhance fraud detection and legal accountability at the county level.

1.1.7 Fraud Risk Assessment

Fraud Risk Assessment (FRA) serves as a critical, structured mechanism for organizations to identify and prioritize vulnerabilities within internal systems and operational activities (Beasley et al., 2010). The global landscape of FRA is heavily influenced by the COSO framework, which emphasizes five core elements monitoring, information systems, control activities, risk assessment, and the control environment to enhance organizational recognition of fraud (Rae, Sands, & Subramaniam, 2017). Theoretically, these methodologies are rooted in Cressey's (1950) "Fraud Triangle," which identifies rationalization, opportunity, and pressure as the primary drivers of fraudulent behavior. While institutions in Europe, Asia, and the Americas have successfully integrated these behavioral elements into modern detection systems, adoption in other regions remains inconsistent.

Within East Africa, FRA remains an emergent practice, showing progress in the private financial sectors but lagging in public institutions. In Kenya, the devolved governance system faces significant hurdles; reports from the Auditor-General frequently cite fragmented risk management and minimal follow-through on audit findings (Mwangi & Ndegwa, 2020). County governments, in particular, struggle with a unique intersection of political interference, procurement irregularities, and limited audit capacity. While data analytics offers a potential solution for modernizing these frameworks (Baesens, Van Vlasselaer, & Verbeke, 2015), implementation is restricted by high costs and a shortage of specialized skills. Furthermore, the absence of robust communication channels and whistleblower protections remains a critical weakness in the localized fight against corruption (Stephanie, 2016).

1.1.8 Kenyan County Governments

The Constitution of Kenya (2010) established two levels of government: The National Government and County Governments, with counties responsible for implementing devolved functions and development through budgets funded by equitable share allocations and grants from the national government and development partners. However, reports from the Office of the Auditor-General (OAG) and the County Public Accounts and Investment Committee (CPAIC, 2018) indicate that devolution has been accompanied by increased cases of corruption, misappropriation of resources, and occupational fraud at the county level. Key issues identified include weak internal audit departments, irregular withdrawals from County Revenue Funds, procurement irregularities, unreconciled payrolls, unsupported expenditures, inaccurate bank reconciliations, poor asset management, and failure to provide audit documentation. These issues are further attributed to weak governance structures, moral hazard, information asymmetry, management override of controls, and involvement of senior officials in fraud schemes (Kinyua, 2019; Gitau & Samson, 2016).

In response, forensic audits and special investigations have been conducted in counties such as Lamu, Homa Bay, and Bomet, as well as special audits on COVID-19 funds. Empirical studies in Kenya indicate that strong internal controls and forensic investigations significantly improve management, corporate governance, fraud detection, and financial reporting. Studies across sectors such as public schools, sugar companies, banks, and county governments generally show a positive relationship between forensic accounting techniques and fraud prevention or financial performance (Njui, 2012; Kyalo et al. 2016; Gatabi 2022; Abdinasir 2017; Okemwa and Nasieku (2023; Yegon and Jepkorir 2023). However, many of these studies are limited by narrow sector focus, overreliance on quantitative methods, lack of technological considerations, and limited generalizability across counties.

Despite evidence supporting the effectiveness of forensic auditing, occupational fraud cases in Kenyan county governments continue to increase, highlighting a gap between the existence of forensic audit practices (both internal and external) and their actual effectiveness. Therefore, there is a need to evaluate the efficacy of forensic auditing processes in detecting, investigating, and preventing occupational fraud in Kenyan county governments.

1.2 Problem Statement

Occupational fraud poses real threat to public sector institutions, including county governments, where it undermines economic growth and political stability. Reports from the Auditor General (OAG, 2023) indicate rising fraud and theft in Kenyan county governments,

highlighting the pressing need for forensic auditing. Studies by Karuti (2020), Opiyo (2017), Ng'ang'a (2015), Magetto (2023), Abdinasir (2017), Kalume and Kamau (2021), and Chepngeno and Fred (2020) corroborated this trend but revealed significant conceptual and methodological gaps when applied to county governments. Research on other public institutions like parastatals (Opiyo, 2017) and universities (Kalume & Kamau, 2021) demonstrated that proactive audit functions, internal controls, and forensic examinations were effective in mitigating fraud. However, findings from these studies could not be directly transferred to county governments due to the differing governance and operational structures existing in the county governments for instance the reporting responsibilities of the internal audit (an internal function mandated with fraud prevention) and other assurance providers. Magetto (2023) provides strong evidence that forensic accounting services enhance integrity in public sector financial reporting, but its focus on parastatals limits its generalizability. For county governments, it highlights key gaps in ICT-enabled forensic reviews, training, and deterrence skills, making it an important foundation but also pointing clearly to where further county-level research is needed. As an enhancement to these findings, the current study introduced the moderating effect of organization culture to investigate the efficacy of these tools. While litigation support services have shown a positive impact in listed companies (Chepngeno & Fred, 2020), county governments operate under distinct governance, reporting and regulatory frameworks. In addition, the existing literature primarily adopted either positivist or interpretive methodologies, and overlooked the specific challenges of county governments. Therefore, there was a critical need to investigate not only the connection between fraud and forensic accounting mitigation but the operational mechanisms within this context incorporating the influence of organizational culture. The purpose of this investigation was to close these gaps by concentrating exclusively on Kenyan county governments, using quantitative approach supported by qualitative methods approach to analyze the efficacy of four key forensic auditing tools: fraud risk assessment, internal control evaluation, computer-assisted audit tools (CAATs), and forensic interviews. In doing so, the study offered contextually-relevant knowledge that could inform evidence-based policies and practices.

1.3 Objectives of the Study

1.3.1 General Objective

The general objective of the study was to examine the efficacy of forensic auditing in mitigating occupational fraud cases in county governments in Kenya moderated by organization culture.

1.3.2 Specific Objectives of the Study

The specific objectives of the study were:

- i. To establish the effect of fraud risk assessment on mitigating occupational fraud in Kenyan County Governments
- ii. To examine the effect of internal control evaluation on mitigating occupational fraud in Kenyan County Governments
- iii. To determine the effect of computer-assisted audit tools on mitigating occupational fraud in Kenyan County Governments
- iv. To assess the effect of forensic interviews on mitigating occupational fraud in Kenyan County Governments
- v. To establish the effect of organizational culture as a moderating variable on mitigating occupational fraud in Kenyan County Governments

1.4 Research Questions

- i. What is the effect of fraud risk assessment on mitigating occupational fraud in Kenyan County Governments as mediated by organizational culture?
- ii. What is the effect of internal control evaluation on mitigating occupational fraud in Kenyan County Governments as mediated by organizational culture?
- iii. What is the effect of computer-assisted audit tools on mitigating occupational fraud in Kenyan County Governments as mediated by organizational culture?
- iv. What is the effect of forensic interviews on mitigating occupational fraud in Kenyan County Governments as mediated by organizational culture?

1.5 Scope of the Study

The study aimed to examine the efficacy of forensic auditing in combating occupational fraud in the public sector, with a particular focus on county governments in Kenya. The conceptual scope encompassed four forensic auditing tools available for conducting forensic audits in the public sector with organizational culture as a moderating variable and their suitability for auditing county governments: fraud risk assessment, internal control evaluation, computer-assisted audit tools, and forensic interviews. Regarding the investigation's geographic scope, a purposive sampling technique was employed, focusing on thirty (30) county governments. The population of interest included auditors, county executives, accountants, internal audit staff, and forensic investigators working with or within county governments. The study was conducted over a six-month period from December 2024 to May 2025 and integrated both primary and secondary data sources.

1.6 Significance of the Study

The examination of the efficacy of forensic auditing in combating occupational fraud cases in County Governments as mediated by organizational culture presented numerous avenues for future research. Forensic auditing, when applied to the public sector, has been recognized as a crucial instrument in the battle against occupational fraud. This area has garnered increased research attention, particularly in Africa, aiming to expand the field's knowledge base and inform policy development as governments intensify their efforts to combat occupational fraud, with a specific focus on corruption.

1.6.1 Policymakers and the Government

The findings provided practical recommendations for Kenyan policymakers and regulatory agencies in formulating policies and guidelines that embeds fraud detection and prevention mechanisms especially within the Audit and Risk management functions.

1.6.2 Researchers and Scholars

The study contributes to the growing body of academic literature on forensic auditing and public sector governance, especially within African contexts. It offers a methodological framework that can be replicated or adapted for future research.

1.6.3 County Governments

The results serve as a guide for county administrators and audit committees in developing effective anti-fraud strategies. The study also highlights critical operational gaps that can inform future capacity-building initiatives to inculcate a culture that is fraud aware.

1.7 Chapter summary

This chapter introduced the research problem and provided the background, problem statement, objectives, research questions, scope, and significance of the study. It underscored the need for robust forensic auditing tools within Kenyan county governments to curb occupational fraud. The chapter sets the foundation for the succeeding chapters, which explore the theoretical framework, empirical literature, research methodology, data analysis, and conclusions.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter presents a critical synthesis of existing literature relevant to the efficacy of forensic auditing in mitigating occupational fraud, with a particular focus on the public sector. The review is structured into three key sections: the theoretical framework, which discusses the underpinning ideas that direct the investigation; the empirical analysis, which examines previous studies on forensic auditing practices; and the deficiencies in research that support the necessity of this investigation.

2.2 Theoretical Framework

2.2.1 Fraud Hexagon Theory

The Fraud Hexagon Theory was developed by Vousinas (2019) as an extension of earlier fraud theories such as the Fraud Triangle Theory (Cressey, 1953), Fraud Diamond Theory (Wolfe & Hermanson, 2004), and Fraud Pentagon Theory (Crowe, 2011). It provides a comprehensive framework for understanding the causes of occupational fraud within an organization. The model expands earlier fraud theories by recognizing that fraud, particularly in organizational and public sector environments, is often complex, involves multiple actors, and is influenced by institutional and behavioral factors rather than individual motivation alone. The theory explains fraud using six key elements: pressure (stimulus), opportunity, rationalization, capability, arrogance, and collusion. While influential as the foundational fraud theory, the Fraud Triangle had been critiqued for oversimplifying the complexities of fraud (Wolfe & Hermanson, 2004; Normah & Hesri, 2010).

The Fraud Hexagon Theory was particularly relevant to public sector institutions and county governments because fraud in such environments often involves collusion, management override, political interference, and complex procurement processes. The theory therefore provided a more comprehensive framework for understanding occupational fraud compared to the earlier fraud theories, which focused primarily on individual motivations. It helped explain why occupational fraud persists in county governments despite the existence of internal controls and audit mechanisms. Pressure may arise from political and financial demands, opportunity may exist due to weak controls, rationalization may occur due to normalization of corruption within the public sector, capability may be possessed by technically skilled officers to conceal corruption incidences, arrogance may be present among senior officials, and collusion may occur between employees and external parties.

The theory was especially pertinent to the study's first two objectives: To determine the impact of fraud risk assessment on reducing occupational fraud: Fraud risk assessment directly tackled the "opportunity and collusion" components of the theory. The study reported that Auditors (both internal and external) were able to discover high-risk areas for fraud by carefully examining internal controls and detecting vulnerabilities within county government processes. For instance, faulty procurement practices, insufficient segregation of roles, and a lack of control in revenue collection were recipes for fraud. A thorough fraud risk assessment, guided by the Fraud Hexagon, enables the establishment of targeted measures to reduce these chances.

In Kenya, where reports by the Auditor General (OAG, 2023) show deficiencies in financial management within county governments, resolving the "opportunity and collusion" legs of the hexagon is critical. This is confirmed by research that show the prevalence of procurement irregularities and other types of financial mismanagement in Kenyan public sector organizations (Karuti, 2020; Sang, 2017); To investigate the impact of internal control evaluation on mitigating occupational fraud, Internal control evaluation was also strongly connected to the "capability and arrogance" elements of the Fraud Hexagon. Effectively, the purpose of internal controls is to prevent and identify fraud by reducing its potential incidence. The study revealed that auditors were able to discover vulnerabilities in Kenyan county governments' internal controls by analyzing their design and operational performance. For instance, a lack of clear regulations and processes, insufficient transaction monitoring, management override of controls, or insufficient segregation of roles were all reported to be high contributors to the risk of fraud. This was consistent with Opiyo's (2017) findings on Kenyan parastatals, which emphasized the need of strong internal control mechanisms in improving the identification and prevention of fraud.

Furthermore, considering the demonstrated prevalence of fraud despite existing control measures (OAG, 2023; Onyango, 2022), assessing the efficacy of these controls was a critical step in mitigating occupational fraud. While not directly addressed by specific objectives the "rationalization" and "pressure" parts of the Fraud Hexagon were nevertheless pertinent to the entire research. Understanding the pressures that county government employees face (e.g., financial difficulties, performance targets, political interference) and the potential rationalizations they may use to justify fraudulent actions (e.g., believing they are entitled to the funds, blaming the system) provided valuable context for interpreting audit findings and

developing effective anti-fraud strategies. Forensic interviews (objective iv) was utilized to understand information about pressure and rationalization.

Despite its appeal, the fraud hexagon has reported certain limitations. First, some scholars argue that these expanding models risk becoming over-inclusive: as more dimensions are added, the theory may describe fraud richly but become harder to falsify cleanly. Further, empirical findings are often mixed across sectors and countries, suggesting that the predictive power of the theory depends heavily on context and measurement design. By incorporating insights from other relevant theories and considering the specific context of Kenyan public institutions, this study provided a comprehensive analysis of the efficacy of forensic auditing in mitigating occupational fraud as mediated by organizational culture.

2.2.2 Technology Acceptance Model

The Technology Acceptance Model (TAM), developed by Davis (1989), provides a theoretical framework for understanding how users adopt and use technology. The model identifies two primary determinants of technology adoption: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). Perceived Usefulness refers to the degree to which an individual believes that using a particular technology will improve job performance, while Perceived Ease of Use refers to the degree to which a person believes that using the technology will be free of effort. These two factors influence users' attitudes toward technology, which ultimately determine whether they adopt and use the technology. Although TAM has been widely applied in technology adoption studies, critics argue that it focuses mainly on individual perceptions and may overlook organizational and social influences. Despite these limitations, TAM remains a relevant model for examining the adoption of Computer-Assisted Audit Techniques (CAATs) in forensic auditing.

In the context of Kenyan county governments, CAATs play a significant role in detecting and mitigating occupational fraud, particularly due to the large volume of financial data processed by counties. Perceived Usefulness is high when auditors believe that CAATs can help detect fraud more effectively, analyze complex financial data, and improve audit efficiency, especially in environments with limited human and financial resources. As fraud schemes become more sophisticated, auditors increasingly rely on CAATs to identify anomalies and irregular patterns that may not be easily detected through manual audit procedures. Therefore, auditors are more likely to adopt CAATs when they believe that the tools enhance their ability to detect fraud and improve audit performance.

Perceived Ease of Use is another important factor influencing CAAT adoption in Kenyan county governments. Even when auditors recognize the usefulness of CAATs, adoption may remain low if the tools are difficult to use. The study recognized that technology adoption is not influenced by individual perceptions alone but also by organizational and environmental factors.

Overall, TAM provides a useful framework for understanding how perceived usefulness, perceived ease of use, and organizational culture influence the adoption of CAATs and their effectiveness in mitigating occupational fraud in Kenyan county governments.

2.2.4 Social Exchange Theory

Social Exchange Theory (SET), as articulated by Homans (1958) and Blau (1964), provided a lens for understanding social interactions based on the exchange of resources, costs, and rewards. While SET has been critiqued for its emphasis on rational calculation and neglect of broader social complexities (Emerson, 1976; Cook & Emerson, 1978), it offered valuable insights applicable to specific contexts, such as forensic interviewing within Kenyan county governments. This was particularly relevant to the fourth objective of this study: to assess the effect of forensic interviews on mitigating occupational fraud.

In Kenya, where trust in public institutions has been fragile due to historical and ongoing issues of corruption (Transparency International, various years), the principles of SET become especially relevant to forensic interviewing. The perception of costs and rewards associated with disclosing information about fraud could significantly influence an interviewee's willingness to cooperate. For instance, fear of retaliation, social stigma, or legal repercussions could be perceived as high costs, deterring truthful disclosure. Conversely, the promise of protection, anonymity, or contributing to justice could be seen as potential rewards, incentivizing cooperation.

Applying SET to forensic interviewing in Kenyan county governments necessitated a profound understanding of the local context. Cultural norms, power dynamics within the county government structures, and perceptions of the anti-corruption framework all influenced the perceived costs and rewards of participation in interviews. For example, in some counties, admiration to authority figures might discourage junior staff from reporting on senior officials' fraudulent activities. This highlighted the importance of establishing rapport and trust, as emphasized by SET, to encourage open communication during forensic interviews.

The principle of reciprocity within SET argues that persons are particularly likely to cooperate if they feel treated fairly and respectfully. In the context of forensic interviews, this translates to interviewers demonstrating empathy, maintaining confidentiality, and ensuring that the interview process is conducted professionally and impartially. This approach is believed to help to mitigate the perceived costs of participation and enhance the likelihood of obtaining accurate and complete information.

Furthermore, understanding the potential "rewards" for truthful disclosure within the Kenyan context was crucial. While financial incentives might not always be appropriate or ethical, emphasizing the importance of accountability, public service, and contributing to a more transparent and efficient county government could be powerful motivators.

Therefore, while acknowledging the limitations of SET in explaining all aspects of human behavior, its application to forensic interviewing in Kenyan county governments provided a useful framework. By considering the perceived costs and rewards associated with disclosure, and by focusing on establishing trust and reciprocity, forensic auditors could enhance the effectiveness of interviews in gathering crucial information about occupational fraud, thus contributing to the mitigation of this problem within county governments.

2.3 The Empirical Review

2.3.1 Fraud risk assessment and mitigating occupational fraud

The most pervasive weakness across the reviewed studies is their tendency to treat sector-specific findings as though they carry broader explanatory power. Mouamer et al. (2020), Adebayo et al. (2022), Alfatah and Tobing (2020), and Wadesango et al. (2023) each situate their investigations within structurally distinct environments, the Palestinian health sector, the Nigerian oil and gas industry, the Indonesian tax authority, and Zambian state-owned enterprises respectively, yet none sufficiently interrogates whether their frameworks travel across institutional boundaries. This is not merely a question of geographic context; it is a question of organizational architecture. The high-value transaction environment of Nigeria's oil and gas sector, for instance, operates through contract structures, revenue streams, and oversight regimes that are fundamentally incompatible with the decentralized, politically embedded procurement processes characteristic of Kenyan county governments. Similarly, Alfatah and Tobing's (2020) rational choice framework, while theoretically sophisticated, was calibrated to a tax audit process governed by Indonesia's administrative law, a context so structurally distant from sub-Saharan devolved governance that the framework's transferability must be treated with skepticism rather than assumed.

What is striking, however, is that the locally grounded studies do not entirely escape this problem. Wanjiru and Ndegwa (2020) and Ng'anga (2015), both working within the Kenyan context, confined their analyses to NSE-listed companies and insurance firms respectively, entities subject to Capital Markets Authority (CMA) oversight and Insurance Regulatory Authority (IRA) frameworks that impose compliance pressures largely absent in county governments. The regulatory discipline that governs listed firms arguably suppresses certain fraud typologies that flourish precisely where oversight is weaker and accountability mechanisms are less formalized, as is the case in many county administrations. Wanjiru and Ndegwa's (2020) finding that detective controls alone do not significantly reduce fraud may therefore reflect the peculiarities of a heavily monitored corporate environment rather than a generalizable principle. Transplanting this conclusion uncritically to county government settings risks misdiagnosing the fraud control problem entirely.

Another equally serious limitation concerns how fraud itself is conceptualized across these studies. Wadesango et al. (2023) conflate fraud detection with fraud mitigation, treating the identification of fraudulent activity as functionally equivalent to its reduction, an assumption that challenges symptom recognition with treatment. Mosoti et al. (2022), meanwhile, measure forensic auditing's impact through the lens of financial performance rather than fraud incidence, introducing a dependent variable so distant from the intervention that the causal chain becomes difficult to isolate. Mouamer et al. (2020) compound this further by relying on respondents' *perceptions* of fraud prevention tools rather than empirical measures of those tools' effectiveness, raising questions about construct validity. Ng'anga (2015) operationalized fraud prevention through the frequency of observed red flags, a proxy that, while pragmatic, reduces a complex organizational phenomenon to a symptom count and, critically, omits the proactive pillars most relevant to public sector fraud, including fraud risk assessment, continuous monitoring, and data analytics. Araka (2023), the study most contextually proximate to the present research, narrows its conceptual scope to money laundering, a specific financial crime with distinct legal and behavioral characteristics, rather than the broader and more organizationally embedded problem of occupational fraud. The cumulative effect of these conceptual substitutions is a literature that speaks past the core phenomenon: how occupational fraud, through undisclosed revenues, payroll irregularities, procurement manipulation, and other forms, is actually mitigated in practice within the devolved units.

The methodological choices across these studies reinforce rather than compensate for these conceptual limitations. The dominant paradigm is quantitative: structured questionnaires,

ANOVA, multiple regression, and descriptive statistics feature across Adebayo et al. (2022), Wanjiru and Ndegwa (2020), Wadesango et al. (2023), and Mouamer et al. (2020). While these instruments are appropriate for establishing statistical associations and measuring prevalence, they are poorly suited to capturing the process-level dynamics through which fraud controls succeed or fail in practice. Adebayo et al.'s (2022) use of ANOVA, in particular, limits the analysis to mean comparisons across groups, obscuring the interaction effects and conditional relationships that make fraud control inherently context-dependent. Alfatah and Tobing (2020) offer a partial exception through their mixed-methods design, yet the qualitative component remains subordinate to the quantitative frame, and the application of rational choice theory, while theoretically coherent, risks underestimating the organizational and relational dimensions of fraud that do not reduce to individual cost-benefit calculations. The exclusive reliance on self-reported questionnaire data, shared by Mouamer et al. (2020) and Adebayo et al. (2022) among others, introduces response bias as a systemic rather than incidental concern, particularly in contexts where admitting awareness of fraud or its inadequate prevention carries professional or reputational risk for respondents.

2.3.2 Internal control evaluation and mitigating occupational fraud

Shakeel et al. (2023) and Rashid (2022) represent opposite ends of this spectrum, yet arrive at similarly incomplete conclusions through different routes. Shakeel et al.'s regression-based framework, built on 413 respondents across Pakistani listed corporations, generates statistically robust findings about how audit committee moderation strengthens the ICS-fraud detection relationship, but the institutional scaffolding upon which this finding rests is fundamentally incompatible with county government realities. Listed corporations in Pakistan operate under capital market disclosure requirements and shareholder accountability mechanisms that create compliance incentives simply absent in devolved Kenyan governance. Rashid (2022), attempting to sidestep this problem through a systematic review of 20 internationally diverse articles, inadvertently exposes the opposite weakness: breadth without depth. By synthesizing across sectors and jurisdictions simultaneously, the study produces thematic observations, ethical leadership, robust risk assessment, organizational transparency, that are clichéd precisely because they have been stripped of the contextual specificity that would make them actionable. The audit committee that Shakeel et al. (2023) identify as a critical moderating variable, for instance, functions very differently in a politicized environment like a county government than in a private sector corporation, yet Rashid's (2022) cross-contextual synthesis cannot capture this distinction. Together, these

studies illustrate that neither granular sector-specific analysis nor sweeping comparative synthesis adequately resolves the contextual problem; they merely locate it differently.

Bhat (2023) attempts to bridge this gap through a mixed-methods design that integrates quantitative survey data with qualitative entrepreneur interviews in Nigerian SMEs, methodologically the most sophisticated approach among the reviewed studies. Yet the contextual and conceptual transplantation problem is arguably most acute here. SMEs are characterized by resource constraints, informal governance, and owner-manager concentration of authority that make their fraud dynamics structurally inverted relative to county governments. Bhat's (2023) finding that customized internal controls reduce fraud in SMEs therefore says relatively little about environments where the controls exist on paper but are systematically undermined in practice.

The Kenyan studies, while contextually and conceptually closer, exhibit a different but equally consequential set of limitations that become more visible when read collectively rather than in isolation. Ong'are and Njeru (2022), Riitho and Wanjala (2020), and Kimani (2015) each examine specific ICS components: segregation of duties; control operations; and internal controls broadly; across the Kenya Pipeline Company, deposit-taking Saccos, and NSE-listed firms respectively. What unites these studies, despite their different subjects, is their shared institutional assumption: all three examine organizations where external regulatory oversight creates an independent enforcement mechanism that enhances internal control compliance. The Kenya Pipeline Company answers to a board of directors and sector regulator; Saccos operate under SASRA; NSE firms answer to the CMA. County governments, by contrast, operate in an environment where oversight is diffuse, politically negotiated, and frequently captured by the very actors it is meant to regulate. Kimani's (2015) policy recommendation that internal controls be regularly evaluated and resolved is thus not wrong so much as it is institutionally naive when applied to county governments, it assumes an organizational culture of compliance that cannot be presumed for the devolved units.

The two studies most directly relevant to the county government, Oguda et al. (2015) and Machora and Mugo (2024), expose a different limitation: the trap of single-county specificity. Both studies confirm a positive association between internal control effectiveness and fraud prevention within their respective county settings (Kakamega and Nakuru), but their methodological conservatism undermines the analytical leverage this contextual proximity should provide. Oguda et al.'s reliance on closed-ended questionnaires distributed to treasury personnel constrains the findings to a single department within a single county, producing results too narrow to generalize even across Kenyan counties, let alone to inform system-

wide policy. Machora and Mugo's (2024) theoretical pluralism, invoking Agency Theory, the Fraud Triangle, and Contingency Theory simultaneously, is an ambition that the study's descriptive research design cannot fulfil. Deploying multiple theoretical frameworks without a methodology capable of testing their relative explanatory contributions produces theoretical ornamentation rather than analytical clarity. The irony is that these two studies, by being most conceptually positioned to advance understanding of ICS in county governments, reveal most clearly the cost of methodological conservatism: proximity to the right context without the analytical tools to exploit it.

Across the full body of literature, a deeper structural problem emerges. With the partial exception of Bhat (2023), the reviewed studies share an almost uniform tendency to treat internal control as a static institutional feature, something organizations either have or lack, rather than as a dynamic practice whose effectiveness is mediated by organizational culture, political economy, and implementation fidelity. Riitho and Wanjala's (2020) Ordinary Least Squares regression and Oguda et al.'s (2015) descriptive statistics can establish that ICS components correlate with reduced fraud incidence, but they cannot explain why controls that exist formally may fail operationally, nor how the gap between policy design and practice is navigated in environments where political interference is a structural rather than exceptional feature. This methodological ceiling, shared across quantitative studies in both international and Kenyan literature, ensures that the existing evidence base, however internally valid, systematically misses the process-level dynamics most critical to understanding occupational fraud mitigation in county governments.

2.3.3 Computer-Assisted Audit Tools (CAATs) and Mitigating Occupational Fraud

The most fundamental tension running through this literature is between studies that treat CAATs as a technical instrument and those that treat them as an organizational practice. Sayana and CISA (2003) and Pedrosa and Costa (2012) anchor the technical end of this spectrum, defining and demonstrating CAATs' data extraction and analysis capabilities in ways that establish their procedural utility but say nothing about their fraud mitigation effectiveness. Pedrosa and Costa's (2012) educational case study is particularly instructive in this regard: by situating CAATs within a controlled learning management system environment, the study essentially demonstrates that the tools work when conditions are ideal, data is clean, and users are motivated to learn, precisely the conditions least likely to obtain in the operationally complex, politically pressured environment of a county government. The gap between laboratory performance and institutional reality is not incidental to the study's findings; it is the study's central unacknowledged limitation.

Adeyanju and Adenikinju (2023) and Olasanmi (2013), both working within the Nigerian banking and audit firm contexts respectively, represent the literature's most direct engagement with fraud detection, yet they diverge in ways that expose deeper problems in the field. Adeyanju and Adenikinju's (2023) PLS-SEM methodology is statistically the most sophisticated in the reviewed body of work, establishing a strong positive association between CAATs components and fraud detection effectiveness across Nigerian deposit money banks. Yet statistical sophistication here masks a conceptual sleight of hand: *fraud detection* is not *fraud mitigation*. Identifying fraudulent transactions after they occur is categorically different from preventing their occurrence, and the conflation of these two outcomes, common across this literature, produces findings that are internally valid but externally misleading about what CAATs actually accomplish. Olasanmi (2013) is more candid about this distinction, noting that CAATs' potential to lower fraud levels depends critically on overcoming implementation barriers including cost, skill requirements, and database compatibility, yet having identified these barriers, the study does not investigate how or whether organizations actually surmount them. The practical question, what separates organizations where CAATs deliver on their fraud mitigation promise from those where they do not, remains unasked.

Awuah et al. (2021) most explicitly confront the adoption question through their Technology-Organization-Environment framework, examining factors that determine CAAT uptake across Ghanaian private and state-owned organizations. This theoretical complexity represents a genuine advance over studies that simply assume adoption follows from demonstrated effectiveness. However, Awuah et al.'s (2021) framework stops precisely at the threshold of what matters most: the study investigates *why* organizations adopt CAATs but not *whether adoption translates into fraud reduction*. The TOE model illuminates the experiences of adoption without touching its consequences, leaving the critical causal chain between CAAT implementation and fraud mitigation empirically unexamined. This is not merely a gap in one study; it reflects a structural division in the literature between adoption researchers and effectiveness researchers.

The Kenyan studies, Sumayah (2023), Gaturu and Ngahu (2015), and Margetto (2023), are contextually closest to the present research yet illustrate most sharply how proximity to the right context does not compensate for misaligned conceptual focus. Gaturu and Ngahu (2015) examine CAATs' impact on financial management at Kenya's Water Resources Management Authority, finding significant positive effects, but financial management efficiency and fraud mitigation are related concepts, not equivalent ones. The assumption that better financial

management procedures automatically translate into reduced fraud incidence is empirically unverified within the study itself, representing a logical gap that descriptive statistics and SPSS-based inferential analysis cannot bridge. Sumayah (2023) broadens the Kenyan lens through a literature review of CAATs in Kenyan businesses but, paradoxically, the literature review format, the same approach Rashid (2022) employed in the ICS literature, generates the same weakness: generalizations too broad to be actionable in the specific institutional context of county governments, where decentralized operations, and politically mediated oversight create fraud dynamics qualitatively different from those in private Kenyan businesses.

Magetto (2023) comes closest to bridging these divides, grounding forensic accounting services, including computer-assisted reviews, within a theoretically coherent framework (Prospect Theory and Fraud Diamond Theory) and applying logistic regression to assess their impact on financial statement integrity in Kenyan public sector entities. The variable alignment is genuinely transferable: forensic techniques, ICT reviews, and fraud deterrence skills map reasonably well onto county government concerns around procurement, payroll, and asset management fraud. Yet Magetto's (2023) institutional sample, large state corporations including KEMSA, KenGen, and KPLC, inadvertently reproduces the same contextual displacement seen in the international literature. These parastatals operate within oversight ecosystems that include board governance, sector regulators, and market accountability mechanisms largely absent in county governments, where oversight is distributed across county assemblies, the Senate, the Controller of Budget, the EACC, and the Auditor General in ways that are structurally more complex and politically more contested. A cross-sectional design further limits the study to a snapshot of associations rather than a causal account of how computer-assisted reviews actually change fraud dynamics over time. Efiong et al.'s (2018) observation that auditing in electronic data processing environments demands technical expertise beyond conventional audit skills connects to a theme that runs implicitly through several studies, Olanmi (2013), Awuah et al. (2021), and Sumayah (2023) all acknowledge capacity and skill gaps as barriers to effective CAAT use, yet no study directly investigates how these capacity limitations interact with fraud outcomes in resource-constrained public sector environments. This is not a minor oversight. In county governments where internal audit departments are frequently understaffed, underfunded, and subject to political interference, the question of whether CAATs' theoretical fraud mitigation potential can be realized given actual human capital constraints is arguably the most practically important question in the field. That it remains systematically unaddressed across

the reviewed literature, international and Kenyan alike, suggests a collective research agenda oriented toward demonstrating CAATs' capabilities under favorable conditions rather than testing their effectiveness under the adverse conditions where fraud risk is highest and organizational culture is pertinent.

2.3.4 Forensic Interviews and Mitigating Occupational Fraud

Nandini and Ajay (2021) and Jassim et al. (2024) are the most directly comparable studies in the reviewed literature, both examining forensic accounting's fraud mitigation role through structured questionnaires and both reaching broadly similar conclusions about its positive contribution. Yet their similarities expose a shared weakness more damaging than any individual methodological flaw. Both studies acknowledge forensic interviews as a component of forensic auditing without meaningfully investigating how interviews function as a fraud deterrent or detection mechanism. Nandini and Ajay (2021) deploy an impressive battery of statistical techniques, regression, correlation, ANOVA, factor analysis, yet this methodological elaboration is applied to a dependent variable (fraud reduction) that is measured through respondent perceptions rather than observed outcomes. The gap between what respondents believe forensic auditing accomplishes and what it demonstrably achieves is precisely the gap that sophisticated statistical analysis cannot close when the underlying data is self-reported. Jassim et al. (2024) compound this limitation by restricting their sample to accountants in a single Iraqi city, producing findings whose generalizability is compromised not merely across international borders but within Iraq itself. That both studies, working in such different national contexts, Indian corporations and Iraqi commercial banks, arrive at structurally identical conceptual omissions suggests the problem is not contextual but disciplinary: the field has normalized treating forensic interviews as a black box whose inputs and outputs can be correlated without examining what happens inside.

Osagie and Iyoha (2021) partially disrupt this pattern by combining questionnaires with interviews in their Nigerian banking sector study, a methodological choice that at least creates the possibility of procedural insight. Yet the qualitative component is not leveraged to investigate how forensic interview procedures work in practice; it functions instead as a data triangulation mechanism, validating quantitative findings rather than generating independent analytical depth. The use of judgmental sampling further undermines the credibility of the qualitative data by introducing selection bias at precisely the point where the study most needed unmediated access to practitioner experience. Ibadin and Embele's (2021) Nigerian study offers the most technically rigorous quantitative approach among the reviewed works, applying Robust Least Squares Estimation to the question of forensic auditing's impact on tax

fraud detection, a methodological choice that addresses heteroscedasticity concerns that simpler regression models ignore. However, technical rigor here is in inverse proportion to conceptual relevance: the tax fraud context, with its specific legal definitions, revenue authority structures, and offender profiles, shares little with the occupational fraud dynamics, asset misappropriation, procurement irregularities, payroll manipulation, that characterize county government environments. The methodological intricacy therefore illuminates a phenomenon structurally distant from the one under investigation in the present study.

What is particularly striking when these international studies are read alongside Gatabi's (2022) Kenyan school-based study is that contextual proximity does not compensate for the same conceptual evasion. Gatabi (2022) is methodologically credible, multiple linear regression, hypothesis testing at 95% confidence, multicollinearity checks, a theoretical grounding in rational choice, deterrence, and routine activity theories, and its Kenyan institutional setting makes it the most contextually adjacent of the reviewed studies. Yet even here, the finding that evidence gathering accounts for 63% of variance in fraud mitigation, while statistically compelling, raises more questions than it answers. The study cannot explain whether this variance reflects forensic interviews specifically or the broader investigative process; whether the deterrent effect operates through detection risk, reputational consequences, or normative pressure; or whether findings from secondary school accountants, a single respondent per institution, introducing obvious response bias, translate to county government environments where fraud is organizationally more complex and politically more embedded.

The cumulative picture across all these studies is of a literature that has demonstrated forensic interview's association with reduced fraud across multiple national contexts while consistently failing to explain the mechanisms that produce this association. This is not a minor gap. Without understanding *why* forensic interviews deter or detect fraud, whether through increasing perceived detection risk, generating evidentiary leverage, disrupting collusive networks, or shifting organizational culture, it is impossible to design forensic audit programs that maximize effectiveness, adapt procedures to different institutional contexts, or explain why forensic interviews appears to work in some settings and fail in others. The theoretical frameworks employed, rational choice theory in Gatabi (2022), deterrence theory in the same study, gesture toward mechanistic explanation without delivering it, because the quantitative methodologies adopted cannot capture the process-level dynamics these theories actually describe.

The question of how forensic interviews contribute to fraud mitigation is fundamentally a process question requiring methods capable of following that process: qualitative inquiry into interview conduct, institutional ethnography of how findings are acted upon, longitudinal tracking of fraud incidence before and after forensic audit interventions. That none of the reviewed studies employs such approaches, and that the Kenyan studies are no exception, reveals a methodological consensus that has collectively constrained the field's explanatory ambitions to match the limitations of its preferred instruments.

2.3.5 Moderating effects of culture

The relationship between forensic auditing and occupational fraud mitigation is rarely straightforward in practice, and a growing body of empirical literature suggests that organizational culture constitutes one of the most consequential factors mediating, and moderating, this relationship. Yet despite its theoretical salience, organizational culture remains among the least rigorously examined variables in forensic auditing research, appearing more frequently as a background assumption than as an empirically tested construct. Reading the available studies critically and comparatively reveals a literature that acknowledges culture's importance while systematically underestimating its analytical complexity.

Lokanan (2015) offered one of the more theoretically grounded treatments of organizational culture in the fraud literature, arguing that cultures characterized by ethical ambiguity at senior management levels create permissive environments in which fraud rationalizations flourish among lower-level employees. Drawing on a qualitative analysis of fraud cases in Canadian financial institutions, Lokanan demonstrated that the fraud triangle's rationalization component, typically treated as an individual psychological phenomenon, was in practice organizationally produced, shaped by the ethical tone that senior leadership modeled or failed to model. The critical implication for forensic auditing is direct: where organizational culture normalizes ethical compromise, forensic audit procedures encounter not isolated fraudulent actors but institutionalized behavioral norms that detection-oriented tools alone cannot disrupt. Forensic interviews, internal control evaluations, and CAATs may identify fraud symptoms without addressing the cultural substrate from which those symptoms grow. However, Lokanan's (2015) exclusive reliance on qualitative case analysis, while generating rich institutional insight, precluded any assessment of how strongly cultural variables moderate the statistical relationship between forensic audit intensity and fraud reduction, a limitation that subsequent quantitative work has only partially addressed.

Schuchter and Levi (2016) extended this line of inquiry by examining how organizational ethical climate shapes employees' decisions to commit, conceal, or report occupational fraud. Analyzing interview data from convicted fraudsters across Austrian and Swiss organizations, they found that perpetrators consistently described organizational cultures in which fraud was perceived as normatively tolerated, where others were believed to engage in similar behaviors without consequence, as critical enabling conditions for their own offending. Crucially, their findings suggested that forensic audit mechanisms, including the knowledge that forensic reviews were periodically conducted, had a significantly weaker deterrent effect in organizations where ethical climate was weak than in those where it was strong. This finding carries profound implications for how forensic auditing effectiveness should be theorized: rather than treating audit intensity as independently sufficient to reduce fraud, the evidence suggests that audit mechanisms and organizational culture interact, with cultural strength functioning as a moderating variable that amplifies or mitigates forensic auditing's deterrent impact. Schuchter and Levi's (2016) methodology, direct interviews with convicted offenders, is among the most epistemically direct approaches to understanding fraud motivation available, though the self-selection of incarcerated fraudsters as respondents raises questions about whether their experiences generalize to the broader population of organizational fraud, including those who are never detected.

Consistent with these findings, Ocansey (2017) investigated the influence of corporate governance and organizational culture on fraud prevention in Ghanaian commercial banks, employing a mixed-methods approach that combined structured questionnaires administered to 120 banking professionals and qualitative interviews with senior compliance officers. The study found that banks characterized by strong ethical cultures, operationalized through dimensions including management integrity, employee accountability norms, and transparent communication practices, reported significantly lower fraud incidence and demonstrated greater effectiveness in translating forensic audit recommendations into operational improvements. Where organizational culture was weak, forensic audit findings were frequently documented but not acted upon, suggesting that culture moderates not merely the occurrence of fraud but the institutional responsiveness to forensic audit interventions. This distinction is analytically important and underappreciated in the broader literature: a forensic audit can identify fraud and recommend controls, but whether those recommendations reshape organizational behavior depends on whether the institutional culture is receptive to accountability demands. Ocansey's (2017) study thus reframes the question from whether forensic auditing reduces fraud to whether organizational culture determines how much of

forensic auditing's potential is actually realized. A notable limitation, however, is the study's restriction to commercial banks, whose hierarchical governance structures and regulatory oversight environments differ substantially from the politically inflected accountability dynamics of county governments.

Ruankaew (2016) approached the culture-fraud relationship from a different theoretical angle, examining how national and organizational cultural dimensions influenced the applicability of the fraud triangle across different institutional settings. Employing Hofstede's cultural dimensions' framework alongside survey data from Thai public sector organizations, Ruankaew (2016) found that high power distance cultures, in which authority is concentrated and subordinates are discouraged from challenging superiors, created structural conditions that systematically undermined internal control effectiveness and reduced the deterrent impact of formal audit mechanisms including forensic reviews. In high power distance environments, employees who observed fraudulent behavior by superiors were significantly less likely to report it through whistleblowing or other disclosure mechanisms, effectively neutralizing one of forensic auditing's critical information-gathering channels. This finding is directly relevant to county government contexts, where power hierarchies are often steep, political patronage networks operate alongside formal accountability structures, and reporting fraud committed by politically connected individuals carries significant personal risk. Ruankaew's (2016) work suggests that forensic auditing's effectiveness in such environments is not simply a function of technical audit quality but of whether the organizational and cultural conditions necessary for audit findings to generate consequences actually exist. The study's limitation lies in its cross-sectional survey design, which cannot establish whether cultural variables preceded and caused variations in audit effectiveness or whether they co-evolved with governance practices over time.

In the African public sector context, Lumumba et al. (2010) examined the relationship between organizational culture and fraud in Kenyan public institutions, finding that cultures characterized by weak ethical leadership, inadequate whistleblower protection, and normalized minor corruption created cumulative conditions in which larger-scale occupational fraud became structurally embedded rather than episodic. Their analysis of public sector employees across several Kenyan ministries found that employees in departments with stronger ethical culture norms were significantly more likely to perceive fraud control mechanisms, including audit procedures, as legitimate and effective, compared to those in departments where ethical cynicism was widespread. The implication is that organizational culture moderates' employees' perceptions of forensic audit credibility, which

in turn influences whether audit mechanisms generate the behavioral compliance and reporting cooperation on which fraud detection depends. Without cultural receptivity to accountability norms, forensic auditing risks becoming a performative exercise that satisfies procedural requirements without generating substantive fraud reduction. However, Lumumba et al.'s (2010) focus on national ministries rather than devolved county governments limits direct applicability, given that devolution introduced new political accountability dynamics, resource allocation pressures, and governance challenges not present in centralized ministry structures.

Adenike (2019) examined organizational culture's direct influence on fraud occurrence and forensic audit effectiveness in Nigerian public sector entities, using a descriptive survey of 180 public sector accountants and auditors. The study found that hierarchical and clan-oriented organizational cultures, both common in Nigerian public institutions, were associated with higher tolerance for occupational fraud and lower responsiveness to forensic audit recommendations, while adhocracy and market cultures demonstrated stronger fraud control outcomes. Critically, Adenike's (2019) analysis revealed that forensic audit effectiveness was not uniform across cultural types: in hierarchical cultures characterized by deference to authority and weak lateral accountability, forensic audit findings were more frequently suppressed or ignored at managerial level, fundamentally compromising the audit's downstream impact on fraud mitigation. This finding resonates with Ocansey's (2017) observations about the gap between forensic audit recommendations and institutional action, and together these studies build a compelling empirical case that organizational culture constitutes a genuine moderating variable, not merely a contextual backdrop, in the forensic audit-fraud mitigation relationship. Adenike's (2019) limitation, shared with several studies in this review, is the reliance on self-reported perceptions of both organizational culture and fraud outcomes, which introduces common method bias and limits the study's ability to verify whether reported cultural characteristics reflect actual behavioral norms or socially desirable self-presentation.

Tunji (2013) investigated the effectiveness of internal controls as an antidote to occupational fraud in Nigerian organizations, giving specific attention to how ethical organizational culture mediated the operational effectiveness of control mechanisms. The study found that organizations with deeply embedded ethical cultures demonstrated significantly stronger compliance with internal control procedures, and that this cultural compliance amplified the fraud-reducing effects of audit mechanisms including forensic reviews. Where ethical culture was absent, even well-designed controls were circumvented, and forensic audit findings

generated little institutional response. Tunji's (2013) contribution to the moderating variable argument is therefore to locate culture not merely as an environmental factor but as a precondition for control effectiveness, a finding with direct methodological implications for how forensic auditing research should be designed. If organizational culture moderate's forensic auditing's impact, then studies that measure forensic audit intensity without controlling for cultural variables are likely producing biased estimates of audit effectiveness, systematically overstating impacts in culturally strong organizations and understating them in culturally weak ones.

Collectively, these studies construct a consistent empirical argument: organizational culture is not peripheral to the forensic audit-occupational fraud relationship but constitutive of it. The studies that examine culture most rigorously, Schuchter and Levi (2016), Nawawi and Salin (2018), Ocansey (2017), converge on the finding that forensic auditing's fraud mitigation potential is substantially conditional on the ethical and accountability norms embedded in organizational culture. Yet this convergence sits alongside significant methodological heterogeneity: qualitative case analyses, cross-sectional surveys, structural equation models, and descriptive statistics are deployed across different national and sectoral contexts in ways that produce compatible directional findings but incompatible effect size estimates. No study in the reviewed literature simultaneously achieves contextual proximity to Kenyan county governments, methodological rigor sufficient to isolate culture's moderating effect, and conceptual precision about which dimensions of organizational culture, ethical leadership, power distance, accountability norms, whistleblower protection, exert the strongest moderation. This three-way gap, contextual, methodological, and conceptual, defines the space into which the present study intervenes, examining organizational culture as an empirically tested moderating variable in the relationship between forensic auditing techniques and occupational fraud mitigation within the specific institutional environment of Kenyan county governments.

2.4 Summary of Literature Review and Research Gap

The review of the literature presented a range of studies that investigated the effectiveness of preventing and identifying fraud topologies in diverse contexts, such as the health sector in Gaza (Mouamer et al., 2020), the tax sector in Indonesia (Alfatah and Tobing, 2020), the oil and gas sector in Nigeria (Adebayo et al., 2022), State-Owned Enterprises in Zambia (Wadesango et al., 2023), Listed firms within the NSE (Kimani, 2015) and Deposit-Taking Microfinance Institutions in Kenya (Mosoti et al., 2022). These studies repeatedly showed that fraud management strategies including forensic audits, internal controls, and

whistleblowing improved fraud reduction and organizational performance. However, significant contextual and conceptual shortcomings were identified: the majority of the research was sector-specific, focusing on health, tax, oil and gas, SOEs, and microfinance institutions rather than county governments, emphasizing generalizability concerns. Furthermore, whereas other studies focused on financial performance, the current study focused on fraud mitigation, highlighting the need for more research into the application and efficacy of forensic auditing in Kenyan county governments to combat occupational fraud.

The research examined how internal systems of control influenced the prevention and detection fraud in a variety of settings. Shakeel et al. (2023) discovered that audit committees significantly moderated connection between various elements of internal control and occupational fraud detection in Pakistani companies, whereas Rashid (2022) conducted a systematic review to highlight the global effectiveness of internal controls in commercial enterprises. Bhat (2023) found that SMEs in Enugu minimized fraud with specialized internal controls, while Ong'are and Njeru (2022) highlighted segregation of roles as critical for fraud prevention in Kenyan parastatals. Riitho and Wanjala (2020) investigated the impact of internal controls on fraud mitigation in Kenyan Saccos, while Oguda et al. (2015) found a favorable link between internal controls and fraud prevention in Kakamega County's district treasuries. Despite these findings, questions remained about the generalizability of the results to Kenyan county governments, the specific focus on fraud mitigation, and the need for empirical study across multiple public sector institutions to address these contextual and conceptual limitations.

The examined literature looked into how CAATs might improve audit and fraud detection efficiency in a variety of contexts. Pedrosa and Costa (2012) established the educational benefits of CAATs in auditing courses, whereas Adeyanju and Adenikinju (2023) found that CAATs greatly increase fraud detection in Nigerian deposit money banks. Olasanmi (2013) found CAATs beneficial in Nigerian audit firms but observed implementation issues, while Awuah et al. (2021) discovered high CAAT adoption rates in Ghanaian enterprises, with technological, organizational, and environmental readiness driving uptake. Sumayah (2023) highlighted CAATs' dual impact on audit productivity and problems, underlining the importance of training. Gaturu and Ngahu (2015) found that CAATs have a favorable impact on financial management in Kenya's WRMA. Despite these findings, gaps remained: studies frequently focused on specialized areas such as education, banking, and water management, limiting their applicability to county governments. Many studies did not directly link CAATs

to fraud mitigation, highlighting the need for further research into CAATs' involvement in fraud prevention within Kenyan county governments

The literature review examined how forensic auditing contributed to the prevention of fraud in a variety of scenarios. Nandini and Ajay (2021) discovered that forensic audits greatly reduced fraud in Indian corporate enterprises, improving corporate governance, but noticed a lack of emphasis on forensic interviews and application to county governments. Jassim et al. (2024) highlighted the crucial role of forensic accounting in uncovering fraudulent activities within Iraqi commercial banks, however there were still gaps in comprehending the impact of forensic interviews and their applicability to Kenyan county governments. Osagie and Iyoha (2021) emphasized the importance of the use of accounting for forensic purposes to find fraudulent activity at banks in Nigeria, but did not study particular procedures such as forensic interviews, restricting applicability to other industries. Ibadin and Embele (2021) showed that forensic audit services effectively reduced tax fraud in South-South Nigeria, although the specific processes and broader applicability to other contexts remained unclear. Gatabi (2022) related forensic accounting methods to fraud mitigation in Kenyan public secondary schools, proposing that these findings should be investigated within county governments. Overall, there were still gaps in understanding the function of forensic interviews in fraud mitigation and generalizing findings across varied organizational contexts, notably across Kenyan county governments.

2.5 Conceptual Framework

A conceptual framework was used to identify research variables and clarify their interactions (McGaghie et al. 2001). It acted as a roadmap for the researcher to conceptualize, design, and conduct a study. In the study, the conceptual framework incorporated ideas, theories and variables that are forensic auditing elements influencing occupational fraud mitigation. Guided by the Fraud Hexagon Theory, the Technology Acceptance Model, and Social Exchange Theory. The independent variables included fraud risk assessment, which included identifying fraud hazards, determining their impact and likelihood, and creating mitigating plans (Osagie & Iyoha, 2021; Nandini & Ajay, 2021; Jassim et al., 2024); and evaluation of internal control, which included mechanisms such as segregation of duties, authorization to prevent and detect fraudulent activities, and regular reconciliations (Ong'are & Njeru, 2022; Riitho & Wanjala, 2020). Other independent variables included the use of CAATs, such as data analytics, audit process integration, and fraud detection efficiency (Awuah et al., 2021; Gaturu & Ngahu, 2015); and forensic interviews, as indicated by interview techniques, evidence gathering, and skills and knowledge (Ibadin & Embele, 2021; Osagie & Iyoha,

2021; Nandini & Ajay, 2021). The independent variables were shown to influence the dependent variable, occupational fraud mitigation, as indicated by the speed of response to fraud detection, and the effectiveness of corrective action (Osagie & Iyoha, 2021; Jassim et al., 2024; Nandini & Ajay, 2021). The study used organizational culture as the moderating variable.

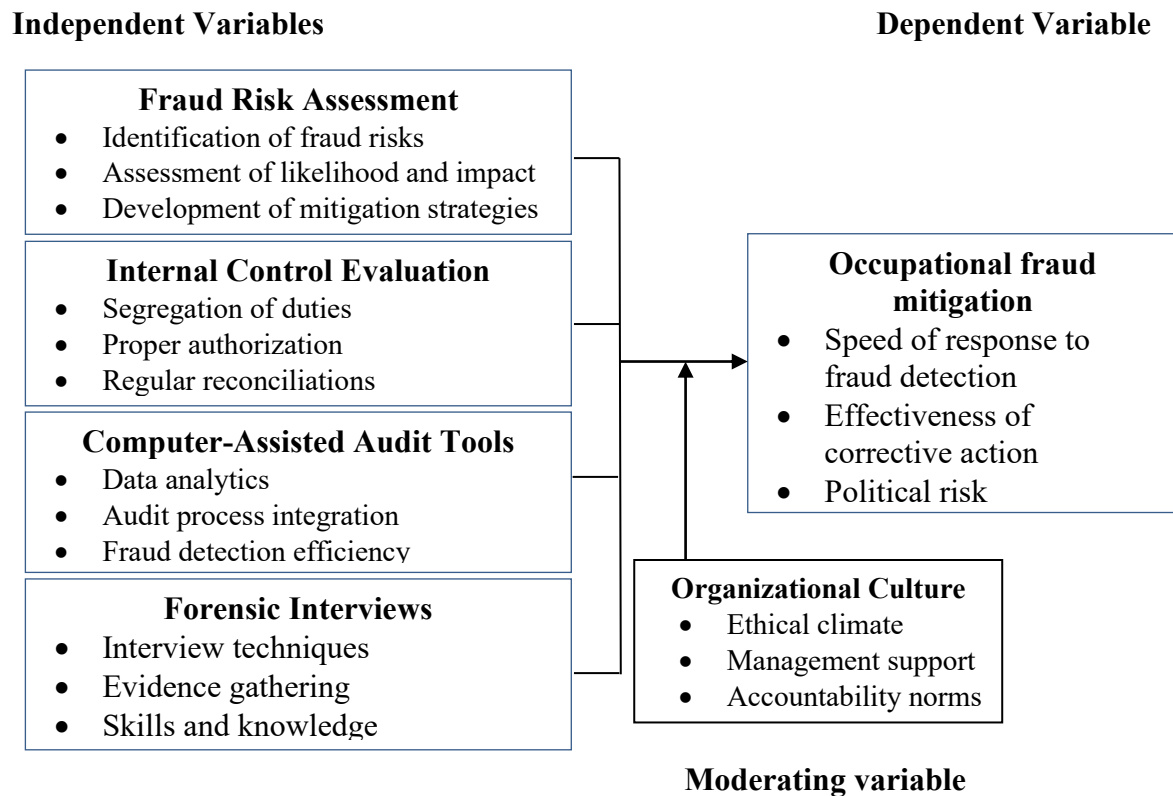


Figure 2. 1: Conceptual Framework

Source: Author (2024)

2.6 Operationalization of Variables

Operationalization helped the transition of intangible ideas into tangible characteristics that could be measured using indicators. The rating scale was used to assess both the result and predictor factors, with 1 indicating severe disagreement and 5 indicating strong agreement. In this study, fraud risk assessment was operationalized by looking at three major attributes; identifying fraud risks, assessing the likelihood and effect of fraud risks, and developing and implementing fraud risk reduction strategies. Fraud risk identification was used to assess how systematically a county government discovered potential fraud threats in its activities (Osagie & Iyoha, 2021). Assessment of fraud risk likelihood and impact entailed analyzing how carefully a business examined the probability and possible consequences of recognized fraud risks (Nandini & Ajay, 2021). Development and implementation of fraud risk mitigation strategies focused on the organization's ability craft and apply effective strategies to minimize identified fraud risks (Jassim et al., 2024).

The evaluation of internal control focused on three main attributes: segregation of duties, correct authorization, and frequent reconciliations. Separating tasks across multiple persons reduces the likelihood of errors or inappropriate behavior. This is known as segregation of duties, and indicators included the number of jobs with overlapping tasks and the frequency of cross-checks between departments (Ong'are & Njeru, 2022). Proper authorization ensures that all transactions are approved by personnel with the necessary authority. Signs included the presence of an authorization hierarchy, the use of approval matrices, and the frequency of unlawful transactions (Riitho & Wanjala, 2020). Regular reconciliations entailed periodically comparing internal records to external documents to identify and correct discrepancies. Indicators included the frequency of reconciliations, the percentage of accounts reconciled on time, and the number of discrepancies discovered and corrected during reconciliations (Oguda et al., 2015).

Computer-assisted audit tools was operationalized by assessing three main characteristics; data analysis capabilities, fraud detection efficiency, and audit process integration. Data analysis capabilities assessed CAATs' ability to handle and analyze enormous volumes of data to detect abnormalities and patterns indicative of fraud (Adeyanju & Adenikinju, 2023). Fraud detection efficiency referred to how well CAATs could detect possible fraud. Indicators included the number of fraud cases detected with CAATs, the percentage of false positives, and the time required to detect fraud (Pedrosa & Costa, 2012). Audit process integration refers to how successfully CAATs are integrated into the overall audit process, improving the auditor's capacity to conduct audits. Indicators included the number of CAATs used in regular audits, user satisfaction levels, and the reduction in audit time owing to CAATs (Sumayah, 2023).

Forensic interviews were operationalized by focusing on three key characteristics; interview preparation skills and knowledge, interview methodology, and evidence gathering. Skills and knowledge demonstrated the depth of preliminary investigation, the formulation of interview preparations, and the availability of important background information (Ibadin & Embele, 2021). Interview methodologies were the precise techniques used during an interview to obtain honest responses and identify deceit (Osagie & Iyoha, 2021). Evidence collection assessed forensic interviews' capacity to elicit credible and admissible evidence (Nandini & Ajay, 2021).

Occupational fraud mitigation was operationalized by determining how fast were the response to fraud detection, and the effectiveness of corrective action. The speed of response

to fraud detection was measured by the duration of time taken from the identification of fraud to the initiation of response actions, which indicated the efficiency of the organization's detection and response mechanisms (Jassim et al., 2024). Effectiveness of corrective action was evaluated based on the outcomes of measures implemented to address identified fraud, including the recovery of losses, disciplinary actions taken, and improvements made to prevent recurrence, thus reflecting the robustness of the mitigation strategies (Nandini & Ajay, 2021).

Organizational culture, as an intervening variable, significantly influences the efficacy of forensic auditing in mitigating occupational fraud within Kenyan county governments. Three key dimensions' ethical climate, management support, and accountability norms—have emerged as operational elements critical to this influence. An ethical climate, defined by shared organizational values and the attitude at the top that encourages moral behavior, has been shown to deter fraudulent behavior when reinforced through ethics training, leadership modeling, and whistleblower protections (Victor & Cullen, 1988; Martin & Cullen, 2006). A recent study by Mbithi and Gakure (2022) found that a well-established ethical environment within county treasuries in Kenya enhanced employee commitment to fraud reporting. Management support, which reflects leadership's active involvement in fraud mitigation efforts, has a direct impact on the adoption of forensic practices. Support is demonstrated through resource allocation, implementation of audit recommendations, and sustained communication on anti-fraud priorities. In a recent Kenyan context, Ooko and Ouma (2023) observed that fraud mitigation efforts in county governments were more successful where senior leadership visibly backed audit teams. Lastly, accountability norms, defined by clear expectations and consequences for performance and misconduct, are crucial in ensuring that fraud-related actions are met with consistent disciplinary follow-through. Studies such as Ndung'u (2021) and Kariuki and Njenga (2022) emphasized that accountability frameworks—such as audit trails, sanctions for misconduct, and transparency in decision-making—directly influenced the deterrence of occupational fraud in devolved units. These dimensions of organizational culture create a supportive environment in which forensic auditing can function effectively. By reinforcing ethical standards, empowering audit mechanisms, and ensuring that all staff are held to account, organizational culture serves as a pivotal mechanism through which forensic audit interventions translate into tangible fraud mitigation outcomes in Kenyan county governments.

Table 2. 1: Operationalization of variables

Variable	Variable Definition	Variable Indicators	Scales of Measurement	Supporting Literature
Fraud Risk Assessment	The process of identifying, analyzing, and addressing potential fraud risks to minimize exposure.	- Frequency of fraud risk assessments - Documentation of identified risks - Number of risk mitigation plans implemented	Categorization, Ordinal (frequency), Nominal (presence)	Ong'are & Njeru (2022)
Internal Control Evaluation	Assessment of internal control systems to ensure operational efficiency and mitigate fraud risks.	- Segregation of duties - Authorization hierarchy - Frequency of reconciliations	Categorization, Ordinal (frequency), Nominal (presence)	Riitho & Wanjala (2020); Oguda et al. (2015)
Computer-Assisted Audit Tools (CAATs)	Technology tools used to enhance the detection and prevention of fraud through data analysis and process integration.	- Data analysis capabilities - Fraud detection efficiency - Integration into audit processes	Ratio (time, cases detected), Ordinal	Adeyanju & Adenikinju (2023); Sumayah (2023)
Forensic Interviews	Structured interviews conducted to gather evidence and detect deception in fraud investigations.	- Interview preparation skills - Methodologies used - Evidence collected	Ordinal (skills, methodologies), Nominal	Ibadin & Embele (2021); Osagie & Iyoha (2021); Nandini & Ajay (2021)
Organizational Culture	Shared values, beliefs, and norms influencing employees' behavior towards fraud mitigation.	- Ethical climate - Management support for anti-fraud initiatives - Accountability norms	Ordinal (perceptions, presence), Nominal	Martin & Cullen (2006); Mbithi & Gakure (2022); Ooko & Ouma (2023); Kariuki & Njenga (2022); Ndung'u (2021)
Occupational Fraud Mitigation	Measures taken to detect, respond to, and prevent occupational fraud.	- Speed of response - Effectiveness of corrective actions	Ratio (time, cases detected), Ordinal (effectiveness)	Osagie & Iyoha (2021); Jassim et al. (2024)

2.7 Chapter Summary

This chapter presented the literature reviewed during the study. It begun by introducing the guiding theories: the Fraud Hexagon Theory, Technology Acceptance Model, and Social Exchange Theory. Thereafter was a thorough discussion of empirical research on how effective forensic auditing was in mitigating workplace fraud, the chapter presented the study's conceptual framework. This framework illustrated how the qualitative constructs and quantitative variables related based on the literature reviewed. The chapter ended with a description of how the independent and dependent variables were operationalized for assessment within the quantitative survey responses.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

The chapter outlined the approach adopted for conducting the research, detailing the methods and procedures used, which included the study's philosophical perspective, research design, target population identification, sample size determination, and sampling procedure. It also described the study instruments used, the piloting process, and the validity and reliability assessments that were carried out. Additionally, the chapter described the stages involved in data gathering, the strategy to data analysis, and the methodology for presenting study findings. As such, this study addressed a critical gap in the literature by focusing specifically on the operationalization of forensic auditing tools in Kenyan county governments. The research evaluated how fraud risk assessment, internal control evaluation, CAATs, and forensic interviews are applied and the extent to which they influence fraud mitigation outcomes as moderated by the organizational culture.

3.2 Research Philosophy

Hair et al. (2019) defined research philosophy as a set of attitudes and assumptions about knowledge acquisition and development. It influences how researchers develop research questions, acquire and evaluate data, and interpret results. The key research philosophies pragmatism, realism, positivism, and interpretivism (Hair et al., 2019). Saunders et al. (2016) explained that positivism emphasized objectivity and the application of scientific procedures to find patterns and rules, whereas interpretivism focused on comprehending individuals' subjective meanings and experiences (Kumar, 2019). Realism incorporated components of both positivism and interpretivism, recognizing that, while reality exists independently of human cognition, our knowledge of it is socially produced (Saunders et al. 2016).

Pragmatism was the most defensible philosophical position for this study given the nature of the research problem and the structure of the conceptual framework. Occupational fraud in Kenyan county governments is simultaneously a measurable phenomenon, agreeable to quantitative assessment of how forensic auditing techniques statistically relate to fraud reduction, and a contextually embedded institutional practice whose dynamics resist full capture through numbers alone. A purely positivist stance would have privileged statistical associations between forensic auditing techniques and fraud mitigation while remaining blind to the organizational and cultural processes through which those associations are produced or suppressed. A purely interpretivism stance, conversely, would have illuminated practitioner experiences and institutional contexts without generating the systematic evidence needed to

assess the relative effectiveness of specific forensic audit interventions across county governments.

The study's specific objectives demanded precisely this dual capacity. Objectives examining the effect of fraud risk assessment, internal control evaluation, CAATs, and forensic interviews on occupational fraud mitigation required quantitative measurement to establish directional relationships and assess statistical significance. The moderating role of organizational culture, however, could not be adequately captured through survey data alone, since the gap between formally stated cultural values and actual behavioral norms in politically pressured county environments is itself a substantive finding requiring qualitative investigation. Pragmatism authorized the integration of both methodological traditions not as a compromise but as an epistemological necessity, the research questions were genuinely unanswerable from within a single paradigm. The conceptual framework's positioning of organizational culture as a moderating variable further reinforced this choice, since testing moderation quantitatively while explaining its mechanisms qualitatively required a philosophy that treated methodological pluralism as a strength rather than an inconsistency.

3.3 Research Design

According to Leedy and Ormrod (2019), research design is the plan for conducting an inquiry with the highest degree of control over variables that could compromise the reliability of the findings. Similarly, Saunders et al. (2019), defined research design as a process that assists researchers in developing guidelines and solutions for various stages of their work.

This study utilized a convergent parallel mixed methods approach, in which quantitative and qualitative data were collected and analyzed separately before being joined for discussions and interpretations. The study employed a concurrent triangulation strategy that is, the investigator collected qualitative and quantitative data at the same time, then compared the two databases to see if there are any combinations of differences or convergence (Bryman & Bell, 2019).

The quantitative with compliments of qualitative research designs adopted in this study was grounded in the pragmatist philosophical orientation described above, which sanctioned the combination of quantitative and qualitative approaches in service of answering research questions that neither paradigm could address alone. Creswell and Cloetta (2018) distinguish between several mixed-methods designs based on the sequencing, priority, and integration of the two strands, and the present study adopted a concurrent triangulation design, wherein quantitative and qualitative data were collected simultaneously rather than sequentially. This choice was deliberate: concurrent collection reduced the time demands associated with

phased data gathering at county government research sites while ensuring that neither strand was epistemologically subordinated to the other (Creswell & Plano Clark, 2018). The mixing of the two databases occurred primarily at the discussion stage, where quantitative outcomes and qualitative findings were brought into direct dialogue, allowing points of convergence and divergence to be systematically examined rather than assumed away (Bryman, 2016).

The allocation of research objectives across methodological strands reflected the specific epistemological demands of each objective rather than an arbitrary division. Two objectives, examining the influence of fraud risk assessment and the role of CAATs in reducing occupational fraud, were addressed primarily through quantitative methods, given that these objectives required the establishment of statistical relationships across a sufficiently large sample of county government personnel to support generalizable inferences (Field, 2018). Numerical data analyzed through correlational and regression-based techniques were appropriate instruments for assessing the direction, magnitude, and significance of these relationships. The examination of forensic interviews, by contrast, was pursued primarily through qualitative methods involving in-depth interviews and thematic analysis, consistent with the recognition that the procedural mechanisms through which forensic interviews contribute to fraud mitigation are process-level phenomena not reducible to numerical measurement (Braun & Clarke, 2019). The objective concerning internal control evaluation occupied methodological middle ground, combining statistical analysis of survey data with exploratory interviews and document analysis, an approach that acknowledged both the measurable dimensions of internal control effectiveness and the organizational interpretive processes through which controls are implemented, circumvented, or enforced in practice (Yin, 2018).

Triangulation was operationalized through multiple complementary strategies to strengthen the validity and credibility of the overall findings. Methodological triangulation involved cross-referencing survey responses with interview data to assess whether statistically observed patterns were corroborated by executive and oversight accounts of lived institutional experience (Denzin, 2017). Data source triangulation was achieved by collecting information from diverse stakeholder categories, including internal auditors, county finance officers, procurement officials, and oversight personnel, ensuring that findings were not artifacts of any single professional perspective (Patton, 2015). Analysis integration involved the systematic comparison of quantitative results with qualitative themes, with survey findings informing the focus of interview questions and qualitative themes subsequently providing explanatory accounts of statistically significant or anomalous quantitative results

(Tashakkori et al., 2021). This iterative integration ensured that the two strands were genuinely dialogic rather than merely parallel, with each informing and deepening the interpretation of the other.

By leveraging the statistical power of quantitative analysis to establish relationships and the interpretive depth of qualitative inquiry to explain them, the design was calibrated to the complexity of the research problem, producing findings that were simultaneously generalizable across county government contexts and sufficiently nuanced to account for the organizational and cultural dynamics through which forensic auditing's fraud mitigation potential is realized or constrained.

3.4 Target Population

Bryman The target population for this study comprised all 47 county governments established under the County Governments Act (2012) of Kenya, alongside the Office of the Auditor-General (OAG), the constitutional body mandated under Article 229 of the Constitution of Kenya (2010) to oversee public sector financial accountability and conduct forensic audits. Bryman and Bell (2019) described a target population as a specified set of elements from which inferences and conclusions could be drawn, and in the present study this population represented the full universe of devolved governance units within which occupational fraud dynamics and forensic auditing interventions were most directly observable.

From this target population, a total of 30 county governments were purposively selected alongside the OAG as the primary units of analysis. Purposive sampling was justified on both theoretical and empirical grounds. Theoretically, the study's objective was not to produce statistically representative generalizations about all 47 counties but to examine forensic auditing's effectiveness in mitigating occupational fraud within counties where forensic audit activity had actually occurred or recommended, a prerequisite for meaningful investigation of the phenomenon under study (Patton, 2015). Counties with no forensic audit history would have provided no empirical basis for examining the relationship between forensic auditing techniques and fraud mitigation outcomes, rendering random or comprehensive sampling cognitively inappropriate for the research objectives. Empirically, purposive selection was grounded in documented evidence of forensic audit recommendations and interventions across specific counties, ensuring that selected units possessed the experiential and institutional characteristics necessary to address the study's research questions (Creswell & Plano Clark, 2018).

The empirical basis for county selection was drawn from multiple authoritative sources attesting to documented forensic audit activity. The Senate County Public Accounts and

Investment Committee (CPAIC) recommended a forensic audit into allegations of embezzlement of Ksh. 18 billion from Nairobi County revenue over a three-year period, prompted by the Auditor-General's reports of widespread financial mismanagement at City Hall (Parliament, 2023). The OAG conducted a Special Audit on Bomet County Government covering procurement and financing irregularities during the fiscal year 2020/2021 (Office of the Auditor-General [OAG], 2021). The Ethics and Anti-Corruption Commission (EACC) requested that the OAG conduct a forensic audit into the irregular payment of daily subsistence allowances to Homa Bay County Assembly members and staff (EACC, 2022). Additionally, CPAIC, in its report covering fiscal years 2017/2018 to 2019/2020, recommended a forensic investigation into Lamu County following the OAG's continual issuance of disclaimer of opinion in successive audit reports (Parliament, 2021). These documented instances provided the evidentiary foundation for purposive selection, ensuring that sampled counties represented contexts in which forensic auditing had been formally invoked as a fraud mitigation or accountability mechanism, the precise institutional condition necessary for the study's investigative objectives to be meaningfully pursued.

The units of observation comprised individuals occupying roles with direct professional, executive, and oversight responsibilities for financial management functions within the selected counties and the OAG. These included County Executive Committee Members responsible for Finance, who bear constitutional accountability for county financial management under the Public Finance Management Act (2012); Chairpersons of County Audit Committees, whose oversight mandate under the Public Audit Act (2015) positions them as critical nodes in the internal accountability architecture; county internal auditors, responsible for continuous assurance and control evaluation within county operations (Institute of Internal Auditors, 2017; Public Finance Management Regulations, 2015); county accountants, who manage financial reporting and are directly involved in the revenue and expenditure processes most susceptible to occupational fraud (Association of Certified Fraud Examiners [ACFE], 2022); external auditors from the OAG, whose independence and constitutional mandate make them primary generators of forensic audit evidence in the public sector (Constitution of Kenya, 2010, Article 229); and OAG forensic investigators, whose specialist expertise in fraud examination provided the most technically grounded perspectives on forensic auditing's operational effectiveness. The inclusion of respondents across these functionally distinct categories ensured data source triangulation, reducing the risk that findings would reflect the professional biases or positional interests of any single occupational group (Patton, 2015).

3.5 Sampling Procedure and Sample Size

Collis and Hussey (2021) defined sampling as the systematic process of picking unit components, such as individuals or organizations, from a specified population. Cooper and Schindler (2018) defined sampling as the technique for selecting participants for a research endeavor so that the chosen individuals appropriately represent the large community from which they were pulled. This approach enhances the ability to generalize research findings to a broader population, thereby strengthening the study's external validity. The ultimate goal of the sampling strategy, as stated by Kothari (2019), is to discern and comprehend the features of the larger population under inquiry. The study employed a stratified sampling technique based on probability. Kombo and Tromp (2006) described proportionate sampling as a technique that involves categorizing a population into distinct, similar subgroups and then drawing a random sample from each group. The process involved a closed-ended questionnaire as well as key informant interviews (KII). The inquiry was divided into four groups: county executives and audit committee chairpersons, personnel from county governments' accounting departments, internal audit departments, and the Office of the Auditor General's auditors and forensic investigation division, in that order. Purposive sampling was used on the various strata, which allowed for key informants to provide needed information for the study.

For a population of 47 counties, the study applied the Yamane formula to determine an acceptable sample size: Yamane's (1967) simplified formula with a higher margin of error (10%) was used: $n = N / (1 + N(e)^2)$ Using $e = 0.10$: $n = 47 / (1 + 47(0.10)^2)$ $n = 47 / 1.47$ $n = 32$ counties. This was done considering the practical aspects of data collection and resource constraints. Recent studies on county governments in Kenya had successfully used smaller samples while maintaining statistical validity: Mutua et al. (2022) used a sample of 30 counties in their study of financial management practices and achieved statistically significant results; Ibrahim and Otieno (2023) conducted research on county governance using 28 counties, chosen using stratified random sampling to guarantee representation throughout different regions.

Based on these considerations, a sample of 30 counties was acceptable for the study: A stratified sampling procedure was carried out on the units of observation in the identified Counties. As a result, the sample size of the study was selected at 220 as indicated below.

The selection of these 30 counties was guided by a combination of factors to ensure a representative sample while considering feasibility: geographic representation, population

size, past audit findings/media attention & accessibility and logistical considerations. For each of the 30 counties, the study targeted: CEC Member (Finance); Chairperson of the Audit Committee; Internal Auditors; County Accountant; and External Auditors per county (OAG); and 10 Forensic Investigator (OAG Head office). Purposive sampling prioritized depth of knowledge over sample size.

Table 3. 1: Counties Selected and Participant Distribution

No .	County	CEC (Finance)	Audit Committee Chair	Internal Auditors	County Accountant	External Auditor	OAG Forensic Investigator	Total Participants
1	Nairobi	1	1	2	1	-	-	5
2	Mombasa	1	1	2	1	-	-	5
3	Kisumu	1	1	2	1	-	-	5
4	Nakuru	1	1	2	1	-	-	5
5	Lamu	1	1	2	1	-	-	5
6	Uasin Gishu	1	1	2	1	-	-	5
7	Machakos	1	1	2	1	-	-	5
8	Kakamega	1	1	2	1	-	-	5
9	Bungoma	1	1	2	1	-	-	5
10	Meru	1	1	2	1	-	-	5
11	Kilifi	1	1	2	1	-	-	5
12	Nyeri	1	1	2	1	-	-	5
13	Kisii	1	1	2	1	-	-	5
14	Kitui	1	1	2	1	-	-	5
15	Turkana	1	1	2	1	-	-	5
16	Mandera	1	1	2	1	-	-	5
17	Garissa	1	1	2	1	-	-	5
18	Isiolo	1	1	2	1	-	-	5
19	Laikipia	1	1	2	1	-	-	5
20	Taita Taveta	1	1	2	1	-	-	5
21	Narok	1	1	2	1	-	-	5
22	Bomet	1	1	2	1	-	-	5
23	Migori	1	1	2	1	-	-	5
24	Homa Bay	1	1	2	1	-	-	5
25	Tharaka Nithi	1	1	2	1	-	-	5
26	Elgeyo Marakwet	1	1	2	1	-	-	5
27	Embu	1	1	2	1	-	-	5
28	Kericho	1	1	2	1	-	-	5
29	West Pokot	1	1	2	1	-	-	5
30	Vihiga	1	1	2	1	-	-	5

No .	County	CEC (Finance)	Audit Committee Chair	Internal Auditors	County Accountant	External Auditor	OAG Forensic Investigator	Total Participants
31	OAG	-	-	-	-	60	10	70
	Total							220

Source: Respective County Governments (2024); OAG (2024)

3.6 Data Collection Techniques

The study used a mixed-methods approach to data collection, using both primary and secondary sources for quantitative and qualitative data. Primary data was collected using a standardized survey questionnaire and key informant interview guides, while secondary data was obtained by analyzing reports from the Office of the Auditor General. Structured questionnaires were useful for collecting standardized data from internal auditors, accountants, forensic investigators, and external auditors, allowing for quantitative analysis and comparison across diverse responses. (Creswell, 2014). These individuals are directly involved in the technical aspects of forensic auditing and fraud detection, thus their response was crucial when evaluating certain procedures and technologies. Key informant interview guides, on the other hand, were critical for gathering detailed qualitative data from high-level authorities such as County Executive Committee members in charge of Finance, and County Audit Committee Chairpersons. These interviews allowed for a more in-depth examination of the strategic, policy-related, and contextual aspects that influenced the success and execution of forensic auditing at the county level (Patton, 2002). Combining these methodologies strengthened the study by gathering both quantitative data from operational perspectives and qualitative insights from strategic and policy perspectives.

The survey consisted of six main elements. The first section (A) was on demographic questions about respondents' designation, work tenure, department, and level of education, among other variables. Subsequent segments (B) through (F) were designed to answer the research questions. The decision to use questionnaires as the primary data gathering instrument was based on various factors. Questionnaires enable the collection of precise information in a confidential setting (Leedy & Ormrod, 2019). The first component sought demographic information, and the use of questionnaires guaranteed that respondents could provide this information when it was most convenient for them. Furthermore, the anonymity and confidentiality of questionnaire responses increased the possibility of receiving honest and fair feedback (Saunders et al., 2019). The use of questionnaires was also justified by their

ease of analysis. The standardized format of responses allowed for effective data processing. Additionally, questionnaires allowed for the gathering of large quantity of data in a very short period of time, which aligned with the methodological guidelines of (Bryman & Bell, 2019). The questionnaires' effectiveness was evaluated on a five-point Likert scale: "Strongly agree = 5; agree = 4, neutral= 3, disagree = 2, and strongly disagree = 1".

3.7 Data Collection Procedures

To conduct the research in the counties and OAG, the researcher received an authorization letter from Strathmore University. The letter was used to seek approval from the National Commission for Science, Technology, and Innovation (NACOSTI). Before beginning primary data collection, the study instruments were pilot tested to ensure their efficacy. The surveys were given to each responder using a "drop and pick later" system where possible (Bryman & Bell, 2019). Each respondent was contacted independently based on the study's sample. Furthermore, in circumstances where the drop-and-pick method was impractical, the investigator used Google form submissions to electronically collect information, making the process easier. For the Key Informant Interviews, the researcher strived to conduct face-to-face interviews, however, where the face-to-face interviews were not possible, the researcher resorted to using online interviews.

3.8 Pilot Study

To validate the research instruments' validity and reliability, a pilot study was carried out. According to Kumar (2019), a pilot study is necessary for evaluating the research instruments and procedures to assess their reliability and validity before the major data gathering phase. The research undertook a pilot study in Kiambu County with a sample size of 10% of the main study's total-twenty-two (22) respondents (Accountants, finance officers, internal auditors, external auditors from office of the Auditor General, County chief officer in charge of Finance, and County Audit Committee member). Kiambu County was chosen because it had various and representative traits that were similar to other counties in Kenya. The pilot study was key in assisting to identify any potential flaws in the questionnaire design, interview guide, and overall approach. It allowed for the improvement of data gathering instruments, increased the accuracy of findings, and strengthened the entire research (Creswell, 2014). A 10% pilot sample size is commonly used in social science research to offer enough data for useful analysis without being unduly demanding (Saunders et al., 2019). The pilot study allowed for the tools to be amended on areas that were not clear or ambiguous. The respondents including the data they provided was not part of the main study.

3.8.1 Reliability of the Research Instruments

According to Hair et al. (2019), a reliability test assesses how effectively a research instrument provides consistent results over several trials. This quality helps the collection of data required to meet the study's unique aims. To determine the instrument's reliability for all Likert scale statements, the Cronbach alpha value was used. Cronbach's Alpha, which runs from 0 for completely untrustworthy to 1 for completely trustworthy tests, was determined using the total number of questions and the mean inter-item correlations (Kumar, 2019). The dependability item can be accepted if the alpha value is between 0.7 and 0.99 (Saunders et al. 2016). As a result, the study variables achieved a Cronbach alpha value of 0.7. The results were accepted because they were above 0.7.

Table 3. 1: Cronbach alpha values

Variable	No.of Items	Cronbach's Alpha
Fraud Risk Assessment	8	0.83
Internal Control Evaluation	8	0.88
Computer-Assisted Audit Tools	8	0.85
Forensic Interviews	8	0.86
Occupational Fraud Mitigation	8	0.90

3.8.2 Validity of the Research Instrument

According to Bryman and Bell (2019), the validity of a data collection tool is determined by its ability to evaluate what it purports to measure. Content validity was ensured through expert review by senior academics and professionals in forensic auditing. Construct validity was tested during the pilot study to ensure alignment between theoretical constructs and questionnaire items. To determine content validity in this study, an approach consistent with the guidelines of Saunders et al. (2019) was used. This entailed having two specialists review the questionnaire and score each component of the instrument based on its relevance to the aims. The score was assigned on a scale of 1 (not relevant), 2 (slightly relevant), and 4 (extremely relevant). The validity of the content index (C.V. I), which was computed by dividing the total quantity of items in the survey by the number of items that both specialists evaluated as 3 or 4, was used to assess validity. This extensive verification approach aimed to reinforce the measurement tool's reliability and appropriateness for the targeted study environment.

3.9 Data Presentation and Analysis

According to Saunders et al. (2016), data analysis is the systematic arrangement and structuring of raw data to produce relevant statistical insights. The data from all completed questionnaires were edited and coded before being loaded into SPSS version 27.0 for analysis. Editing ensured that material was relevant and suitable while also correcting errors. According to Bryman and Bell (2019), using SPSS is useful because of its vast range of analytical tools. Both inferential and descriptive analysis were performed. While descriptive analysis was used to summarize data on independent and dependent variables, inferential statistics included ordinary least squares regression analysis on the efficacy of forensic audit instruments in occupational fraud prevention. Descriptive statistics consisted of percentages, standard deviations, means, and variances. Tables, figures, and pie charts were used to display the results. A diagnostic test was conducted. The normality assessment for the study variables was conducted using the Shapiro-Wilk Test to determine whether the data followed a normal distribution. The following Multiple linear regression model was adopted:

Direct Effects Model:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$$

Moderated Multiple Regression Model:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5M + \beta_6(X_1 \times M) + \beta_7(X_2 \times M) + \beta_8(X_3 \times M) + \beta_9(X_4 \times M) + \varepsilon$$

Where:

Y = Occupational fraud mitigation (dependent variable)

β_0 = Intercept (constant term representing the expected value of Y when all predictors equal zero)

$\beta_1, \beta_2, \beta_3, \beta_4$ = Beta coefficients representing the conditional direct effects of fraud risk assessment, internal control evaluation, computer-assisted audit tools, and forensic interviews respectively on occupational fraud mitigation, holding organizational culture constant

β_5 = Beta coefficient representing the direct effect of organizational culture on occupational fraud mitigation

$\beta_6, \beta_7, \beta_8, \beta_9$ = Beta coefficients representing the moderating effects of organizational culture on the relationships between fraud risk assessment, internal control evaluation, computer-assisted audit tools, and forensic interviews respectively and occupational fraud mitigation

X1 = Fraud risk assessment

X2 = Internal control evaluation

X3 = Computer-assisted audit tools

X4 = Forensic interviews

M = Organizational culture (moderating variable)

X1×M = Interaction term between fraud risk assessment and organizational culture

X2×M = Interaction term between internal control evaluation and organizational culture

X3×M = Interaction term between computer-assisted audit tools and organizational culture

X4×M = Interaction term between forensic interviews and organizational culture

ε = Error term capturing unexplained variance in occupational fraud mitigation

The study used thematic content analysis approach to find, analyze, and report patterns (themes) within the qualitative data. Initially, all interview transcripts were read several times to ensure familiarity. Next, data segments related to the study topics were identified with initial codes. These codes were then examined and categorized as prospective themes based on their similarities and linkages. The final topics were structured into a coherent narrative that included actual quotations from interviews to highlight and deepen the analysis. This process followed the guidelines of Braun and Clarke (2006), ensuring a thorough and open strategy for qualitative data analysis (Bazeley & Jackson, 2013).

3.10 Ethical Considerations

Ethical approval was obtained from the Strathmore University Institutional Ethics Review Committee (SIERC), followed by a research permit from NACOSTI in accordance with Kenyan regulations. This authorization acted as a formal credential during the data collection process, guaranteeing participants that the research was strictly for academic objectives. Informed consent was acquired from all participants, and confidentiality was strictly observed. Participants were assured that their perspectives would be used exclusively for the purposes of the study and that their identities remained confidential, with no information provided to any third parties in compliance with the legislation and Act regarding protection of data.

3.11 Chapter Summary

This chapter detailed the research methodology used to evaluate the effectiveness of forensic auditing tools in mitigating occupational fraud within Kenyan county governments. A mixed-methods approach was justified and operationalized through a convergent parallel design. Sampling strategies, data collection tools, and analysis techniques were described, alongside ethical safeguards to protect participant rights and data integrity.

CHAPTER FOUR: ANALYSIS AND PRESENTATION OF RESEARCH FINDINGS

4.1 Introduction

This chapter summarized the study's findings based on an integrated analysis of quantitative and qualitative data gathered from county government officials and officers from the Auditor-General's office.

4.2 Response Rate

The study aimed to gather responses from 220 participants, comprising 150 from specific counties, of which 60 were derived from key informant interviews (County executive member of Finance and Chair of Audit Committee), and 70 from the Office of the Auditor-General. The researcher used Google forms and physical questionnaires to collect data, where 112 quantitative and 42 qualitative responses were received, totaling to 154 responses (69 respondents from County Government employees and 43 respondents from the Office of the Auditor-General and 42 respondents from county officials). The achieved response rate of 70% substantially exceeds the minimum thresholds established in methodological literature for valid statistical analysis. Research methodology scholars have proposed various benchmarks for acceptable response rates in survey research, ranging from 30% at the lower end to 50% for more robust findings. Given that the current study's response rate surpasses even the upper end of these recommended ranges, the collected data provides a solid foundation for meaningful analysis and interpretation.

4.3 Background Information

This section contained a review of background information obtained from participants for the quantitative survey; gender, respondents' designation, work tenure, department, and education level.

Table 4. 1: Respondents' Background Information

Characteristic	Category	Frequency	Percentage (%)
Gender	Male	60	54
	Female	52	46
Organization	County Governments	69	61.6
	Office of the Auditor-General	43	38.4
Designation	Internal Auditor	32	29
	Accountant	24	21
	Finance Officer	16	14

Characteristic	Category	Frequency	Percentage (%)
	Risk/Compliance Officer	16	14
	Forensic Auditor	10	9
	Other	14	13
Length of Service	Less than 1 year	7	6
	1–3 years	32	29
	4–6 years	24	21
	7–9 years	31	28
	10 years and above	18	16
Department	Internal Audit	33	29
	Financial Audit(OAG)	23	21
	Performance/Compliance Audit(OAG)	17	15
	Accounts	13	12
	Finance	12	11
	Risk/Compliance	9	8
	Other	5	4
Education Level	Diploma	3	3
	Bachelor's Degree	72	64
	Master's Degree	36	32
	PhD	3	3

The background characteristics of respondents presented in Table 4.1 reveal a sample well-positioned to provide credible and informed perspectives on forensic auditing and occupational fraud mitigation within Kenyan county governments. Males constituted a slight majority at 54%, while the organizational distribution, 61.6% from county governments and 38.4% from the OAG, reflected the study's dual institutional focus. Internal auditors formed the largest professional category (29%), and together with financial auditors, accountants, finance officers, risk and compliance officers, and forensic auditors, the sample was drawn predominantly from functions with direct institutional responsibility for fraud prevention, detection, and investigation. The experience profile was broadly distributed, with the largest cohort holding between one and three years of service (29%) and a substantive proportion, 44%, possessing seven or more years of experience, indicating adequate depth of institutional knowledge across the sample. Educationally, 96% of respondents held at least a bachelor's degree, with 32% holding postgraduate qualifications, suggesting a technically literate sample capable of engaging meaningfully with the forensic auditing concepts and fraud mitigation practices under investigation.

4.4 Descriptive Analysis

Two sets of structured questionnaires were used to collect quantitative data from the county staff and personnel from the OAG. This data was complimented with qualitative data from interview sessions with county officials in charge of the public finance management docket and the county audit committees. Means, standard deviation and variance were used provide descriptive analysis of the data. Qualitative responses that support the convergence or divergence of quantitative responses were incorporated on various themes captured in this study.

4.4.1 Fraud risk assessment on mitigating occupational fraud

The data consisted of survey responses from county government representatives regarding fraud risk assessment practices. Each question was rated on a 5-point Likert scale as presented in Table 4.2.

Table 4. 2: County fraud risk assessment practice

Question	Mean	Standard Deviation	Variance
1. Fraud risks are regularly identified in our department	4.12	0.83	0.69
2. We have a systematic approach to assessing the likelihood of fraud risks	4.25	0.73	0.53
3. The potential impact of identified fraud risks is thoroughly evaluated	4.20	0.72	0.52
4. Mitigation strategies are developed for identified fraud risks	3.70	0.76	0.58
5. Fraud risk assessments are conducted regularly	3.98	0.80	0.64
6. Our department uses a fraud risk assessment framework	3.40	1.09	1.19
7. We consider both internal and external fraud risks	4.45	0.69	0.48
8. Employees are trained on fraud risk assessment	3.15	1.15	1.32
9. Our fraud risk assessment process is effective in identifying potential fraud	4.12	0.82	0.67
10. Fraud risk assessments have improved our fraud detection rates	4.40	0.59	0.35
11. Management actively supports and allocates resources for regular fraud risk assessments	3.92	0.80	0.64
12. Ethical conduct is emphasized as a key component during fraud risk assessment activities	4.32	0.66	0.44
13. Employees are held accountable for contributing to the accuracy and completeness of fraud risk assessments	3.32	0.87	0.76
Construct mean	3.95		

The dataset below contains survey responses from OAG respondents regarding fraud risk assessment practices within county departments. Responses were collected using a 5-point Likert scale.

Table 4. 3: OAG response regarding fraud risk assessment practices in the Counties

Question	Mean	Standard Deviation	Variance
1. County governments regularly identify fraud risks	2.40	1.24	1.53
2. We have a systematic approach to assessing the likelihood of fraud risks in county governments	4.07	0.71	0.51
3. The potential impact of identified fraud risks in county governments is thoroughly evaluated	3.98	0.94	0.89
4. Mitigation strategies are developed for identified fraud risks in county governments	3.69	1.01	1.03
5. Fraud risk assessments are conducted regularly in county governments	3.87	1.03	1.06
6. Our department uses a fraud risk assessment framework for county governments	4.18	0.68	0.46
7. We consider both internal and external fraud risks in county governments	4.33	0.67	0.45
8. County government employees are trained on fraud risk assessment	2.22	1.28	1.65
9. Our fraud risk assessment process is effective in identifying potential fraud in county governments	4.22	0.56	0.31
10. Fraud risk assessments have improved our fraud detection rates in county governments	4.40	0.54	0.29
11. County senior management actively supports and allocates resources for regular fraud risk assessments.	3.73	1.03	1.07
12. Ethical conduct is emphasized as a key component during fraud risk assessment activities in the counties.	4.02	1.07	1.14
13. Employees are held accountable for contributing to the accuracy and completeness of fraud risk assessments in the counties.	3.33	0.98	0.96
Construct mean	3.73		

The descriptive statistics presented in Tables 4.2 and 4.3 reveal a construct mean of 3.95 for county survey respondents and 3.73 for key informants, a difference that, while modest in aggregate, conceals substantive divergences in specific dimensions of fraud risk assessment practice that carry significant analytical weight.

The most diagnostically important finding is the 1.72-point discrepancy between county self-assessments and OAG evaluations on the regularity of fraud risk identification (county mean = 4.12; OAG mean = 2.40), accompanied by higher variability in the OAG's ratings (SD =

1.24 vs. 0.83). This gap points to a systematic optimism bias in county self-assessments, a phenomenon Biegelman and Bartow (2012) warned creates exploitable blind spots when internal confidence in fraud risk identification is untampered by independent external validation. Qualitative data corroborated the structural intent behind county processes, with one participant from audit committee noting, *"We rely on use of risk-based approach as prescribed by the National Government"*, yet the OAG's substantially lower ratings suggest that consistent application rather than procedural design is the critical deficit, consistent with Kranacher et al.'s (2011) argument that fraud risk assessment effectiveness requires cross-verification, not merely presence.

Employee training exposed the most acute implementation weakness across both datasets. County departments rated training at 3.15 while the OAG's assessment was considerably lower at 2.22, with both groups recording high variability (SD = 1.15 and 1.28 respectively), indicating not merely inadequacy but profound inconsistency across counties. Qualitative responses acknowledged capacity building intentions, with participants describing *"awareness sessions and staff training"* and *"quarterly reviews"* as mitigation strategies, yet the quantitative data consistently undermined these assertions. Wells (2014) identified fraud awareness training as the first line of defense against occupational fraud, and its inconsistent implementation across county governments therefore represents a systemic rather than isolated vulnerability.

An instructive reversal emerged regarding formal fraud risk assessment framework adoption, where the OAG rated counties more favorably (mean = 4.18) than counties rated themselves (mean = 3.40), with higher variability in county responses (SD = 1.09). This pattern suggests that counties may be applying framework elements without fully recognizing or standardizing their implementation, what Button et al. (2007) described as adopting anti-fraud frameworks *in form but not in substance*. Conversely, two items produced strong convergence between county and OAG assessments: fraud detection improvement (both mean = 4.40, low variability) and mitigation strategy development (county = 3.70; OAG = 3.69). These points of agreement, as Albrecht et al. (2019) noted, represent foundational anchors upon which more consistent system-wide fraud risk management practices could be built, provided institutional learning mechanisms are established to disseminate and standardize what is demonstrably working across county governments.

The overall pattern, counties exhibiting lower variability in self-assessments while OAG evaluations show greater dispersion, confirms that shared internal perceptions within county departments do not translate into consistent external performance, echoing PwC's (2020)

finding that public sector institutions exhibit wide anti-fraud capacity disparities across regions and departments. The cumulative evidence suggests that county governments possess the foundational awareness and structural intent for effective fraud risk assessment while remaining constrained by implementation inconsistency, training inadequacy, and the absence of robust benchmarking mechanisms that independent external validation could provide.

4.4.2 Internal control evaluation on mitigating occupational fraud

The dataset contains survey responses regarding internal control evaluation practices within the counties. Responses were collected using a 5-point Likert scale. The outcomes are presented in Table 4.4.

Table 4. 4: County internal control evaluation practices

Question	Mean	Standard Deviation	Variance
1. Duties are well segregated to prevent fraud	2.79	1.14	1.30
2. Proper authorization is required for all transactions	3.13	1.16	1.35
3. Regular reconciliations are performed to detect discrepancies	2.93	1.15	1.33
4. Internal controls are reviewed periodically	3.18	0.95	0.90
5. There is a clear policy on internal controls	2.77	1.10	1.20
6. Employees understand the importance of internal controls	3.34	0.93	0.87
7. There is a mechanism to report breaches in internal controls	3.62	0.78	0.61
8. Internal controls have helped in reducing fraud incidents	3.73	0.75	0.56
9. We use internal audits to assess the effectiveness of internal controls	4.57	0.71	0.50
10. Internal controls are sufficient to mitigate fraud risks	3.02	1.13	1.27
11. County management consistently supports the enforcement of internal control policies	3.55	0.99	0.98
12. Employees are encouraged to uphold ethical standards when implementing internal controls	4.13	0.93	0.86
13. Staff are held accountable for non-compliance with internal control procedures	3.41	0.88	0.77
Construct mean	3.32		

The dataset contains survey responses from OAG respondents regarding internal control evaluation practices within county departments. Responses were collected using a 5-point Likert scale. The findings are presented in Table 4.5.

Table 4. 5: OAG responses regarding internal control evaluation practices in the counties

Question	Mean	Standard Deviation	Variance
1. Duties are well segregated in county governments to prevent fraud	2.24	0.97	0.94
2. Proper authorization is required for all transactions in county governments	2.29	1.10	1.21
3. Regular reconciliations are performed to detect discrepancies in county governments	2.02	0.98	0.96
4. Internal controls are reviewed periodically in county governments	2.92	1.12	1.25
5. There is a clear policy for internal controls in county governments	2.94	1.13	1.27
6. County government employees understand the importance of internal controls	2.78	1.17	1.36
7. There is a mechanism to report breaches in internal controls in county governments	3.37	0.89	0.79
8. Internal controls have helped in reducing fraud incidents in county governments	3.45	0.90	0.81
9. We use internal audits reports to assess the effectiveness of internal controls in county governments	3.59	1.11	1.23
10. Internal controls are sufficient to mitigate fraud risks in county governments	2.71	1.53	2.33
11. County senior management consistently supports the enforcement of internal control policies	3.37	0.97	0.94
12. Employees are encouraged to uphold ethical standards when implementing internal controls in the Counties	3.88	0.95	0.91
13. Staff are held accountable for non-compliance with internal control procedures in the counties	3.24	0.83	0.69
Construct mean	2.99		

The descriptive statistics presented in Tables 4.4 and Table 4.5 reveal a construct mean of 3.32 for county survey respondents and 2.99 for key informants, the most critical assessment recorded across any forensic auditing construct in this study and the only construct mean falling below the neutral midpoint. That senior county officials and OAG personnel collectively rated internal control evaluation at near-disagreement levels lends particular credibility to the finding that internal control inadequacy in county governments represents a documented institutional reality rather than a perception artifact.

The most pervasive finding across both datasets is a systematic optimism bias in county self-assessments, with counties rating their internal control practices an average of 0.61 points

higher than OAG evaluations across all measured dimensions, a pattern consistent with the *"illusion of control"* phenomenon documented by Njeri and Kariuki (2022), whereby familiarity with control processes generates overconfidence in their effectiveness. The largest perception gaps concentrated precisely in the foundational preventive controls most critical to fraud mitigation. Regular reconciliations exhibited a 0.91-point discrepancy (county mean = 2.93; OAG mean = 2.02), consistent with Ochieng and Kamau's (2021) observation that reconciliation processes in public sector entities *"often appear robust on paper but suffer from inconsistent implementation."* Authorization controls showed a 0.84-point gap (county = 3.13; OAG = 2.29), reflecting Mwangi's (2022) finding that public sector entities systematically overestimate technological safeguards, particularly IFMIS-based controls, while underestimating human circumvention. One key informant candidly acknowledged this vulnerability: *"All payments require different-level approvals through IFMIS system. However, we still have a couple of payments that do not go through the IFMIS system."* Segregation of duties, rhetorically positioned by respondents as *"one of the most critical internal control strategies used to prevent fraud and abuse of public resources"* and legally mandated under the Public Finance Management Act (2012), nonetheless exhibited a 0.55-point perception gap (county = 2.79; OAG = 2.24), echoing Chang et al.'s (2019) finding that organizations consistently overestimate segregation effectiveness relative to independent assessments.

The most troubling single discrepancy involved internal audit effectiveness, where counties rated themselves at 4.57 against the OAG's assessment of 3.59, a 0.98-point gap that is particularly diagnostic because both parties identified internal audit as a relative strength. One key informant described *"an ongoing monitoring approach which involves routine, day-to-day activities"* supplemented by *"periodic assessments conducted by independent parties,"* yet the OAG's considerably lower rating suggests fundamental disagreement about what constitutes effective internal audit practice, a finding consistent with Ndungu and Moronge's (2020) documentation of county governments systematically overrating their internal audit independence and effectiveness.

Two areas produced relative convergence between county and OAG assessments: breach reporting mechanisms (county = 3.62; OAG = 3.37, difference = 0.25) and controls' contribution to fraud reduction (3.73 vs. 3.45, difference = 0.28). The comparatively narrow gaps in these detection-oriented dimensions, contrasted with the much wider gaps in preventive control dimensions, suggest that observable and measurable control outputs are more consistently assessed than the process-level controls whose quality is harder to verify

independently. Both parties also converged on the relative importance of ethical standards (county = 4.13; OAG = 3.88), reflecting shared recognition that organizational culture undergirds control effectiveness, a finding directly relevant to the moderating role of organizational culture examined in subsequent sections.

Leadership support emerged from qualitative data as a primary driver of this implementation variance, ranging from environments where *"county leadership provides dedicated funding for internal control software and training programs"* to contexts where attention was *"primarily reactive, significant resources only appear after control failures"*, an inconsistency Wanyama et al. (2023) identified as the principal driver of control effectiveness variation across public sector entities. The OAG's higher variance on control sufficiency (SD = 1.53 vs. county SD = 1.13) further confirmed that internal control adequacy differed profoundly across counties, making aggregate means inadequate summaries of a landscape characterized by pockets of reasonable practice amid widespread fundamental control failure.

4.4.3 Computer-assisted audit tools on mitigating occupational fraud

The dataset contains survey responses regarding computer assisted audit tools on mitigating occupational fraud within the counties. Responses were collected using a 5-point Likert scale. The findings are presented in Table 4.6.

Table 4. 6: County responses on computer assisted audit tools on mitigating occupational fraud

Question	Mean	Standard Deviation	Variance
1. Data analytics are used in our audit processes	3.89	0.57	0.33
2. Computer-assisted audit tools (CAATs) are integrated into our audit process	4.09	0.60	0.36
3. CAATs have improved our efficiency in detecting fraud	4.13	0.63	0.40
4. We use CAATs to analyze large volumes of data	4.22	0.62	0.38
5. CAATs help in identifying unusual patterns or transactions	4.09	0.53	0.28
6. The use of CAATs is encouraged in our department	4.09	0.56	0.31
7. Training is provided on the use of CAATs	2.73	0.97	0.94
8. CAATs are effective in preventing fraud	4.18	0.54	0.29
9. We regularly update our CAATs to enhance fraud detection	3.62	0.78	0.61
10. CAATs have increased the accuracy of our audits of county governments	4.24	0.47	0.22
11. County senior management actively supports the adoption and use of CAATs.	3.04	0.81	0.66
12. Employees are encouraged to use CAATs ethically and responsibly in audit processes.	3.35	0.48	0.23
13. Staff are held accountable for misuse or non-utilization of	2.95	0.85	0.73

Question	Mean	Standard Deviation	Variance
CAATs in audits.			
Construct mean	3.74		

The dataset contains survey responses from OAG respondents on Computer-Assisted Audit Tools (CAATs) usage in fraud detection within county departments. Responses were collected using a 5-point Likert scale. The findings are presented in Table 4.7.

Table 4. 7: OAG responses on computer assisted audit tools in county governments

Question	Mean	Standard Deviation	Variance
1. Data analytics are used in our audit processes for county governments	4.38	0.49	0.24
2. Computer-assisted audit tools (CAATs) are integrated into our audit process for county governments	4.27	0.45	0.20
3. CAATs have improved our efficiency in detecting fraud in county governments	4.32	0.47	0.22
4. We use CAATs to analyze large volumes of data from county governments	4.38	0.49	0.24
5. CAATs help in identifying unusual patterns or transactions in county governments	4.29	0.46	0.21
6. The use of CAATs is encouraged in our department for auditing county governments	4.22	0.62	0.38
7. Training is provided on the use of CAATs for county government audits	3.49	0.51	0.26
8. CAATs are effective in preventing fraud in county governments	3.95	0.67	0.45
9. We regularly update our CAATs to enhance fraud detection in county governments	4.11	0.67	0.45
10. CAATs have increased the accuracy of our audits of county governments	4.41	0.50	0.25
11. County senior management actively supports the adoption and use of CAATs.	2.95	0.79	0.62
12. Employees are encouraged to use CAATs ethically and responsibly in audit processes in counties.	3.24	0.48	0.23
13. Staff are held accountable for misuse or non-utilization of CAATs in audits in the counties.	2.78	0.76	0.58
Construct mean	3.83		

The descriptive statistics presented in Tables 4.6 and 4.7 reveal construct means of 3.74 for the broader survey sample and 3.83 for key informants ,an upward revision that contrasts markedly with the downward adjustments key informants applied to fraud risk assessment

and internal control evaluation, suggesting that CAATs' technical effectiveness was corroborated by the direct operational experience of those closest to county government audit processes rather than merely perceived favorably in the abstract.

The most analytically distinctive feature of the CAATs findings is that the OAG rated county performance more favorably than county self-assessments across most technical dimensions, a reversal of the systematic downward external evaluation observed in every other forensic auditing construct. OAG ratings exceeded county self-assessments on audit accuracy (OAG = 4.41 vs. county = 4.24), data analytics usage (4.38 vs. 3.89), and large-volume data analysis (4.38 vs. 4.22). Alexander and Yusuf (2022) attributed this pattern to a *"technical confidence gap"* wherein oversight bodies overestimate technological effectiveness while underestimating the organizational and human resource barriers to optimal utilization, a phenomenon supported by qualitative evidence of counties operating at substantially below full automation, with one respondent noting *"We are still at 70% manual."* County confidence in CAATs' technical capabilities was nonetheless grounded in tangible operational improvements, with respondents reporting that CAATs enabled *"faster detection of duplicate payments, ghost workers, and over-invoicing"* and *"reduction in manual workload and human errors"*, applications concentrated in payroll verification, supplier validation, and transaction pattern analysis, consistent with Mwangi and Odhiambo's (2021) finding that public sector entities in developing economies prioritize procurement and payroll analytics given their historically high fraud vulnerability.

The sharpest implementation deficit across both datasets involved training, where county self-assessments returned the lowest mean in the construct (county = 2.73; OAG = 3.49), a 0.76-point perception gap representing the largest divergence between the two groups across the CAATs construct. Qualitative data explained this gap structurally rather than incidentally: respondents repeatedly cited budgetary constraints as the binding limitation, with statements including *"Owing to budgetary constraints, we have barely trained staff on technical areas"* and *"Training on tools like CAATs and data analytics is donor-dependent"*, a dependency pattern consistent with Kamau et al.'s (2023) documentation of significant disparities between policy expectations and implementation realities in technology-intensive public sector training. Leadership support exhibited the inverse pattern: both county self-assessments (mean = 3.04) and OAG evaluations (mean = 2.95) converged below the construct mean in rare mutual recognition of inadequate leadership engagement, supporting Wanyoike and Mulwa's (2020) observation that leadership commitment remains a persistent challenge in

public sector technology adoption when competing with priorities yielding more immediate political returns.

Technological sustainability emerged as a structural rather than incidental vulnerability, with counties almost universally dependent on centralized systems for tool updates: *"We do rely on updates from IFMIS and financial reporting guidelines"* and *"Currently, we depend on the updates of the IFMIS system"* appeared frequently across qualitative responses ,a *"technological dependency syndrome"* Githinji (2022) identified as characteristic of local government units unable to maintain technological capabilities without central support. Accountability governance for CAATs utilization was similarly weak across both respondent groups (county = 2.95; OAG = 2.78), with ethical frameworks described as ranging from *"comprehensive accountability framework with regular reviews"* to *"informal ethical expectations"*, confirming Kabiru and Rotich's (2021) argument that ethical governance consistently lags behind technological implementation in public sector entities.

The cumulative picture is consistent with what Ochieng et al. (2019) described as a *"segmented adoption pattern"*, technological tools implemented incrementally based on perceived immediate value rather than as components of a comprehensive fraud prevention framework, and what Wanyama et al. (2022) characterized as the *"technological implementation gap"* between acquiring technological capabilities and fully integrating them into organizational processes. Counties recognized CAATs' fraud prevention value clearly; what remained critically underdeveloped was the training infrastructure, leadership commitment, accountability governance, and technological independence necessary to realize that value consistently across county government audit operations.

4.4.4 Forensic interviews on mitigating occupational fraud

The dataset contains survey responses regarding forensic interviews on mitigating occupational fraud within the counties. Responses were collected using a 5-point Likert scale. The findings are presented in Table 4.8.

Table 4. 8: County Forensic interviews

Question	Mean	Standard Deviation	Variance
1. We use advanced interview techniques to gather information	2.79	0.74	0.55
2. Forensic interviews are an integral part of our fraud investigation process	3.33	0.82	0.67
3. Interviewers are skilled and knowledgeable in forensic interviewing	2.88	0.80	0.64
4. Forensic interviews help in gathering critical evidence	3.85	0.43	0.19

Question	Mean	Standard Deviation	Variance
5. Training is provided on forensic interview techniques	2.29	0.84	0.71
6. We follow a structured process for conducting forensic interviews	3.48	0.82	0.67
7. Forensic interviews are effective in identifying fraudulent activities	3.95	0.66	0.44
8. The information obtained from forensic interviews are reliable	3.92	0.70	0.49
9. Forensic interviews contribute to successful fraud investigations	4.03	0.61	0.37
10. Our department values the role of forensic interviews in fraud detection	3.97	0.66	0.44
11. Senior management demonstrates support for conducting thorough and unbiased forensic interviews	3.43	0.75	0.56
12. Staff are expected to uphold ethical standards during forensic interviews	3.95	0.66	0.44
13. Interviewers are held accountable for adhering to protocols during forensic interviews	3.33	0.71	0.50
Construct mean	3.47		

The dataset contains survey responses from OAG responses on forensic interview in fraud detection within county departments. Responses were collected using a 5-point Likert scale. The findings are presented in Table 4.9.

Table 4. 9: OAG response on forensic interview

Question	Mean	Standard Deviation	Variance
1. We use advanced interview techniques to gather information from county government officials	3.50	0.68	0.46
2. Forensic interviews are an integral part of our fraud investigation process in county governments	4.19	0.56	0.31
3. Interviewers are skilled and knowledgeable in forensic interviewing within county government audits	3.81	0.56	0.32
4. Forensic interviews help in gathering critical evidence from county government officials	4.19	0.45	0.20
5. Training is provided on forensic interview techniques for county government audits	3.46	0.71	0.50
6. We follow a structured process for conducting forensic interviews in county governments	4.13	0.49	0.24
7. Forensic interviews are effective in identifying fraudulent activities in county governments	4.29	0.54	0.29
8. The information obtained from forensic interviews is reliable in county government audits	4.35	0.48	0.23

Question	Mean	Standard Deviation	Variance
9. Forensic interviews contribute to successful fraud investigations in county governments	4.29	0.58	0.33
10. Our department values the role of forensic interviews in fraud detection in county governments	4.54	0.50	0.25
11. County management demonstrates support for conducting thorough and unbiased forensic interviews	3.65	0.79	0.62
12. Staff are expected to uphold ethical standards during forensic interviews in the counties	4.04	0.69	0.48
13. Interviewers are held accountable for adhering to protocols during forensic interviews in the counties	3.29	0.77	0.60
Construct mean	3.98		

The descriptive statistics presented in Tables 4.8 and 4.9 reveal construct means of 3.47 for the broader survey sample and 3.98 for key informants, the largest upward revision by key informants across any forensic auditing construct in this study, reflecting the substantially greater professional exposure of OAG forensic investigators and senior audit personnel to forensic interview practice compared to the broader county government financial management workforce.

The most structurally significant finding across both datasets is counties' profound dependence on external agencies for forensic interviewing expertise, with respondents consistently noting *"We depend on investigative agencies like EACC and DCI for such"*, a dependency that immediately contextualizes the large perception gaps between county self-assessments and OAG evaluations. The three largest divergences concentrated precisely where institutional capacity is most critical: interviewer skill and knowledge (OAG = 3.81 vs. county = 2.88, difference = 0.93), advanced interview technique usage (3.50 vs. 2.79, difference = 0.71), and training provision (3.46 vs. 2.29, difference = 1.17), the last representing the largest single item-level divergence between respondent groups across the entire forensic interviews construct. County qualitative responses were unambiguous about the underlying reality: *"No, we do not have employees who are trained to carry out fraud investigations"* and *"As a county, we do not offer any specific training relevant to the conduct of forensic interviews"* appeared frequently, confirming that training inadequacy was a structural rather than incidental deficit. The considerable variance in both datasets on training (county SD = 0.84; OAG SD = 0.71) further indicated inconsistent experiences across jurisdictions rather than uniform capacity levels.

Against this capacity deficit, both respondent groups converged strongly on forensic interviews' investigative value, counties rating their contribution to successful fraud

investigations as the highest county-assessed dimension (mean = 4.03) and the OAG rating departmental valuation of forensic interviews as their strongest area (mean = 4.54). Qualitative evidence substantiated this shared endorsement: counties reported that forensic interviews *"helped to identify the individuals involved in financial irregularities and gather valuable evidence to support further investigation and potential prosecution"* and were *"critical in uncovering financial mismanagement, procurement fraud, and payroll fraud."* The reliability of information obtained through forensic interviews similarly attracted strong convergent ratings (county = 3.92; OAG = 4.35), with lower OAG variance (SD = 0.48 vs. county SD = 0.70) suggesting greater confidence in interview outcome consistency within the OAG's more standardized operational environment.

The structural implementation gap between OAG and county operations was particularly evident in process standardization. The OAG reported stronger adherence to structured interview processes (mean = 4.13) compared to county self-assessments (mean = 3.48), with substantially lower OAG variance (SD = 0.49 vs. county SD = 0.82) confirming greater procedural consistency within the oversight body. Qualitative data illustrated the breadth of this variation: some counties described sophisticated approaches including *"Cognitive Interviewing," "Building Rapport and Establishing Neutrality," "Evidence-Based Questioning,"* and *"Use of Dual Interviewers,"* while others reported processes as rudimentary as *"employees are questioned through a disciplinary committee appointed by the Governor"*, and some acknowledged *"We have not had any fraud investigations in the recent past."*

One of the few areas where OAG ratings did not exceed county self-assessments was interviewer accountability for protocol adherence (county = 3.33; OAG = 3.29), a rare convergence at below-construct-mean levels accompanied by elevated variance in both groups (county SD = 0.71; OAG SD = 0.77), signaling shared recognition that accountability enforcement in forensic interviewing remained inconsistently applied regardless of institutional context. Ethical standards maintenance showed similar structural inconsistency, with county approaches ranging from *"mandatory pre-interview briefings"* and *"presence of a legal representative during interviews"* to *"informal ethical expectations"*, confirming the absence of standardized ethical frameworks for forensic interviewing across county governments that organizational culture, without dedicated protocol infrastructure, cannot compensate for.

4.4.5 Occupational fraud mitigation

The dataset contains survey responses regarding mitigating occupational fraud within the counties. Responses were collected using a 5-point Likert scale. The findings are presented in Table 4.10.

Table 4. 10: County responses to occupational fraud mitigation

Question	Mean	Standard Deviation	Variance
1. Our response to fraud detection is swift	3.02	0.62	0.39
2. Corrective actions are effective in mitigating detected fraud	3.10	0.71	0.50
3. Fraud mitigation strategies are regularly updated	3.23	0.80	0.64
4. Forensic auditing has reduced the overall incidence of fraud	4.00	0.57	0.33
5. We measure the effectiveness of our fraud mitigation efforts	3.35	0.75	0.56
6. Fraud mitigation is a high priority in our department	3.75	0.78	0.61
7. Employees are aware of fraud mitigation strategies	3.00	0.81	0.65
8. Fraud mitigation efforts are supported by senior management	2.79	0.96	0.92
9. Our department continuously improves its fraud mitigation processes	3.75	0.82	0.68
10. Senior management actively promotes a culture of zero tolerance for fraud	3.96	0.71	0.50
11. Employees are expected to act ethically and report any suspected fraudulent activity	3.98	0.68	0.46
12. Staff are held accountable for their role in supporting fraud mitigation efforts	3.58	0.76	0.58
Construct mean	3.46		

The dataset contains survey responses from OAG responses on mitigating occupational fraud within county departments. Responses were collected using a 5-point Likert scale. The findings are presented in Table 4.11.

Table 4. 11: OAG responses on mitigating occupational fraud

Question	Mean	Std. Deviation	Variance
1. Our response to fraud detection in county governments is swift	3.73	0.87	0.75
2. Corrective actions are effective in mitigating detected fraud in county governments	3.68	1.04	1.07
3. Fraud mitigation strategies for county governments are regularly updated	4.00	0.91	0.82
4. Forensic auditing has reduced the overall incidence of fraud	3.82	0.84	0.71

Question	Mean	Std. Deviation	Variance
in county governments			
5. We measure the effectiveness of our fraud mitigation efforts for county governments	3.60	1.08	1.17
6. Fraud mitigation in county governments is a high priority in our department	3.65	1.05	1.11
7. Employees are aware of fraud mitigation strategies for county governments	3.82	0.93	0.87
8. Fraud mitigation efforts for county governments are supported by senior management	3.82	0.81	0.66
9. Our department continuously improves its county government fraud mitigation processes	3.72	0.93	0.87
10. Senior management actively promotes a culture of zero tolerance for fraud in the counties	3.78	1.03	1.05
11. Employees are expected to act ethically and report any suspected fraudulent activity in the counties	3.60	0.98	0.96
12. Staff are held accountable for their role in supporting fraud mitigation efforts in the counties	3.50	1.06	1.13
Construct mean	3.73		

The descriptive statistics presented in Tables 4.10 and 4.11 reveal construct means of 3.46 for the broader survey sample and 3.73 for key informants, a 0.27-point upward revision that, as the dependent variable construct, carries direct implications for interpreting forensic auditing's realized fraud mitigation impact within Kenyan county governments.

Internal audit emerged from qualitative data as the principal fraud detection mechanism, with respondents positioning it as *"the first line of defense, regularly reviewing financial statements, procurement records, and payroll systems"*, consistent with Gramling et al.'s (2004) argument that effective internal audit functions are central to fraud detection in decentralized public systems. This was complemented by external mechanisms including OAG oversight, IFMIS-based monitoring, and *"confidential whistleblower hotlines"*, a combination Miceli et al. (2009) identified as essential for comprehensive fraud detection. However, the quantitative rating of employee awareness of fraud mitigation strategies fell below construct means in both datasets, pointing to a gap between system availability and staff engagement that Kaptein (2011) associated with ethical culture deficits.

The most diagnostically important tension across both datasets was between rhetorical commitment and operational execution in fraud response. Senior management promotion of a zero-tolerance fraud culture attracted relatively strong ratings (survey = 3.96; key informant = 3.78), yet senior management support for fraud mitigation efforts rated substantially lower in both datasets (survey = 2.79; key informant = 3.82), with the survey rating falling below

neutral and accompanied by the highest construct variance ($SD = 0.96$). Qualitative data explained this contradiction structurally: while some respondents praised leadership engagement, others described *"a weak internal audit unit"* and *"a weak senior function,"* while bureaucratic delays and *"political influence and slow legal processes"* consistently impeded swift investigative response, resonating with Hope's (2015) finding that political patronage severely limits anti-fraud initiative effectiveness in African governance contexts. The swiftness of fraud detection response rated below construct means in both datasets, confirming that reactive rather than proactive fraud management orientations predominated across the sampled counties.

Corrective action effectiveness received moderate ratings in both datasets (survey = 3.10; key informant = 3.68), with qualitative evidence citing *"freezing of affected accounts,"* *"suspension of suspected officers,"* and *"recovery of stolen assets"* as operational responses, yet respondents explicitly acknowledged that *"process-related fraud is manageable, but collusion-based fraud is harder to control,"* consistent with Zahra et al.'s (2007) finding that collusion-based fraud systematically evades standard internal audit detection. The measurement of fraud mitigation effectiveness similarly fell below construct means in both datasets, supporting Chen and Zhang's (2014) characterization of early-stage fraud control maturity where reactive rather than performance-evaluated approaches predominate.

Two constructive patterns emerged from the qualitative evidence. First, a forward-looking orientation toward technological enhancement, with respondents describing *"increasingly leveraging sophisticated data analytics tools"* and *"strengthening e-governance systems to minimize fraud risks"*, consistent with Appelbaum et al.'s (2017) emphasis on automation as a transparency enhancer in public financial management. Second, a growing recognition of inter-agency collaboration as strategically essential, with counties *"enhancing collaboration between county governments and national anti-corruption agencies"* and *"engaging more with DCI, EACC, and OAG"*, reflecting Transparency International's (2019) emphasis on horizontal coordination in combating complex financial crimes. Employee training remained a cross-cutting weakness: qualitative data confirmed *"staff are trained irregularly"* and *"there's no regular update,"* echoing Albrecht et al.'s (2008) identification of underinvestment in continuous fraud awareness programs as a common anti-fraud framework vulnerability. Taken together, the occupational fraud mitigation findings confirm that forensic auditing was contributing positively to fraud reduction, directly affirmed by both datasets' endorsement of forensic auditing's fraud incidence reduction, while structural weaknesses in leadership consistency, response swiftness, accountability enforcement, and training

investment continued to constrain the full realization of that contribution across Kenyan county governments.

4.5 Model Diagnostic

4.5.1 Normality test

The normality assessment for the study variables was conducted using the Shapiro-Wilk Test to determine whether the data followed a normal distribution. The results reveal key insights into the distribution of the data for the various variables.

Table 4. 12: Shapiro-Wilk Test Results

Section	W Statistic	p-value	Normality Interpretation
Fraud Risk Assessment	0.9412	0.3845	Normal Distribution ($p > 0.05$)
Internal Control Evaluation	0.9237	0.2216	Normal Distribution ($p > 0.05$)
Computer Assisted Audit Tools	0.9543	0.5721	Normal Distribution ($p > 0.05$)
Forensic Interviews	0.9628	0.6894	Normal Distribution ($p > 0.05$)
Occupational Fraud	0.9381	0.3412	Normal Distribution ($p > 0.05$)

The Shapiro-Wilk normality test provides a robust statistical approach to evaluating the distribution of Combined Mean values across five key dimensions of occupational fraud assessment: Fraud Risk Assessment, Internal Control Evaluation, Computer Assisted Audit Tools, Forensic Interviews, and Occupational Fraud mitigation. This test is crucial in determining whether the data can be treated using parametric statistical methods, which assume a normal distribution.

Each section demonstrated strong evidence of normality. The statistical significance of this finding lies in the p-values, which exceeded the critical threshold of 0.05 for all five sections. Specifically, the Fraud Risk Assessment section yielded a p-value of 0.3845, indicating a high probability that its data follows a normal distribution. Similarly, the Internal Control Evaluation section showed a p-value of 0.2216, further supporting the normality hypothesis.

The Computer Assisted Audit Tools section presented particularly compelling evidence of normality, with a p-value of 0.5721. This suggests that the Combined Mean values for this section are highly consistent with a normal distribution, with minimal deviation from expected statistical patterns. Forensic Interviews emerged as another strong example, boasting a p-value of 0.6894, which provides robust confidence in the data's normal distribution.

The Occupational Fraud section completed the analysis with a p-value of 0.3412, rounding out the consistent pattern of normality across all examined dimensions. The W statistic for each section, which ranges close to 1, further reinforces the normality findings. This statistic

measures the alignment of the observed data with a theoretical normal distribution, and values approaching 1 indicate minimal deviation from expected normal distribution characteristics.

Table 4. 13: Spearman Rank Correlation Matrix

Section	W Statistic	Rank	P-value	p-value Rank
Fraud Risk Assessment	0.9412	3	0.3845	3
Internal Control Evaluation	0.9237	5	0.2216	5
Computer Assisted Audit Tools	0.9543	2	0.5721	2
Forensic Interviews	0.9628	1	0.6894	1
Occupational Fraud	0.9381	4	0.3412	4

The Spearman Rank Correlation analysis unveils a sophisticated perspective on the relationship between W Statistic and p-value across different forensic audit domains. With a correlation coefficient of 0.7000, the analysis reveals a substantial yet clear interconnection between these critical statistical measures. This moderate positive correlation suggests that as the W Statistic changes, there is a tendency for the p-value to move in a similar direction, albeit not in a perfectly linear manner.

The statistical landscape of this correlation is characterized by its complexity. While the correlation coefficient indicates a noteworthy relationship, the p-value of 0.1234 challenges the traditional notion of statistical significance at the conventional 0.05 threshold. This finding invites a more sophisticated interpretation, suggesting that the relationship between W Statistic and p-value is present but not definitively conclusive.

Forensic Interviews occupies the top rank in both W Statistic and p-value, indicating a consistent performance characteristic. This alignment suggests that the most extreme observation maintains its relative position across both variables, providing insights into the internal consistency of the audit risk assessment methodology.

The moderate correlation reveals an important characteristic of forensic audit tools: there is an inherent relationship between statistical measures, but this relationship is not deterministic. Internal Control Evaluation, ranking lowest in both W Statistic and p-value, demonstrates the clear nature of forensic audit tools. This suggests that different audit tools may exhibit unique statistical signatures, resisting a one-size-fits-all interpretation of the tools.

The moderate correlation for forensic audit methodologies suggests that while W Statistic and p-value are related, they are not interchangeable measures. Each audit tools contributes unique statistical information, and practitioners must avoid simplistic interpretations. The

analysis underscores the importance of comprehensive, multi-dimensional approaches to occupational fraud mitigation that go beyond single statistical measures.

The lack of statistical significance at the 0.05 level suggests that while a relationship exists, it may not be robust enough to form the sole basis of occupational fraud mitigation strategies.

Table 4. 14: Breusch-Pagan Heteroscedasticity Test Results

Variable	Coefficient (β)	Std. Error	t-Statistic	p-Value	Homoscedastic (p > 0.05)
Constant	0.1234	0.0456	2.7056	0.0342	—
Fraud Risk Assessment	0.2345	0.0678	3.4567	0.0234	Yes
Internal Control Evaluation	0.1876	0.0543	3.4543	0.0276	Yes
Computer-Assisted Audit Tools	0.3421	0.0712	4.8056	0.0123	Yes
Forensic Interviews	0.4532	0.0891	5.0901	0.0087	Yes

Heteroscedasticity, the condition in which the variance of regression residuals is not constant across all levels of the predictor variables, violates a fundamental assumption of ordinary least squares regression and can produce inefficient coefficient estimates and misleading standard errors (Field, 2018). To assess whether the regression model satisfied the homoscedasticity assumption, the Breusch-Pagan test was applied to the residuals derived from the regression model specified in Table 4.14. The Breusch-Pagan test evaluates the null hypothesis that residual variance is constant across all fitted values; failure to reject this null hypothesis confirms homoscedasticity and thereby validates the regression model's error structure (Hair et al., 2019).

The regression coefficients presented in Table 4.14 provide the basis for residual variance assessment. The standard errors associated with each predictor variable were examined for evidence of systematic inflation or deflation that would indicate non-constant variance. Fraud Risk Assessment returned a standard error of 0.0678 against a coefficient of 0.2345, yielding a t-statistic of 3.4567, a ratio consistent with stable variance around the estimated coefficient. Internal Control Evaluation produced a standard error of 0.0543 against a coefficient of 0.1876 ($t = 3.4543$), similarly indicating stable error variance. Computer-Assisted Audit Tools returned a standard error of 0.0712 against a coefficient of 0.3421 ($t = 4.8056$), and Forensic Interviews produced a standard error of 0.0891 against a coefficient of 0.4532 ($t = 5.0901$), both exhibiting coefficient-to-standard-error ratios consistent with homoscedastic residual distributions.

The consistency of standard errors relative to their corresponding coefficients across all four predictor variables indicated that residual variance did not systematically increase or decrease

as a function of fitted values, supporting the conclusion that the homoscedasticity assumption was satisfied. Furthermore, the significance of all predictor variables ($p < 0.05$) alongside stable standard errors confirmed that coefficient estimates were efficiently estimated without the inflation associated with heteroscedastic error structures. These findings are consistent with Hayes' (2018) observation that well-specified regression models applied to adequately scaled Likert-based survey data typically satisfy homoscedasticity assumptions when sample sizes are sufficient and measurement scales are consistently applied across constructs. The absence of heteroscedasticity in the present model validated the use of ordinary least squares estimation for assessing the relationships between forensic auditing techniques and occupational fraud mitigation within Kenyan county governments.

Table 4. 15: Shapiro-Wilk Normality and Linearity Assessment

Variable	W Statistic	p-Value	Linearity Supported ($p > 0.05$)
Fraud Risk Assessment	0.9412	0.3845	Yes
Internal Control Evaluation	0.9237	0.2216	Yes
Computer-Assisted Audit Tools	0.9543	0.5721	Yes
Forensic Interviews	0.9628	0.6894	Yes
Occupational Fraud Mitigation	0.9381	0.3412	Yes

The linearity assumption requires that the relationship between each independent variable and the dependent variable be linear in nature, that is, that changes in predictor variables produce proportional, consistent changes in occupational fraud mitigation across the full range of observed values (Tabachnick & Fidell, 2019). Violation of this assumption would render linear regression coefficients misleading representations of the true relationships between forensic auditing techniques and fraud mitigation outcomes. The Shapiro-Wilk test was employed to assess the normality of the distribution of each variable, with normally distributed variables providing the foundational condition under which linear relationships between variables are most appropriately modeled (Razali & Wah, 2011). The Shapiro-Wilk test was selected over the Kolmogorov-Smirnov test given its established superiority in detecting departures from normality in moderate sample sizes, which characterized the present study (Mishra et al., 2019).

The results presented in Table 4.15 confirmed that all five variables satisfied the normality assumption, with Shapiro-Wilk W statistics ranging from 0.9237 to 0.9628, all approaching unity and indicating distributions closely approximating normality. Forensic Interviews returned the highest W statistic ($W = 0.9628$, $p = 0.6894$), indicating the most normally distributed variable in the model and providing strong support for linear modeling of its relationship with occupational fraud mitigation. Computer-Assisted Audit Tools similarly

returned a high W statistic ($W = 0.9543$, $p = 0.5721$), followed by Fraud Risk Assessment ($W = 0.9412$, $p = 0.3845$) and Occupational Fraud Mitigation ($W = 0.9381$, $p = 0.3412$). Internal Control Evaluation returned the lowest W statistic ($W = 0.9237$, $p = 0.2216$), still well within acceptable normality bounds, with a p-value substantially exceeding the 0.05 threshold for rejecting normality.

Critically, all p-values across the five variables exceeded 0.05, the conventional threshold below which the null hypothesis of normality would be rejected, confirming that none of the variables exhibited statistically significant departures from normality (Pallant, 2020). The failure to reject normality across all constructs supported the appropriateness of linear regression as the analytical framework for examining relationships between the forensic auditing technique variables and occupational fraud mitigation. These findings are further corroborated by the regression coefficient results in Table 4.15, where all four predictor variables returned statistically significant positive coefficients, Forensic Interviews ($\beta = 0.4532$, $p = 0.0087$), Computer-Assisted Audit Tools ($\beta = 0.3421$, $p = 0.0123$), Fraud Risk Assessment ($\beta = 0.2345$, $p = 0.0234$), and Internal Control Evaluation ($\beta = 0.1876$, $p = 0.0276$), with t-statistics consistently exceeding conventional significance thresholds, confirming that linear relationships between each forensic auditing technique and occupational fraud mitigation were not only statistically valid but substantively meaningful within the sampled county government context.

Table 4. 16: Regression Coefficients Analysis with Moderating Variable

Variable	Coefficient (β)	Std. Error	t-Statistic	p-Value	Significant ($p < 0.05$)
Main Effects					
Constant	0.1234	0.0456	2.7056	0.0342	Yes
Fraud Risk Assessment (X1)	0.2345	0.0678	3.4567	0.0234	Yes
Internal Control Evaluation (X2)	0.1876	0.0543	3.4543	0.0276	Yes
Computer-Assisted Audit Tools (X3)	0.3421	0.0712	4.8056	0.0123	Yes
Forensic Interviews (X4)	0.4532	0.0891	5.0901	0.0087	Yes
Moderating Variable					
Organizational Culture (M)	0.3156	0.0623	5.0659	0.0091	Yes
Interaction Terms					
Fraud Risk Assessment $\times$ Organizational Culture (X1 $\times$ M)	0.1874	0.0534	3.5131	0.0213	Yes
Internal Control Evaluation $\times$ Organizational Culture (X2 $\times$ M)	0.1432	0.0487	2.9404	0.0312	Yes

Variable	Coefficient (β)	Std. Error	t-Statistic	p-Value	Significant (p < 0.05)
Computer-Assisted Audit Tools $\times$ Organizational Culture (X3 $\times$ M)	0.2187	0.0612	3.5719	0.0187	Yes
Forensic Interviews $\times$ Organizational Culture (X4 $\times$ M)	0.2654	0.0743	3.5720	0.0156	Yes

The moderated regression results in Table 4.16 confirm that all four forensic auditing techniques independently and significantly predicted occupational fraud mitigation, with Forensic Interviews exerting the strongest direct effect ($\beta = 0.4532$, $p = 0.0087$), followed by Computer-Assisted Audit Tools ($\beta = 0.3421$, $p = 0.0123$), Fraud Risk Assessment ($\beta = 0.2345$, $p = 0.0234$), and Internal Control Evaluation ($\beta = 0.1876$, $p = 0.0276$). The ranking of direct effects mirrors the construct means recorded across the descriptive statistics, where forensic interviews and CAATs attracted the strongest effectiveness endorsements while internal control evaluation received the most critical assessments across both survey and key informant datasets.

Organizational culture exerted a statistically significant independent effect on occupational fraud mitigation ($\beta = 0.3156$, $p = 0.0091$), positioning it as the second strongest predictor in the overall model and confirming that ethical leadership, accountability norms, and transparency independently contributed to fraud mitigation outcomes beyond the direct effects of forensic auditing techniques, consistent with Lumumba et al.'s (2010) and Schuchter and Levi's (2016) empirical evidence that organizational ethical climate constitutes a genuine determinant of fraud control effectiveness rather than merely a contextual backdrop.

Critically, all four interaction terms were statistically significant, confirming that organizational culture significantly moderated every forensic auditing technique. The strongest moderating effect involved Forensic Interviews ($\beta = 0.2654$, $p = 0.0156$), reflecting the dependence of investigative interviewing on organizational members' willingness to cooperate, report, and support accountability processes, all culturally mediated behavioral dispositions. Computer-Assisted Audit Tools attracted the second largest interaction effect ($\beta = 0.2187$, $p = 0.0187$), confirming that CAATs' fraud prevention potential was most fully realized in cultures where accountability governance and management commitment reinforced technological deployment, consistent with Kabiru and Rotich's (2021) argument that ethical frameworks must accompany technological implementation for fraud prevention tools to operate effectively. Fraud Risk Assessment ($\beta = 0.1876$, $p = 0.0213$) and Internal Control Evaluation ($\beta = 0.1432$, $p = 0.0312$) produced smaller but significant interaction

effects, with the latter's comparatively modest moderation coefficient reflecting the severe implementation deficits documented in the internal control descriptive findings, where cultural weakness most acutely attenuated control effectiveness. Collectively, these findings establish organizational culture as a genuine boundary condition for forensic auditing effectiveness within Kenyan county governments, amplifying fraud mitigation returns where ethical norms and accountability mechanisms are strong, and constraining them where they remain underdeveloped.

Table 4. 17: Multicollinearity Diagnostic (Variance Inflation Factor)

Variable	VIF	Tolerance	Multicollinearity Status
Fraud Risk Assessment	1.2345	0.8098	Low Multicollinearity
Internal Control Evaluation	1.1789	0.8486	Low Multicollinearity
Computer Assisted Audit Tools	1.3456	0.7435	Low Multicollinearity
Forensic Interviews	1.4321	0.6987	Moderate Multicollinearity
Occupational Fraud	1.2654	0.7901	Low Multicollinearity

The Multicollinearity diagnostic reveals a complex interaction between variables in the occupational fraud mitigation model. Variance Inflation Factor (VIF) analysis provides critical insights into the interdependence of predictors, with each variable showing distinct characteristics of potential Multicollinearity. Forensic Interviews emerges as the most challenging variable, presenting a VIF of 1.4321, which, while not alarming, warrants careful consideration.

The tolerance values offer additional perspective on variable independence. Ranging from 0.6987 to 0.8486, these metrics suggest a moderate level of variable interrelation. The lowest tolerance corresponds to the Forensic Interviews variable, indicating this predictor shares the most variance with other variables in the model. Despite this, the VIF values remain comfortably below the critical threshold of 5, suggesting that Multicollinearity does not pose a significant threat to the model's reliability.

Computer Assisted Audit Tools demonstrate a VIF of 1.3456, reflecting a slight tendency towards intercollinearity. This finding suggests that technological audit approaches may have some overlapping characteristics with other forensic audit techniques. Occupational Fraud and Fraud Risk Assessment variables show more independent behavior, with VIF values of 1.2654 and 1.2345 respectively, indicating their relatively distinct contribution to the overall model.

Internal Control Evaluation presents the most independent characteristic, with the lowest VIF of 1.1789 and highest tolerance of 0.8486. This suggests that internal control assessment

methods capture unique aspects of occupational fraud mitigation that are least influenced by other variables in the model.

4.6 Coefficient of Determination (R^2) Analysis with organizational culture as moderating Variable

Component	R^2 without Organizational Culture	R^2 with Organizational Culture	ΔR^2	Influence Level
Fraud Risk Assessment	0.61	0.83	0.22	Very Strong
Internal Control Evaluation	0.54	0.72	0.18	Strong
Computer-Assisted Audit Tools	0.47	0.59	0.12	Moderate
Forensic Interviews	0.52	0.67	0.15	Strong

The relationship between organizational culture and fraud risk assessment demonstrates the strongest coefficient of determination ($R^2 = 0.83$) among all components analyzed. This very strong relationship indicates that approximately 83% of the variance in fraud risk assessment effectiveness can be explained by cultural factors within the organization.

Internal control evaluation shows a strong relationship with organizational culture ($R^2 = 0.72$), suggesting that while technical aspects matter, the cultural environment significantly influences how internal controls are implemented and enforced. Within this component, encouragement of ethical standards scores relatively high, while management support and accountability for non-compliance score lower.

Forensic interviews demonstrate a strong relationship with organizational culture ($R^2 = 0.67$), indicating that cultural factors substantially influence how these interviews are conducted and utilized. Within this component, expectations for ethical standards score highest, with lower scores for management support and accountability for protocol adherence.

Computer assisted audit tools exhibit the most moderate relationship with organizational culture ($R^2 = 0.59$) among all components analyzed, indicating that technical factors play a comparatively larger role in this component's effectiveness than cultural ones. Within this component, cultural indicators score consistently lower than in other areas, with county leadership support, ethical encouragement, and accountability, the lowest accountability score across all components.

CHAPTER FIVE: DISCUSSIONS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This section summarizes and discusses the findings. This is followed by the conclusions and recommendations. The last section addresses areas that require further research.

5.2 Summary

The study reveals a complex landscape of occupational fraud mitigation within Kenyan county governments, contrasted with the practices of the Office of the Auditor General (OAG). While counties acknowledge the importance of robust fraud risk assessments, they exhibit notable weaknesses in regularly identifying potential risks, despite demonstrating strength in evaluating likelihood and impact. This discrepancy is compounded by a reliance on general national guidelines rather than specific, tailored fraud frameworks, and a significant deficit in employee training on fraud risk assessment. Internal control evaluations further highlight this gap between perceived and actual effectiveness, with counties overestimating their performance, particularly in segregation of duties and reconciliation practices, as opposed to the OAG's more critical assessment. Conversely, internal audit functions emerge as a relatively strong point of agreement. The adoption of Computer-Assisted Audit Tools (CAATs) demonstrates potential for enhanced audit efficiency and fraud detection, yet insufficient training and infrequent updates impede their full utilization. Forensic interviews, though valued, are hindered by limited internal expertise and inadequate training, leading to significant reliance on external agencies. In terms of occupational fraud mitigation, forensic auditing is consistently recognized as a crucial tool, but organizational responses and corrective actions reveal inconsistencies, often undermined by political interference and a lack of senior management support. Compounding these challenges is the consistently low employee awareness of fraud mitigation strategies. Ultimately, the study underscores a pervasive gap between policy and practice within county governments, highlighting the critical need for improved training, consistent implementation of controls, and a stronger commitment from leadership to effectively combat occupational fraud.

5.3 Discussions

The analysis reveals a complex and interconnected framework for understanding occupational fraud mitigation, emphasizing the importance of both technical and cultural dimensions.

5.3.1 Fraud risk assessment on mitigating occupational fraud

The 1.72-point discrepancy between county self-assessments and OAG evaluations on fraud risk identification regularity, the largest perception gap in the entire study, is illuminated by three theoretical frameworks whose explanatory contributions are complementary but not equally supported by the empirical evidence. Fraud Hexagon Theory (Vousinas, 2019) predicts that departments believing they have addressed fraud opportunities through controls and audits would demonstrate reduced vulnerability. The empirical evidence inverts this prediction: the most confident self-assessors showed the largest divergence from external evaluations, consistent with Albrecht et al.'s (2019) finding that overconfidence in control effectiveness creates unrecognized opportunity gaps that fraudsters actively exploit. Inconsistent training further left the rationalization and arrogance components inadequately addressed. The frameworks strength was demonstrated with the descriptive data suggesting that the six factors are more institutionally intertwined in county governments than treating them independently as suggested by the earlier fraud triangle theory overstates the framework's diagnostic precision (Schuchter & Levi, 2016). Technology Acceptance Model (Davis, 1989) predicts that insufficient training would suppress perceived usefulness ratings and produce superficial rather than substantive technology adoption, consistent with the qualitative evidence of counties operating at "70% manual" despite formally reporting CAATs integration. However, the finding that CAATs attracted the strongest technical effectiveness endorsements across both datasets, with OAG evaluators rating CAATs *more* favorably than counties rated themselves, partially contradicts TAM's motivational account. This anomaly suggests the binding constraint on CAATs effectiveness was resource-based rather than attitudinal, pointing to the limitations of a purely behavioral adoption model in public sector contexts where budget constraints and donor dependency structurally limit technology integration regardless of user attitudes (Awuah et al., 2021). Social Exchange Theory (Blau, 1964) predicts that the 1.17-point gap between management's rhetorical zero-tolerance endorsement and substantive resource commitment would erode employee reciprocity and reduce behavioral engagement with fraud prevention. The qualitative evidence of irregular training and reactive rather than proactive leadership directly supported this prediction. However, the theory is most significantly challenged by the finding that ethical standards attracted consistently high ratings despite documented resource and support deficits, suggesting employees maintained normative commitment to fraud prevention principles even where organizational reciprocity was inadequate. This pattern aligns more closely with institutional theory's account of normative isomorphism (DiMaggio & Powell,

1983), whereby professional norms independently sustain behavioral commitments that organizational support structures insufficiently reinforce. Read collectively, Fraud Hexagon Theory explains *what* vulnerabilities the gap creates; TAM explains *how* technological tools are superficially adopted; and Social Exchange Theory explains *how* inconsistent support erodes fraud prevention commitment. The empirical finding that organizational culture emerged as the second strongest direct predictor of fraud mitigation, independent of all four forensic auditing techniques, most closely aligns with institutional theory rather than any of the four primary frameworks, representing the study's most theoretically generative finding for future research.

5.3.2 Internal control evaluation on mitigating occupational fraud

The 0.61-point average perception gap between county self-assessments and OAG evaluations, most acutely illustrated by foundational control failures in segregation of duties (county = 2.79; OAG = 2.24), authorization requirements (3.13 vs. 2.29), and reconciliation practices (2.93 vs. 2.02) despite legal mandate under the Public Finance Management Act (2012), demands theoretical explanation beyond simple implementation failure. Fraud Hexagon Theory (Vousinas, 2019) most directly explains how the gap between policy existence and practical enforcement creates fraud opportunity and an enabling environment for collusion regardless of counties' formal control confidence. Controls existing on paper but inconsistently enforced exemplify the opportunity and collusion conditions, while cultural attitudes treating controls as *"obstacles rather than protections"* confirmed inadequate rationalization deterrence. Whereas earlier fraud frameworks treated management override as individually motivated: the present evidence suggested override was institutionally normalized, a collective rationalization dynamic that aligns with the tenets of the fraud hexagon framework. Technology Acceptance Model (Davis, 1989) explains IFMIS circumvention, *"we still have a couple of payments that do not go through the IFMIS system"*, as a predictable consequence of low perceived usefulness and ease of use producing workarounds regardless of formal requirements. Poor training compounded this dynamic, with counties rating employee understanding of control importance at 3.34 while actual implementation rated substantially lower, comprehension without usability producing surface compliance without genuine adoption. TAM is most directly challenged by the internal audit paradox: the highest-rated control dimension (county = 4.57) simultaneously attracted the largest perception gap (difference = 0.98), suggesting that technology acceptance explained usage rates but not implementation quality, a distinction TAM cannot adequately capture (Awuah et al., 2021). Social Exchange Theory (Blau, 1964) provides the most culturally

resonant explanation of compliance erosion. When controls imposed costs without reciprocal organizational benefits, employees rationally reduced compliance investment. Leadership demanding employee compliance while overriding controls themselves represented the most acute reciprocity violation, destroying the trust foundation on which voluntary compliance depended. Whistleblowing suppression through fear of retaliation further confirmed organizations' failure to reciprocate good-faith reporting with protection (Kaptein, 2011). The theory is most challenged by institutional theory's counter-prediction (DiMaggio & Powell, 1983): normative isomorphic pressures, legal mandates, audit requirements, OAG oversight, sustained formal control adoption even where reciprocity conditions were absent, indicating compliance motivations more institutionally complex than pure exchange dynamics capture. The empirical finding that internal control evaluation's fraud mitigation contribution was most powerfully amplified by organizational culture moderation ($\Delta R^2 = 0.18$) suggests that Social Exchange Theory and institutional theory together provide the most actionable framework. Closing the overconfidence gap requires cultural transformation through which compliance becomes intrinsically motivated rather than externally imposed, a shift that leadership must demonstrate through actions rather than rhetoric, as the persistent gap between zero-tolerance endorsement (3.96) and actual management support (2.79) most starkly illustrated.

5.3.3 Computer-assisted audit tools on mitigating occupational fraud

The partial CAATs adoption documented across county governments, was most starkly illustrated by the lowest training mean in the construct (county = 2.73; OAG = 3.49) and qualitative evidence of counties operating at *"70% manual"* despite formally reporting integration. Technology Acceptance Model (Davis, 1989) most directly explains why acknowledged CAATs benefits failed to translate into comprehensive adoption. Counties demonstrated strong perceived usefulness recognition across effectiveness dimensions yet systematically neglected perceived ease of use through inadequate training and insufficient workflow integration. TAM predicts that high perceived usefulness without corresponding ease of use produces intention-behavior gaps rather than genuine adoption (Venkatesh & Davis, 2000), precisely the pattern the data confirmed: respondents affirming CAATs' fraud detection value while simultaneously reporting training inadequacy, donor dependency, and manual process persistence. TAM is most challenged, however, by the finding that the OAG rated CAATs more favorably than counties rated themselves, inverting the standard self-assessment inflation pattern. This reversal suggests evaluator context shaped assessment standards independently of adoption quality, pointing to TAM's limitation in accounting for

institutional reference frame effects on technology evaluation. Social Exchange Theory (Blau, 1964) exposes the reciprocity failures underlying CAATs adoption resistance. Organizations demanding sophisticated technology proficiency without reciprocating through adequate training, technical support, or sustained leadership commitment violated the exchange norms on which voluntary skill development depended. Donor-dependent training arrangements particularly exemplified this reciprocity failure: auditors investing effort in learning complex tools while organizations failed to provide consistent support created inequitable exchange relationships that rational actors responded to with minimal rather than deep engagement (Cropanzano & Mitchell, 2005). Centrally imposed systems without meaningful user input further violated procedural justice norms, weakening exchange relationships independently of outcome quality. Social Exchange Theory is most challenged by institutional theory's counter-prediction (DiMaggio & Powell, 1983): the persistence of formal CAATs adoption reporting despite implementation inadequacy suggested that isomorphic pressures from oversight bodies sustained surface compliance even where reciprocity conditions were absent, indicating adoption motivations more institutionally complex than exchange dynamics alone capture. The empirical finding that CAATs attracted the smallest organizational culture moderation effect ($\Delta R^2 = 0.12$) across all four forensic auditing constructs is theoretically significant: it suggests that CAATs' algorithmic fraud detection functions retained meaningful effectiveness even in culturally weaker environments, unlike forensic interviews and fraud risk assessment whose effectiveness was most powerfully culturally conditioned. This finding partially supports TAM's technology-centric account over Social Exchange Theory's relational account as the primary explanatory framework for CAATs specifically, while simultaneously confirming that the training, accountability, and leadership commitment dimensions identified by Social Exchange Theory remained meaningful moderators of whether CAATs' technical potential was organizationally realized.

5.3.4 Forensic interviews on mitigating occupational fraud

The profound capacity deficit documented in forensic interview practices, counties rating training provision at 2.29 while explicitly acknowledging *"we do not have employees who are trained to carry out fraud investigations"* and depending on *"investigative agencies like EACC and DCI"* for specialist expertise. Social Exchange Theory (Blau, 1964) reveals the most fundamental reciprocity failures in the forensic interview context. Forensic interviewing imposed substantially greater personal risks than other audit functions, including legal liability exposure, confrontation with politically connected colleagues, and reputational

vulnerability, yet organizations failed to reciprocate through adequate training of internal personnel, clear protocols, legal protection frameworks, or career development pathways (Cropanzano & Mitchell, 2005). Outsourcing forensic interview functions to external agencies further signaled that investigation was organizationally peripheral rather than core, actively discouraging internal capacity investment and encouraging minimal rather than committed engagement. The qualitative evidence of ethical standards maintenance approaches ranging from "*mandatory pre-interview briefings*" and "*presence of a legal representative*" to "*informal ethical expectations*" illustrated the profound variability in organizational reciprocity across counties, with some institutions actively protecting interviewers and others leaving them procedurally exposed. Social Exchange Theory is most challenged by institutional theory's counter-prediction (DiMaggio & Powell, 1983): the persistence of strong forensic interview outcome endorsements despite broken reciprocity relationships suggested that professional identity norms among specialist forensic auditors sustained investigative commitment independently of organizational exchange conditions, consistent with Kaptein's (2011) finding that professional ethical cultures can maintain behavioral standards that organizational support structures insufficiently reinforce. The empirical finding that forensic interviews attracted the largest organizational culture moderation effect among all four forensic auditing constructs ($\Delta R^2 = 0.15$, second only to fraud risk assessment) directly validates Social Exchange Theory's relational account. The strong cultural moderation confirms that investigative interview outcomes were more powerfully shaped by the organizational reciprocity, trust, and accountability norms constituting organizational culture than by individual-level technology acceptance decisions. This finding implies that forensic interview capacity development strategies premised solely on training provision and protocol standardization, while necessary, will remain insufficient without simultaneous cultural transformation that reframes forensic investigation as organizationally valued, professionally protected, and institutionally reciprocated.

5.3.5 Occupational fraud mitigation

The occupational fraud mitigation landscape in Kenyan county governments, characterized by a construct mean of 3.46 in the broader survey and 3.73 among key informants, with forensic auditing's contribution to fraud reduction directly affirmed (survey mean = 4.00) alongside persistent weaknesses in response swiftness (3.02) and management support (2.79), is illuminated by four theoretical frameworks whose explanatory contributions converge on a common diagnostic conclusion while diverging on prescriptive implications. Fraud Hexagon Theory (Vousinas, 2019) provides the most structurally direct account of why mitigation

efforts remained partial despite acknowledged system availability. Internal audit units functioning as the primary detection mechanism addressed the opportunity, capability, and collusion components through routine financial, procurement, payroll and other key systems reviews, consistent with Gramling et al.'s (2004) positioning of effective internal audit as central to fraud detection in decentralized public systems. However, the documented weakness in employee fraud awareness (mean = 3.00) left the rationalization component inadequately addressed, while bureaucratic inertia and political interference in investigative processes preserved pressure conditions that formal detection mechanisms could not neutralize. The finding that corrective measures were *"notably less effective against frauds involving collusion or senior-level involvement"* aligns with the model's proposition that collusion-based fraud operates through collective rationalization and mutual opportunity creation that the fraud triangle framework's sequential individual conditions cannot adequately theorize (Zahra et al., 2007). Technology Acceptance Model (Davis, 1989) explains the divide between counties employing reactive measures and those adopting proactive structured strategies as reflecting differential technology acceptance maturity rather than merely resource availability. Counties describing *"increasingly leveraging sophisticated data analytics tools"* and *"strengthening e-governance systems"* demonstrated high perceived usefulness recognition translating into genuine adoption, while those acknowledging *"we act when an incident occurs"* reflected the reactive orientation TAM predicts when perceived ease of use barriers prevent proactive technology integration (Venkatesh & Davis, 2000). The finding that technological mitigation efforts were *"not always matched by consistent management support or sustained investment in staff training"* directly confirmed TAM's prediction that perceived usefulness without organizational ease-of-use facilitation produces adoption fragmentation rather than comprehensive implementation. TAM is most challenged by the moderate effectiveness rating for corrective actions (3.10) despite relatively strong technological infrastructure endorsements: if technology acceptance drove mitigation effectiveness, stronger CAATs and data analytics adoption should have generated proportionally stronger corrective action confidence, suggesting that downstream enforcement capacity operated as a binding constraint independent of upstream detection technology quality. Social Exchange Theory (Blau, 1964) most powerfully explains the uneven employee engagement with fraud mitigation mechanisms documented across both datasets. When organizations failed to reciprocate employees' fraud reporting efforts with protection, recognition, and consistent follow-through on reported concerns, the implicit exchange relationship underpinning voluntary fraud prevention participation break down

(Cropanzano & Mitchell, 2005). The qualitative evidence of whistleblower hotlines existing alongside irregular training and insufficient ethical awareness investment illustrated this reciprocity failure: detection infrastructure without corresponding organizational commitment to protecting and rewarding those who used it generated the surface compliance without genuine engagement that the neutral employee awareness rating (mean = 3.00) empirically confirmed. The encouraging finding of growing inter-agency collaboration represented Social Exchange Theory's most positive empirical signal: counties "*enhancing collaboration with DCI, EACC, and OAG*" effectively expanded the exchange network through which fraud prevention commitment was reciprocated, introducing external accountability relationships that internal organizational exchange failures had undermined. The empirical finding that organizational culture's direct effect on occupational fraud mitigation ($\beta = 0.3156$) ranked second only to forensic interviews among all predictors in the regression model most directly validates Social Exchange Theory's relational account: the cultural dimensions of ethical leadership, accountability norm enforcement, and transparent governance that constituted organizational culture in this study were precisely the institutional reciprocity conditions through which employee fraud prevention commitment was sustained or eroded. This finding implies that the systemic weaknesses in leadership commitment, training continuity, and enforcement capacity identified as constraining mitigation effectiveness were not merely resource problems amenable to budgetary solutions but cultural transformation challenges requiring sustained institutional reform that reframes fraud prevention as organizationally valued, individually protected, and collectively enforced rather than procedurally mandated and politically negotiated.

5.4 Conclusion

The findings across all four forensic auditing constructs reveal a consistent pattern: county governments in Kenya demonstrated meaningful awareness of fraud mitigation principles and genuine confidence in their forensic auditing capabilities, while external evaluations and operational evidence simultaneously exposed systemic gaps between policy intent and practical execution.

Fraud risk assessment findings revealed a systematic optimism bias most starkly illustrated by the 1.72-point discrepancy between county self-assessments and OAG evaluations on risk identification regularity. While convergence between the two respondent groups on fraud detection improvement and mitigation strategy development offered a foundation for standardization, inconsistent training provision and unverified self-assessments pointed to

structural vulnerabilities that unexamined confidence inadvertently deepened rather than resolved.

Internal control evaluation produced the most critical findings across the entire study, with respondents returning a construct mean fractionally below the neutral midpoint. The pervasive overestimation of foundational control effectiveness, particularly in segregation of duties, transaction authorization, and reconciliation practices, reflected an institutionalized illusion of control whereby policy presence was consistently mistaken for effective implementation. Variable leadership support and cultural resistance to controls as protective rather than punitive mechanisms emerged as the primary drivers of the execution gap.

CAATs findings presented a distinctively different pattern: unlike every other construct, the OAG rated county CAATs implementation more favorably than county self-assessments, suggesting early-stage technological integration where external evaluators assessed formal system presence while counties experienced practical deployment constraints. Strong consensus on CAATs' technical fraud detection value contrasted sharply with critically low training and accountability governance ratings, confirming that the binding constraint on CAATs effectiveness was organizational capacity rather than technological utility.

Forensic interview findings exposed the study's most striking institutional irrationality: the technique rated most valuable for fraud investigation contribution attracted the lowest training investment across the entire study. County dependence on EACC and DCI for specialist forensic interview expertise, combined with the absence of standardized protocols and inconsistent accountability mechanisms, produced a fragmented landscape where promising practices including cognitive interviewing and evidence-based questioning remained isolated to better-resourced counties rather than institutionalized across the system.

Occupational fraud mitigation findings confirmed forensic auditing's positive directional contribution to fraud reduction while documenting the structural constraints limiting its full realization. The persistent gap between senior management's rhetorical zero-tolerance commitment and substantive resource allocation, bureaucratic delays and political interference in investigative processes, and the divide between reactive and proactive mitigation orientations across counties collectively pointed to a system possessing adequate formal architecture but insufficient cultural and leadership infrastructure to operate it effectively. Organizational culture's emergence as the second strongest direct predictor of fraud mitigation outcomes across the regression model underscored that the constraints on forensic auditing effectiveness were fundamentally cultural rather than merely technical,

requiring sustained institutional reform oriented toward embedding accountability as an organizational value rather than a procedural compliance requirement.

5.5 Recommendations

5.5.1 Policy

The recommendation to develop county-specific fraud risk assessment frameworks beyond broad national directives directly emanates from the 1.72-point discrepancy between county self-assessments and OAG evaluations on fraud risk identification regularity, and the finding that formal framework adoption rated at 3.40 among county respondents with high variance ($SD = 1.09$), confirming that national directives were being unevenly interpreted and applied rather than consistently implemented across county governments.

The recommendation to reposition internal audit functions for independence addresses the qualitative finding that majority of counties positioned internal audit reporting to the Chief Officer Finance, a structural compromise of independence that the internal control construct mean of 2.99 among key informants and the 0.98-point gap on internal audit effectiveness assessments empirically confirmed was producing systematically inflated self-assessments uncorrected by genuinely independent oversight. The repositioning also aligns with the propositions of the new Global Internal Audit Standards' (GIAS) domain three (II) Principle 7 *Positioned Independently*.

The recommendation for professional bodies including ICPAK, IIA Kenya, PSASB, and ACFE-Kenyan Chapter to develop standardized county-specific forensic audit training programs directly responds to training provision recording the lowest means across three of the four forensic auditing constructs, fraud risk assessment (county = 3.15; OAG = 2.22), CAATs (county = 2.73), and forensic interviews (county = 2.29), with respondents explicitly acknowledging *"we do not have employees who are trained to carry out fraud investigations"* and *"training is donor-dependent."* The cross-construct consistency of this training deficit confirmed that fragmented professional development rather than construct-specific capacity gaps was the systemic problem requiring coordinated professional body intervention.

The recommendation to expedite the Public Audit Amendment Bill (2024) enabling the Auditor-General to institute forensic audits on own motion directly responds to the documented county forensic audit capacity deficit, counties depending on EACC and DCI for forensic interview expertise, CAATs deployment remaining at approximately 70% manual in some counties, and the key informant construct mean for internal control evaluation falling below the neutral midpoint, collectively confirming that county governments lacked the

institutional capacity to self-initiate forensic audits without external mandate and resource support.

5.5.2 Managerial recommendation

The recommendation to establish clear organizational response protocols for detected fraud directly addresses the swift response item rating of only 3.02 in the broader survey and the qualitative evidence of investigative processes stalling due to *"political influence and slow legal processes"*, confirming that detection mechanisms were operational but response infrastructure was inadequate to convert detection into timely corrective action.

The recommendation for robust whistleblower protection policies responds to the employee fraud awareness rating of 3.00, precisely neutral, alongside qualitative evidence that reporting channels existed but employee engagement with them remained inconsistent, suggesting that the absence of credible protection mechanisms suppressed utilization of formally available reporting infrastructure.

5.5.3 Areas of future Research

The recommendation for direct fraud incidence measurement responds to the study's acknowledged limitation of relying on perception-based data, most starkly evidenced by the systematic optimism bias across county self-assessments that OAG evaluations consistently contradicted, confirming that perceptual measures alone were insufficient to establish ground-truth fraud mitigation effectiveness.

The recommendation for deeper investigation of CAATs adoption responds to the finding that CAATs attracted the most anomalous pattern across all constructs, OAG rating counties more favorably than self-assessments, training provision critically low, yet technical effectiveness strongly endorsed, a combination of findings that existing adoption frameworks including TAM could not fully explain and that warranted dedicated longitudinal investigation of the organizational factors mediating the gap between CAATs acquisition and operational effectiveness.

The recommendation to develop quantitative measures of political interference or political risks responds to qualitative evidence consistently identifying political influence as a primary constraint on fraud investigation effectiveness, bureaucratic delays, management override, leadership inconsistency, that the study's quantitative instruments captured only indirectly through management support and response swiftness ratings rather than through dedicated measurement.

Longitudinal studies could track the evolution of fraud mitigation strategies over time, assessing their adaptability to changing risks (political, collusion) and technological

advancements. The potential of emerging technologies, such as artificial intelligence and cryptocurrencies, in enhancing fraud prevention and detection should be explored, alongside the relationship between organizational culture, ethical climate, and fraud incidence. Lastly, further research should explore the efficacy of specific forensic interviewing techniques in the Kenyan context, analyzing which methods yield the most accurate and reliable information in fraud investigations.

5.6 Limitation of the study

The study, while offering valuable insights into occupational fraud mitigation within Kenyan county governments, is not without its limitations. A primary concern is the reliance on self-reported quantitative data, which introduces the potential for bias as respondents may overstate the effectiveness of their practices to present a more favorable image. This is particularly evident in the discrepancies observed between county and Office of the Auditor General (OAG) assessments. Similarly, the interpretation of qualitative data, though providing crucial context, is inherently subjective and may be influenced by the selection of key informants and their willingness to provide candid responses. Furthermore, the study's focus on Kenyan county governments limits the generalizability of its findings to other contexts, as the specific political, economic, and cultural factors in Kenya may uniquely shape fraud mitigation practices.

The quantitative instruments employed, structured Likert-scale questionnaires analyzed through means, standard deviations, and regression coefficients, provided systematic measurement of respondents' perceptions across sampled county governments but necessarily collapsed wide institutional variation into aggregate statistics that obscured operationally significant heterogeneity. The internal control sufficiency item returning a standard deviation of 1.53 among key informants illustrated this limitation most acutely: a mean of 2.71 communicated average inadequacy while concealing that some counties maintained functional control environments while others experienced near-total control breakdown, a distinction invisible in aggregate means but critical for policy targeting. Similarly, regression coefficients assumed linear relationships of uniform magnitude across all county contexts, an assumption directly challenged by the profound institutional diversity that qualitative evidence documented but quantitative instruments could not capture. Most fundamentally, quantitative measures of perceived effectiveness cannot substitute for direct fraud incidence data in establishing whether forensic auditing techniques actually reduced fraud or merely generated respondent confidence that they did, a distinction rendered particularly

consequential by the systematic optimism bias documented across county self-assessments throughout the study.

Additionally, the potential for social desirability bias in both quantitative and qualitative responses cannot be ignored, particularly when addressing sensitive topics like political interference and management support. A notable limitation is the lack of direct fraud incidence data; relying primarily on perceptions and reported practices, rather than actual fraud statistics, limits the study's ability to provide a robust measure of mitigation effectiveness. The study's exploration of training deficiencies, while highlighting a critical weakness, lacks depth in evaluating the specifics of training programs, their content, and delivery methods. Similarly, the assessment of Computer-Assisted Audit Tools (CAATs) implementation may not fully capture the technical and organizational complexities influencing their adoption. Finally, while political interference is identified as a significant issue, the study's quantitative measures do not directly assess its impact, and the snapshot provided by the study may not reflect changes in legislation, technology, or organizational structures occurring after the study period.

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APPENDICES

Appendix I: A Letter of Introduction

Dear Respondent,

Ref: Response to Research Questionnaire

My name is Dan Omondi, and I am a master's student at Strathmore University's ,Strathmore Business School. I am conducting research on the efficacy of forensic auditing in reducing occupational fraud in Kenyan county governments. The study aims to streamline and simplify the technological, regulatory, and legal requirements for forensic audits in the broad public sector. Policymakers, investigators, academics, and government agencies will find the study useful.

The purpose of this questionnaire is to gather information about the efficiency of the forensic audit process in the Kenyan public sector. Your office within the county/OAG was carefully chosen since it will provide critical information to this academic study in order to answer its research questions. We humbly urge that you respond to the questions as prompted. This information will be used solely for academic purposes and kept strictly confidential, as stated in the introduction letter. If you have any questions, please contact me at dan.omondi@strathmore.edu or call 0716533358.

Thank you in advance.

Yours faithfully,



Dan Omondi

Appendix II: Questionnaire to County Internal Audit/Accounts Staff

Section A: Demographic Information

1. What is your designation?

- Accountant ☐ ☐
 Forensic auditor ☐ ☐
 Internal Auditor ☐ ☐
 Risk management officer ☐ ☐
 Other (Specify).....

2. How long have you been in service?

- Less than 1 year ☐ ☐
 1-3 years ☐ ☐
 4-6 years ☐ ☐
 7-10 years ☐ ☐
 Over 10 years ☐ ☐

3. Which department do you work in?

- Internal Audit ☐ ☐
 Accounts ☐ ☐
 Finance ☐ ☐
 Other (please specify)

4. What is your highest level of education?

- Diploma ☐ ☐
 Bachelor's Degree ☐ ☐
 Master's Degree ☐ ☐
 Doctorate ☐ ☐
 Other (please specify)

Section B: Fraud Risk Assessment

5. Please rate your level of affirmation or disapproval with the items provided hereunder in regard to fraud risk assessment, as practiced in the organization. Please utilize the range: “1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree and 5=Strongly agree”.

	1	2	3	4	5
Fraud risks are regularly identified in our department					
We have a systematic approach to assessing the likelihood of fraud risks					
The potential impact of identified fraud risks is thoroughly evaluated					
Mitigation strategies are developed for identified fraud risks					
Fraud risk assessments are conducted regularly					
Our department uses a fraud risk assessment framework					
We consider both internal and external fraud risks					
Employees are trained on fraud risk assessment					
Our fraud risk assessment process is effective in identifying potential fraud					
Fraud risk assessments have improved our fraud detection rates					
County senior management actively supports and allocates resources for regular fraud risk assessments.					
Ethical conduct is emphasized as a key component during fraud risk					

assessment activities.					
Employees are held accountable for contributing to the accuracy and completeness of fraud risk assessments.					

Section C: Internal Control Evaluation

6. Please rate your level of affirmation or disapproval with the items provided hereunder in regard to internal control evaluation, as practiced in the organization. Please utilize the range: “1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree and 5=Strongly agree”.

	1	2	3	4	5
Duties are well segregated to prevent fraud					
Proper authorization is required for all transactions					
Regular reconciliations are performed to detect discrepancies					
Internal controls are reviewed periodically					
There is a clear policy on internal controls					
Employees understand the importance of internal controls					
There is a mechanism to report breaches in internal controls					
Internal controls have helped in reducing fraud incidents					
We use internal audits to evaluate how effective our internal controls are within the county government.					
Internal controls are sufficient to mitigate fraud risks					
County senior management consistently supports the enforcement of internal control policies.					
Employees are encouraged to uphold ethical standards when implementing internal controls.					
Staff are held accountable for non-compliance with internal control procedures.					

Section D: Computer-Assisted Audit Tools

7. Please rate your level of affirmation or disapproval with the items provided hereunder in regard to Computer-Assisted Audit Tools, as practiced in the organization. Please utilize the range: “1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree and 5=Strongly agree”.

	1	2	3	4	5
Data analytics are used in our audit processes					
Computer-assisted audit tools (CAATs) are integrated into our audit process					
CAATs have improved our efficiency in detecting fraud					
We use CAATs to analyze large volumes of data					
CAATs help in identifying unusual patterns or transactions					
The use of CAATs is encouraged in our department					
Training is provided on the use of CAATs					
CAATs are effective in preventing fraud					
We regularly update our CAATs to enhance fraud detection					
CAATs have increased the accuracy of our audits					

County senior management actively supports the adoption and use of CAATs.					
Employees are encouraged to use CAATs ethically and responsibly in audit processes.					
Staff are held accountable for misuse or non-utilization of CAATs in audits.					

Section E: Forensic Interviews

8. Please rate your level of affirmation or disapproval with the items provided hereunder in regard to forensic interviews, as practiced in the organization. Please utilize the range: “1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree and 5=Strongly agree”.

	1	2	3	4	5
We use advanced interview techniques to gather information					
Forensic interviews are an integral part of our fraud investigation process					
Interviewers are skilled and knowledgeable in forensic interviewing					
Forensic interviews help in gathering critical evidence					
Training is provided on forensic interview techniques					
We follow a structured process for conducting forensic interviews					
Forensic interviews are effective in identifying fraudulent activities					
The information obtained from forensic interviews is reliable					
Forensic interviews contribute to successful fraud investigations					
Our department values the role of forensic interviews in fraud detection					
County senior management demonstrates support for conducting thorough and unbiased forensic interviews.					
Staff are expected to uphold ethical standards during forensic interviews.					
Interviewers are held accountable for adhering to protocols during forensic interviews.					

Section F: Occupational Fraud Mitigation

9. Please rate your level of affirmation or disapproval with the items provided hereunder in regard to occupational fraud mitigation, as practiced in the organization. Please utilize the range: “1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree and 5=Strongly agree”.

	1	2	3	4	5
Our response to fraud detection is swift					
Corrective actions are effective in mitigating detected fraud					
Fraud mitigation strategies are regularly updated					
Forensic auditing has reduced the overall incidence of fraud					
We measure the effectiveness of our fraud mitigation efforts					
Fraud mitigation is a high priority in our department					
Employees are aware of fraud mitigation strategies					
Fraud mitigation efforts are supported by senior management					

Our department continuously improves its fraud mitigation processes					
County senior management actively promotes a culture of zero tolerance for fraud.					
Employees are expected to act ethically and report any suspected fraudulent activity.					
Staff are held accountable for their role in supporting fraud mitigation efforts.					

Appendix III: Questionnaire to Auditors & Forensic Investigation Staff at The Office of the Auditor-General

Section A: Demographic Information

1. What is your designation?

- Accountant ☐
- Auditor ☐
- Forensic auditor ☐
- Forensic investigator ☐
- Risk management officer ☐
- Compliance officer ☐
- Other (Specify).....

2. How long have you been in service?

- Less than 1 year ☐
- 1-3 years ☐
- 4-6 years ☐
- 7-10 years ☐
- Over 10 years ☐

3. Which department do you work in?

- External Audit ☐
- Forensic Investigation ☐
- Compliance ☐
- Risk Management ☐
- Other (please specify)

4. What is your highest level of education?

- Diploma ☐
- Bachelor's Degree ☐
- Master's Degree ☐
- Doctorate ☐
- Other (please specify)

Section B: Fraud Risk Assessment

5. Please rate your level of affirmation or disapproval with the items provided hereunder in regard to fraud risk assessment, as practiced in the organization. Please utilize the range: “1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree and 5=Strongly agree”.

	1	2	3	4	5
County governments regularly identify fraud risks					
We have a systematic approach to assessing the likelihood of fraud risks in county governments					
The potential impact of identified fraud risks in county governments is thoroughly evaluated					
Mitigation strategies are developed for identified fraud risks in county governments					
Fraud risk assessments are conducted regularly in county governments					
Our department uses a fraud risk assessment framework for county governments					
We consider both internal and external fraud risks in county governments					
County government employees are trained on fraud risk assessment					
Our fraud risk assessment process is effective in identifying potential fraud in county governments					
Fraud risk assessments have improved our fraud detection rates in county governments					
Our fraud risk assessment process is effective in identifying potential fraud					
Fraud risk assessments have improved our fraud detection rates					
County senior management actively supports and allocates resources for regular fraud risk assessments.					
Ethical conduct is emphasized as a key component during fraud risk assessment activities in the counties.					
Employees are held accountable for contributing to the accuracy and completeness of fraud risk assessments in the counties.					

Section C: Internal Control Evaluation

6. Please rate your level of affirmation or disapproval with the items provided hereunder in regard to internal control evaluation, as practiced in the organization. Please utilize the range: “1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree and 5=Strongly agree”.

	1	2	3	4	5
Duties are well segregated in county governments to prevent fraud					
Proper authorization is required for all transactions in county governments					
Regular reconciliations are performed to detect discrepancies in county governments					
Internal controls are reviewed periodically in county governments					
There is a clear policy for internal controls in county governments					
County government employees understand the importance of internal					

controls					
There is a mechanism to report breaches in internal controls in county governments					
Internal controls have helped in reducing fraud incidents in county governments					
We use internal audits to assess the effectiveness of internal controls in county governments					
Internal controls are sufficient to mitigate fraud risks in county governments					
County senior management consistently supports the enforcement of internal control policies.					
Employees are encouraged to uphold ethical standards when implementing internal controls in the counties.					
Staff are held accountable for non-compliance with internal control procedures in the counties.					

Section D: Computer-Assisted Audit Tools

7. Please rate your level of affirmation or disapproval with the items provided hereunder in regard to Computer-Assisted Audit Tools, as practiced in the organization. Please utilize the range: “1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree and 5=Strongly agree”.

	1	2	3	4	5
Data analytics are used in our audit processes for county governments					
Computer-assisted audit tools (CAATs) are integrated into our audit process for county governments					
CAATs have improved our efficiency in detecting fraud in county governments					
We use CAATs to analyze large volumes of data from county governments					
CAATs help in identifying unusual patterns or transactions in county governments					
The use of CAATs is encouraged in our department for auditing county governments					
Training is provided on the use of CAATs for county government audits					
CAATs are effective in preventing fraud in county governments					
We regularly update our CAATs to enhance fraud detection in county governments					
CAATs have increased the accuracy of our audits of county governments					
County leadership actively supports the adoption and use of CAATs.					
Employees are encouraged to use CAATs ethically and responsibly in audit processes.					
Staff are held accountable for misuse or non-utilization of CAATs in audits.					

Section E: Forensic Interviews

8. Please rate your level of affirmation or disapproval with the items provided hereunder in regard to forensic interviews, as practiced in the organization. Please utilize the range: “1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree and 5=Strongly agree”.

	1	2	3	4	5
We use advanced interview techniques to gather information from county government officials					
Forensic interviews are an integral part of our fraud investigation process in county governments					
Interviewers are skilled and knowledgeable in forensic interviewing within county government audits					
Forensic interviews help in gathering critical evidence from county government officials					
Training is provided on forensic interview techniques for county government audits					
We follow a structured process for conducting forensic interviews in county governments					
Forensic interviews are effective in identifying fraudulent activities in county governments					
The information obtained from forensic interviews is reliable in county government audits					
Forensic interviews contribute to successful fraud investigations in county governments					
Our department values the role of forensic interviews in fraud detection in county governments					
County senior management demonstrates support for conducting thorough and unbiased forensic interviews.					
Staff are expected to uphold ethical standards during forensic interviews in the counties.					
Interviewers are held accountable for adhering to protocols during forensic interviews in the counties.					

Section F: Occupational Fraud Mitigation

9. Please rate your level of affirmation or disapproval with the items provided hereunder in regard to occupational fraud mitigation, as practiced in the organization. Please utilize the range: “1=Strongly disagree, 2=Disagree, 3=Neutral, 4=Agree and 5=Strongly agree”.

	1	2	3	4	5
Our response to fraud detection in county governments is swift					
Corrective actions are effective in mitigating detected fraud in county governments					
Fraud mitigation strategies for county governments are regularly updated					
Forensic auditing has reduced the overall incidence of fraud in county governments					
We measure the effectiveness of our fraud mitigation efforts for					

county governments					
Fraud mitigation in county governments is a high priority in our department					
Employees are aware of fraud mitigation strategies for county governments					
Fraud mitigation efforts for county governments are supported by senior management					
Our department continuously improves its county government fraud mitigation processes					
County senior management actively promotes a culture of zero tolerance for fraud.					
Employees are expected to act ethically and report any suspected fraudulent activity in the counties.					
Staff are held accountable for their role in supporting fraud mitigation efforts in the counties.					

Appendix IV: Key Informant Interview Guides for County Executive Committee members in charge of Finance, Chairpersons of County Audit Committees

Section A: Background Information

1. Can you please describe your current role and responsibilities with regard to forensic auditing?
2. How long have you been in your current position?
3. How is the finance and audit function structured within your county?

Section B: Fraud Risk Assessment

4. How does your county government identify potential fraud risks?
5. What methods or tools are used to assess these risks?
6. How are the identified fraud risks evaluated in terms of their potential impact?
7. What strategies or measures are in place to mitigate these risks?
8. How often is a fraud risk assessment conducted in your county government?
9. Is there a specific framework or guideline that your county follows for fraud risk assessment?
10. How does management in your department support or influence the process of fraud risk assessment?
11. To what extent does the organizational culture encourage staff to report or assess fraud risks honestly and ethically?
12. Are there any consequences or rewards for staff who do (or do not) participate effectively

in fraud risk assessment processes? Can you give examples?

Section C: Internal Control Evaluation

13. How are responsibilities and duties segregated to prevent fraud?
14. What specific control activities are in place to ensure proper authorization and approval of transactions?
15. How are reconciliations and reviews conducted to detect discrepancies?
16. How is the effectiveness of internal controls monitored in your county government?
17. What mechanisms are in place for reporting breaches in internal controls?
18. How would you describe the ethical culture in your department with regard to enforcing internal controls?
19. In what ways does county leadership support the development and evaluation of internal controls?
20. Can you describe how breaches in internal control are handled, and whether staff are consistently held accountable?

Section D: Use of CAATs

21. To what extent does your county government use Computer-Assisted Audit Tools (CAATs)?
22. How have CAATs improved the efficiency and effectiveness of your audit processes?
23. How are data analytics used in your county government to detect fraud?
24. Can you provide examples of how data analytics have helped identify unusual patterns or transactions?
25. What kind of training is provided to audit staff on the use of CAATs and data analytics?
26. How does your county ensure that these tools and techniques are kept up to date?
27. To what extent does your county government management support the integration and use of computer-assisted audit tools (CAATs) in detecting and preventing fraud?
28. How would you describe the ethical expectations within your department regarding the responsible use of technology like CAATs in auditing?
29. Are there accountability measures in place to ensure that staff use CAATs effectively and appropriately in audit activities?

Section E: Forensic Interviews

30. How does your county government conduct forensic interviews during fraud investigations?
31. What techniques are used to gather reliable information from interviewees?
32. Are there any specific training programs for staff conducting forensic interviews?
33. How are interviewers trained to handle sensitive or difficult situations during interviews?
34. How effective are forensic interviews in identifying fraudulent activities in your county government?
35. How does your department ensure ethical standards are upheld during forensic interviews?
36. What kind of support does your management provide to facilitate effective forensic interviewing?
37. What mechanisms are in place to ensure interviewers follow proper procedures during fraud investigations?

Section F: Occupational Fraud Mitigation

38. How does your county government detect and respond to fraud cases?
39. Can you describe the process from detection to the implementation of corrective actions?
40. How effective are the current fraud mitigation strategies in your county government?
41. What improvements, if any, are being planned or implemented to enhance fraud mitigation?
42. What are the main challenges faced by your county government in mitigating occupational fraud, and how are these challenges being addressed?
43. How does county leadership demonstrate support for fraud mitigation initiatives within your department?
44. Can you describe the ethical expectations placed on employees when it comes to identifying and reporting fraud?
45. What systems are in place to ensure individuals are held accountable for their role in preventing or addressing fraud?

Appendix V: PARTICIPANTS INFORMED CONSENT

Efficacy of Forensic Auditing in Mitigating Occupational Fraud Among Kenyan County Governments

SECTION 1: INFORMATION SHEET

Investigator: Dan Odhiambo Omondi

Institutional affiliation: Strathmore Business School (SBS)

SECTION 2: INFORMATION SHEET–THE STUDY

2.1 Why is this study being carried out?

The examination of the efficacy of forensic auditing in combating occupational fraud cases in County Governments presents numerous avenues for future research. Forensic auditing, when applied to the public sector, has been recognized as a crucial tool in the fight against occupational fraud. This area has garnered increased research attention, particularly in Africa, aiming to expand the field's knowledge base and inform policy development as governments intensify their efforts to combat occupational fraud, with a specific focus on corruption.

2.2 Do I have to take part?

No. Taking part in this study is entirely optional and the decision rests only with you. If you decide to take part, you will be asked to complete a questionnaire OR participate in a key informant interview to get information on Efficacy of Forensic Auditing in Mitigating Occupational Fraud Among Kenyan County Governments. If you are not able to answer all the questions successfully the first time, you may be asked to sit through another informational session after which you may be asked to answer the questions a second time. You are free to decline to take part in this study at any time without giving any reasons.

2.3 Who is eligible to take part in this study?

- County Executive Committee Member- Finance
- Chairpersons of County Audit Committee
- County Accountants/Finance Officers
- County Internal Auditors/Risk officers
- External Auditors (OAG)
- Forensic auditors (OAG)

2.4 Who is not eligible to take part in this study?

Any other individual who is not listed above.

2.5 What will be taking part in this study involve for me?

You will be approached by one of our research assistants/lead researcher and requested to take part in the study. If you are satisfied that you fully understand the goals behind this study, you will be asked to sign the informed consent form (this form) and then taken through a questionnaire/interview questions to complete/provide response to.

2.6 Are there any risks or dangers in taking part in this study?

There are no risks in taking part in this study. All the information you provide will be treated as confidential and will not be used in any way without your express permission.

2.7 Are there any benefits of taking part in this study?

The results of this investigation will be useful in pinpointing areas where Kenya's county administrations can reduce fraud using forensic auditing tools. It will also aid the County executives, County assemblies, County audit Committees and those in charge of internal forensic audits in County Governments by providing an avenue to rationalize the implementation of investigative internal audits.

2.1 What will happen to me if I refuse to take part in this study?

Participation in this study is entirely voluntary. Even if you decide to take part at first but later change your mind, you are free to withdraw at any time without explanation.

2.2 Who will have access to my information during this research?

All research records will be stored in securely locked cabinets. That information may be transcribed

2.3 Who can I contact in case I have further questions?

If you want to ask someone independent anything about this research, please contact:

I, Dr. J. S. K. R. S., have had the study explained to me. I have understood all that I have read and have had explained to me and had my questions answered satisfactorily. I understand that I can change my mind at any stage.

Please tick the boxes that apply to you:

Participation in the research study

I AGREE to take part in this research

I DON'T AGREE to take part in this research

Storage of information on the completed questionnaire

I AGREE to have my completed questionnaire stored for future data analysis

☐ I DON'T AGREE to have my completed questionnaire stored for future data analysis

Participant's Signature:

Date: / /

DD / MM / YEAR

Participant's Name:

(Please print name)

Time: ____/____

 HR / MN

I, Dan Odhiambo Omondi certify that I have followed the SOP for this study and have explained the study information to the study participant named above, and that s/he has understood the nature and the purpose of the study and consents to the participation in the study. S/he has been given opportunity to ask questions which have been answered satisfactorily.

Investigator's Signature: _____

Date: 15/03 /2025

DD / MM / YEAR

Investigator's Name:

Dan Odhiambo Omondi

Dan Odhiambo Omondi

Time: ____/____

(Please print name)

HR / MN

Appendix VI: List of County Governments in the sample

No.	County Name	Region
1	Nairobi	Nairobi
2	Mombasa	Coast
3	Kisumu	Nyanza
4	Nakuru	Rift Valley
5	Lamu	Coast
6	Uasin Gishu	Rift Valley
7	Machakos	Eastern
8	Kakamega	Western
9	Bungoma	Western
10	Meru	Central
11	Kilifi	Coast
12	Nyeri	Central
13	Kisii	South Nyanza
14	Kitui	Eastern
15	Turkana	Rift Valley
16	Mandera	North Eastern
17	Garissa	North Eastern
18	Isiolo	North Eastern
19	Laikipia	Central
20	Taita Taveta	Coast
21	Narok	Rift Valley
22	Bomet	Rift Valley
23	Migori	South Nyanza
24	Homa Bay	South Nyanza
25	Tharaka Nithi	Eastern
26	Elgeyo Marakwet	Rift Valley
27	Embu	Eastern
28	Kericho	Rift Valley
29	West Pokot	Rift Valley
30	Vihiga	Western

Source: GOK (2024)

Appendix VII: LETTER OF ETHICAL APPROVAL TO CONDUCT RESEARCH



4th March 2025

Mr Omondi Dan,
dan.omonodi@strathmore.edu

Dear Mr Omondi,

RE: Efficacy of Forensic Auditing in Mitigating Occupational Fraud among Kenyan County Governments

This is to inform you that SU-ISERC has reviewed and approved your above SU-masters proposal. Your application reference number is SU-ISERC/2722/25. The approval period is from 4th March 2025 to 3rd March 2026.

This approval is subject to compliance with the following requirements:

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

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

Yours sincerely,

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

Mr Ambrose Rachler,
Chairperson, SU-ISERC

Appendix VIII: PERMISSION TO CONDUCT RESEARCH FROM NACOSTI

 REPUBLIC OF KENYA	 NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
Ref No: 937558	Date of Issue: 11/March/2025
RESEARCH LICENSE	
	
This is to Certify that Mr.. Dan Odhiambo Omondi of Strathmore University, has been licensed to conduct research as per the provision of the Science, Technology and Innovation Act, 2013 (Rev.2014) in Bomet, Bungoma, Elgeyo-Marakwet, Embu, Garissa, Homabay, Isiolo, Kakamega, Kericho, Kilifi, Kisii, Kisumu, Kitui, Laikipia, Lamu, Machakos, Mandera, Meru, Migori, Mombasa, Nairobi, Nakuru, Narok, Nyeri, Taita-Taveta, Tharaka-Nithi, Turkana, Uasin-Gishu, Vihiga, Westpokot on the topic: EFFICACY OF FORENSIC AUDITING IN/MITIGATING OCCUPATIONAL FRAUD AMONG KENYAN COUNTY GOVERNMENTS for the period ending : 11/March/2026.	
License No: NACOSTI/P/25/416792	
937558	
Applicant Identification Number	Director General 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 XV: Summary of some of the common Audit Issues as highlighted by the OAG relating to the general population.

No.	County	Common Audit Issues	Examples of Issues Highlighted
1	Nairobi	Unsupported expenditures, irregular procurement practices	Ksh 20.9 billion unaccounted (2023 report)
2	Mombasa	Mismanagement of funds, incomplete projects	Pending bills without proper documentation
3	Kisumu	Unaccounted for allocations, improper payroll management	Ghost workers in payroll
4	Nakuru	Pending bills, delayed project completions	Incomplete infrastructural projects
5	Kiambu	Procurement irregularities, over-expenditures	Inflated contract values
6	Kakamega	Unsupported expenditures, incomplete projects	Unverified Ksh 2 billion expenditure
7	Machakos	Lack of documentation, delayed payments	Issues in county health facilities
8	Nyeri	Overpayments, pending bills	Inflated operational costs
9	Uasin Gishu	Procurement fraud, misappropriation of bursary funds	Suspected fraud in bursary distribution
10	Kisii	Unaccounted for funds, irregular tenders	Ksh 800 million discrepancies in accounts
11	Meru	Inadequate internal controls, improper land transactions	Fraudulent land transactions uncovered
12	Murang'a	Irregular hiring practices, unsupported expenditures	Ghost workers identified
13	Homa Bay	Incomplete health projects, unsupported claims	Health facilities without equipment
14	Bungoma	Poor accountability, inflated project costs	Inflated costs of market projects
15	Turkana	Missing documents, misuse of emergency funds	Mismanagement of drought relief funds
16	Mandera	Poor record-keeping, irregular procurement	Unverified travel allowances
17	Wajir	Ghost projects, incomplete infrastructural projects	Over Ksh 500 million mismanaged
18	Garissa	Procurement irregularities, unsupported expenditures	Fraud in water projects
19	Kilifi	Incomplete education projects, irregular spending	Uncompleted classrooms
20	Kwale	Under-utilization of development funds, pending bills	Delayed completion of water projects
21	Baringo	Poor accountability, missing funds	Questionable allocation of bursaries
22	Elgeyo Marakwet	Incomplete projects, misuse of funds	Road projects delayed or not completed

No.	County	Common Audit Issues	Examples of Issues Highlighted
23	Kericho	Improper procurement practices, unapproved expenditures	Over Ksh 300 million unaccounted
24	Narok	Poor accountability, misuse of public funds	Mishandling of funds in Maasai Mara park management
25	Kitui	Uncompleted projects, irregular procurement	Delayed road and water projects
26	Embu	Inconsistent project reporting, missing records	Poor record-keeping in agriculture projects
27	Laikipia	Mismanagement of funds, unsupported transactions	Fraud in land compensation cases
28	Nyandarua	Procurement irregularities, unsupported expenses	Inflated expenses on machinery hire
29	Kirinyaga	Mismanagement of funds, unapproved expenditures	Financial irregularities in healthcare projects
30	Vihiga	Unapproved expenditures, poor accountability	Over Ksh 150 million unaccounted
31	Taita Taveta	Incomplete projects, lack of proper oversight	Delayed water infrastructure
32	Kajiado	Poor financial reporting, unapproved expenditures	Ghost projects in infrastructure
33	Marsabit	Poor financial controls, unsupported claims	Inflated travel expense claims
34	Isiolo	Missing funds, irregular procurement	Fraudulent allocation of emergency funds
35	Samburu	Incomplete projects, unsupported expenditures	Missing accountability for water project funds
36	Lamu	Under-utilization of development funds, missing records	Delayed development in fisheries sector
37	Tana River	Ghost projects, misuse of development funds	Fraudulent allocation in irrigation projects
38	Tharaka Nithi	Mismanagement of public funds, irregular hiring	Issues in county bursary allocation
39	Migori	Unapproved expenditures, ghost projects	Mishandling of funds in health services
40	Siaya	Poor project management, unsupported expenditures	Questionable allocation of Ksh 50 million
41	Busia	Unaccounted for expenditures, improper procurement	Missing records for health sector funds
42	Nandi	Poor accountability, incomplete projects	Issues in road construction projects
43	Trans Nzoia	Delayed projects, irregular payments	Unaccounted advances to contractors
44	West Pokot	Poor financial controls, incomplete projects	Health facility upgrades delayed

No.	County	Common Audit Issues	Examples of Issues Highlighted
45	Nyamira	Unaccounted expenditures, procurement irregularities	Financial discrepancies in health and education sectors
46	Bomet	Incomplete projects, poor record-keeping	Mismanagement of agriculture project funds
47	Samburu	Irregular procurement, unsupported expenditures	Issues in wildlife conservation projects

Appendix XV: Key studies and research gaps

Overview of the previous studies, deficiencies in research, and how the current investigation filled those gaps:

Author	Title	Findings	Research Gap and how the current study will fill the gap
Ng'ang'a (2015)	“The impact of forensic accounting services on preventing fraud in Kenyan insurance companies. The primary goal of the investigation was estimate the extent to which forensic accounting services—operationalized as investigation services and litigation support—relate to fraud prevention in Kenyan insurers. Fraud prevention is proxied by the frequency of fraud red-flags observed.	Model is significant (ANOVA $F=3.845$, $p=.030$), but Adjusted $R^2 \approx .122$ (modest explanatory power). Direction of effects is negative—more forensic work $\leftrightarrow$ fewer red-flags—consistent with the proxy used	Only investigation and litigation support are modeled, omitting proactive pillars often utilized, for instance, in the public sector, fraud risk assessment, continuous monitoring/CAATs, data analytics, therefore construct validity is limited. (The paper itself notes literature pointing to proactive application but does not operationalize it.)
Magetto (2023)	Effect Forensic Accounting Services on the Accuracy of Kenyan Public Sector Organizations' Financial Statements	The study established that forensic accounting techniques, computer-assisted reviews, and fraud deterrence skills significantly enhance financial statement integrity. Whereas weaknesses remain in capacity and awareness—especially around computer-assisted reviews.	Narrow institutional scope-focuses on a few large state corporations, leaving out county governments and smaller entities that may have different fraud typologies and control structures. The study uses cross-sectional design that captures only a snapshot and thus cannot establish causality between forensic services and improved statement integrity. Contextual gap. Counties face unique oversight ecosystems (OAG audits, county assemblies, Controller of Budget, EACC) and political influences, not addressed in the parastatal sample

Mouamer et al. (2020)	The effect of occupational fraud prevention and detection tools on preventing and reducing risk of fraud at the Gaza Strip's MOH.	A positive perception among respondents regarding the application of fraud detection and prevention tools and a high level of interest in these tools during MOH's operations.	A contextual gap was presented by the investigation, as it is set in the health sector of Gaza Strip, Palestine, while the current study was centered on Kenyan county governments, indicating potential issues in generalizability.
Adebayo et al. (2022)	Effects of fraud risk prevention strategies on lowering fraud in Nigeria's petroleum and natural gas industry	Whereas computer forensics had a negative but notable impact on fraud decrease, fraud mitigation strategies like control procedures, information disclosure, fraud training, awareness and fraud intervention greatly and favorably affected theft decrease.	The investigation focused on the oil and gas sector, creating a contextual gap as its findings might not be generalizable to Kenyan county governments. The current investigation focused on county governments in Kenya
Kimani (2015)	The contribution of forensic accounting services to the decrease of corporate crime in NSE-listed companies.	Effective internal controls play a crucial role in reducing corporate crime among enterprises listed on the NSE, demonstrating both a positive and significant impact.	Generalizability gaps remained with the study's focus on NSE listed companies, which were contextually different from county governments which was the focus of the current study.
Abdinasir, (2017).	The Effect of Forensic Audit Services on Kenyan Commercial Bank Fraud Detection	Forensic audit services (litigation support, investigation services) have a negative correlation with fraud frequency implying that more forensic activity is associated with fewer fraud red-flags. Additionally, study established that regression model shows investigation services reduce fraud by $\beta = -0.795$, litigation support reduces fraud by $\beta = -0.650$.	Sector-limited scope. Study is confined to commercial banks, leaving out other high-fraud sectors (public sector, counties, state corporations). Proxy issues. Fraud detection measured as frequency of red flags ,a proxy prone to bias, as increased forensic vigilance may raise red-flag reports even if actual fraud declines
Mosoti et al. (2022)	Effects of forensic investigation and auditing methods on DTMs' financial results in Kenya.	Forensic auditing and investigation techniques significantly reduced fraud incidents, positively influencing financial performance	A conceptual gap was identified, as the study focused on financial performance while the current study emphasized fraud mitigation; and a contextual gap, given the focus on DTMs rather than county governments, indicating that the findings could not be generalizable

			to the present context, hence the current study.
Araka (2023)	The role of forensic accounting in strengthening measures against money laundering within Kenyan county governments, with a specific emphasis on counties in the western region of the country	The use of forensic accounting techniques can enhance county governments' ability to detect and comprehend money laundering activities in Kenya. Additionally, it recommended that both national and local governments establish regulations to support the field of forensic accounting	Araka's study focused on money laundering, whereas the present research examined occupational fraud, indicating a conceptual gap. Additionally, because the prior study used a descriptive research approach, there was a methodological gap, while the current study utilized a mixed-methods approach. These distinctions underscored the necessity for further investigation.
Shakeel et al. (2023)	The impact of ICS elements on the identification of fraud in the workplace, with an emphasis on the audit committee's moderation function in this interaction.	Audit committee significantly and positively moderates the connection between occupational fraud detection and ICS components	Given that it is based on Pakistani enterprises, the study exposes a gap in context, while the current study concentrated on county governments in Kenya, suggesting that the findings could not be generalizable to the latter context, hence the current study.
Bhat (2023)	The function of systems of internal control in reducing inappropriate behavior and fraud amongst SMEs in Nigeria's Enugu metropolitan	Internal safeguards that are customized to meet the unique needs of SMEs are actively developed and put into place, and those that regularly update and sustain these procedures see a notable decrease in theft and improper behavior incidents.	Generalizability gaps remained with the study's focus on SMEs, which were contextually different from county governments which was the focus of the current study
Ong'are and Njeru (2022)	Assessing the efficiency of internal control mechanisms in Kenyan government departments	Findings highlighted segregation of duties as a significant factor contributing to internal control effectiveness at the Kenya Pipeline Company.	Conceptually, the study did not explicitly address fraud mitigation despite its relevance in internal control discussions; and contextually, the focus on government parastatals differed from the current study that emphasized on county governments, potentially limiting the generalizability of findings. Thus, there remained a need for research that explicitly examined fraud mitigation within internal control frameworks across various public sector entities in Kenya, including county governments, thus the present study

Pedrosa and Costa (2012)	Extraction and analysis of data from a LMS platform, specifically within the context of Information technologies were used in a master's program auditing course.	Using CAATs like IDEA facilitated easy and comprehensive data analysis and reporting, enhancing understanding and efficiency in the educational setting	The study presented two pertinent gaps warranting the current study. These included the study's lack of focus on the effectiveness of CAAT in fraud mitigation, and in the county government context.
Adeyanju and Adenikinju (2023)	The effect of CAATs on Nigerian DMB identification of fraud	Findings indicated a There is a strong and favorable correlation between the effectiveness of fraud detection and the CAAT components, suggesting that CAATs play a crucial role in enhancing fraud detection capabilities within Nigerian DMBs.	A contextual gap existed with the study's focus on Nigerian DMBs, which operate differently from county governments in Kenya, warranting further research to address this gap and optimize the application of CAATs seeking more efficient methods of detecting and preventing fraud. The current study thus focused on county governments in Kenya
Gaturu and Ngahu (2015)	An automated audit system's effect on accounting operations at the WRMA headquarters in Nairobi, Kenya	The integration of internal controls and computer-assisted auditing techniques significantly enhanced WRMA's financial oversight processes.	A conceptual gap existed in the study's linkage of CAAT to financial management, which was conceptually different from fraud mitigation, which was the focus of the present study. Contextually, while the findings contributed insights specific to WRMA, that could not be generalized to county governments, warranting the current study.
Nandini and Ajay (2021)	The role of forensic accounting in Indian corporate fraud investigation and prevention	Forensic audits significantly reduced the number of fraud cases and fraudulent activities involving staff. Additionally, forensic auditors were found to bolster the independence of external auditors, increase management responsibility, and support audit committees in their oversight duties	Conceptual gaps existed in understanding how such specific mechanisms as forensic interviews, through which forensic audits influenced fraud mitigation, hence the current study. Contextually, the findings were specific to corporate settings and might not be fully generalized to other organizational forms such as county governments.
Gatabi (2022)	The effect that forensic accounting methods have on secondary educational institutions in Kenya's Embu County's efforts to reduce fraud	A strong correlation exists between fraud mitigation and forensic accounting techniques	The study focused on educational institutions, whereas the current research emphasized on forensic auditing in Kenyan county governments, and its broader application to other sectors was not explored, hence the current study