# FORENSIC ACCOUNTING PRACTICES, INTERNAL CONTROL MECHANISM AND FRAUD DETECTION AMONG SELECTED COUNTY GOVERNMENTS IN KENYA

 $\mathbf{BY}$ 

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# A RESEARCH PROJECT SUBMITTED TO SCHOOL OF BUSINESS AND ECONOMICS IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTERS OF BUSINESS ADMINISTRATION IN FORENSIC ACCOUNTING

#### **MOI UNIVERSITY**

# **DECLARATION**

# **Declaration by candidate**

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## **DEDICATION**

I dedicate this research project to my dear husband, daughter, parents, and siblings for their love, understanding, encouragement and support while conducting this study and throughout the course.

#### **ACKNOWLEDGEMENT**

I am very grateful to the Almighty God for giving me strength and the gift of life to go through this demanding but rewarding exercise. The completion of this research project was realized through the will of God and the contribution and support of many people who whole heartedly supported me. Special thanks go to my supervisors, Dr. Naomi Koske and Dr. Patrick Limo who patiently and selflessly guided me throughout the entire process and assisted me with some very relevant guidance that helped kick start the project. I also owe much gratitude to my fellow students that contributed or supported this study in one way or another.

I further appreciate Moi University for giving me the opportunity to pursue my course work and conduct my research.

May God bless you all.

#### **ABSTRACT**

County governments are operating without systematic fraud prevention programs or fail to review their programs on a regular basis, despite the high prevalence of reported cases of county governments' fraud. Therefore, the general objective of this study was to examine the moderating role of internal control mechanisms on the relationship between forensic accounting practices and fraud detection. The specific objectives were to establish the effect of forensic accounting practices (investigative practice, prevention practice, examination practice and litigation practice) on fraud detection and the moderating effect of internal control mechanisms on the relationship between forensic accounting practices and fraud detection. The main theories underpinning the study were the fraud triangle and the internal control theory. An explanatory research design was used in this study. The target population comprises accountants, forensic accountants, and auditor's North and South Rift to 336. The researcher obtained a sample size of 179 respondents. The study used proportionate stratified sampling to select respondents. The study collected primary data using a questionnaire. Descriptive statistics were used in data analysis to describe the basic features of the respondents and data collected, while inferential statistics were correlation and multiple regressions. The study results showed that investigative practice has a positive and significant effect on fraud detection ( $\beta^1$ =0.262, p<0.05). The preventive practice has a positive and significant effect on fraud detection  $(\beta^2=0.173, p<0.05)$ . Examination practice has a positive and significant effect on fraud detection ( $\beta_3$ =.238, p<0.05). Litigation practice has a positive and significant effect on fraud detection ( $\beta_4$ =0.170, p<0.05). The R<sup>2</sup> is 0.652, which is statistically significant at p<0.001. This means that 65.2% of the variation in fraud detection is explained by the four independent variables (litigation, prevention, examination, and investigative). The R<sup>2</sup> change of internal control mechanism moderating the four variables (litigation, prevention, examination, and investigative) is 0.011, which is statistically significant at (p<0.05). The R<sup>2</sup> change of internal control mechanism moderating the effect of investigative practice on fraud detection is 0.074, which is statistically significant at (p<0.001). The R<sup>2</sup> change of internal control mechanism moderating the effect of investigative and preventative practice on fraud detection is 0. 001, which is statistically significant at (p<0.05). The R<sup>2</sup> change of internal control mechanism moderating the effect of investigative, preventative and examination practices on fraud detection is 0. 043, which is statistically significant at (p<0.001). The R<sup>2</sup> change of internal control mechanism moderating the effect of investigative, preventative, examination and litigation practices on fraud detection is 0.008, which is statistically significant at (p<0.05). The study concluded that investigative, preventive, examination and litigation practices significantly affected fraud detection. Internal control mechanisms had a significant moderating effect on the relationship between investigative practice, preventive practice, examination practice, litigation practice and fraud detection. The study recommends that the county government should impose the use of forensic accounting and auditing to deter corruption in all sectors of the economy.

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#### **OPERATIONAL DEFINITION OF TERMS**

**Examination practice:** Examination skills in forensic accounting employ auditing proficiency in inspecting and scrutinizing irregularities in reports, audits, and transactions to ensure that all activities, proceeds, and transactions are accounted for. Complex reports of organizations require the exclusive skills of competent forensic accounting (Kranacher & Riley, 2019).

**Forensic Accounting practices**: A methodical application of relevant techniques of advanced accounting practices with the addition of investigative skills that are critical in investigative litigations for such cases as fraud (Dada, Owolabi & Okwu, 2013).

**Fraud detection:** is a set of activities undertaken to prevent property from being obtained through false pretenses (Jans, Van Der Werf, Lybaert & Vanhoof, 2011).

**Fraud:** Fraud is an opportunistic misconduct in which an individual abuse their privilege of authorized access and oversight (Gottschalk, 2018).

Investigative practice: investigation practice is the gathering and analysis of all crime-related physical evidence in order to come to a conclusion about a suspect (Whiting, 2013). Investigators looked at blood, fluid, or fingerprints, residue, hard drives, computers, or other technology to establish how a crime took place (Narayana & Ariyanto, 2020).

Litigation practice: Is the utilization of accounting, auditing and investigative skills by forensic accountants when conducting an investigation and also our ability to respond immediately and to communicate financial information clearly and concisely in a courtroom setting (Demezhanova, Kaudyrov & Demidova, 2019).

Internal control mechanism: Is an accounting procedure or system designed to promote efficiency or assure the implementation of a policy or safeguard assets or avoid fraud and error (Mwangi & Muturi, 2018).

#### **ACRONYMS**

**ACECA:** Anti-corruption and economic crimes Act

**ACFE** Associated of Certified Fraud Examiners

**COSO:** Committee of Sponsoring Organizations

**D.C.I:** Director of Criminal Investigation

**D.P.P:** Director of Public Prosecution

**EACC:** Ethics and Anti-Corruption Commission

ICPAK: Institute of Certified Public Accountants of Kenya

**LICUS:** Low Income under stress.

**O.D.P.P**: Office Director of Public Prosecution

**POCAMLA:** Proceeds of Crime and anti-money laundering Regulation

**PwC**: Price Water House Coopers

#### **CHAPTER ONE**

#### INTRODUCTION

#### 1.0 Introduction

This chapter presents the; background of the study, statement of the problem, study objectives, research hypotheses, significance of the study and finally the scope of the study.

#### 1.1 Background of the Study

Fraud has become a global menace threatening the survival of organizations, governments, nations and the business communities. Fraud is ubiquitous and universal. Any organization is prone to fraud Ruankaew (2013) and no nation is immune, although developing countries and their various states suffer the most pains (Okoye & Gbegi, 2013). No organization or institution is exempt from the attack of fraudsters. Therefore, countries have come up with fraud detection mechanism with aim of reducing the rate of fraud.

Fraud detection involves monitoring the behavior of an individual in order to estimate, detect, or avoid undesirable behavior. This includes fraud, intrusion, and account defaulting (Abdallah, Maarof & Zainal, 2016). Fraud detection include checking of cashiers, call-over, reconciliation and balancing of accounts at all the branches, inter-department reconciliation at head office levels, periodic submission of statement of accounts, stock-taking of security items and cash in the vaults and routine inspection at all branches (Badejo, Okuneye & Taiwo, 2018). In addition, reporting systems, installation of close circuit television/cameras, verification of signatures, control of dormant accounts, teleguiding lifestyle, as well as coding and decoding of telex messages are veritable tools of fraud detection. However, it is

disheartening that in spite of all these measures, fraud within the public institutions has continued to be on the increase (Gbegi & Adebisi, 2015). Due to the dramatic increase of fraud which results in loss of billions of dollars worldwide each year; several modern techniques in detecting fraud are continually evolved and applied to many business fields.

The expansion of modern technology and global communication has led to increase in fraud resulting in substantial losses to the businesses hence the need for fraud detection techniques (Shiller, 2015). Therefore, fraud detection is an important issue to be explored. With fraud detection in places the institutions can identify fraud as quickly as possible once it has been perpetrated. This has enhanced development of fraud detection methods in order to defend criminals in adapting to their strategies. The development of new fraud detection methods is made more difficult due to the severe limitation of the exchange of ideas in fraud detection (Dunning & Friedman, 2014). These developments in fraud detection are data mining, statistics, and artificial intelligence (Ahmad, Lavin, Purdy & Agha, 2017).

Therefore, with fraud detection techniques put in place, an organization can maximize correct predictions and maintain incorrect predictions at an acceptable level (ElMoaqet, Tilbury & Ramachandran, 2016). A high correct diagnostic probability can be implied by minimizing probability of undetected fraud and false alarms. In a fraud detection system, it is important to detect performance carefully. Several fraud detection techniques use metrics like the detection rate, false alarm rate, and average time of detection. The typical fraud detection techniques attempt to maximize accuracy rate and minimize false alarm rate (Elhag, Fernández, Bawakid, Alshomrani & Herrera, 2015).

Sarker, (2020) defined forensic accounting as the application of accounting concepts and techniques to legal problems. It demands reporting, where accountability of the fraud is established and the report is considered as evidence in the court of law or in administrative proceedings. The forensic accountants draw conclusions, calculate values and identify irregular patterns or suspicious transactions by critically analyzing the financial data. It provides an accounting analysis to the court for dispute resolution in certain cases and it also provides the courts with explanation the fraud that has been committed (Ozili, 2020). This is the reason why forensic accounting may play a vital role in detecting and reducing accounting frauds in the government institutions and as he says Hossain (2020), quality influences greater efficiency, higher productivity and high-quality goods and services. It means that less time is actually spent reworking and correcting mistakes that were committed earlier due to carelessness or negligence.

Globally, fraud detection is an important element in minimizing fraud occurrence. A survey conducted across 125 countries from 2016 to 2017 globally revealed that due to inadequate fraud detection in governmental institutions over 7 billion dollars were lost due fraud (ACFE, 2018). According to Wedeman (2017) Asia-Pacific region has leading cases in terms of number of incidents and in median loss of assets and money, with China emerging at the top of other countries in the region in fraud due to lack of well-established fraud detection practices in the region (Hao & Johnston, 2017).

In Indonesia and Philippines employees engage in 30 % of the occupational fraud cases reported, while employers commit 26% of the cases due to lack of effective fraud detection techniques (Chabra, Menon, Postolovska, Smith, Tandon & Ulep, 2018). Therefore, due to lack of effective fraud detection mechanisms in these

countries there is increase in funds mismanagement and corruptions, covering over 50% of fraudulent cases occurring.

Canada is not spared the brunt of fraud either (Verschoor, 2014). Similar to other countries across the world, Canada experience corruption as the leading form of fraud at a percentage of 40% despite the present of fraud detection mechanism. According to ACFE (2018) report in US, employers and owners commit 18 % of occupational fraud cases, but account for a staggering loss of 76 % of the total median loss to fraud. On the other hand, employees commit approximately 48 % of all fraud cases, but account for 6 % of median losses to fraud. This is due to ineffective fraud detection mechanism. Healy and Palepu (2012) noted that the failure of forensic accounting to detect fraud in these two countries is referred to as the biggest audit failure in history.

Further according to ACFE (2018) due to ineffective fraud detection mechanism the North Africa region suffers more than twice the amount of fraud losses suffered in the Sub-Saharan area in a ratio of 200, 000: 90, 000 US dollars respectfully. According to a report by Transparency International (2013), out of 177 countries, Nigeria was ranked 33rd most corrupt country in the world. Due to ineffective fraud detection Nigerian public sector is characterized by sharp practices such as the inclusion of ghost (non-existing) workers on the payroll of ministries, extra-ministerial departments and parastatals, embezzlements and setting on fire offices housing sensitive documents (Onuorah & Appah, 2012). The huge amount of money that is lost through fraud and financial malpractices in the Nigerian public sector drains the nation's resources with far-reaching negative consequences on growth and development (Bello, 2010).

Kenya has its own fair share of fraud incidences. The catastrophic and staggering widespread fraud in Kenya is alarming due to absence of effective fraud detection mechanism. The rate of fraud in Kenya, which stands at approximately 75% as of 2017 has been rated as above the regional rates in Africa (62%), and even way higher than in other countries around the world (49%) according to the report in the Kenya Global Economic Crime Survey (Price Water Coopers Global Economic Crime Survey, 2018). This is an increase from the reported 61% in the year of 2016. Its implication has the potential to destabilize the economy, cripple down financial and banking institutions, sabotage government operations, disrupt tax funded development projects, and reduce public trust in the governance by public servants, among others.

Ineffective internal control systems in the country have reduce their crucial role of detecting fraud. This is because non-existence and ineffectiveness of internal controls facilitate increase fraud occurrence due low fraud detection (MicroSave, 2007). Effectiveness of internal controls can identify, assessed and managed risk by implementing a strong system of fraud detection. This implies that internal control systems play a positive role in the growth, profitability and sustainability of any institution (Njagi, 2009; Kiprop, 2010). Therefore, for county governments in Kenya to enhance growth, profitability and sustainability, that is, to actually achieves their mission, and minimizes the risk of loss or failure in the process of conducting business there is need for strong internal control systems.

Without proper controls, fraudsters will exploit the numerous weaknesses to commit fraud and therefore, the county government has to address fraud risk in a robust manner so that the internal control structure is effective. It is critically imperative to therefore carry out research and provide empirical information on fraud detection, in efforts of restoring diminishing public trust concerning accountability in county government (Opiyo, 2017). Therefore, this study sought to examine the moderating effect of internal control mechanism on the relationship between forensic accounting practices and Fraud detection.

#### 1.2 Statement of the Problem

Ideally, the core objective of fraud detection is to discover concealed patterns of fraudulent activities in order to expose them and come up with recovery strategies to mitigate possible losses. Therefore, a fraud detection program can improve the chances of discovering the crime and reduces losses of public funds. However, despite high prevalence of reported cases of county governments' fraud and the high costs of fraud, county governments are operating without systematic fraud detection programs, or fail to review their programs on a regular basis hence leading to ineffective fraud detection. Therefore, in most county government, fraud is identified only after it occurs. Measures are then implemented to prevent it from happening again.

Kenya has been rated to be the leader in occupation fraud at 66% which is perceived to be twice the global mean which stands at 34% in Government organizations (Mahinda, 2012). Many county governments have been forced to cover fraudulent situations for fear of damaging their reputation which has made it difficult to investigate, detect and prevent occurrence of fraud (Omondi, 2013). Despite the government spending on training public accountants in the area of forensic accounting, many county governments have not been proactive in sealing loopholes on revenue pilferage. These has led to poor economy, weak public infrastructures characterized by poor roads, hospitals and other social amenities; increased cost of living and high taxations and lack of public trust (Verschoor, 2014). Therefore, this

study sought to examine the moderating effect of internal control mechanism on the relationship between forensic accounting practices and fraud detection.

#### 1.3 Study Objectives

The objectives of this study were grouped into general objective and specific objectives.

#### 1.3.1 General Objective

The general objective of the study was to examine the effect of forensic accounting practices on fraud detection and the moderating effect of internal control mechanism on the relationship between forensic accounting practices and fraud detection.

#### 1.3.2 Specific Objectives

The study was guided by the following objectives;

- To determine the effect of investigative practice on fraud detection among selected counties in Kenya
- To assess the effect of prevention practice on fraud detection among selected counties in Kenya
- 3. To analyze the effect of examination practice on fraud detection among selected counties in Kenya
- 4. To evaluate the effect of litigation practice on fraud detection among selected counties in Kenya
- 5<sub>a</sub>. To evaluate the moderating effect of internal control mechanism on the relationship between investigative practice and fraud detection among selected counties in Kenya

- 5<sub>b</sub>. To evaluate the moderating effect of internal control mechanism on the relationship between prevention practice and Fraud detection among selected counties in Kenya
- 5c. To evaluate the moderating effect of internal control mechanism on the relationship between examination practice and Fraud detection among selected counties in Kenya
- 5<sub>d</sub>. To evaluate the moderating effect of internal control mechanism on the relationship between litigation practice and Fraud detection among selected counties in Kenya

#### 1.4 Research Hypotheses

The study sought to yield comprehensive answers to these research hypotheses:

- **H**<sub>01</sub>. Investigative practice has no significant effect on Fraud detection among selected counties in Kenya
- **H**<sub>02</sub>. Preventive practice has no significant effect on Fraud detection among selected counties in Kenya
- $\mathbf{H}_{03}$ . Examination practice has no significant effect on Fraud detection among selected counties in Kenya
- **H**<sub>04</sub>. Litigation practice has no significant effect on Fraud detection among selected counties in Kenya
- $H_{05a}$ . Internal control mechanism has no significant moderating effect on the relationship between investigative practice and Fraud detection among selected counties in Kenya
- **H**<sub>05b</sub>. Internal control mechanism has no significant moderating effect on the relationship between preventive practice and Fraud detection among selected counties in Kenya

**H**<sub>05c</sub>. Internal control mechanism has no significant moderating effect on the relationship between examination practice and Fraud detection among selected counties in Kenya

**H**<sub>05d</sub>. Internal control mechanism has no significant moderating effect on the relationship between litigation practice and Fraud detection among selected counties in Kenya

#### 1.5 Significance of the Study

This study aimed at investigating the moderating effect of internal control mechanism on the relationship between forensic accounting practices and fraud detection. This study is beneficial to the county governments in republic of Kenya being the main user of the rules and processes of the fraud detection. The study findings, conclusion and recommendation would help the county governments to understand how internal control mechanism can moderate forensic accounting practices and fraud detection. This would assist them to apply internal mechanism which can improve fraud detection in their counties. It might also help in minimizing the constant focus on transparency and visibility of all the operations in the county governments.

This would also provide a feedback to the government about the effectiveness of the moderating effect of internal control mechanism on the relationship between forensic accounting practices and fraud detection in fighting for the public interest in government business and the problems faced in enhancing financial discipline in government financial systems. It is practically hoped that the study would provide an understanding to the public of the nature of the financial malpractices in the financial process and its resultant impact on the delivering of services to the general population.

Forensic accountants and policy makers will also benefit from this study in that it might consolidate whatever comes out of the research to formulate policies and procedures that might enhance the transparency in the administration of fraud detection. The study is important to future researchers since it would be a source of secondary data for their research and would also help them in identifying the research gaps they need to fill. This would help deepen the empirical research in forensic accounting practices and fraud detection.

County governments of the Republic of Kenya will also benefit by minimizing the constant focus on transparency and visibility of all the operations in the county governments. It will provide feedback to the government about the effectiveness of the moderating effect of internal controls on the relationship between Forensic Accounting Practices and Fraud Detection.

The study will also stimulate and encourage further research and inquiry on ways in which the internal control mechanism and forensic accounting practices can be implemented in order to enhance fraud detection so that Government funds and resources can be efficiently and effectively used.

#### 1.6 Scope of the Study

The study sought to examine the moderating effect of internal control mechanism on the relationship between forensic accounting practices and fraud detection. The independent variable was operationalized into four practices of forensic accounting in which fraud is countered and/or mitigated. These practices work in definitively different ways depending on the phase the fraud in question is in. The independent variable was broken into a) investigative practice; b) prevention practice: c)

examination practices; d) litigation practice. The moderator was internal control mechanism

The study was conducted among selected counties in rift valley Kenya (Uasin Gishu, Nandi, Trans Nzoia, Turkana, West Pokot, Samburu, Elgeyo Marakwet, Baringo, Laikipia, Nakuru, Kericho, Bomet, Narok and Kajiado). The study was done from July 2019 to December 2019. The projected timeframe was to provide realistic and ample time to communicate, sought consent, get feedback and finally collect sufficient data from the relevant sources. This study adopted explanatory design and the target population comprised of accountants, forensic accountants and auditor's North and South Rift to who are 336.

#### **CHAPTER TWO**

#### LITERATURE REVIEW

#### 2.0 Overview

This chapter contains a review of the literature of the key concepts of the study and empirical work on forensic accounting, internal control mechanism and Fraud detection. The chapter structures this in the following sub-chapters; concept of Fraud detection, concept of forensic accounting practices, concept of internal control mechanism, theoretical framework, empirical debate, moderating role of internal control mechanism, Conceptual gaps in the literature review and conceptual framework.

#### 2.1 Concept of Fraud Detection

Fraud detection are the core underpinning configurations that facilitate efforts to prevent fraud from occurring (Atağan & Kavak, 2017; Ozili, 2015). Namely, they include proactive fraud auditing and robust internal control. Proactive mechanisms entail implementing auditing with the prime aim of deterring fraud from being conducted. Among the tasks is to ensure that the organization is compliant to all mandatory regulations established for codified laws as well as for accounting (Mishra & Singh, 2017). This is systemically conducted so as to capture the information within the whole organizational. Personnel evaluation and assessment is conducted to ascertain that adherence to the policies and procedures are maintained. Check and balances within the managerial level are in line with the internal controls systems. Verification of whether the controls are functional and effective is ascertained as well through compliance testing (Akani & Ogbeide, 2017). This ensures that the auditing mechanism in place presents valid and reliable information on the current state of an organization's finances and transactions.

Following, Enofe *et al.*, (2015) and Simeunovic, Grubor and Ristic (2016) conceptualization of fraud detection as the application of internal control mechanism as means of fraud risk management to identify, counter and halt any duplicitous transactional activities, this study adopts a definition of fraud detection as the use of risk management tool against fraudulent financial schemes through the use of forensic accounting skills in various applications such as in detective and investigative work of auditing.

This can be described as a methodical application of relevant techniques of advanced accounting with investigative skills, for the purpose of gathering financial information in a manner that can be utilized in investigative litigations (Gbegi, & Adebisi, 2014). As such the standard of practice is rigid enough to ensure it is admissible in a litigate procedure to support case if such a need arises. Efficacious and relevant forensic accounting skills are thus a vital element in preventing, detecting, examining and litigating fraud. However, this can only be as sustainable and effective only if robust supportive internal control mechanism is in place. Scholarly work definitively shows that forensic accounting practices has been demonstratively effective in reducing fraud in corporations (Wahinya, 2015). In the public sector, there have been mixed results of the effectiveness of forensic auditing due to the culture of self-enriching powerful cartels that control the public sector (Akani & Ogbeide, 2017).

Fraud detection and graft in Kenya has been making impressive progress with some actionable deeds in the current administration of 2017-2022 (Nation Media Group, August 19 2018). In pursuit of the big four agenda presented by the administration, arose the necessity to also deal with graft and corruption, which is so entrenched and rampant that it would be momentous to accomplish. The empowering of oversight

bodies has however been accompanied with impediments of the status-quo. For instance, though the ethics and anti-corruption commission (EACC) possesses the prerogative to seize graft proceeds, it is limited in executing asset recovery, in the efforts of complying to the legal mandate from the crime and anti-money laundering Act of 2009 (Global Legal Monitor, 2017). In display of the solemnity to fight fraud and related crimes in government, the president in 2017 signed the codification of the amendment of Crime and Anti Money Laundering Act as articulated in the Global Legal Monitor report of 2017. In this amendment, the relevant oversight bodies are thus empowered to trace, freeze and retrieve transmitted proceeds. In this light, the visibility and indispensability of forensic auditing and accounting cannot be discounted in its significant involvement and role to facilitate the agenda of mitigating and fighting fraud inter alia. The very specialized and diverse skills and techniques involved of specialized accounting, auditing, investigative forensic accounting work, appraisal, tax, in delivering the aforementioned service are apropos and germane (Atağan & Kavak, 2017).

The complexity of fraud has been exacerbated by prolific growth and use of automated systems of procurement and transactions. This now ventures into the realm of cyber-crime. The exponential growth of information computer technology (ICT) in the continent and in Kenya in particular, has increased the vulnerability of losses of assets and proceeds which can be siphoned virtually and in remoteness (Ndalila, 2016). In other words, there is increase of sophistication, expanse, speed and anonymity of potential fraud crime. The paradigm of fraud and graft is increasingly finding ways to reinvent its multiplicity through the unseen realm of digital world. Apparently, investigative regulatory bodies have been lagging behind the curve in terms of proficiency, skills and competency with archaic methodologies of fighting

fraud (Wahinya, 2015). Typically, this undermines the efforts of Fraud detection. This underscores the need to implement forensic accounting practices and internal control mechanism in mitigating fraud.

#### 2.2 Concept of Forensic Accounting Practices

Forensic accounting practices is a methodical application of relevant techniques of advanced accounting practices with the addition of investigative skills that are critical in investigative litigations for such cases as fraud (Gbegi, & Adebis, 2014).

#### 2.2.1 Investigative Practice

Forensic accounting is distinctly different from conventional accounting due to the critical skill of carrying out investigative work. Application of forensic accounting in investigative work entails the use of analytical work, inquisitive exploration, meticulous examination, tracking footprints of transactions and preservation of evidence (Bhasin, 2016; Simeunović, et al., 2016). It is worth noting that in an investigation, it is prudent to establish how to halt further loss of funds, data or other assets. This may entail closing of bank accounts, locking emails, intercepting communications, among others. Physical documents in this category may include a wide variety of records, such as purchase orders, invoices, customer orders, and delivery records, among others. Every step of the transaction cycles involved in the scheme under investigation should be considered at this stage to identify all potentially relevant documents (Ng'ang'a, 2015).

Forensic accounting skills can be applied to a wide variety of investigations into alleged corporate and individual wrongdoing such as financial reporting fraud, money laundering, bribery and corruption etcetera. An important part of an investigation is establishing whether the act was intentional as argued by Shah (2018). Forensic

accountants are tasked with establishing the loophole in an internal control that may have facilitated the infraction thereof, for instance collusion in the management precluding independent check and balances. For instance, in the event of procurement investigation, a paper copy of a vendor invoice can be analyzed to establish whether all the relevant stakeholders as well as the appropriate accredited independent parties signed it or initialed it. This can be verified by ensuring proper documentation and record-keeping are legitimately maintained and intact, without any variations among them. This is simultaneously verified with delivery and receipt of vendor items that match the record (ACFE, 2016). The investigator can thus determine with accuracy the date and time of the approval of the invoice.

#### 2.2.2 Prevention Practice

Prevention practice in forensic accounting is applied as a risk management tool that incentivizes compliances for following regulation for financial integrity through anticipated drawbacks of getting caught (Simeunović, Grubor, & Ristić, 2016). This is a means of aversion with implication of negative implications and consequences that outweigh any benefits. Individuals with an opportunity, inclination and capacity to commit fraud are averted by systemic measures in place. As such, the key word in prevention is proactive measures. Forensic auditors have the expertise to analyze and commend policies and procedures necessary in a given situation to prevent fraud. The proficiency comes from the niche specific training and certification that uniquely makes them eligible to formulate control systems and execute them deterrence (Smith, 2015).

The Internal Control Integrated Framework also referred to as the COSO Model asserts that there are essential elements in internal control that assist with deterrence

measures. The COSO model was established by the Committee of Sponsoring Organizations whose mission is to counter corporate fraud (Lawson, Muriel, & Sanders, 2017). The particular elements found in this model specifically counter the element of "opportunity", a pillar found in the fraud triangle, to minimize the chances of fraud occurring.

The elements that form the internal control integrated framework include: a) control environment. This is the atmosphere of operation which is constructed by protocols, regulations and standard guidelines that directs the leadership and administration of an organization. It entails of inter alia integrity, ethical values, accountability and transparency, veracity, commitment to development that the leadership embraces in the mission and visions of running an organization; b) risk assessment. This is a proactive mode rather than reactive strategy of pinpointing barriers that would hinder an organization in its mission.

It aligns well with deterrent measures in detecting any given variable from within or without that would sabotage an entity (Lawson, Muriel, & Sander, 2017; Simeunović, et al., 2016; Ozilli, 2015); c) control activities. This involves proactive protocols and control procedures that are specifically geared towards countering fraud and any possible "opportunity" thereof (Mishra & Singh, 2018). It entails identifying loopholes and vulnerabilities that need to be controlled adequately and addressed accordingly. Control activities are multipronged albeit specific in their target and comprise of among others separation of duties; sufficient archiving and documentation; accountability in authorization of transactions and activities; physical control over assets and records and independent or third-party checks and balances; d)

information and communication. This is dissemination of information and appropriate feedback from decision making to implementation.

This ought to be properly monitored for accuracy and timeliness in an atmosphere that promotes fairness, transparency and accountability (Smith, 2015); e) monitoring. In internal control this is a necessary element of evaluations of human resources and systems through continuous quality control conducted periodically. As it related to fraud, it involves assessments that focus of prevention and identifying of irregular or fraudulent activities (Mukoro *et al.*, 2013 must ensure that all control processes are performed as designed and approved. Monitoring process checks for compliance with current standards, as Ozilli (2015) avers, while also ensuring that any authorized personnel are not tilting the systems for their own gain, or using loopholes to create "opportunity" for fraud. Taking the proactive measure of monitoring eliminates gaps in the systems, thus preventing or deterring fraud.

#### 2.2.3 Examination Practice

Examination skills in forensic accounting employ auditing proficiency in inspecting and scrutinizing irregularities in reports, audits, and transactions to ensure that all activities, proceeds, and transactions are accounted for. Complex reports of organizations require the exclusive skills of competent forensic accounting (Bhasin, 2016; Simeunović, *et al.*, 2016).

In particular, a properly executed fraud examination can address a number of organizational objectives, including: Identifying improper conduct, identifying the persons responsible for improper conduct, freezing fraudulent transactions and mitigation of negative implication such as financial loss, eliminating gaps and loopholes that would inadvertently serve as catalyst to fraud (Shah, 2018). In addition,

in some instances, a fraud examination might be required by law in performing due diligence in a reported case or from an alert raised by a whistle blower (Smith, 2015). For example, a government ministry or parastatal owes an obligation to the public of examination measures through an audit, when suspicions of fraud arise (Mishra & Singh, 2017).

The value of a fraud examination rests on the credibility of the evidence obtained. Evidence of fraud usually takes the form of documents or statements by witnesses; therefore, fraud examiners must know how to properly and legally obtain documentary evidence and witness statements (Atağan& Kavak, 2017). Upon discovery of veritable evidence of potential fraud, the fraud auditor or forensic accountant is obligated to disclose findings to the designated authorities. This is necessary to ensure legitimate course of action is undertaken per the provisions in the statutory and internal control mechanism of a given jurisdiction.

The results of an examination can be communicated in various ways. The appropriate method of communication will depend on the facts at issue, and in a manner that is acceptable for cross examination in a litigation process (Akani, & Ogbeide, 2017). When communicating the results of a fraud examination, the fraud examiner is responsible for providing clear, accurate, and unbiased reports reflecting the fraud examination results. This is critical in ensuring a report holds water in any avenue of presentation.

#### 2.2.4 Litigation Practice

Forensic accounting is utilized in litigation proceeds in presenting relevant evidence through reports and audits. It further provides much needed expert knowledge to the bench. This can serve as a critical element to convict or acquit a case depending on the weight of evidence a financial report contains in a given case (Wahinya, 2015). The professional accounting skills can serve as a pillar or supporting structure in matters involving potential or actual civil or criminal cases. A key defining factor of forensic accounting that sets it apart from regular accounting is its unique element of providing litigation support (Albrecht, *et al.*, 2018).

Litigation support takes into cognizance the interpretation and representation of problems that are connected to helping current or imminent litigation (Bassey & Ahonkhai, 2017). In this aspect of knowledge, the forensic accountant might be told to attach a supposed value for the loss caused by those involved in the legal conflict and also asked to help in providing solution to conflicts even before they go to court. Due to the knowledge of forensic accountants, they are usually intended to be proficient consultants and expert witness.

In the event of fraud examinations, forensic accounting is executed with the high probability of litigation. As such, forensic accountants are trained with the necessary skills of conduct auditing that are up to par for litigation. For this purpose, a forensic accountant is versatile in any number of ways to ensure that they are sufficiently competent to perform assigned work tactically. Litigation could for a number of issues such as breach of compliance, bankruptcies, insolvencies, and occupational fraud investigations, among others (Ezejiofor, Nwakoby, & Okoye, 2016).

While auditors are often experts in accounting and auditing it is not reasonable to assume the team are also highly skilled experts in fraud auditing, forensic accounting, or even litigation when the time comes for further action (Kranacher & Riley, 2019). Many cases of fraud have the capability to go undetected for years if the proper controls are not in place, and so it is likely the team of auditors are not commonly

dealing with fraud in their working lives beyond the creation of controls and preventative measures (Boritz, Kochetova-Kozloski & Robinson, 2015).

#### 2.3 Concept of Internal Control Mechanism

According to the Association of Certified Fraud Examiners (ACFE, 2016), internal control mechanism can be defined as mechanism, formulated by an entity's management, board of directors or any other personnel to provide adequate justification with regard to the attainment of the objectives in the operation's effectiveness and efficiency, compliance of applicable laws and regulations and reliability of financial reporting. The term internal control can also be defined as a process effected by the organization's work and authority flows, structure, people, management information systems and people tailored to enable the organization to attain its specific objectives (Shah, 2018). Without proper internal control mechanism, fraudsters will exploit the numerous weaknesses to commit fraud and therefore, the organization has to address fraud risk in a robust manner so that the internal control structure is effective. Robust internal controls ensure that the credibility of an organization is elevated by demonstrative institutionalization of internal control mechanism that acts as proactive measures against any misappropriations.

The internal control mechanism entails the constructs and legal models which give provision, directives and authority for forensic accounting practices within which the concepts of fraud and Fraud detection can be dealt with (Global Legal Monitor, 2017). The internal control mechanism will ensure compliance with laws and regulations and accurate and timely financial reporting and data collection, as well as helping to maintain operational efficiency by identifying problems and correcting

lapses before they are discovered in an external audit. Internal audits play a critical role in a company's operations and corporate governance (Sarbanes-Oxley Act 2002) has made managers legally responsible for the accuracy of its financial statements.

The internal control mechanism in Fraud detection has been supported by the provisions of several Acts as well as the establishment of statutory and regulating entities. This has facilitated new regulations and legislations to ensure accountability, transparency and veracity in financial reporting in public companies (National Council for Law Reporting, Public Act Audit, 2015). While internal controls can be expensive, properly implemented internal controls can help streamline operations and increase operational efficiency, in addition to preventing fraud.

Internal control mechanism for the purposes of this research is operationalized into factors that are core essentials to the functioning of fraud detection. These factors can be benchmarked and quantified to establish their strength, adequacy and effectiveness as part of what constitutes the internal control mechanism as a moderating variable (Nyarku & Oduro, 2018). This entails control activities such as authorization, documentation, reconciliation, security and the separation of duties. The activities can be divided into preventative and detective activities. Preventive control activities aim to deter errors or fraud from happening in the first place and include thorough documentation and authorization practices. And the separation of duties ensures that no single individual is in a position to authorize, record, and be in custody of a financial transaction and the resulting asset. Authorization of invoices and verification of expenses are internal controls. In addition, preventative internal controls include limiting physical access to equipment, inventory, cash and other assets.

#### 2.4 Theoretical Framework

The theoretical debate for the purposes of this study focused on elucidating Fraud detection and forensic accounting. This utilized two theories: fraud triangle theory and internal controls theory.

# 2.4.1 Fraud Triangle Theory

As cited in Huber (2017) the principal individuals behind the fraud triangle model are Edwin Sutherland and Donald Cressey (1994). The two scholars were criminal researchers who explicated the "differential association" theory on the motivation or reasons for people to commit a crime. The constructs of the fraud triangle theory illuminate the components that facilitate, as well as act as catalyst to the occurrence of fraud. According to scholarly expertise of Albrecht *et al.* (2010) there are three factors that are core essentials prior to the occurrence. This includes misconstrued opportunity, convinced validation, and the implication of hypothetical pressure. This is summarized in figure 2.1 below:

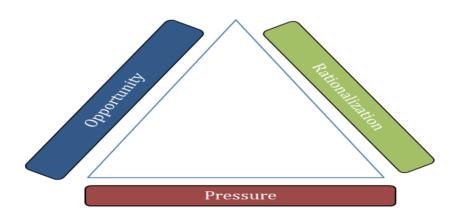


Figure. 2.1 Fraud Triangle.

Source: (Lockanan, 2018)

1. From Figure 2.1 above, **pressure.** Most individuals require some form of pressure to commit a criminal act. This pressure does not need to necessarily

make sense to outside observers, but it does need to be present. Pressures can include money problems, gambling debts, alcohol or drug addiction, overwhelming medical bills. Greed can also become a pressure, but it usually needs to be associated with injustice. "The company has not been paying me what I am really worth," for instance.

- 2. **Opportunity.** An opportunity to commit the act must be present. In the case of fraud, usually a temporary situation arises where there is a chance to commit the act without a high chance of being caught. Companies that are not actively working to prevent fraud can present repeated opportunities to individuals who meet all three criteria of the fraud triangle like currently the compliance frameworks under pressure due to Covid-19
- 3. **Rationalization.** The mindset of a person about to commit an unethical act is one of rationalization. The individual manages to justify what he or she is about to do. Some may think they are just going to borrow the stolen goods, or that they need the money more than the "big" company they are stealing from.

These serve as the three components of the model of fraud triangle. It is observed that the three elements dynamically influence each other. When the opportunity is plenty, an individual may not have much validation to make for the intent of the act (Albrecht *et al.*, 2010). However, the act may occur illogically making it difficult to explicate the doing. For instance, in spite of stringent measures and mechanisms in place in a given organization, which curtail perceived opportunity, an individual may take major risks and manage to carry it out. Conversely, an individual may restrain from the act when ironically the measures are lackadaisical (Rae & Subramaniam, 2008).

Nonetheless, policy makers can better comprehend the weak links by applying concerted efforts of analyzing the three elements uniquely present in a given organization in the public sector.

Noteworthy of mentioning is the significance of individual self-restraint based on personal convictions and moral bearings. This ultimately is the major determinant of fraud and supersedes any logical explanation of the occurrence (Simeunović *et al.*, 2016). This is the main precursor to any form justification conjured to go through with fraudulent engagements. If an individual's moral conduct is questionable then there is an increased chance of engaging in fraud when the three elements are present (Wahinya, 2015). In light of this, it would be prudent to have extensive comprehensive background checks on individuals who have authorized access and oversight to public assets and procurement authorization, in addition to regular auditing and evaluation of their work. It is worth nothing that the fraud triangle, also known as compromise model has over time been used to explicate conditions that facilitate or catalyze fraud infractions in any given circumstance (Mishra & Singh, 2018).

Fraud Triangle Theory was utilized to explain detection practice which county government can adopt. By applying the theory in establishing monitoring systems in the county that tracks and traces personnel activity, it would discourage employees from committing a crime in which they can be easily be caught (Simeunović, Grubor, & Ristić, 2016). This mitigates the factor of opportunity of the fraud triangle. When opportunity, rationalization and pressure are diminished or eliminated in the county government, it can lead to prevention and deterrence of fraud. When the three areas

are identified in the county and then countered with sufficient and apropos strategies, fraud can be deterred.

This model has been criticized to have digressed to explicate fraud in generalized ways (Huber, 2017). However, it served as a very germane way of showing factors, which when moderated and properly controlled can potentially prevent fraud. The three factors can be addressed using forensic accounting means and proactive measures in the systems through the application of the said.

In critiquing the fraud triangle theory, there are several shortcomings in its constructs. This is explicated by Lokanan (2015). He avers that the ACFE organization has advanced a misleading perception of the theory being a comprehensive summation of the phenomenon of fraud. The advocates of the theory have failed to realize that fraud is a complex issue that cannot be fully explained in one theory. It therefore makes it necessary to complement or supplement the fraud triangle theory with additional models to address the phenomenon of fraud.

### 2.4.2 Internal Controls Theory

The model of internal controls is based on the constructs identified by the Committee of Sponsoring Organizations (COSO), which was established in 1985 by five of the largest accounting, auditing, and finance oversight committees in the United States (ACFE, 2016).

It is contingent on determinants of fraud that make it possible for fraud to occur. Logically, this means that implementing systemic controls upon determinants could prevent fraud. Internal controls theory suggests that reinforcing the safeguards from the within would be more effective and sustainable in Fraud detection (Okoth, 2016). This includes adhering to mandated compliance regulations; instituting policies and

protocols through an independent arm that does not have authorization to assets; financial assessment and auditing; internal evaluation and regulations; regular compliance and risk assessments, separation of duties, periodic reconciliation in accounting system, standardized financial documentation (Opiyo, 2017). Internal control is an accounting procedure or system designed to promote efficiency or assure the implementation of a policy or safeguard assets or avoid fraud and error. Internal Control is a major part of managing an organization. It comprises the plans, methods, and procedures used to meet missions, goals, and objectives and, in doing so, support performance-based management. Internal Control which is equal with management control helps managers achieve desired results through effective stewardship of resources. Internal controls should reduce the risks associated with undetected errors or irregularities, but designing and establishing effective internal controls is not a simple task and cannot be accomplished through a short set of quick fixes. Organizational and methodological control methods are based on theory, which insight allows comprehensive approach to creation of the internal controls at the entity.

In regards to investigation practice of forensic accounting, the internal control mechanism that deal with record keeping can be forensically examined to track and trace the 'where', the 'how' and the 'when' of any suspected fraudulent activity or transaction (Dellaportas, 2013). This also goes hand in hand in with the litigation practice of forensic accounting. In the process of conducting discoveries and finding evidence in a suspected case, the evidence found forms the basis of prosecution in the court room. Additionally, this intricately liked to the examination practice of forensic accounting. The examination process analyzes any evidence found in an internal control system to determine whether a case is water tight to warrant litigation and

prosecution. Additionally, cross examination in the court case would entail a forensic accounting using internal control records to provide expertise information to a court room or any platform where a hearing or cross examination is being conducted. The internal control system monitoring and record keeping are utilized to facilitate these practices of forensic accounting (Bhasin, 2015).

The construct of internal control theory addresses the systems and the processes that are put in place in an organization that would be useful in mitigating or deterring fraud (Daniels, Ellis, & Gupta, 2013). It however misses to address the human factor in fraud. For optimal outcome in internal control mechanisms, it requires the compliance and the collaboration of humans who have access and are in charge of the systems. It only takes some planning to collude in making the system of no effect in the efforts of ensuring fraud does not occur and thus rendering it non-efficacious, regardless of how robust it is. The theory fails to address this issue in explaining fraud. Huber (2017) strongly supports this notion by asserting that "there are n-dimensions of financial crime that must be accounted for in any model that attempts to explain, predict, prevent, detect, and prosecute financial crimes, of which fraud is merely a subset.

#### 2.5 Empirical Review

The empirical review entails systematic literature review of existing and other relevant studies that address the practices of forensic accounting in the efforts of Fraud detection. The review is collated and presented in a thematic manner of the independent variables in relation to the dependent variable.

### 2.5.1 Investigative Practice and Fraud detection

According to Williams (2014) the skills of forensic accounting integrates expertise of investigative procedures of forensics with proficient analytical, assessment, appraisal and auditing skills. This process may undertake interalia interviews, document examination, and observations. With forensically competent techniques of retracing, retrieving, and examining footprints left by activities and data an expertise can reconstruct and discover out the occurrence and the end goal thereof. It is worth noting that in investigative cases a financial accountant is able to provide assistance in tracing proceeds and asset retrieval. This may involve integration of computer forensics as a tool for investigating crimes. This has to be done with judicious proficiency that would be concrete enough to stand examination in legal proceedings. Scholarly work by Gbegi and Adebisi, (2014) explicate forensic auditing as investigative and auditing effort, techniques and models that facilitate the resolving of legal-judicial challenges. This is facilitated through the use of retrieved evidence of raw accounting data with intent of accounting fraud extrication, compliance detection financial assessment. risk assessment, statement fraud or/and misrepresentation (Nganga, 2015). The kinds of fraud that forensic auditing gets involved with in the public sector include procurement invoice irregularities, corruption, securities-related crimes, bribery, political fraud, among others (Enofe et al., 2015). However, this encompasses not only analysis and assessment but also interpretation and communication of the findings in the relevant platform such as litigation, organization ruptcy, resolving of disputes, and fraud and embezzlement investigation among others. In their investigative endeavors forensic auditors are responsible for pinpointing areas of weakness in the internal control mechanism that would render an organization vulnerable to fraud. As such, there are able to provide

expertise services of necessary measures and monitoring strategies to strengthen the internal control framework that would serve to halt infractions and consequently detect fraud.

#### 2.5.2 Prevention Practice and Fraud Detection

Various studies indicate that determining the effects of Fraud detection through forensic accounting cannot be definitively quantified. However, there are various indicators that can be utilized to analyze its effect and consequently its significance in organizations such as reduced incidences of fraud, improved performance by personnel who oversee procurement and budgetary plans; decreased accounting errors, among others (Ezejiofor *et al.*, 2016).

The incentive of adoption and the efficacious of forensic accounting in a given company is contingent on a number of factors. These factors are manifold and can be attributed as influencers and determinants (Lindsay *et al.*, 2013). These can either be from within or without the organization.

Determinants include policies and protocols, management, internal control framework, resources, infrastructure among others. These then influence compliance with regulations and laws, and, implementation of proactive fraud auditing. Atağan, and Kavak, (2017) contend that research in advanced countries that have capacity to implement the expertise of forensic accounting in the various sectors both public and private reveal that there is still a deficit of pragmatic execution, compliance and utilization to the full extent of the said expertise in Fraud detection. Lack of strategic optimization of the expertise and collusion can compromise any efforts of effective prevention (Opiyo, 2017). This leads to the disparity on views held on Fraud detection via forensic accountability. However, Akani and Ogbeide (2017) illustrate that Fraud

detection and forensic accounting do not operate in a vacuum, but have other factors at play that potentially influence their efficaciousness.

A Price Water Cooper House report showed that an incredibly significant number of companies and organizations surveyed attributed tens of millions of shillings of losses to fraud. Surprisingly these losses did not decrease with time. To the contrary, the magnitude and scope of the crime seemed to increase (Price Water Coopers, 2014). The adverse implications are such that disruptive change is vitally critical to mitigate this threat. Studies suggest that having pragmatic systemic controls is indispensable to surmount such avertable losses and enable organizations to thrive. In light of this, Onife (2015) in his work contends that the most applicable means of prevention is implementing forensic accounting as a deterrent measure to safeguard organization from opportunistic individuals. Research shows that entities or people are more apprehensive and therefore more self-restrained from engaging in prohibited activity when there are surveillance and control systems in place that could potentially uncover them. In this instance, forensic auditing would be a potent dissuasion against fraud.

Several studies have been dedicated to examine forensic accounting and its role in fraud prevention. These have yielded non-unanimity findings. For instance, research by Okunbor (2010) seemed to indicate that forensic auditing failed to be potent enough to prevent fraud. On the other hand, several studies have demonstrated forensic accounting as a proactive mechanism of deterring fraud in organizations (Onife, 2015; Owojori *et al.*, 2008).

The most prolific studies done involve financial institutions whose sole role is conducting financial transactions. These have been used to verify the significance of forensic expertise in regard to audit expectation gap. A study by Omondi (2013) on financial institutions in Kenya showed that forensic auditing was definitively efficacious as immunity against fraud. The application of this practice as a proactive prevention was found to be cost effective against the burdensome financial losses and cumbersome implications thereof (Njuguna, 2013).

# 2.5.3 Examination Practice and Fraud Detection

According to (Okoye, 2014), during examination and cross examination of fraud and graft case, financial data and information is a critical component in building a case. The procedural rules are stringent demand apropos expert who has the know-how to analyze, interpret, and brief the examination on complex auditing, activities and transaction in a comprehensive language with relevant supporting evidence.

Generally, the law enforcement does not have the upper hand when dealing with complex fraud and cyber related frauds. In the event that security experts are carrying out computer forensics to track and trace activities, an internet service provider has the prerogative of not acquiescing (Okuku, Renaud, & Valeriano, 2015). As such, there is a gap or loophole in regulations providing a mandate of compliance to facilitate proper forensics investigative work. There is need for a proper archiving of customers' communication for a reasonably long enough time in the event that this would be needed in the future. Additionally, an internet service provider should not be allowed to terminate any accounts or contract with a client when law enforcement express interest. This is commonly the case by the providers with the intent of avoiding liability Providers ought to be prohibited from passing information to account subscribers. This is because it greatly hinders effectiveness in the process of

investigation. Strategies from other jurisdictions can be borrowed and modified to be applied in our own security sector.

When doing an examination in conducting the duties of forensic accounting, is the critical aspect of probe and discovery. This may entail professionals doing interviews to source information. Auditors need to have the ability to interview different subjects like key personnel's, clients, or anyone relevant to an investigation. An examiner can only act when he has sufficient and legitimate reasons to take each step in an examination (Mishra & Singh, 2018). They can only begin a fraud examination only when there are reasonable circumstances that suggest fraud has occurred, or is occurring. In the event an auditor cannot articulate factual basis or good reason for an investigation, then it is requisite to obtain further verification. Therefore, a fraud examiner should reevaluate the predication as the fraud examination proceeds. That is, as a fraud examination progresses and new information emerges, the fraud examiner should continually reevaluate whether there is adequate predication to take each additional step in the examination (Atagan, & Kavak, 2017).

### 2.5.4 Litigation Practice and Fraud detection

For litigation purposes, the role of a forensic accountant is that of an expert consultant and witness, who is able to interpret financial auditing. The forensic expert ensures that the auditing is done in accordance to the proper standards of practice ensuring that it is up to par in terms of admissibility and in compliance to litigation procedural ground rules.

Each fraud examination should begin with the proposition that the case will end in litigation. Thus, when a fraud examiner begins a fraud examination, he must assume that the case will end in litigation, and this assumption must be maintained and

considered throughout the entire examination. If the fraud examiner assumes that litigation will occur, he will conduct the examination in accordance with the proper rules of evidence and remain well within the guidelines established by the legal systems.

Losses through fraud which include corrupt procurements, misappropriation of resources, altered financial statements, and graft among others are usually put under bad debts in financial statements of organization. Research indicate that globally these losses run into several trillion dollars (Enofe, Okpako, & Atube, 2013). There is the need for a proper archiving of customers' communication for a reasonably long enough time in the event that this would be needed in the future. Additionally, an internet service provider should not be allowed to terminate any accounts or contracts with a client when law enforcement express interest. This is commonly the case by service providers, with the intention of avoiding liability or being termed as an enabler. Providers ought to be prohibited from passing on information to an account subscriber. This is because this greatly hinders effectiveness in the process of investigations (Akani, & Ogbeide, 2017).

When the time comes to respond to fraud allegations, frauds cases can be particularly hard to understand if auditors haven't been involved in them previously. Indeed, they can also be a drain on resources since understanding the law as it relates to fraud, and what they might need to prepare, can be a very intricate. Expert fraud auditors should also be able to offer the team litigation support, and assist in preparing case and carrying out loss calculations (Kingsly, 2015). Calculating economic damages can often be crucial during preparation for litigation. Defendants of cases are, more often than not, reluctant to provide alternative loss calculations (either to reduce the

settlement or out of fear of acknowledging guilt). While this is fairly standard, this means that the loss calculation needs to be supportable as cases could turn into an all-or-nothing situation.

In addition to the above skills, most good experts in litigation and fraud should be able to offer a wide range of services including: How to uncover fraud and simplify complex fraud cases. Building the investigation plan, reconstructing accounts and transactions. Perform forensic accounting and fraud data analytic services. Assist in discovery via Notice to Produce documents. Participate and assist in depositions. How to use both direct and circumstantial evidence to support forensic opinions. Provide opinions regarding the extent of monetary losses, locating disputed assets, preparing expert witness reports and providing expert witness testimony in court (Boritz, Kochetova-Kozloski & Robinson, 2015).

#### 2.5.5 Moderating role of Internal Control Mechanism

A moderating variable is a third variable which has an influencing effect on the relationship between a dependent variable and the respective independent variable (Statistics Solutions, 2018). It affects the correlation of the two variables in terms of strength. For this study, the moderating factor, internal control mechanism is presumed to have a moderating effect on the relation between forensic accounting practices, the independent variable and fraud detection the dependent variable. If the internal control mechanism is statistically significant, its effect on the relationship between the variables will either be to increase or decrease and strength. In the event that a moderating variable is not statistically significant, it could mean that it has no moderating effect. In line with the rule of thumb of correlation in variables, the

moderating factor of internal control mechanism is related to Fraud detection, the dependent variable, while there is no relation with the independent variable.

Empirical literature that supports having internal control mechanism as a moderator variable on the relationship between forensic accounting practices and fraud is buoyed by various scholars addressing this particular subject. In the case of scholarly work by Akani and Ogbeide, (2017) and Ezejiofor et al. (2016), the authors contend that the use of forensic accounting practices in Fraud detection, absent of the internal control mechanism as a moderating element, makes its obligations of mitigation of no impact and renders the effort futile in an avenue that needs robust and forceful reinforcement on the negative implication of Fraud detection. Mishra and Singh (2017) give a clarion call of the effectiveness of internal control mechanism support in the application of forensic accounting practices in containing fraud in the corporate world. This is because the preclusion of internal control mechanism lessens the imperative credibility and solemnity of forensic accounting in Fraud detection. Okoth (2016) in her research asserts that oversight in public funds can only be well implemented if there was a strong internal control mechanism upon which the oversight is based upon. This renders forensic accounting practices the needed imperative weight in executing its functions in the efforts of mitigating fraud.

For instance, if these factors contain bureaucracy, corruption, unstable enforcement environment, complex archaic acts and laws, incoherent and incongruent policies, then the internal control mechanism is weakened in its strength, adequacy and thus in effectiveness. In this light, this study sought to enumerate these factors in efforts of establishing the soundness and conduciveness of the internal control mechanism as a moderating factor.

Forensic accounting practices therefore serve the aforesaid critical functions within the internal control mechanism in place to detect fraud. This internal control mechanism as a moderating factor is critically linked to the independent variables and dependent variable because it legitimizes and strengthens practices of forensic accounting in the endeavors of Fraud detection. It does this by giving credence to what the practices of forensic accounting (Mishra& Singh, 2017). For instance, the independent variable of litigation practice is moderated by the internal control mechanism by giving it recognition, whereby the expert skills of forensic accounting can authoritatively be utilized in a court room to convict or exonerate a fraud case using definitive evidence. In this light, forensic accounting practices can thus be viewed as an effective and credible tool in Fraud detection.

It would be astute and judicious for the security sector and respective agencies to incorporate forensic accounting expertise, which strategically and effectively employ techniques that would combat and counter the overwhelming spread of fraud (Ng'ang'a, 2015). It is therefore imperative to gain proficiency and expert technical training and logistical support in building a modern 21<sup>st</sup> century oversight entities and policies.

The Constitution gives provisions for the internal control mechanism on fraud and corruption (ICPAK, 2018). For instance, article 10 in the constitution provides moral and ethical imperatives for those serving in public offices which include need for good governance, integrity, transparency and accountability all of which are critical in avoiding duplicitous activities of fraud. Chapter 6 of the constitution affirms the importance of cultivating principles of leadership and integrity, objectivity, accountability in decision making, avoidance of conflict of interest in the conduct of

state officers, financial rectitude in terms of receiving gifts, donations among others. Article 201 directly addresses the issue in this study. It highlights principles of public finance, in that accountability in the use of public funds is mandatory in promoting transparency and uprightness (Kenya Law, 2017). This is a viable and critical step in stepping out of the old archaic ways, which has enabled criminals to be ahead of the learning curve. Therefore, this study sought to examine the moderating effect of internal control mechanism on the relationship between forensic accounting practices and Fraud detection

### 2.6 Conceptual Gaps in the Literature Review

Review of current empirical literature indicates that forensic accounting practices in Fraud detection is a subject of interest across the globe. A majority of studies in the review dealt with the importance and effectiveness of forensic accounting in risk assessment in financial institutions, parastatals, fraud detection, financial reporting, and internal control quality (Modugu, 2013; Islam *et al.*, 2011; Omar 2013). Though they identify the cost effectiveness of forensic accounting practices, the forensic accounting services are nonetheless, under-utilized (Islam *et al.*, 2011). Varied opinions however exist on the effect of forensic accounting practices on the organization. Despite the belief by many researchers that that forensic accounting practices has a role in Fraud detection, there is lack of unanimity on the critical and central role it can play to detect fraud in a sustainable way systemically with the moderating effect of internal control mechanism. One of the milieus in which this is very prominent is in the local government context.

The dearth of empirical work on Fraud detection in the local government in Kenya is identified as a critical setting, since it has a direct impact in the community in the

devolved governing mode of delivering services and administrating. Exploring the implications of Fraud detection through sustainable means can serve to inform the public the potential of accountability and transparency in resource distribution and allocation. This study will contribute to this debate by studying on the moderating role of internal control mechanism on the relationship between forensic accounting practices and Fraud detection among selected counties in Kenya.

# 2.7 Conceptual Framework

Forensic accounting is operationalized into four comprehensive areas which are features and practices of the independent variable forensic accounting practices. Namely, they are deterrence, detection, investigation, examination and litigation. These are distinctly different, but also interrelated in their functions in relation to Fraud detection. The dependent variable is Fraud detection. The moderating variable is internal control mechanism. This is in reference to the dependent variable and the implications towards the said variable. The internal control mechanism constitutes of, statutory mandates, regulatory guidelines, and oversight bodies, parliamentary enactments, codified laws and constitutional provisions.

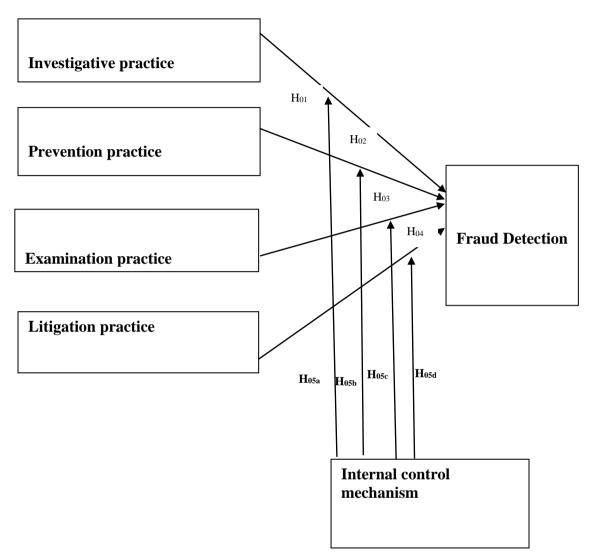
The conceptual framework outlined below suggests that the dependent variable Fraud detection were based on the independent variable forensic accounting practices namely: litigation, examination, prevention and investigation. Internal control mechanism (availability, implementation and adherence) were looked into as the moderating variable on the relationship between the forensic accounting practices and Fraud detection.

**Independent Variables** 

**Moderating Variable** 

**Dependent** 

# Forensic Accounting Practices H<sub>05a</sub>



**Figure 2.2 Conceptual Framework** 

Source: (Author, 2020)

#### **CHAPTER THREE**

#### RESEARCH METHODOLOGY

#### 3.1 Overview

This chapter presents research methodology that was adopted in carrying out the study. It covers the following aspects: introduction, research design, target population of the study, sampling design and procedures-(sample size, and sampling technique), data collection methods and procedures-(source of data, data collection methods, data collection instruments, and data collection procedure) data management, pre testing of research instruments-(reliability and validity of data), data analysis method and presentation, and ethical considerations.

# 3.2 Research Design

The research design constitutes the blueprint for the collection, measurement and analysis of data (Cooper & Schinder, 2007). It also provides a structure for the collection, measurement and analysis of data (Saunders *et al.*, 2009). This study adopted explanatory design were used in the process of choosing the respondents because it involves attempting to determine whether one variable has an impact or the effect on another variable. The aim goal is to detect cause and effect relationships between the variables (Zikmund, 2000). In this study the design helped in examining the moderating effect of internal control mechanism on the relationship between forensic accounting practices and Fraud detection and other variables of interest as they exist in a defined population at a single point in time or over a short period of time (Levin, 2011). Explanatory were used to assess the burden of fraud on counties and are particularly useful in informing the planning and allocation of public resources. This design was chosen because it is relatively quick and easy to conduct; data on all variables is only collected once. It is also good for descriptive analysis.

The main purpose of this study was to examining the moderating effect of internal control mechanism on the relationship between forensic accounting practices and Fraud detection. The study main purpose of this study was examining the moderating effect of internal control mechanism on the relationship between forensic accounting practices and Fraud detection. This study used quantitative approach.

### 3.3 Study Area

The study was carried out in Uasin Gishu, Nandi, Trans Nzoia, Turkana, West Pokot, Samburu, Elgeyo Marakwet, Baringo, Laikipia, Nakuru, Kericho, Bomet, Narok and Kajiado. These are North and South Rift counties. Rift Valley Province bordering Uganda, was one of Kenya's eight provinces, before the Kenyan general election, 2013. Rift Valley Province was the largest and one of the most economically important provinces in Kenya. It was dominated by the Kenya Rift Valley which passes through it and gives the province its name. According to the 2009 Census, the former province covered an area of 182,505.1 square kilometres (45,098,000 acres; 70,465.6 sq mi) and would have had a population of 10,006,805, making it the largest and most populous province in the country. The bulk of the provincial population inhabited a strip between former Nairobi and Nyanza Province. The capital was the town of Nakuru.

### 3.4 Target Population of the Study

The target population is the whole collective unit out of which a sample is drawn to collect empirical data (Polit & Beck, 2003). In research, the target population is the specific population about which information is desired (Mugenda, 2008). The target population for this study were accountants, forensic Accountants and Auditors among selected counties in Kenya (Uasin Gishu, Nandi, Trans Nzoia, Turkana, West Pokot,

Samburu, Elgeyo Marakwet, Baringo, Laikipia, Nakuru, Kericho, Bomet, Narok and Kajiado). The accessible population is a subset of the target population that reflects specific characteristics and can be practically reached in order to select a representative sample (Mugenda, 2008). The counties are commercially vibrant regions with extensive farming and industry activities.

**Table 3.1 Target Population** 

Counties	Accountants	Auditors	Forensic Accountants	Target population
Uasin Gishu	17	10	9	36
Nandi	14	6	5	25
Trans Nzioa	15	8	6	29
Turkana	10	5	4	19
West Pokot	7	7	3	17
Samburu	9	9	4	22
Elgeyo Marakwet	14	7	3	24
Baringo	13	10	7	30
Laikipia	12	6	3	21
Nakuru	16	8	9	33
Kericho	14	6	4	24
Bomet	11	7	3	21
Narok	9	5	4	18
Kajiado	7	4	6	17
Total population	168	98	70	336

Source: (Author, 2020)

# 3.5 Sample Size and Sampling Technique

This section described sample size and sampling technique as follows;

# 3.5.1 Sample Size

According to Kothari (2004) sample size refers to the number of observations or replicates to include in a statistical sample. The researcher obtained sample size using Krejcie & Morgan, 1970 formula for finite population which is calculated as under:

$$S = \frac{X^2NP (1-P)}{d^2 (N-1) + X^2P (1-P)}$$

Where:

S = Required Sample size

X = Z value (e.g. 1.96 for 95% confidence level)

N = Population Size 336

P = Population proportion (expressed as decimal) (assumed to be 0.5 (50%)

d = Degree of accuracy (5%), expressed as a proportion (0.05); It is margin of error

$$\frac{1.96^2 \times 336 \times 0.5 \times 0.5}{0.05^2 \times (336-1) + 1.96^2 \times 0.5 \times 0.5}$$

$$S = 179$$

# 3.5.2 Sampling Technique

Sampling technique refers to a procedure of selecting a part of population on which research can be conducted, which ensures that conclusions from the study can be generalized to the entire population (Kothari, 2004). This study used stratified proportionate sampling of target population considered as unit of analysis in this study. According to Oso (2009), stratified proportionate sampling technique produces estimates of overall population parameters with greater precision and ensures that a more representative sample is derived from a relatively homogenous population. Stratification reduces standard error by providing some controls over variance. The study grouped populations into three strata that is: accountants, forensic accountants and auditors as indicated in Table 3.2. After stratification the respondents were selected using simple sampling. Simple random sampling helped the researcher to selected respondents without biasness.

Table 3.2: Sample Size

Departments	Proportion	Sample Size
Accounts	179/336×168	90
Forensic Accountants	179/336× 70	37
Auditors	179/336× 98	52
Total	336/336× 179	179

#### 3.6 Data Collection Methods and Procedures

#### 3.6.1 Source of Data

The study collected primary data. Primary data were collected using questionnaire.

#### 3.6.2 Data Collections Methods

The study used questionnaire to collect data.

#### 3.6.3 Data Collection Instruments

Data collection Instruments are tools used to collect, measure, and analyze data related to study subject (Brislin, 2014). Primary data were collected using questionnaire as the main tools of data collection. Kothari (2008) defines a questionnaire as that consisting of a number of questions printed or typed in a definite order on a form or set of forms. The researcher constructed closed ended questionnaires using 5-point Linkert scale which were administered to accounts, forensic accountants and auditors. The researcher used questionnaire because of its low cost, it is free from bias, respondents have adequate time to give well thought out answers and large samples can be made use of and thus the results can be made more dependable and reliable (Kothari, 2008). Questionnaire is commonly used to obtain required information's from respondent, since each item is developed to address a specific objective, research questions or hypothesis of the study.

#### 3.6.4 Data Collection Procedures

Data collection procedures refer to the systematic steps that the researcher follows in the correct way to obtain data from the field (Oso and Onen, 2005). The researcher first obtained a letter of permission from Moi University. The researcher also obtained a letter from National Commission for Science, Technology and Innovation, to carry out research in the identified area of study. The county administrators were first contacted and the intention to drop questionnaires were explained. The questionnaires were then delivered to the respondents and they were given one week to fill. While they were filling the questionnaire, technical personnel were interviewed as the opportunity presents itself due to the busy nature of the workforce. The researcher collected the filled questionnaires after one week.

#### 3.7 Data Measurements

Research instruments used in this study are developed using measures from previous studies. Respondents were asked the extent to which they agree/disagree with a series of statements about their perceptions concerning the variables on a 5-point likert scale of (5) strongly agree to (1) strongly disagree each variable with five items.

### 3.7.1 Investigative Practice

Investigation practice is the gathering and analysis of all crime-related physical evidence in order to come to a conclusion about a suspect. In developing questions for this study 5-point likert scale was adopted. Investigative practice was measured by the following indicators; the identifying of physical evidence, gathering information, evidence collection, evidence protection, witness interviewing and suspect interviewing and interrogation.

#### 3.7.2 Prevention Practice

Prevention practice are activities carried out to keep fraud from happening (Clarke, 1980). Prevention practice indicators used in this study were; fraud awareness, transaction monitoring, counterfeiting prevention, excises law enforcement, computer systems monitoring and maintaining fraud justice in order. The 5-point likert scale was adopted in constructing questions on this variable.

### 3.7.3 Examination Practice

Examination practice in forensic accounting employ auditing proficiency in inspecting and scrutinizing irregularities in reports, audits, and transactions to ensure that all activities, proceeds, and transactions are accounted for (Kranacher & Riley, 2019). The examination practice was measured through embezzlement, asset misappropriation, financial statement fraud and fraudulent conveyance using 5-point likert scale.

# 3.7.4 Litigation Practice

Litigation practice is the utilization of accounting, auditing and investigative skills by forensic accountants when conducting an investigation and also the ability to respond immediately and to communicate financial information clearly and concisely in a courtroom setting (Demezhanova, Kaudyrov & Demidova, 2019). The litigation practices questions were constructed using 5-point likert scale. The measurements were; resolving a dispute, having the right information and having the right resources.

### 3.7.5 Internal Control Mechanism

Internal control mechanism is an accounting procedure designed to promote efficiency or assure the implementation of a policy or safeguard assets or avoid fraud and error (Mwangi & Muturi, 2018). The moderator variable was internal control

mechanism measured by availability, implementation, and separation of duties, authorization, reconciliation, documentation and adherence. The questions for this variable was constructed using 5-point linkert scale.

### 3.7.7 Fraud detection

Fraud detection is a set of activities undertaken to prevent property from being obtained through false pretenses (Jans, Van Der Werf, Lybaert & Vanhoof, 2011). Dependent variable (Fraud detection) had constructs namely: Hire the right people, monitor financial data, proactive communication with employees around fraud implementing company policies on confidentiality and nondisclosure. The variables were measured using 5-point likert scale. The summary is presented in Table 3.3.

**Table 3.3: Data Measurements** 

Type	Variable	Measurement	Measurement scale	Source
Independent variable	investigative practice	<ul> <li>✓ Identifying physical evidence</li> <li>✓ gathering information</li> <li>✓ evidence collection</li> <li>✓ evidence protection</li> <li>✓ witness interviewing</li> <li>✓ Suspect interviewing and interrogation.</li> </ul>	5-point likert scale	Whiting (2013)
Independent variable	prevention practice	<ul><li>✓ enforce the law</li><li>✓ maintain fraud justice</li></ul>	5-point likert scale	Clarke (1980)
Independent variable	examination practice	<ul> <li>✓ Embezzlement</li> <li>✓ Asset misappropriation</li> <li>✓ Financial statement fraud</li> <li>✓ Fraudulent conveyance</li> </ul>	5-point likert scale	Horswell (2004)
Independent variable	litigation practice	<ul> <li>✓ resolving a dispute</li> <li>✓ having the right information</li> <li>✓ having the right resources</li> </ul>	5-point likert scale	Demezhanova, Kaudyrov & Demidova, 2019.
Moderator	internal control mechanism	<ul><li>✓ separation of duties</li><li>✓ authorization</li><li>✓ reconciliation</li><li>✓ documentation</li></ul>	5-point linkert scale	(ACFE, 2016)
Dependent variable	Fraud detection	<ul> <li>✓ Hire the right people</li> <li>✓ Monitor financial data</li> <li>✓ proactive         <ul> <li>communication with</li> <li>employees around</li> <li>fraud</li> </ul> </li> <li>✓ Implementing         <ul> <li>company policies on</li> <li>confidentiality and</li> <li>nondisclosure</li> </ul> </li> </ul>	5-point linkert scale	Jans, Van Der Werf, Lybaert & Vanhoof (2011).

# 3.8 Pre-Testing of Research Instruments

According to Kothari (2004) a pilot study is often used to pre-test research instrument and between 10%-20% of the sample size for the actual study is a reasonable to be used in piloting of research instruments. A pilot test was done before embarking on actual data collection activity (Eriksson & Kovalainen, 2008). Piloting of research instruments were done in Bungoma County government because it has same characteristic as any of the counties under study. The purpose of a pilot test is to

enable validity and reliability of research instruments to be determined (Cooper & Schindler, 2011).

# **3.8.1 Validity of Research Instruments**

According to Saunders *et al.*, (2011) validity is the accuracy, truthfulness and meaningfulness of inferences that are based on the data obtained from a tool or scale for each construct in the study. The study used content validity to test the accuracy of data collection instruments from past literature. A judgment procedure of assessing whether a tool is likely to provide contents valid data is to request opinion of experts in a particular field to review it and give suggestions on content improvements (Mugenda, 2008). Face validity were ascertained through experts by asking their opinion about whether an instrument measures the concept intended. The researcher sought the opinion of research supervisors to review data collection instruments. This helped to improve the research instruments before proceeding to the field for final data collections in which the pilot survey took place. Construct validity is where you decide whether you can draw inferences about test scores related to the concept being studied. This were ascertained through review of previous studies and journal concerning the research instrument.

Both exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were employed to understand shared variance of measured variables that were believed to be attributable to a factor or latent construct (Thompson, 2004). EFA was used at the early stages of research in order to identify the variables that cluster together (Bordens & Abbot, 2014). The goal of EFA was to identify factors based on data and to maximize the amount of variance explained (Suhr, 2006). EFA is used when one has a

large set of variables that are to be described in simpler terms and have no a priori ideas about which variables will cluster together (Tabachnick & Fidell, 2013).

Kaiser Meyer-Olkin and Bartlett test of Sphericity were generated by SPSS and helped to assess the factorability of data for structure detection (Pallant, 2010). Kaiser-Meyer-Olkin (KMO) test was used to assess sampling adequacy. The index ranges from 0 to 1 (Tabachnick & Fidell, 2011). For adequate sample, KMO test statistic should be greater than 0.5 (Hair *et al.*, 2013). The world-over accepted index is 0.6 or higher to proceed with factor analysis (Fabrigar, Wegener, MacCallum & Strahan, 1999). Table 4.3 shows KMO statistics of 0.748 which is greater than the convectional probability value of 0.5 and over .60 for a satisfying sample. This implies an acceptable degree of sample adequacy for factor analysis.

Table 3.4 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure	0.748	
Bartlett's Test of Sphericity	Approx. Chi-Square	1829.33
	Df	190
	Sig.	0.000

A scree plot shows the Eigen values on the Y-axis and the number of factors on the X-axis which always displays a downward curve. Figure 4.1 shows that the slope of the curve is clearly leveling off which indicates that all the factors were valid and should be generated for the analysis.

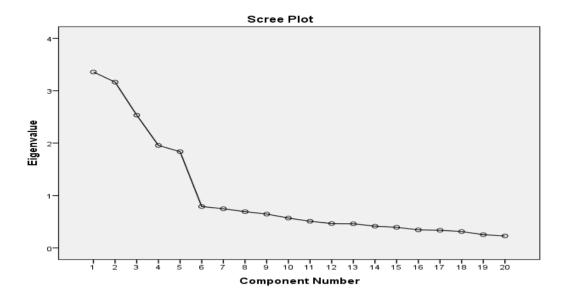


Figure 3.1: Scree Plot

# 3.8.2 Reliability of Research Instruments

Reliability is the consistency of measurement, or the degree to which an instrument measures the same way each time it is used under the same condition with the same subjects (Cohen *et al*, 2000). To achieve this, the study's instruments were designed in such a way as to ensure that the quality of questions asked is high and unambiguous through pre-testing process. The reliability of the study instruments was established by computing the Cronbach's alpha ( $\alpha$ ) for items in the questionnaire. Fraenkel and Wallen (1996) stated that the reliability of items is acceptable if the alpha is within 0.70 and 0.99. Kubiszyn and Borich (2000) determined that  $\alpha$  value within 0.80 and 0.90 is preferable. Table 3.4 present the results of reliability from pilot study.

**Table 3.5 Reliability Test Results** 

Constructs	Test Items	Cronbach's Alpha
Investigative practice	5	0.7312
Prevention practice	6	0.7881
Examination practice	6	0.8935
Litigation practice	6	0.8929
Internal control mechanism	7	0.7429
Fraud detection	8	0.7835
Average		0.7790

As shown in Table 3.4, the Cronbach's Alpha coefficient value for investigative practice (0.7312), prevention practice (0.7881), examination practice (0.8935), litigation practice (0.8929), internal control mechanism (0.7429), and fraud detection (0.7835) were all above 0.7, which was closer to 1 signifying that the instruments were reliable. Further, the overall coefficient was 0.7790>0.7, thus reliable.

### 3.9 Data Analysis and Presentation

Data analysis involved cleaning, sorting, coding of relevant data from the participants. SPSS version 21 was used for data analysis which generated information from the data into an observable pattern of the occurrence.

### 3.9.1 Descriptive Statistics

Descriptive statistics were used in data analysis to describe the basic features of the respondents and data collected. It provided simple summaries on quantitative data. Descriptive statistics included frequency, means, mode, minimum, and maximum and standard deviation.

### 3.9.2 Inferential Statistics

Inferential statistics were correlation and multiple regressions. Correlation helped the researcher to describe the linear relationship between independent variables and dependents variable as well as moderator. It showed direction and strength of relationship between study variables. Regression analysis examined the relationship between the dependent and the independent variables which best predict the value of the said dependent variable. This analysis estimates the coefficients of this predictive linear equation involving more than one of dependent variables.

Moderating effect were tested using hierarchical moderating regression analysis.

Ordinary least square (OLS) equation and hierarchical moderating regression analysis

equations were created involving scores for predictor variable y, scores for second predictor x and scores for third predictor variable z (Aquinis & Gottfredson, 2010).

To determine the presence of moderating effect of internal control mechanism on the relationship between forensic accounting practices and Fraud detection, hierarchical moderating linear regression analysis were used where by OLS models were compared with the HMRA models (Aquinis & Gottfredson, 2010). Hierarchical multiple regression was used to check effects of a moderating variable. In testing the moderation, the interaction effect between x and z is checked and whether or not such an effect is significant in predicting Y. The hierarchical model calls for a determination of R<sup>2</sup> and the partial coefficients of each variable at the point at which it is added to the equation. The hierarchical MRR analysis the analyst entered the IVs in the specified order and determining R<sup>2</sup> after each addition in order to check incremental variance.

# **Moderation Testing Steps Before Introducing Model One and Model Two**

- i. Standardizing all variables
- ii. Fitting a regression model (block 1) Y from predictor variables x
- iii. Fitting a regression model (block 2) predicting the outcome variable Y from both the predictor variable x and the moderator variable z. Both effects as well as the model in general  $(R^2)$  should be significant.
- iv. Add the interaction effect to the previous model one by one and check for a significant R<sup>2</sup> change as well as a significant effect by the new interaction term and the coefficient of the interaction should be different from zero. If both are significant, then moderation is occurring.

**Equation 1**: Regressing the independent variables on dependent variables.

### **OLS Equation**

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$
.....Equation 3.1

# **HMRA Equation**

#### Where:

- **Y** Represents Fraud detection
- $X_1$  Represents investigative practice
- $X_2$  Represents prevention practice
- $X_3$  Represents examination practice
- $X_4$  Represents litigation practice
- **Z** Represents internal control mechanism (the moderator)
- ε represents Error term (Disturbance factors) which represents residual
- $\beta_{0+}$  Represents a constant

From  $\beta_1$  to  $\beta_{10}$  represents the regression model's coefficients

Analyzed data were presented in form frequency Tables and percentages.

### 3.9.3 Testing Assumptions of the Multiple Regression Model

Multiple regression analysis requires certain assumptions to be met before it can be used to analyze any data. These include normality of errors, linearity multicollinearity and homoscedasticity test assumption (William *et al.*, 2014). Serious assumption

violations can result in biased estimates of relationships, over or under-confident estimates of the precision of regression coefficients, and untrustworthy confidence intervals and significance tests (Chatterjee & Hadi, 2012).

### **Test for Normality of Errors**

Multiple regressions assume that the residuals are normally distributed. According to Osborne *et al.*, (2001), the JB tests the hypothesis that the distribution of error terms is not significantly different from normal (H0: E ( $\epsilon$ ) ~N ( $\mu$ =0, Var. = $\sigma$ 2). To find out whether residuals follow a normal probability distribution, Jarque-Bera (JB) Kolmogorov-Smirnov test for normality were used to test for normality of error terms. To ascertain if study variable follow a normal distribution Kolmogorov-Smirnov was used. This is in accordance to (Creswell, & Clark, 2017) who indicated that the p value less than 0.05 of Kolmogorov-Smirnov is not normal. However, when the p value for Kolmogorov-Smirnov are above 0.05 the data are normally distributed.

### **Test for Linearity**

Chatterjee and Hadi (2012) postulate that a model relating the response variable to the predictors is normally assumed to be linear in the regression parameters. The parameter linearity assumption is often tested by plotting residual against predicted values of the response variable (Osborne *et al.*, 2001), whereby the relationship should take a linear form for this condition to be met. The linearity test was carried out using correlation analysis, the threshold for linearity was that if the p-value of correlation was less than 0.05 it implies there was a linear relationship between study variables. The correlation coefficient needs to be different from zero implying that there was a linear relationship between the dependent and the independent variables.

## **Testing for Multicollinearity**

Multicollinearity assumption implies that there is no correlation between independent variables. The assumption was tested using tolerance and variance inflation factor (VIF). A tolerance of below 0.10 or a VIF greater than 10 is regarded as indicative of serious multicollinearity problem. Tolerance below 0.2 indicates a potential problem. When tolerance is close to 1 it implies that there is little multicollinearity. If tolerance is close to 0, it indicates that multicollinearity may be a threat (Williams, 2015). A VIF greater than 10 is considered unsatisfactory hence the independence variable should be removed from the analysis (Hair *et al*, 2006).

# **Testing for Homoscedasticity**

The assumption of homoscedasticity refers to equal variance of errors across all levels of the independent variables (Osborne & Waters, 2002). This means that researchers assume that errors are spread out consistently between the variables (Keith, 2006). Levene's test of homogeneity were used to test this hypothesis; this homogeneity variances test is based on the groups mean and is the most robust test. It tests the null hypothesis that the population variances are equal (called homogeneity of variance or homoscedasticity). The assumption of homogeneity of variance is that the variance within each of the populations is equal. Levenes statistic values need to be above significance level of 0.05.

### 3.10 Ethical Considerations

To acquiescence to ethical standards of practice for research that involves human participants or subjects, there is a mandate to follow due diligence in complying with utmost confidence and integrity in handling the process and record keeping (AERI, 2011). In compliance to the ethical protocol, the participants are to be invited to

participate of their own free volition with no coercion or manipulation involved. In the process of data collection full disclosure of purpose, procedure and eventual usage of data is to be provided to all involved parties. Full disclosure is made in a clear and comprehensive manner that gives the participants the opportunity to review the information in entirety and make informed decision whether to participate on the full consent of participants and other relevant authorities in charge of the participants and their departments is to be unreservedly sought (AERA, 2011; Kothari, 2016). The main objective of observing ethics in research is to preserve the veracity of the research process (AERA, 2011). The ethical commitment in this research is to ensure the right information is sourced from reliable, current and credible scholarly reviews. This is to be followed in the spirit of submitting to the guidelines given. Ethical clearance was sought from the respective department (Creswell, 2013). Endeavors were made to give full disclosure and obtain consent from relevant personnel and administrators.

#### **CHAPTER FOUR**

## DATA ANALYSIS, PRESENTATIONS AND INTERPRETATIONS

### 4.1 Overview

This chapter presents the study findings then goes a step ahead to interpret and discuss them. It provides the inferential and descriptive statistics that was utilized to present the findings.

# **4.2 Response Rate**

To establish the total number of the respondents who actively participated in the study by answering and submitting the questionnaires for data analysis, an analysis of the response rate was carried out and presented in Table 4.1.

**Table 4.1 Response Rate** 

Response rate	Frequency	Percentage	
Response	151	84.40%	
Non-Response	28	15.60%	
Total	179	100%	

The Table indicates that the total response rate comprised 151 respondents who were 84.4% of the total sample size. The non- response rate comprised 28 respondents who were 15.6% of the total sample size.

# 4.3 Descriptive Statistics

This section represents the descriptive statistics in relation to the study namely; investigative practice, prevention practice, examination practice, litigation practice and internal control mechanism. To achieve this, a five-point likert scale was used where; 1=Strongly Disagree, 2=Disagree, 3=Undecided.4=Agree, 5=Strongly Agree.

# **4.3.1 Investigative Practice**

Table 4.2 presents descriptive statistics of investigative practice.

**Table 4.2 Investigative Practice** 

Statements	N	μ	δ	Sk	Kur	Min	Max
1. Forensic accountants are identifying physical evidence during fraud detection in the county government	151	4.15	0.889	.67	.75	1	5
2. The forensic accountants are always gathering information concerning financial use in the county in order to detect any risk of fraud	151	4.18	0.740	.50	.51	1	5
3. Forensic accountants used evidence previous fraud cases to detect the pattern of fraud occurrence	151	3.97	0.955	.65	.14	1	5
4. Forensic accountants at times interview the staffs and witness in order to detect any fraud risk in future	151	4.03	0.927	.80	.82	1	5
5. Forensic accountants interrogate the suspect in order to detect the existence of any fraud	_	3.95	0.992	.55	.46	1	5
Aggregate mean		4.06	0.901	.63	.54	1	5

Key: μ-Mean, δ -Standard Deviation, Sk- Skewness, Kur- Kurtosis, Min- Minimum, Max- Maximum

Table 4.2 shows that the respondents agreed with the statement that forensic accountants are identifying physical evidence during fraud detection in the county government (Mean=4.15, standard deviation=0.889). They also agreed that the forensic accountants are always gathering information concerning financial use in the county in order to detect any risk of fraud (Mean=4.18, standard deviation=0.740). The respondents further agreed that forensic accountants used evidence previous fraud cases to detect the pattern of fraud occurrence (Mean=3.97, standard deviation=0.955). The respondents agreed that forensic accountants at times interview the staffs and witness in order to detect any fraud risk in future (Mean=4.03, standard

deviation=0.963). Finally, they agreed that forensic accountants interrogate the suspect in order to detect the existence of any fraud (Mean=3.95, standard deviation=0.992). The study results further, revealed that all values of skewness and Kurtosis were less than +1 and above 0, indicating that skewness or kurtosis for the distribution is not outside the range of normality, so the distribution were considered normal distributed.

# **4.3.2 Prevention Practice**

Table 4.3 presents descriptive statistics of prevention practice.

**Table 4.3 Prevention Practice** 

Sı	atements	N	μ	δ	Sk	Kur	Min	Max
1.	The forensic accounts department have ensured that there is fraud awareness	151	3.87	0.968	.13	.866	1	5
2.	There is always transaction monitoring in the county to prevent any transaction fraud	151	3.91	0.889	.72	.451	1	5
3.	Forensic accountants are always ensuring that counterfeiting prevention in the county	151	3.98	0.605	.55	.84	1	5
4.	Forensic accounts department excises law enforcement in preventing fraud occurrence	151	3.78	0.848	.36	.24	1	5
5.	The forensic accounts department are using computer monitoring to ensure that they prevent fraud occurrence	151	3.74	0.830	.01	.72	1	5
6.	Forensic accounts department are always maintaining fraud justice in order to prevent fraud	151	3.98	0.605	.55	.84	1	5
A	ggregate mean		3.88	0.791	.37	.66	1	5

Key:  $\mu\text{-Mean}$ ,  $\delta$  -Standard Deviation, Sk- Skewness, Kur- Kurtosis, Min-Minimum, Max- Maximum

Table 4.3 shows that the respondents agreed with the statement that the forensic accounts department have ensured that there is fraud awareness and education in the county every year (Mean=3.87, standard deviation=0.968). They also agreed that there is always transaction monitoring in the county to prevent any transaction fraud (Mean=3.91, standard deviation=0.889).

Also, they agreed that forensic accountants are always ensuring that counterfeiting prevention in the county (Mean=3.98, standard deviation=0.605). The subjects further agreed that Forensic accounts department excises law enforcement in preventing fraud occurrence (Mean=3.78, standard deviation=0.848). Further, they agreed that the forensic accounts department is using computer systems monitoring to ensure that they prevent any occurrence of fraud in county (Mean=3.74, standard deviation=0.830). Finally, the respondents agreed that forensic accounts department are always maintaining fraud justice in order to prevent any fraud occurrence (Mean=3.98, standard deviation=0.605).

The study results further, revealed that all values of skewness and Kurtosis were less than +1 and above 0, indicating that skewness or kurtosis for the distribution is not outside the range of normality, so the distribution were considered normal distributed.

### 4.3.3 Examination Practice

Table 4.4 presents descriptive statistics of examination practice.

**Table 4.4 Examination Practice** 

St	atements	N	μ	δ	Sk	Kur	Min	Max
1.	During fraud examination the forensic accountants use high communication skills	151	3.89	0.470	.49	.23	1	5
2.	Forensic accountants have presentation styles which help them examine the fraud in the county without raising tension	151	3.85	0.582	.47	.25	1	5
	Forensic accountants have self-control traits which help them examine the fraud in the county	151	3.84	0.513	.92	.93	1	5
4.	Forensic accountants are always aware of the potential dangers of an adversarial environment during fraud examination	151	3.84	0.567	.35	.40	1	5
5.	During fraud examination there is rigorous data detection and analysis with a built-in suspicion in the county	151	3.88	0.446	.73	.91	1	5
6.	During fraud examination violations of applicable laws, rules, and regulations are always possible in the county	151	3.79	0.689	.79	.40	1	5
A	ggregate mean		3.85	0.545	.63	.52	1	5

Key:  $\mu$ -Mean,  $\delta$  -Standard Deviation, Sk- Skewness, Kur- Kurtosis, Min-Minimum, Max- Maximum

Table 4.4 shows that the respondents agreed with the statement that during fraud examination the forensic accountants use high communication skills (Mean=3.89, Standard deviation=0.470). Also, they agreed that forensic accountants have presentation styles which help them examine the fraud in the county without raising tension (Mean=3.85, Standard deviation=0.582). Further, they agreed that forensic accountants have self-control traits which help them examine the fraud in the county

(Mean=3.84, Standard deviation=0.513). The respondents seem to agree that forensic accountants are always aware of the potential dangers of an adversarial environment during fraud examination (Mean=3.84, Standard deviation=0.567). Further, the respondents agree that during fraud examination there is rigorous data detection and analysis with a built-in suspicion in the county (Mean=3.88, Standard deviation=0.446). Finally, they agreed that during fraud examination violations of applicable laws, rules, and regulations are always possible in the county (Mean=3.79, Standard deviation=0.689). The study results further, revealed that all values of skewness and Kurtosis were less than +1 and above 0, indicating that skewness or kurtosis for the distribution is not outside the range of normality, so the distribution were considered normal distributed.

# **4.3.4 Litigation Practices**

Table 4.5 presents descriptive statistics of litigation practice.

**Table 4.5 Litigation Practices** 

Sta	atements	N	μ	δ	Sk	Kur	Min	Max
1.	Forensic accountants apply freezing orders as a way of litigation practices when need arise during fraud detection	151	3.79	0.845	.13	.69	1	5
2.	Forensic accountants use search orders to detect fraud when there is suspicion	151	3.80	0.373	.08	.80	1	5
3.	Forensic accountants always apply receivership as a litigation practices during fraud detection	151	3.80	0.887	.92	.78	1	5
4.	Forensic accountants use ancillary orders to detect fraud in the county	151	3.98	0.637	.33	.79	1	5
	Forensic accountants apply increasingly-used contempt jurisdiction during fraud detection	151	3.90	0.696	.40	.98	1	5
6.	Forensic accountants consider the key international aspects of civil fraud litigation during fraud detection	151	3.93	0.846	.15	.80	1	5
Ag	ggregate mean		3.87	0.714	.34	.81	1	5

Key:  $\mu$ -Mean,  $\delta$  -Standard Deviation, Sk- Skewness, Kur- Kurtosis, Min-Minimum, Max- Maximum

Table 4.5 shows that agreed with the statements that forensic accountants apply freezing orders as a way of litigation practices when need arise during fraud detection (Mean=3.79, standard deviation=0.845). Further the respondents agreed that Forensic accountants use search orders to detect fraud when there is suspicion (Mean=3.80, standard deviation=0.373). Also, the respondents agreed that forensic accountants always apply receivership as a litigation practices during fraud detection (Mean=3.80, standard deviation=0.887).

Further, the subjects agreed that forensic accountants use ancillary orders to detect fraud in the county (Mean=3.98, standard deviation=0.637). They also agreed that forensic accountants apply increasingly-used contempt jurisdiction during fraud detection (Mean=3.90, standard deviation=0.696). Finally, they agreed that forensic accountants consider the key international aspects of civil fraud litigation during fraud detection (Mean=3.93, standard deviation=0.846). The study results further, revealed that all values of skewness and Kurtosis were less than +1 and above 0, indicating that skewness or kurtosis for the distribution is not outside the range of normality, so the distribution were considered normal distributed.

# **4.3.5** Internal Control Mechanism

Table 4.6 presents descriptive statistics of the moderator internal control mechanism.

**Table 4.6 Internal Control Mechanism** 

Sta	atements	N	μ	δ	Sk	Kur	Min	Max
1.	The county government have adopted physical security barriers to protect its assets and property	151	3.64	0.868	.001	.93	1	5
2.	In the county government there is access restriction of sensitive information's and assets in order to reduce occurrence of fraud	151	3.72	0.780	.29	.36	1	5
3.	In offices reports and documents are stored in lockers with keys accessible only to authorized personnel	151	3.68	0.821	.19	.88	1	5
	There is always surveillance equipment in the county to minimize equipment vandalism	151	3.74	0.735	.42	.13	1	5
5.	There is always separation of duties with accountability in the county in order to minimize the fraud occurrence	151	3.80	0.589	.90	.29	1	5
	Forensic accountants use standardized financial documentation will enable them to detect fraud	151	3.90	0.508	.25	.30	1	5
7.	There is always a periodic reconciliation of in accounting system will enable in detecting of fraud	151	3.75	0.714	.37	.95	1	5
Ag	ggregate mean		3.75	0.716	.35	.55	1	5

Key:  $\mu\text{-Mean}$ ,  $\delta$  -Standard Deviation, Sk- Skewness, Kur- Kurtosis, Min-Minimum, Max- Maximum

Table 4.6 shows that the respondents agreed with the statement that the county government have adopted physical security barriers to protect its assets and property (Mean=3.64, standard deviation=0.868). The respondents agreed that in the county government there is access restriction of sensitive information's and assets in order to

reduce occurrence of fraud (Mean=3.72, standard deviation=0.78). They also agreed that in offices reports and documents are stored in lockers with keys accessible only to authorized personnel (Mean=3.68, standard deviation=0.821). They further agreed that there is always surveillance equipment in the county to minimize equipment vandalism (Mean=3.74, standard deviation=0.735).

Also, the respondents agreed that there is always separation of duties with accountability in the county in order to minimize the fraud occurrence (Mean=3.80, standard deviation=0.589). Further, they agreed that Forensic accountants use standardized financial documentation will enable them to detect fraud (Mean=3.90, standard deviation=0.508). Finally, the respondents agreed that there is always a periodic reconciliation of in accounting system will enable in detecting of fraud (Mean=3.75, standard deviation=0.714). The study results further, revealed that all values of skewness and Kurtosis were less than +1 and above 0, indicating that skewness or kurtosis for the distribution is not outside the range of normality, so the distribution were considered normal distributed.

### 4.3.6 Fraud Detection

Table 4.7 presents descriptive statistics of fraud detection.

**Table 4.7 Fraud Detection** 

Statements	N	μ	δ	Sk	Kur	Min	Max
1. There is always no trace at all of documentation of transactions		3.85	0.667	.00	.69	1	5
2. There are no enough details on transactions in the county	151	3.88	0.632	.11	.64	1	5
3. There is always data mismatch in the county transactions	151	3.90	0.586	.20	.53	1	5
4. The county assesses the performance of every department to check unusual activity or output	151	3.89	0.556	.17	.37	1	5
5. The county government examine any arising mistake to confirm if it was a loophole for fraud	151	3.83	0.619	.26	.85	1	5
6. The forensic accountants examine any variance in budget and the use of funds	151	3.92	0.497	.14	.95	1	5
7. Monitoring the financial data helped us to detect fraud	151	3.90	0.574	.35	.26	1	5
8. Implementing company policies on confidentiality and nondisclosure will enable us to detect fraud	151	3.93	0.654	.24	.39	1	5
Aggregate mean		3.89	0.598	.18	.59	1	5

Key:  $\mu\text{-Mean}$ ,  $\delta$  -Standard Deviation, Sk- Skewness, Kur- Kurtosis, Min- Minimum, Max- Maximum

Table 4.7 shows that majority of the respondents agreed that there is always no trace at all of documentation of transactions (Mean=3.85, standard deviation=0.667). The respondents also agreed with the statement that there are no enough details on transactions in the county (Mean=3.88, standard deviation=0.632). The respondents also agreed that there is always data mismatch in the county transactions (Mean=3.90, standard deviation=0.586). They further agreed that the county assesses the

performance of every department to check unusual activity or output (Mean=3.89, standard deviation=0.556).

Also, the respondents agreed that the county government examine any arising mistake to confirm if it was a loophole for fraud (Mean=3.83, standard deviation=0.619). The respondents further agreed that the forensic accountants examine any variance in budget and the use of funds (Mean=3.92, standard deviation=0.497). Also, they greed that monitoring the financial data helped us to detect fraud (Mean=3.90, standard deviation=0.574). Finally, they agreed that implementing company policies on confidentiality and nondisclosure will enable us to detect fraud (Mean=3.93, standard deviation=0.654). The study results further, revealed that all values of skewness and Kurtosis were less than +1 and above 0, indicating that skewness or kurtosis for the distribution is not outside the range of normality, so the distribution were considered normal distributed.

# **4.4 Inferential Analysis**

This section presents the results of correlation and multiple regression analysis in line with the specific objectives of this study.

## 4.4.1 Overall Correlation Analysis

Preliminary analysis was carried out to determine whether there were significant associations between Investigative practice, prevention practice, examination practice, litigation practice, internal control mechanism and fraud detection Pearson's product –moment correlation (r) was used to explore the relationship between the variables, specifically to assess both the direction and strength. The results of correlation analysis are presented in Table 4.8.

Correlation results showed that relationship between investigative practice and fraud detection was positive and statistically significant (r=0.718, p<0.01), prevention practice and fraud detection was positive and significant (r=0.677, p<0.01), examination practice and fraud detection was positive and significant (r=0.688, p<0.01), litigation practice and fraud detection was positive and significant (r=0.703, p<0.01).

**Table 4.8 Correlation Coefficient Matrix** 

	Fraud	Investigative	Prevention	Examination	Litigation	Internal
	Detection					Control
Fraud	1					
Detection						
Investigative	.718**	1				
Prevention	.677**	.707**	1			
Examination	.688**	.613**	.593**	1		
Litigation	.703**	.704**	.629**	.717**	1	
Internal	.645**	.597**	.561**	.711**	.578**	1
Control						

<sup>\*\*.</sup> Correlation is significant at the 0.01 level (2-tailed).

Correlation results showed that relationship between investigative practice and fraud detection was positive and statistically significant. Prevention practice and fraud detection was positive and significant. Examination practice and fraud detection was positive and significant. Litigation practice and fraud detection was positive and significant. Since the correlation values are not close to 1 or -1 it implies an indication that the factors are sufficiently different measures of separate variables (Cohen, Cohen, West and Aiken, 2013). It is also an indication that variables are not Autocorrelated (Cohen *et al.*, 2013). Absence of autocorrelation allows the study to utilize all the independent variable (Cohen *et al.*, 2010). Pearson's product-moment correlation coefficient (r) was used to measure the extent of correlation between

variables of the study and to show the strength of the linear relationship between variables in the regression ranges between +1 and -1. Where r=+0.7 and above it indicates a very strong relationship; r=+0.5 to below 0.7 is a strong relationship; r=+0.3 to +0.49 is a moderate relationship while r=.029 and below indicates a weak relationship. Where r=0 it indicates that there is no relationship (Cohen, Cohen & Aiken, 2003).

# 4.4.2 Multiple Regression Model Assumption

The study tested normality, linearity, multicollinearity and homoscedasticity assumptions. Linear regression needs the relationship between the independent and dependent variables to be linear. It is also important to check for outliers since linear regression is sensitive to outlier effects. The linearity assumption can best be tested with scatter plots, the following two examples depict two cases, where no and little linearity is present. Secondly, the linear regression analysis requires all variables to be multivariate normal. This assumption can best be checked with a histogram or a Q-Q-Plot. Normality can be checked with a goodness of fit test, e.g., the Kolmogorov-Smirnov test. When the data is not normally distributed a non-linear transformation (e.g., log-transformation) might fix this issue. Thirdly, linear regression assumes that there is little or no multicollinearity in the data. Multicollinearity occurs when the independent variables are too highly correlated with each other.

# 4.4.2.1 Normality Assumption Test

Normal Probability plots and Kolmogorov-Smirnov were used to find out if residuals follow normal probability distribution.



Figure 4.1 Normal P-P Plot of Regression Standardized Residual

The plotted points of residuals in the normal probability plot are almost along the straight line from the lower left to the upper right of the graph. This implies that our data is normally distributed.

**Table 4.9 Normality Test** 

Variable	Kolmogorov-Smirnov	Sig
Investigative practice	1.325	0.061
Prevention practice	0.821	0.632
Examination practice	0.758	0.705
Litigation practice	0.892	0.64
Internal control mechanism	0.799	0.745

The data is considered to come from a normal distribution if the significance value is greater than 0.05. Table 4.9 shows that all our sample values were above 0.05. This is an indication that our data is normally distributed.

# 4.4.2.2 Test for Linearity

The study used correlation test to test for linearity of the data and to visually show whether there was a linear or curvilinear relationship between two continuous variables before carrying out regression analysis. The regression models can only accurately estimate the relationship between dependent and independent variables if the relationship is linear (Osborne & Waters, 2002).

**Table 4.10 Linearity Test** 

Items	Correlation coefficient	Significance
Investigative practice	.718	.000
prevention practice	.677	.000
examination practice	.687	.000
litigation practice	.703	.000

The results in Table 4.10 shows that the correlation coefficient was different from zero implying that there was a linear relationship between the dependent and the independent variables.

# 4.4.2.3 Multicollinearity Test Assumption

Multicollinearity was assessed using the variance inflation factors (VIF). According to Field (2009) VIF values in excess of 10 is an indication of the presence of Multicollinearity.

**Table 4.11:Multicollinearity Test Assumption** 

Variables	Tolerance	VIF
Investigative	.372	2.691
Prevention	.445	2.249
Examination	.349	2.868
Litigation	.366	2.729
Internal control mechanism	.447	2.239

The results in Table 4.11 present variance inflation factor values and tolerance value for Investigative practice (tolerance=0.372 and VIF=2.691), for prevention practice (tolerance=0.445 and VIF=2.249), for examination practice (tolerance=0. 349 and VIF=2.868) and for litigation practice (tolerance=0.366 and VIF=2.729) and variance

inflation factor values and tolerance value for internal control mechanism (tolerance=0. 447 and VIF=2.239). The study results imply that all tolerance values for the five variables under study were all above 0.10 and VIF values all less than 10 which were accordance to Field, (2009). This gives an implication that data used had no multicollinearity.

# **4.4.2.4** Homoscedasticity Test

The study used Levine's test of equality of variances to test for the assumption of homoscedasticity. The assumption results are shown in shown in Table 4.12.

Table 4.12: Test Results of Homoscedasticity of Variances

F	df1	df2	Sig.
1.378	95	55	.098

Testing for homoscedasticity was necessitated by use of hierarchical multiple regression as the principal inferential statistical approach. Results shown in Table 4.12 indicated that at 5% level of significance, none of the Levenes statistic for forensic accounting practices was significant (all probabilities associated with Levenes Statistic 0.098 was above significance level). This indicates that homoscedasticity requirement was achieved. Homoscedasticity applies to multiple regressions and as noted by Tabachnick and Fidell, (2013).

### 4.5 Hierarchical Moderated Regression Analysis

In order to establish the interaction effect between independent variables and dependent variable, internal control mechanism was used as a moderating variable. The hierarchical linear regression analysis was used to test moderating influence (Baron & Kenny, 1986). The regression analysis was done for each independent

variable and dependent variable to determine the individual moderating effect of each element on fraud detection.

**Table 4.13 Hierarchical Moderated Regression Analysis Summary** 

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
(Constant)	.898***	.798***	793*	784*	811**	839**
	(.212)	(.215)	(.314)	(.315)	(.289)	(.285)
Investigative	.262***	.233**	.955***	.649*	360*	681*
	(.073)	(.074)	(.131)	(.506)	(.600)	(.659)
Prevention	.173**	.158*	.094*	.377*	.057*	.408*
	(.061)	(.060)	(.055)	(.455)	(.422)	(.442)
Examination	.238**	.161*	.055*	.046*	.301***	.869***
	(.068)	(.076)	(.069)	(.071)	(.432)	(.490)
Litigation	.170*	.172*	.135*	.137*	.087*	516*
	(.071)	(.070)	(.062)	(.063)	(.058)	(.690)
Internal control		.147*	.842***	.855***	.926***	.962***
		(.069)	(.125)	(.127)	(.117)	(.116)
Internal control			198***	123*	.367*	.197*
× investigative			(.031)	(.124)	(.147)	(.162)
Internal control				072*	.001*	092*
× prevention				(.114)	(.106)	(.111)
Internal control					546***	684***
×examination					(.103)	(.118)
Internal control						.395*
×litigation						(.169)
F statistic	68.488***	57.040***	67.290***	57.490***	63.264***	58.596***
$\mathbb{R}^2$	.652***	.663*	.737***	.738*	.781***	.789*
R <sup>2</sup> change		.011*	0.074***	.001*	.043***	.008*

<sup>\*\*\*.</sup> significant at the 0.001 level (2-tailed).

From Table 4.13 shows coefficient of determination  $R^2 = 0.652$ . The  $R^2$  value was statistically significant at p<0.001 and indicating that the explanatory power of the independent variables was 0.652. This means that 65.2% of the variation in fraud detection was explained by the four independent variables (litigation, prevention, examination and investigative).

Further Table 4.13 provided the results of the R<sup>2</sup> change. The R<sup>2</sup> change from model 1 to model 2 was 0.011 which changed from 0.652 to 0.663 and statistically significant (p<0.05). This shows that adding internal control mechanism in the model increases

<sup>\*\* .</sup> significant at the 0.01 level (2-tailed).

<sup>\* .</sup> significant at the 0.05 level (2-tailed).

the model predictive capacity of forensic accounting practices in predicting fraud detection by increasing presentable variable counted for by 1.1%.

The R<sup>2</sup> change from model 2 to model 3 was 0.074 which changed from 0. 663 to 0. 737 and statistically significant (p<0.001). This indicated that internal control mechanism moderates the effect of investigative practice on fraud detection. The R<sup>2</sup> change from model 3 to model 4 was 0. 001 which changed from 0. 737 to 0. 738 and statistically significant (p<0.05). This indicated that internal control mechanism moderates the effect of investigative and preventative practice on fraud detection.

The R<sup>2</sup> change from model 4 to model 5 was 0. 043 which changed from 0. 738 to 0. 781 and statistically significant (p<0.001). This implied that internal control mechanism moderates the effect of investigative, preventative and examination practices on fraud detection.

The R<sup>2</sup> change from model 5 to model 6 was 0. 008 which changed from 0. 781 to 0. 789 and statistically significant (p<0.05). This revealed that internal control mechanism moderates the effect of investigative, preventative, examination and litigation practices on fraud detection.

Table 4.13 provided the F test revealing the significance of the fitted regression model. An F statistic in model 1 produced the value of 68.49 indicated that the independent variables were predicators of dependent variable (F=68.49; p< 0.001). This imply a good fit and therefore considering the regression fitted, forensic accounting practices (litigation, prevention, examination and investigative) had an effect on fraud detection.

F-value of model 2 was 57.040 which is associated with an  $R^2$  of .663. This implied that after moderation of investigative practices there was still good fit of the model (F=57.040; p< 0.05). F-test for model 3 had a F-value of 67.290 which is associated with an  $R^2$  of. 737 and  $R^2$  change of 0.074. This implied that after moderation of investigative practices by internal control mechanism shows a good predictors of fraud detection and that the overall model was significant as it was less than p- value 0.001 (P< 0.001). F-test for model 4 had a F-value of 57.490 which is associated with an  $R^2$  of. 738 and  $R^2$  change of 0. 001. This implied that after moderation of investigative and prevention practices separately by internal control mechanism shows a good predictors of fraud detection and that the overall model was significant as it was less than p- value 0.05 (P< 0.05).

F-test for model 5 had a F-value of 63.264 which is associated with an  $R^2$  of. 781 and  $R^2$  change of 0. 043. This implied that after moderation of investigative, prevention and examination practices separately by internal control mechanism shows a good predictors of fraud detection and that the overall model was significant as it was less than p- value 0.001(P< 0.001). F-test for model 6 had a F-value of 58.596 which is associated with an  $R^2$  of 0.789 and  $R^2$  change of 0.008. This implied that after moderation of investigative, prevention, examination and litigation practices separately by internal control mechanism shows a good predictors of fraud detection and that the overall model was significant as it was less than p- value 0.05(P< 0.05).

Regression coefficients results of model 1 in Table 4.13 showed that investigative practice had a positive and significant effect on fraud detection ( $\beta_1$ =0.262, p<0.001), prevention practice had a positive and significant effect on fraud detection ( $\beta_2$ =0.173, p<0.01), examination practice had a positive and significant effect on fraud detection

( $\beta_3$ =0.238, p<0.01) and litigation practice had a positive and significant effect on fraud detection ( $\beta_4$ =0.169, p<0.05).

In model two a regression analysis was done to determine the moderation effect of internal control mechanism on the relationship between litigation practice, examination practice, preventive practice, investigative practice and fraud detection. The equation shows that the coefficient of internal control mechanism interaction was significant since it had a p-value of 0.000 which was less than 0.05 as shown in Table 4.13 since the coefficient was significant, it implied that internal control mechanism had a moderating effect on the relationship between litigation practice, examination practice, preventive practice, investigative practice and fraud detection.

In model three a regression analysis revealed that internal control mechanism has a negative moderating effect on the relationship between investigative practice and fraud detection (p<0.001).

In model four a regression analysis revealed that Internal control mechanism had a negative and significant effect on the relationship between investigative practice and fraud detection (p<0.05) and on the relationship between prevention practice and fraud detection (p<0.05).

In model five a regression analysis revealed that Internal control mechanism had a positive and significant effect on the relationship between investigative practice and fraud detection (p<0.05) and on the relationship between prevention practice and fraud detection (p<0.05). However, internal control mechanism had a negative and significant effect on the relationship between examination practice and fraud detection (p<0.05).

In model six a regression analysis revealed that internal control mechanism had a positive and significant effect on the relationship between investigative practice and fraud detection (p<0.05). The internal control mechanism had a positive and significant effect on the relationship between prevention practice and fraud detection (p<0.05). However, internal control mechanism had a negative and significant effect on the relationship between examination practice and fraud detection (p<0.05). Internal control mechanism had a positive and significant effect on the relationship between litigation practice and fraud detection (p<0.05).

 $Y = -.839 - .681X_{1} + 0.408X_{2} + 0.869X_{3} - 0.516X_{4} + 0.962Z + 0.197Z*X_{1} - 0.092Z*X_{2} - 0.684Z*X_{3} + 0.395Z*X_{4}$ 

# 4.5.1 Hypothesis Testing of the Effect of Investigative Practice on Fraud Detection

Hypothesis  $H_{01}$  stated that investigative practice has no significant effect on fraud detection among selected counties in Kenya was formulated for testing. Results shows that investigative practice has a positive and significant effect on the fraud detection ( $\beta_1$ =0.262, p<0.05). Basing on the results the null hypothesis is rejected suggesting that investigative practice had a significant positive effect on fraud detection. These findings are in agreement with the finding of Gbegi and Adebisi, (2014) who explicate forensic auditing as investigative and auditing effort, techniques and models that facilitate the resolving of legal-judicial challenges. This is facilitated through the use of retrieved evidence of raw accounting data with intent of accounting fraud extrication, compliance assessment, risk assessment, detection financial statement fraud or/and misrepresentation.

# 4.5.2 Hypothesis Testing of the Effect of Preventive Practice on Fraud Detection

Hypothesis  $H_{02}$  stated that preventive practice has no significant effect on Fraud detection among selected counties in Kenya was formulated for testing. Results shows that preventive practice has a positive and significant effect on the fraud detection ( $\beta_2$ =0.173, p<0.05). Basing on the results the null hypothesis is rejected suggesting that preventive practice had a significant effect on fraud detection. These findings are in agreement with the finding of Akani and Ogbeide (2017) who found out a positive relationship between Fraud detection and forensic accounting do not operate in a vacuum, but have other factors at play that potentially influence their efficaciousness.

# 4.5.3 Hypothesis Testing of the Effect of Examination Practice on Fraud Detection

Hypothesis  $H_{03}$  stated that examination practice has no significant effect on fraud detection among selected counties in Kenya was formulated for testing. Results shows that examination practice has a positive and significant effect on the fraud detection ( $\beta_3$ =.238, p<0.05). Basing on the results the null hypothesis is rejected suggesting that examination practice had a significant effect on fraud detection. These findings are in agreement with the finding of Atağan and Kavak (2017) who asserts that as a fraud examination progresses and new information emerges, the fraud examiner should continually reevaluate whether there is adequate predication to take each additional step in the examination.

### 4.5.4 Hypothesis Testing of the Effect of Litigation Practice on Fraud Detection

Hypothesis  $H_{04}$  stated that litigation practice has no significant effect on Fraud detection among selected counties in Kenya was formulated for testing. Results shows that Litigation practice has a positive and significant effect on the fraud detection

(β<sub>4</sub>=0.170, p<0.05). Basing on the results the null hypothesis is rejected suggesting that litigation practice had a significant effect on fraud detection. According to Wahinya (2015) forensic accounting is utilized in litigation proceeds in presenting relevant evidence through reports and audits. It further provides much needed expert knowledge to the bench. This can serve as a critical element to convict or acquit a case depending on the weight of evidence a financial report contains in a given case. The professional accounting skills can serve as a pillar or supporting structure in matters involving potential or actual civil or criminal cases. Ezejiofor, Nwakoby and Okoye (2016) noted that litigation could for a number of issues such as breach of compliance, bankruptcies, insolvencies, and occupational fraud investigations, among others.

# 4.5.5 Hypothesis Testing of Internal Control Mechanism on the Relationship Between Investigative Practice and Fraud Detection

Hypothesis  $H_{05a}$  stated that internal control mechanism has no significant moderating effect on the relationship between investigative practice and fraud detection among selected counties in Kenya was formulated for testing. Results shows that internal control mechanism executive has no significant moderating effect on the relationship between investigative practice and fraud detection (investigative practice and internal control mechanism ( $\beta_{c1}$ =.197, p>0.05). Basing on the results the null hypothesis is not rejected suggesting that internal control mechanism has no significant moderating effect on relationship between investigative practice and fraud detection. Okoth (2016) asserts that oversight in public funds can only be well implemented if there was a strong internal control mechanism upon which the oversight is based upon. This renders forensic accounting practices the needed imperative weight in executing its functions in the efforts of mitigating fraud.

# 4.5.6 Hypothesis Testing of Internal Control Mechanism on the Relationship Between Preventive Practice and Fraud Detection

Hypothesis  $H_{05b}$  stated that internal control mechanism has no significant moderating effect on the relationship between preventive practice and fraud detection among selected counties in Kenya was formulated for testing. Results shows that internal control mechanism executive has no significant moderating effect on the relationship between preventive practice and fraud detection (Preventive practice and internal control mechanism  $\beta_{c2}$ =-.092, p>0.05). Basing on the results the null hypothesis is not rejected suggesting that internal control mechanism has no significant moderating effect on relationship between preventive practice and fraud detection. Mishra and Singh (2017) showed the effectiveness of internal control mechanism support in the application of forensic accounting practices in containing fraud in the corporate world. This is because the preclusion of internal control mechanism lessens the imperative credibility and solemnity of forensic accounting in fraud detection.

# 4.5.7 Hypothesis Testing of Internal Control Mechanism on the Relationship Between Examination Practice and Fraud Detection

Hypothesis  $H_{05c}$  stated that internal control mechanism has no significant moderating effect on the relationship between examination practice and fraud detection among selected counties in Kenya was formulated for testing. Results shows that internal control mechanism has a negative and significant moderating effect on the relationship between examination practice and fraud detection (examination practice and internal control mechanism ( $\beta_{c3}$ =-.684, p<0.05). Basing on the results the null hypothesis is rejected suggesting that internal control mechanism had a significant moderating effect on relationship between examination practice and fraud detection. Ezejiofor *et al.* (2016) contend that the use of forensic accounting practices in fraud

detection, absent of the internal control mechanism as a moderating element, makes its obligations of mitigation of no impact and renders the effort futile in an avenue that needs robust and forceful reinforcement on the negative implication of Fraud detection.

# 4.5.8 Hypothesis Testing of Internal Control Mechanism on the Relationship Between Litigation Practice and Fraud Detection

Hypothesis H<sub>05d</sub> stated that internal control mechanism has no significant moderating effect on the relationship between litigation practice and fraud detection among selected counties in Kenya was formulated for testing. Results shows that internal control mechanism has a positive and significant moderating effect on the relationship between litigation practice and fraud detection (Litigation practice and internal control mechanism ( $\beta_{d4}$ =0.395, p<0.05). Basing on the results the null hypothesis is rejected suggesting that internal control mechanism had a significant moderating effect on relationship between litigation practice and fraud detection. This internal control mechanism as a moderating factor is critically linked to the independent variables and dependent variable because it legitimizes and strengthens practices of forensic accounting in the endeavors of Fraud detection. It does this by giving credence to what the practices of forensic accounting (Mishra & Singh, 2017). For instance, the independent variable of litigation practice is moderated by the internal control mechanism by giving it recognition, whereby the expert skills of forensic accounting can authoritatively be utilized in a court room to convict or exonerate a fraud case using definitive evidence.

#### **CHAPTER FIVE**

# SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

### **5.1 Overview**

This chapter presents the summary of major findings of the study, relevant discussions and necessary recommendations. The study sought to examine the effect of forensic accounting practices on fraud detection and the moderating effect of internal control mechanism on the relationship between forensic accounting practices and fraud detection. The summary of key findings, conclusions and recommendations is done in line with the objectives of the study based on the output of the descriptive and inferential statistical analyses guided to test the research hypotheses of the study.

# **5.2 Summary of the Findings**

This section presents the summary of the study on the to examine the effect of forensic accounting practices on fraud detection and the moderating effect of internal control mechanism on the relationship between forensic accounting practices and fraud detection based on the specific objectives.

# 5.2.1 Investigative Practice and Fraud detection

The first objective of the study was to determine the effect of investigative practice on fraud detection among selected counties in Kenya. The study findings also showed that investigative practice was statistically significant and has a positive influence on fraud detection ( $\beta_1$ =0.262, p<0.05). The study rejected the null hypothesis that there is no statistically significant influence of investigative practice on fraud detection.

# 5.2.2 Prevention practice and Fraud detection

The second objective of the study was to determine the effect of prevention practice on fraud detection among selected counties in Kenya. The study findings also showed that prevention practice was statistically significant and has a positive influence on fraud detection ( $\beta_2$ =0.173, p<0.05). The study rejected the null hypothesis that there is no statistically significant influence of prevention practice on fraud detection. The study findings also revealed that prevention practice on fraud detection among selected counties in Kenya.

# 5.2.3 Examination practice and Fraud detection

The third objective of the study was to determine the effect of examination practice investigative practice on fraud detection among selected counties in Kenya. The study findings also showed that examination practice was statistically significant and has a positive influence on fraud detection ( $\beta_3$ =.238, p<0.05). The study rejected the null hypothesis that there is no statistically significant influence of examination practice on fraud detection. The study findings also revealed that examination practice has a positive influence on fraud detection among selected counties in Kenya.

# **5.2.4 Litigation Practice And Fraud Detection**

The fourth objective of the study was to determine the effect of litigation practice on fraud detection among selected counties in Kenya. The study findings also showed that litigation practice was statistically significant and has a positive influence on fraud detection ( $\beta_4$ =0.170, p<0.05). The study rejected the null hypothesis that there is no statistically significant influence of litigation practice on fraud detection. The study result also reveals that litigation practice has a positive influence on fraud detection among selected counties in Kenya.

### **5.3 Discussion of the Findings**

This section discusses the findings based on the study findings.

# **5.3.1 Investigative Practice**

The study revealed that forensic accountants are identifying physical evidence during fraud detection in the county government. They also gather information concerning financial use in the county in order to detect any risk of fraud. They further use evidence on previous fraud cases to detect the pattern of fraud occurrence and finally interview the staffs and witness in order to detect any fraud risk in future. The study results concur with Shah (2018) who argued that forensic accounting skills can be applied to a wide variety of investigations into alleged corporate and individual wrongdoing such as financial reporting fraud, money laundering, and bribery and corruption etcetera. An important part of an investigation is establishing whether the act was intentional.

#### **5.3.2 Prevention Practice**

The study finding revealed that forensic accounts department ensures that there is fraud awareness and education in the county every year. They also ensure that there is always transaction monitoring in the county to prevent any transaction fraud. Further, they ensure that counterfeiting prevention in the county and finally they maintain fraud justice in order to prevent any fraud occurrence. The study agrees with Smith (2015) who asserted that fraud ought to be properly monitored for accuracy and timeliness in an atmosphere that promotes fairness, transparency and accountability. The study also coincides with Mukoro *et al.*, (2013) who stated that monitoring. In internal control this is a necessary element of evaluations of human resources and systems through continuous quality control conducted periodically. As it related to fraud, it involves assessments that focus of prevention and identifying of irregular or fraudulent activities must ensure that all control processes are performed as designed and approved.

#### **5.3.3** Examination Practice

The study revealed that during fraud examination the forensic accountants use high communication skills. They also have presentation styles which help them examine the fraud in the county without raising tension. Also, Forensic accountants have self-control traits which help them examine the fraud in the county. Finally, during fraud examination violations of applicable laws, rules, and regulations are always possible in the county. The study findings agree with Atagan and Kavak (2017) who asserts that the value of a fraud examination rests on the credibility of the evidence obtained. Evidence of fraud usually takes the form of documents or statements by witnesses; therefore, fraud examiners must know how to properly and legally obtain documentary evidence and witness statements.

# **5.3.4 Litigation Practices**

The study result revealed that that forensic accountants apply freezing orders as a way of litigation practices when need arise during fraud detection. They also search orders to detect fraud when there is suspicion. They further use ancillary orders to detect fraud in the county. Finally, they consider the key international aspects of civil fraud litigation during fraud detection. The study result agrees with Ezejiofor, Nwakoby and Okoye (2016) who asserted that Litigation could for a number of issues such as breach of compliance, bankruptcies, insolvencies, and occupational fraud investigations, among others.

### **5.3.5 Internal Control Mechanism**

the study revealed that the respondents agreed that the county government have adopted physical security barriers to protect its assets and property. The county government there is access restriction of sensitive information's and assets in order to reduce occurrence of fraud. In offices reports and documents are stored in lockers with keys accessible only to authorized personnel. There is always surveillance equipment in the county to minimize equipment vandalism. There is always separation of duties with accountability in the county in order to minimize the fraud occurrence. Forensic accountants use standardized financial documentation will enable them to detect fraud. There is always a periodic reconciliation of in accounting system will enable in detecting of fraud.

The study findings concur with Nyarku and Oduro (2018) who asserts that control activities such as authorization, documentation, reconciliation, security and the separation of duties. The activities can be divided into preventative and detective activities. Preventive control activities aim to deter errors or fraud from happening in the first place and include thorough documentation and authorization practices. And the separation of duties ensures that no single individual is in a position to authorize, record, and be in custody of a financial transaction and the resulting asset. Authorization of invoices and verification of expenses are internal controls. In addition, preventative internal controls include limiting physical access to equipment, inventory, cash and other assets.

### **5.4 Conclusions of the Study**

Based on the first objective the study concluded that investigative practice has a positive influence on fraud detection. Forensic accountants are identifying physical evidence during fraud detection in the county government. They also gather information concerning financial use in the county in order to detect any risk of fraud. They further use evidence on previous fraud cases to detect the pattern of fraud

occurrence and finally interview the staffs and witness in order to detect any fraud risk in future.

Based on the second objective the study concluded that prevention practice has a positive influence on fraud detection. Forensic accounts department ensures that there is fraud awareness and education in the county every year. They also ensure that there is always transaction monitoring in the county to prevent any transaction fraud. Further, they ensure that counterfeiting prevention in the county and finally they maintain fraud justice in order to prevent any fraud occurrence. They also ensure that there is always transaction monitoring in the county to prevent any transaction fraud.

Based on the third objective the study concluded that examination practice was statistically significant and has a positive influence on fraud detection. They also have presentation styles which help them examine the fraud in the county without raising tension. Also, forensic accountants have self-control traits which help them examine the fraud in the county. Finally, during fraud examination violations of applicable laws, rules, and regulations are always possible in the county. This implies that during fraud examination the forensic accountants use high communication skills. They also have presentation styles which help them examine the fraud in the county without raising tension. Also, forensic accountants have self-control traits which help them examine the fraud in the county. Finally, during fraud examination violations of applicable laws, rules, and regulations are always possible in the county.

Based on the fourth objective the study concluded litigation practice was statistically significant and has a positive influence on fraud detection. The study finally concluded that forensic accountants apply freezing orders as a way of litigation practices when need arise during fraud detection. They also search orders to detect

fraud when there is suspicion. They further use ancillary orders to detect fraud in the county. Finally, they consider the key international aspects of civil fraud litigation during fraud detection.

## 5.5 Recommendation to Policy and Practice

Fraud investigation is very important but shows very challenging tasks in daily practice, fraud prevention is therefore considered as a measuring yard stick to establish level of sound internal control mechanism. Forensic accounting currently being understood by accountants, as an elaborated activity unto itself by which is capable to counter fraud. The study therefore, recommended that the county government should impose the use of forensic accounting and auditing to deter corruption in all sectors of the economy.

The recommends to the key policy makers in the national government, as well in the county government to make use of internal control mechanism in moderating the effect of forensic accounting on fraud detection hence making informed decisions in curbing the perverse crime of fraud. The study recommends county government to how they can ensure that internal control mechanism moderate positively the effect examination practice on fraud detection. The accountants of the county government should use high communication skills during fraud examination the forensic. They should avoid violations of applicable laws, rules, and regulations during fraud examination.

### 5.6 Recommendations for Further Research

In this section, suggestions for further research in areas to this study are given. Results shows that investigative practice has a negative and significant effect on the fraud

detection. Therefore, future researchers should focus on how investigative practice can be moderated in order to improve fraud detection.

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### **APPENDICES**

### **Appendix I: Letter of Introduction**

MAKANDA BRENDAH

School of Business and Economics

Moi University.

P.O. Box 3900-30100

Eldoret

Dear Respondent,

### **RE: REQUEST FOR RESEARCH DATA**

I am a post graduate student at the Moi University, School of Business and Economics. In partial fulfillment of the requirements for the award of degree in Management of Business Administration, I am required to conduct a study on the moderating role of internal control mechanism on the relationship between forensic accounting practices and Fraud detection among selected counties. The questionnaire consists of two parts thus should not take more than 20 minutes to fill. Please note there is no right or wrong answer, so feel free to give the answer you think is correct. Strict confidentiality was maintained and all the information collected through this questionnaire will remain confidential. The information you provide will not be used for any other purpose apart from its intended academic use.

I thank you in advance for your co-operation.

Yours faithfully

MAKANDA BRENDAH

MASTERS Student – Moi University

# **Appendix II: Research Questionnaire**

# **SECTION A:** INVESTIGATIVE PRACTICE

Please indicate to what extent you agree or disagree on the statements on investigative practice given in the Table below using the following key 5 strongly agree 4 agree, 3 Undecided, 2 disagree and 1 strongly disagree (Use a tick (√) to mark the applicable box).

Statements	SA	A	UD	D	SD
Forensic accountants are identifying physical					
evidence during fraud detection in the county					
government					
The forensic accountants are always gathering					
information concerning financial use in the county					
in order to detect any risk of fraud					
Forensic accountants used evidence previous fraud					
cases to detect the pattern of fraud occurrence					
Forensic accountants at times interview the staffs					
and witness in order to detect any fraud risk in					
future					
Forensic accountants interrogate the suspect in					
order to detect the existence of any fraud					

# **SECTION B:** PREVENTION PRACTICE

2. Please indicate to what extent you agree or disagree on the statement on **prevention practice** given in the Table below using the following key 5 strongly agree 4 agree, 3 Undecided, 2 disagree and 1 strongly disagree (Use a tick  $(\sqrt{})$  to mark the applicable box)

Statements	SA	A	UD	D	SD
The forensic accounts department have ensured					
that there is fraud awareness and education in the					
county every year					
There is always transaction monitoring in the					
county to prevent any transaction fraud					
Forensic accountants are always ensuring that					
counterfeiting prevention in the county					
forensic accounts department excises law					
enforcement in preventing fraud occurrence					
The forensic accounts department are using					
computer systems monitoring to ensure that they					
prevent any occurrence of fraud in county					
Forensic accounts department are always					
maintaining fraud justice in order to prevent any					
fraud occurrence					

## **SECTION C: EXAMINATION PRACTICE**

**8.** Please indicate to what extent you agree or disagree on the statements on **examination practice** given in the Table below using the following key **5 strongly agree 4 agree, 3 Undecided, 2 disagree and 1 strongly disagree** (Use a tick  $(\sqrt{})$  to mark the applicable box)

Statements	SA	A	UD	D	SD
During fraud examination the forensic accountants use					
high communication skills					
Forensic accountants have presentation styles which					
help them examine the fraud in the county without					
raising tension					
Forensic accountants have self-control traits which					
help them examine the fraud in the county					
Forensic accountants are always aware of the potential					
dangers of an adversarial environment during fraud					
examination					
During fraud examination there is rigorous data					
detection and analysis with a built-in suspicion in the					
county					
During fraud examination violations of applicable					
laws, rules, and regulations are always possible in the					
county					

# **SECTION D: LITIGATION PRACTICE**

9.Please indicate to what extent you agree or disagree on the statement on **litigation practice** given in the Table below using the following key **5 strongly agree 4 agree, 3 Undecided, 2 disagree and 1 strongly disagree** (Use a tick ( $\sqrt{}$ ) to mark the applicable box)

Statements	SA	A	UD	D	SD
Forensic accountants apply freezing orders as a way					
of litigation practices when need arise during fraud					
detection					
Forensic accountants use search orders to detect					
fraud when there is suspicion					
Forensic accountants always apply receivership as a					
litigation practices during fraud detection					
Forensic accountants use ancillary orders to detect					
fraud in the county					
Forensic accountants apply increasingly-used					
contempt jurisdiction during fraud detection					
Forensic accountants consider the key international					
aspects of civil fraud litigation during fraud detection					

## SECTION E: INTERNAL CONTROL MECHANISM

1. Please indicate to what extent you agree with the statements in the Table below on internal control mechanism using the following key 5 strongly agree 4 agree 3 Undecided, 2 disagree and 1 strongly disagree. (Use a tick  $(\sqrt{})$  to mark the applicable box).

The county government have adopted physical security barriers to protect its assets and property  In the county government there is access restriction of sensitive information's and assets in order to reduce occurrence of fraud  In offices reports and documents are stored in lockers with keys accessible only to authorized personnel  There is always surveillance equipment in the county to minimize equipment vandalism  There is always separation of duties with accountability in the county in order to minimize the fraud occurrence	<u>Statements</u>	SA-	5	<b>A</b> -	UD-	D-	SD-
physical security barriers to protect its assets and property  In the county government there is access restriction of sensitive information's and assets in order to reduce occurrence of fraud  In offices reports and documents are stored in lockers with keys accessible only to authorized personnel  There is always surveillance equipment in the county to minimize equipment vandalism  There is always separation of duties with accountability in the county in order to				4	3	2	1
In the county government there is access restriction of sensitive information's and assets in order to reduce occurrence of fraud  In offices reports and documents are stored in lockers with keys accessible only to authorized personnel  There is always surveillance equipment in the county to minimize equipment vandalism  There is always separation of duties with accountability in the county in order to	The county government have adopted						
In the county government there is access restriction of sensitive information's and assets in order to reduce occurrence of fraud  In offices reports and documents are stored in lockers with keys accessible only to authorized personnel  There is always surveillance equipment in the county to minimize equipment vandalism  There is always separation of duties with accountability in the county in order to	physical security barriers to protect its						
restriction of sensitive information's and assets in order to reduce occurrence of fraud  In offices reports and documents are stored in lockers with keys accessible only to authorized personnel  There is always surveillance equipment in the county to minimize equipment vandalism  There is always separation of duties with accountability in the county in order to	assets and property						
assets in order to reduce occurrence of fraud  In offices reports and documents are stored in lockers with keys accessible only to authorized personnel  There is always surveillance equipment in the county to minimize equipment vandalism  There is always separation of duties with accountability in the county in order to	In the county government there is access						
In offices reports and documents are stored in lockers with keys accessible only to authorized personnel  There is always surveillance equipment in the county to minimize equipment vandalism  There is always separation of duties with accountability in the county in order to	restriction of sensitive information's and						
In offices reports and documents are stored in lockers with keys accessible only to authorized personnel  There is always surveillance equipment in the county to minimize equipment vandalism  There is always separation of duties with accountability in the county in order to	assets in order to reduce occurrence of						
in lockers with keys accessible only to authorized personnel  There is always surveillance equipment in the county to minimize equipment vandalism  There is always separation of duties with accountability in the county in order to	fraud						
authorized personnel  There is always surveillance equipment in the county to minimize equipment vandalism  There is always separation of duties with accountability in the county in order to	In offices reports and documents are stored						
There is always surveillance equipment in the county to minimize equipment vandalism  There is always separation of duties with accountability in the county in order to	in lockers with keys accessible only to						
the county to minimize equipment vandalism  There is always separation of duties with accountability in the county in order to	authorized personnel						
vandalism  There is always separation of duties with accountability in the county in order to	There is always surveillance equipment in						
There is always separation of duties with accountability in the county in order to	the county to minimize equipment						
accountability in the county in order to	vandalism						
	There is always separation of duties with						
minimize the fraud occurrence	accountability in the county in order to						
	minimize the fraud occurrence						
Forensic accountants use standardized	Forensic accountants use standardized						
financial documentation will enable them	financial documentation will enable them						
to detect fraud	to detect fraud						
There is always a periodic reconciliation of	There is always a periodic reconciliation of						
in accounting system will enable in	in accounting system will enable in						
detecting of fraud	detecting of fraud						

## **SECTION F: FRAUD DETECTION**

2. Please indicate to what extent you agree with the statements in the Table below on Fraud detection using the following key **5 strongly agree 4 agree 3** Undecided, **2 disagree and 1 strongly disagree.** (Use a tick  $(\sqrt{})$  to mark the applicable box).

<u>Statements</u>	SA-	5	A	-	UD-	D-	SD-
			4		3	2	1
There is always no trace at all of							
documentation of transactions							
There are no enough details on transactions							
in the county							
There is always data mismatch in the county							
transactions							
The county assesses the performance of							
every department to check unusual activity							
or output							
The county covernment evening only							
The county government examine any							
arising mistake to confirm if it was a							
loophole for fraud							
The forensic accountants examine any							
variance in budget and the use of funds							
Monitoring the financial data helped us to							
detect fraud							
Implementing company policies on							
confidentiality and nondisclosure will							
enable us to detect fraud							
Proactive communication with employees							
around fraud helped us to detect fraud.							

## **Appendix III: Moi University Data Collection Permit**



### MOI UNIVERSITY POSTGRADUATE OFFICE SCHOOL OF BUSINESS AND ECONOMICS

Tel: 0790940508 0771336914 0736138770 Fax No: (053) 43047

Telex No. MOIVARSITY 35047

RE: SBE/PGM/ELD/009/16

P.O. Box 3900

Eldoret. Kenya.

DATE: 18th October, 2019

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

#### RE: BRENDA MAKANDA

The above named is a bonafide student of Moi University School of Business and Economics, undertaking a Master of Business Administration degree, specializing in Auditing and Forensic Accounting. She has completed coursework, defended her proposal successfully, and she is currently proceeding to the field to collect data for her research topic titled: "Forensic Accounting Practices, Internal Control Mechanism and Fraud Detection among selected Counties in Kenya."

Any assistance accorded to her will be highly appreciated.

Yours faithfully, School of Business and Eastiomics

MOLUNIVERSITY DR. JOEL K. TENAH

DEAN, SCHOOL OF BUSINESS AND ECONOMICS

JT/ms



(ISO 9001:2015 Certified Institution)

### **Appendix IV: NACOSTI Research Permit**

REPUBLIC OF KENYA nizion for Science, Technology and Innovation ional Commizion for Science, Tachnology and Innovation stional Commision for Science, Technology and Innovation rtional Commision for Science, Tachnology and Innovation stional Commision for Science, Tachnology and Innovation stional Commizion for Science, Technology and Innovation nal Commission for Science. Tachnology and Innoel Commision for Science, Tachnology and Inno l Commizion for Science, Technology and Inno Commision for Science, Technology and Inneel Commizion for Science, Technology and Innovation el Commizion for Science, Tachnology and Innovation -Commision for Science, Technology and Innovation nal Commizion for Science, Technology and Innovation nal Commision for Science, Tachnology and Innovation el Commizion for Science, Tachnology and Innovation l Commision for Science, Technology and Innovation - Retional Commission for Science, Tacknology and Innovation-Retional Commission for CACOST Tacknology and Innovation-Retional Commission for CACOST Tacknology and Innovation-Retional Commission for Science, Tacknology and Innovationemmission for Science, Tacknology and Innovationtommission for Science, Tacknology and Innovationtommission for Science, Tacknology and Innovationemmission for Science, Tacknology and Innovationemmission for Science, Tacknology and Innovationemmission for Science, Tacknology and Innovationmenticion for Science, Tacknology and Innovation-Retional Commission for Science, Tacknology and Innovation-

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#### THE SCIENCE, TECHNOLOGY AND INNOVATION ACT, 2013

The Grant of Research Licenses is Guided by the Science, Technology and Innovation (Research Licensing) Regulations, 2014

#### CONDITIONS

- 1. The License is valid for the proposed research, location and specified period
- 2. The License any rights thereunder are non-transferable
- 3. The Licensee shall inform the relevant County Director of Education, County Commissioner and County Governor before commencement of the research
- 4. Excavation, filming and collection of specimens are subject to further necessary clearence from relevant Government Agencies
- 5. The License does not give authority to tranfer research materials
- 6. NACOSTI may monitor and evaluate the licensed research project
- 7. The Licensee shall submit one hard copy and upload a soft copy of their final report (thesis) within one of completion of the research
- 8. NACOSTI reserves the right to modify the conditions of the License including cancellation without prior notice

National Commission for Science, Technology and Innovation off Waiyaki Way, Upper Kabete,
P. O. Box 30623, 00100 Nairobi, KENYA
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**Appendix V: Hierarchical Regression Analysis Results** 

		Coefficientsa			
Me	odel	Unstandardized Coefficients	Standardized Coefficients	t	Sig.
		B(Std. Error)	Beta		
	(Constant)	0.898(.212)		4.238	0.000
1	Investigative	0.262(.073)	0.28	3.564	0.000
	Prevention	0.173(.061)	0.207	2.844	0.005
	Examination	0.238(.068)	0.255	3.501	0.001
	Litigation	0.17(.071)	0.192	2.388	0.018
	(Constant)	0.798(.215)		3.721	0.000
	Investigative	0.233(.074)	0.249	3.15	0.002
	Prevention	0.158(.06)	0.189	2.618	0.01
2	Examination	0.161(.076)	0.173	2.122	0.036
3	Litigation	0.172(.07)	0.195	2.45	0.015
	Internal_Control_M	0.147(.069)	0.154	2.136	0.034
	(Constant)	793(.314)		-2.525	0.013
	Investigative	.955(.131)	1.022	7.296	0.000
	Prevention	.094(.055)	0.112	1.723	0.087
	Examination	.055(.069)	0.059	0.785	0.434
	Litigation	.135(.062)	0.153	2.157	0.033
	Internal_Control_M	.842(.125)	0.885	6.74	0.000
	Internal_Control_M_Investigative	198(.031)	-1.211	-6.373	0.000
	(Constant)	784(.315)		-2.491	0.014
4	Investigative	.649(.506)	0.695	1.282	0.202
	Prevention	.377(.455)	0.451	0.828	0.409
	Examination	.046(.071)	0.049	0.641	0.522
	Litigation	.137(.063)	0.155	2.184	0.031
	Internal_Control_M	.855(.127)	0.899	6.737	0
	Internal_Control_M_Investigative	123(.124)	-0.75	-0.987	0.325
	Internal_Control_M_Prevention	072(.114)	-0.473	-0.626	0.532
	(Constant)	811(.289)		-2.807	0.006
5	Investigative	-1.360(.600)	-1.456	-2.268	0.025
	Prevention	.057(.422)	0.068	0.134	0.893

	Examination	2.301(.432)	2.472	5.329	0.000
	Litigation	.087(.058)	0.099	1.493	0.138
	Internal_Control_M	.926(.117)	0.974	7.905	0
	Internal_Control_M_Investigative	.367(.147)	2.243	2.497	0.014
	Internal_Control_M_Prevention	.001(.106)	0.005	0.007	0.995
	Internal_Control_M_Examination	546(.103)	-3.597	-5.284	0.000
	(Constant)	839(.285)		-2.948	0.004
	Investigative	681(.659)	-0.729	-1.034	0.303
	Prevention	.408(.442)	0.488	0.924	0.357
	Examination	2.869(.490)	3.082	5.855	0
	Litigation	-1.516(.690)	-1.721	-2.198	0.03
	Internal_Control_M	.962(.116)	1.012	8.265	0.000
6	Internal_Control_M_Investigative	.197(.162)	1.206	1.218	0.225
	Internal_Control_M_Prevention	092(.111)	-0.605	-0.822	0.412
	Internal_Control_M_Examination	684(.118)	-4.511	-5.809	0.000
	Internal_Control_M_Litigation	.395(.169)	2.527	2.332	0.021
a.	Dependent Variable: Fraud_Detection				