

**EFFECT OF FORENSIC ACCOUNTING PRACTICES ON FINANCIAL
ACCOUNTABILITY IN MACHAKOS COUNTY GOVERNMENT, KENYA**

**BY
SIMON KIOKO NZIOKI**

**A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE AWARD OF
THE DEGREE OF MASTER OF SCIENCE IN COMMERCE (FINANCE) IN THE
SCHOOL OF BUSINESS AND PUBLIC MANAGEMENT AT KCA UNIVERSITY**

2022

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DECLARATION

Declaration by the student

This Dissertation is my original work and has not been presented to any other examination body.

No part of this research project should be reproduced without my consent or that of the KCA University.

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Declaration by the Supervisor

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ABSTRACT

This study was undertaken to assess the effect of forensic accounting practices on financial accountability in Machakos County Government, Kenya. The study was guided by fraud investigation, fraud prevention and fraud examination as the independent variables while financial accountability was the dependent variable. The study benefits the county governments, the national government, and other scholars on understanding the relationship between the study variables and inform on decision and policy making. The white-collar theory, fraud triangle theory and routine activity theory guided the study in checking what past authors and academicians have discussed in relation to the study variables. The study adopted a descriptive research design and a target population of 106 employees working in finance, internal auditing and economic planning in Machakos County and the Kenya National Audit Office attached to the Machakos County government while the sample size was 84 respondents. Primary data was adopted to collect data that was analyzed using both descriptive and inferential statistics. A linear regression was used to determine the nature and strength of the relationship between the study variables. The results of the analyzed data were presented in frequency distribution tables with calculated mean and standard deviation from the mean response. The study concluded that there was a positive relationship between fraud investigation, fraud prevention and fraud examination practices and financial accountability. The study recommended that that County governments should establish forensic accounting departments and recruit competent employees. Secondly, the existing auditors at the county level and the national level should create sound policies that will prevent employees from engaging in financial fraud that could derail the count from service delivery and financial accountability. Finally, the study recommends that county governments should invest in modern technology to examine fraud in its expenditure since employees can easily evade traps when traditional methods are employees.

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First, I express my sincere gratitude to the almighty God for the opportunity to be alive and pursue this academic goal. Without His blessings, I wouldn't be here. My second hand of gratitude goes to my supervisor who has tirelessly been of great help in my project writing process through corrections, advise and challenge to even compile a better report. Finally, I thank my family members and friends who have been there for me and given me a hand in making this journey a success.

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DEDICATION

I dedicate this research project to my wife Brigid Nzula Kimali and my three sons Onesmus, Urbanus and Justus for the unlimited support both financially and encouragement while undertaking master classes, not forgetting my father Nzioki for both encouragement and financial support.

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ACRONYMS AND ABBREVIATIONS

ACFE	Association of Certified Fraud Examiners
GoK	Government of Kenya
ICT	Information Technology and Communication
KNAO	Kenya National Audit Office
NYS	National Youth Service
PWC	Pricewater house Coopers
RPTs	Related-Party Transactions
SPSS	Statistical Package for Social Sciences
USA	United States of America

OPERATIONAL DEFINITION OF TERMS

Financial Accountability	Financial accountability is the process of bestowing financial responsibility on an individual and holding them responsible for all transactions undertaken using the amount allocated. In this case, financial accountability is holding the county government responsible for money collected by the revenue department or allocated by the National government (Wahinya, K. P., & Ondigo, 2017).
Forensic Accounting Practices	As defined by Popoola, Ahmad, & Samsudin (2014) forensic accounting is the deployment of factfinding instruments, combined with accounting and business skills, to create content and perceptions or opinion that acts as evidence for use by experts of even in a court of law.
Fraud Examination Practice	This is the process of analyzing, inspecting and deep perusal of all financial records such as audit reports, income statements, and all transactions to ensure all monies have been accounted for and those responsible have been held into account when irregularities have been identified (Du Toit, Van Zyl, & Schütte, 2017).
Fraud Investigation Practice	This is a part of the accounting practices which entails the utilization meticulous examination inquisitive exploration and expediting trails of all financial transactions with an aim of providing evidence on the activities (Bhasin, 2020). It is important that during the investigation process and after, that the accountants involved meet the investigation goal.
Fraud Prevention Practices	Fraud prevention is a practice of cushioning the implication of the adverse effects of financial irregularities in both expenditure and reporting. Individuals with the intention of committing financial fraud are prevented from doing so when there are sound prevention measures put forward by the management (Smith, 2015).

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

As defined by Popoola, Ahmad, & Samsudin (2014) forensic accounting is the deployment of factfinding instruments, combined with accounting and business skills, to create content and perceptions or opinion that acts as evidence for use by experts of even in a court of law.

Secondly, Bassey (2018) argued that forensic accounting is the use of various approved accounting concepts and strategies to legal problems. Forensic accounting stresses on factual reporting and the establishment of facts about a fraud and then use the report as evidence of a financial mischief. The complex nature of forensic accounting is part of appeal to many accountants to enter the field. Forensic accounting is termed by scholar and practitioners as a key concept adopted by institutions to minimize and prevent financial fraud through collection of all transaction information, checking them against the existing regulations, unearthing irregularities and proposing mechanisms to close the gaps (Skousen and Wright, 2017).

Across the globe, forensic accounting has been used as a tool to detect key scandals and unleash the major malpractices carried out by key management and finance managers in multinational organization. Forensic accounting as a growing interdisciplinary specialization has attracted a significant attention in the accounting literature and researchers have given a significant concern in late (Hillison, Pacini, & Sinason, 2020). Globally, the need for forensic accounting has escalated rapidly because of rampant financial anomalies which have been pronounced in firms' scandals like Enron, WorldCom, and Cadbury (Bhasin, 2020). When the major organization scandals of World.Com, Enron, were reported many standards, rules and regulations including the 2002 Sarbanes-Oxley law were brought on board to reduce or remove

the occurrence of entity scandals. Since then, new rules, regulations and concepts are being coined to accurately prevent financial anomalies and if any detect and form the basis for proper prosecution of the culprits (Soltani, 2020).

In Africa content, reports of financial crime have been reported in many organizations both in private and public sector. For instance, South African it has been estimated that more than two thirds, public and private institutions had gone through some form of financial crime (Raymond, Nkiru, & Okoye, 2016). Quoting the PwC survey, Du Toit, Van Zyl, & Schütte (2017) reported that South Africa was reporting a high level of approximately 70% increase in corporate crime ranging from corruption, collusion and bribery by both senior management officials and the political class and money laundering claims. All these activities have been associated with inadequate implementation of forensic accounting practices within the financial system in the country and training of employees on ethical financial management (Du Toit, Van Zyl, & Schütte, 2017).

Secondly, as established by ACFE (2018) North African region has recorded in recent times financial fraud claims in the ration of 200, 000: 90, 000 US dollars respectfully compared to other regions. Transparency International report (2013) indicated that out of 177 countries, Nigeria performed badly and was position thirty-three in the global corruption index. Owing to the financial malpractices in the country, there are shocking financial fraud such as payment pf ghost workers, extra-ministerial departments, mass embezzlement of public funds and setting offices on fire to conceal financial irregularities (Odunayo, 2014). This culminates to a far-reaching syndicate of wastage of public resources in the country.

Forensic accounting in Kenya has not been effective in uncovering the runaway financial malpractices in the public sector (Abdi, 2017). Since the launch of county governments in 2013

there has been catastrophic and staggering widespread fraud in county governments and Kenya at large mainly due to absence or ineffective forensic accounting practices Kyalo, Kalio & Ngahu, (2019). The rate of financial malpractices and non-accountability stands in the country was at 75% in the year 2020 which was more than the east African region of 62%, and higher than the global index of 49% (PWC, 2021). The 75% was an increase from the previous year which was reported at 61%. The increased irregularity in the financial reporting implies an economic destabilization which could lead to stagnation of development projects and an increase in taxes to collect more money covering the government loss.

1.1.1 Forensic accounting and Financial Accountability

Forensic accounting practices are a composition of instruments and techniques that are applied in a pre-determined combination to investigate organizations financial reporting to reduce fraud and help in the litigation process (Gbegi, & Adebis, 2015). Forensic accounting is widely accepted as a concept developed by Peloubet (1946) and he postulated that it is the application of accounting know-how and investigative skills to identify financial irregularities and solve them all. has been credited as the father of forensic accounting. To be a competent forensic accountant, one should have investigative skills, report writing and the ability to analyze both simple and complex financial reports.

Practitioners in the field of forensic accounting have duties such as documenting illegal transactions and alleged crime, estimating the loss emanating from crime and reporting on assets damage from the complex transactions undertaken by organizations (Ramadhan, 2015). They are also responsible for establishing where lost money was wired to, how it was channeled, the people involved and how to deal with such culprits (Odunayo, 2014). In addition, forensic

auditors make an analysis and interpretation of financial information to check and reveal unfair and illegal reporting.

Forensic accounting is not just limited to checking the level of truth and fairness in financial activities. Instead, and unlike auditors, forensic accountants involve legal know-how of human character and behavior, and the ability to identify and deal with red flags in all financial activities of an organization (Osunwole, Adeleke & Henry, 2018). This also involves revealing the unfair dealings to the right authorities for proper decision making. Across the globe, forensic accounting has gained acceptance is a key tool in improving financial accountability. Unlike the conventional accounting, forensic accounting requires proper investigative skills by the practitioners. The application of the forensic accounting involves inquisitive exploration, careful examination of books and transactions, analysis of records and tracking the roots of all transactions to prevent occurrence of financial crime (Bhasin, 2020).

When undertaking the forensic accounting, the officers in charge will undertake functions such as fraud investigation, fraud prevention and fraud examination. Fraud investigation is a part of the accounting practices which entails the utilization meticulous examination inquisitive exploration and expediting trails of all financial transactions with an aim of providing evidence on the activities (Bhasin, 2020). It is important that during the investigation process and after, the goal is to deter the occurrence of further detriment caused by the fraud as well as create a trail of how it all happened. This may cover activities such as bank accounts freezing, holding of email accounts, listening to all communications made by the perpetrators, and even making a follow up from the shadows.

Prevention practice as at the core of the forensic accounting process and it is put forward as a risk management instrument that ensures full compliance of the laid down policies and

procedures that ensures integrity in financial reporting (Simeunović, Grubor, & Ristić, 2016). Fraud prevention is a practice of cushioning the implication of the adverse effects of financial irregularities in both expenditure and reporting. Individuals with the intention of committing financial fraud are prevented from doing so when there are sound prevention measures put forward by the management. The most prudent prevention of financial fraud is establishing proactive measures that are well stipulated and clear to all people involved in the financial management of an entity (Akani & Ogbeide, 2017).

Forensic auditors must possess the capacity to come up with a proper investigative framework that allows them to analyze the existing policies and procedures and where necessary give recommendations to improve the existing policy to deter occurrence of any financial fraud (Abdinasir, 2017). Fraud examination takes an expertise in analyzing, inspecting and deep perusal of all financial records such as audit reports, income statements, and all transactions to ensure all monies have been accounted for and those responsible have been held into account if and when irregularities have been identified (Du Toit, Van Zyl, & Schütte, 2017). To examine the complex financial reports in government and even in the private corporate world, the forensic auditors must be highly skilled (Simeunović, et al., 2016).

1.2 Statement of the Problem

There has been a growing demand for forensic accounting by many private and public companies as well as government institutions globally. It has been realized that effects and causes of fraud and technical errors are made by human. In Kenyan, County Governments play a major role in economic growth and development through provision of services to Kenyan citizens. Devolved units were targeted to decentralize resources by bringing them closer to the

people. While many county Governments are working hard to achieve this mandate, fraud has been the major drawback since it has been rationalized in several county governments in Kenya.

The EACC Annual Report 2015/2016, revealed that complaints and allegations under investigations were found to be 24% on embezzlement of public funds, 10% on public procurement irregularities and 6% on fraudulent acquisition and disposal of public property. The EACC Annual Report 2015/2016 indicated that 34 out of 78 cases involved Executive and County Assemblies. In a general manner out of 101 cases, 48% involved county governments in Kenya. Both financial and non-financial fraud cases are alarming and uncontrollable within counties in Kenya. Theoretically, amalgamation of forensic investigation to fraud control would reduce fraud related issues but this has not been the case within counties in Kenya which were implicated in the EACC Annual Report 2015/2016. Amidst government efforts to equip accountants with the necessary skills on forensic accounting, many county governments are not taking steps to seal loopholes on revenue pilferage (EACC Annual Report, 2017/2018).

Therefore, this study sought to investigate the effect of forensic accounting practices on financial accountability in Machakos county governments in Kenya.

Specifically, the study sought to establish whether practices in forensic accounting, fraud Investigation, fraud prevention and fraud examination on financial accountability in county governments. The study finally this study will demonstrate the need for forensic accountant in county governments for the will detect, investigate, prevent, examine, advise on internal controls, and represent the county in fraud cases in courts instead of using internal auditors who lack the skills

1.3 Objectives of the Study

1.3.1 General Objective

To find out the effect of forensic accounting practices on financial accountability in Machakos County Government, Kenya

1.3.2 Specific Objectives

- i. To assess the effect of fraud investigation practices on financial accountability in Machakos County Government
- ii. To evaluate the effect of fraud prevention practices on financial accountability in Machakos County Government
- iii. To determine the effect of fraud examination practices on financial accountability in Machakos County Government

1.4 Research Questions

- i. What is the effect of fraud investigation practices on financial accountability in Machakos County Government?
- ii. What is the effect of fraud prevention practices on financial accountability in Machakos County Government?
- iii. What is the effect of fraud examination practices on financial accountability in Machakos County Government?

1.5 Significance of the Study

1.5.1 County Governments

The county government in Kenya being the main users of county financial rules and regulations will benefit from this study. The results and recommendations will be used by county governments in understanding the role of forensic accounting in running their operations. In

addition, county governments will be able to incorporate forensic accounting their financial reporting in order to improve the financial accountability.

1.5.2 Forensic Accountants

Through the study gap, conclusions and recommendations, forensic accountants and policy makers will be able to formulate sound policies that lead to establishment of forensic accountant function in county government. In addition, policies will be formulated to improve the provision of the forensics accounting process through training of employees and employment opportunity.

1.5.3 Scholars and other Researchers

The study will also be crucial to scholars and academicians in the finance area. In future, the entire paper or even its data and recommendations can be use by researchers as secondary data to undertake a related study and use it as base line study for future studies.

1.6 Scope of the study

The study focused on the effect of forensic accounting practices on financial accountability in Machakos county government, Kenya. The study looked at key practices such fraud investigation, fraud prevention and fraud examination and how each improves financial accountability in Machakos County government. The study adopted a descriptive research design and targeted officers in Machakos County government in finance, internal auditing and economic planning in Machakos County and the Kenya National Audit Office attached to the Machakos County government. The study was undertaken between January and August 2022.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This second chapter provides a review of both theoretical and empirical review as presented by past research and authors in line with the study variables. The chapter also presents the study summary and finally the conceptual framework that shows the connection between the study variables and their performance measures.

2.2 Theoretical Review

The study was hinged on various innovation theories; these are the white-collar crime theory, fraud triangle theory and the routine activity theory.

2.2.1 White-collar Crime Theory

This theory was first developed by Sutherland (1924). The theory sheds light on the earlier notion that crime was a preserve of the poor people by highlighting that the old mantra wasn't correct. The author poverty was the least of contributors in the white-collar crime and that this was committed by people sitting in big offices and without any poverty lurking behind their positions. This theory proposes a link between white collar crimes with business activities people engage in and the prevailing economic conditions. The positional status of professional in the society creates an enabling environment for the commission of crimes using the status. The positions the professionals hold can act as a catalyst for both admiration and intimidation. These two virtues result in less punishment to these members of the society when they commit white collar crimes. The theory therefore concludes that the traditional justice system is lenient to the professionals who commit white collar economic crimes. In addition, white collar crimes have an

adverse effect on the entire economic status of the country, its spread to many people and its effect are felt for a long period of time (Sutherland, 1949).

As explained by this theory, non-violent criminal activities are usually learnt from interactions among professionals in their daily activities where some individuals have been engaging in criminal activities. Sutherland (1949) argued that, working and interacting with people who are active in white collar crime creates an avenue for more individuals to join the vice. Professionals with work experience are charged with the responsibility of training the amateurs and make them gurus too. In the process, the white-collar crime is spread down the line (Sutherland, 1949). The passing on of the tendency to commit this nature of crime grows into a network of individuals in the profession. In auditing, if the mentors in the profession are used to altering financial reports and accept kickbacks, the culprits who have committed the crimes will never be arraigned nor charged while taxpayers money continue being stolen. Auditing as a profession is a function that can unearth the white-collar crimes committed by government employees in all levels. The report by the forensic auditors acts as evidence in courts as well as the original documents for further investigation into white collar crimes in an entity (Mukoro, Yamusa, & Faboyede, 2019).

Later academics and anti-fraud experts have come up with criticism of the works of Sutherland. As summarized by Enofe, Ekpulu, & Ajala (2015) Sutherland overemphasized on individual influences on commission of the economic crimes and ignored the effect of the environment in which one works in, was born in and the influence from those above. This theory assumes that the justice watchdogs in the form of judges and prosecutors are blind to the fact that white collar crimes have an adverse effect on the economy and that they don't see the perpetrators as culprits such as street criminals who are treated differently. Therefore,

committing these non-violent criminal activities by professionals has been treated as a less crime. In addition, those involved in the white-collar crime are well respected people in the society who have impacted the well-being of the society in a positive way. Therefore, such individuals are feared by the legal system and can commit high level economic crimes with minimal punishment even in circumstances where evidence is available (Muhunyo, & Jagongo, 2018).

This theory is applicable in this study in explaining the conduct of government employees, the elected leaders and the finally the forensic auditors in execution of their duties. The leaders are the custodians of the public funds and are responsible for proper direction to ensure maximum benefits trickle down to the society. in the process, most commit economic crimes with the aid of their employees and this results into denial of benefits to the society. forensic auditors who are called upon to investigate and report on the crimes committed in the government agencies can as well be recruited in the process to help in abetting the crimes.

2.2.2 Fraud Triangle Theory

This theory was proposed by Cressey (1971) and proposes three main factors that leads to crime prevalence namely: rationalization, opportunity, and pressure. The theory assumes that these three parameters must be available for the theory to be committed. In his study on fraud and criminology, Cressey (1971) concluded that all human beings undertaken different activities with a particular reason, and he concluded fraud was one of them. Individuals who defraud others and or organizations do so with a specific reason. In the research, the three key determinants in the form of pressure, opportunity and rationalization were clear. On the aspect of pressure, the author found out that certain factors pushed people to commit fraud (Mansor & Abdullahi, 2015). Lister (2007) termed pressure as on the key elements in executing fraud. This pressure was either internal, external or even employment stress from those high in authority.

Secondly, on the theme of opportunity, this occurs by chance when an individual is presented with the chance of committing a fraud. However, the opportunity alone is not enough as the person must make a personal conviction. Opportunities are presented by either job autonomy or presence of weak internal control systems within an organization. For instance, ineffective supervision and monitoring of the expenditure means in the public sector presents an opportunity for those responsible to commit fraud. Ramadhan, (2015) postulated that opportunities in the form of systems loopholes or control inefficiency pushes individuals to commit fraud in their lines of jurisdiction. Cressey (1971) established that people will commit more fraud when the probability of being caught is low. Therefore, policies enacted within an organization such as county government to mitigate financial fraud and the extent to which these regulations are enforced denies an opportunity for the perpetrators to commit any crimes (Smith & Crumbley, 2019).

Rationalization occurs when individuals collude with others to create a justification for the commission of the economic crime. Immoral actions in the place of work leads to fraud in the organization. Individuals may give a reason that they are committing crime since everyone else is doing the same. In the county government, the justification for fraud by employees and the leaders could be the fact that public sector is prone to fraud. In addition, they can give a reason that even if they don't participate in the fraud, others will benefit in the process and be eliminated in the process (Hooper & Pornelli, 2010).

This theory is applicable in this study in explaining the conditions that should be present for the commission of financial fraud in county government that results into poor accountability in the government expenditure and revenue collection. The revenue officers have a tendency of defrauding the county government of money from their daily collection operations citing weak

oversight. The county leadership who most are politicians defraud the public of the benefits of the public funds since the internal auditing and or forensic auditors can be made as part of the fraud scheme (Hooper & Pornelli 2010).

2.2.3 Routine Activity Theory

The theory was first hypothesized by Cohen and Felson (1979). The theory postulates that people commit crimes in work office since they have access to the means upon which the crimes can be committed. It's easy for people to commit criminal activities owing to their personal character and the availability of the means of committing the crimes (Hooper & Pornelli 2010) argued that financial fraud in any organization occurs as employees execute their routine duties and this is made easy due to the existing internal systems in the organization.

Organizations can only reduce routine fraud by properly identifying and zipping all loopholes that presents employees with the mechanisms of committing fraud. This mechanism includes but not limited to division of work, rotation of employees in different stations, frequent checks, and proper channels of reporting (Nyakarimi and Karwirwa, 2015).

Further, this theory was improved through addition of the employee's knowledge of the organization. Singal, Nagi, & Goyal, (2019) in the context of financial fraud argued that financial reporting fraud occurs when employees are aware of the existing legal and regulatory framework that creates loopholes that they can utilize without being caught. Thus, to deter this occurrence, government agencies and other entities should have a sound framework that deters crimes form happening by instilling proper discipline among employees and creating punishment protocol for those involved. As explained by the theory, presence of target victims such as people or organizations, inadequate deterrence mechanism such as forensic auditing and risk mitigation policy and finally inadequate punishment process are key factors that contribute to routine

activity fraud in modern financial management and reporting (Singal, Nagi, & Goyal, 2019). The increased number of financial frauds in government agencies has led to increased research activities from all corners trying to create a policy on deterrent mechanisms. Nyakarimi and Karwirwa (2015) posted that with strong internal controls, fraud can be mitigated in county governments.

This theory has however been criticized by authors such as Groff (2008). The theory is assumed to be focusing more on a few variables in explaining the concept of crime and does not put into account the effect of factors such as education level and socio-economic conditions of the crime perpetrators. In financial aspects, the level of education gives individuals the ability to circumnavigate around the existing regulations to commit fraud. For instance, forensic auditors having rich experience in financial reporting can easily bent the laws while reporting to facilitate financial crime. In addition, the theory is more of a theory and lacks practicability in helping organizations to reduce the occurrence of crime while employees are undertaking their daily activities. In addition, some of the mechanisms proposed by the theory if practices such much may lead to resentment form the employees or may not address the issue of fraud (Nyakarimi and Karwirwa, 2015).

This theory is applicable in this study in explaining the role of fraud investigation practices adopted by an organization in prevention of financial fraud in organizations. Fraud prevention involves establishment of culture of high moral standards, uprightness, and a culture devoid of creation of systems loopholes to commit fraud. Forensic accounting as part of this system helps the management in undertaking sound financial decisions that creates proper room for investigation of any crime committed by employees. In addition, this theory provides a framework explaining the main causes of financial fraud in organizations and ho the

management can identify such perpetrators with proper policy and internal controls such as fraud investigation, prevention and examination of each case.

2.3 Empirical Review

2.3.1 Fraud Investigation Practices

Fraud investigation is a part of the accounting practices which entails the utilization meticulous examination inquisitive exploration and expediting trails of all financial transactions with an aim of providing evidence on the activities (Bhasin, 2020). It is important that during the investigation process and after, that the accountants involved meet the investigation goal. The goal is to deter the occurrence of further detriment caused by the fraud as well as create a trail of how it all happened. This may cover activities such as bank accounts freezing, holding of email accounts, listening to all communications made by the perpetrators, and even making a follow up from the shadows. In addition, physical evidence of the transactions such as procurement plans, all purchase orders, delivery notes, commercial invoices and even payment vouchers should all be availed. This is culminated by accumulation of evidence for all cycle of activities undertaken in the organization since evidence resides in the procedures (Mukoro, Yamusa, & Faboyede, 2019).

Alabdullah, Alfadhl, Yahya & Rabi (2014) in Iraq did a study on the role of forensic accounting in reducing financial corruption. The study used a correlation research design to evaluate and test the hypothesis. Primary data in form of questionnaires and interviews was collected from government employees for a period of eight months and across all sectors of the economy. SPSS software was used to analysis the data using both qualitative and quantitative techniques. From the analysis, the study established that there was a gap between the reality of the field and the control techniques and accounting tolls used to teach about fraud investigation

in Iraq. However, the study established a positive relationship between forensic accounting methods and fraud investigation capacity in the public service. The study also established that majority of the accounting personnel in the country had inadequate knowledge of the required skills and methods that can effectively investigate on white collar crime committed in the public sector.

In USA, Clements & Knudstrup (2016) did a survey to establish which fraud investigation procedures are most often performed in public institutions. An exploratory approach was used in the study. The study formulated a series of world recognized procedures adopted in the fraud investigation process. The study found out that financial fraud investigation cost approximately 3.7 trillion dollars annually around the globe as corporate and government agencies try to investigate the cause of the financial fraud. The study established that one of the key challenges in fraud investigation was the fraud deterrence from those involved in the fraud itself. Forensic auditors are in most cases threatened by those in big positions, their efforts frustrated and where possible they were paid to collude with the fraudsters. The study found that fraud investigation are essential in deterring the acceleration of the fraud activities in the public sector. Without proper investigation, loopholes exist that help fraudulent employees and management to swindle money from organizations coffers and that are meant for profitable ventures ultimately killing the institutions. To undertake the investigation, the study recommended that a proper procedure devoid of any interference must be developed by the forensic auditors and be fully implemented across all organization's transactions.

In a study done by Mukoro, Yamusa, & Faboyede (2019) on the effect of forensic accounting on fraud prevention in Nigerian public sector used a descriptive research design to evaluate the relationship of the research variables. Secondary data from the audited financial

reports, revenue collections, expenditure and the county plans were collected to determine the level of accuracy in reporting and the deviations established by the General auditor. The analysis indicated a positive relationship between the forensic accounting practice and fraud investigation on the public sector. The study concluded that forensic accounting skills are more ideal during an investigation on the operations of the corporate world in the areas of finance, money laundering, bribery allegations, corruption, and even inappropriate financial reporting. Forensic accountants charged with the duty of finding loopholes in the internal control systems in an organization that may be facilitating the occurrence of bribery cases and provide a mechanism of sealing the gaps.

A study in Nigeria by Gbegi & Adebisi (2014) was done to examine the effect of forensic accounting skills and techniques in fraud investigation in the Nigerian public sector. A descriptive research design was adopted with a target population of 129 senior staff working in the anti-corruption agencies in Nigeria. Secondary data from the existing published reports and primary data from questionnaires administered by the researcher were utilized to test the study hypothesis, the data was coded into SPSS software and the results analyzed using descriptive and inferential statistics. The study found out that forensic accounting soft skills and capability were crucial in dealing with financial fraud in an organization and helped in reducing the occurrence probability in the Nigerian Public sector. The study concluded that with forensic audit units being established in each public institution, financial fraud which was rampant in the public sector would be minimized significantly. Moreover, the study concluded that public sector should develop deep interest in forensic accounting as a means of improving accountability of all financial resources. The public contributes taxes to the government and would therefore like to see proper utilization of those funds to initiate life change development.

Abdinasir (2017) did a study to evaluate the impact of forensic audit services on fraud detection among commercial banks in Kenya. The study used a descriptive study and targeted all commercial banks in Kenya and used secondary data published in reports submitted by central bank of Kenya. The study evaluated highlighted suspicious reports and compliance of financial regulations imposed by the central bank. Primary data was used to evaluate the perception of bank managers of different fraud cases happening in banks, the preventive measures utilized by the audit department and how it influenced fraud prevention. The study found that forensic audit services when effectively utilized an organization has a very high probability of preventing fraud or even detecting any opportunity for committing a fraud. The study also indicated that banks have increased prevalence for financial frauds. This study was however done in commercial banks and the results could be different if done in a public sector.

Hassan (2018) did a study to establish the relationship between audit services and fraud investigation in Garissa Sub-Counties. The population was 6 Sub-Counties in Garissa with target population of 42 respondents. The study utilized both primary and secondary data where questionnaires and county audit reports were used. The collected data was coded and analyzed using SPSS. The study revealed that audit services have the strongest positive influence on fraud investigation. The results showed that, the county government does not have an internal audit committee in place and therefore the internal audit department reports to the management, rendering the internal audit unit ineffective. Further, the study revealed that the county government has internal control system in place, but the management is reluctant to adhere to policies and procedures.

Kabue (2015) did a study to evaluate the effect of internal controls on fraud detection and prevention among commercial banks in Kenya. The study utilized an exploratory research design

and did a census of all registered banks in Kenya. Primary data was mostly preferred as there was a need to get the perception from all bank's employees. Data was analyzed using descriptive analysis and a linear regression was run to show the relationship in the study variables. The study results showed a positive but weak relationship between the internal controls of risk investigation and fraud prevention in commercial banks in Kenya. The study also established that commercial banks had committed less budget and personnel to fraud investigations with a reason that all its processes had been automated. The study concluded that commercial banks were prone to financial fraud just like any other institution and that the internal auditors could also be subjected to collusion to defraud the bank. The study recommended that commercial banks should do frequent accounts reconciliation and check existence of any loophole in the reporting that could lead to the loss finances.

As established by Williams (2021) in a study on the application of forensic accounting skills on financial reporting, the skill of forensic accounting assimilates know-how of clearly investigating all laid down financial reporting procedures, appraisal of internal control system, analysis of financial transactions, and even reporting on anomalies. In execution of the fraud investigation, the expert collects information through perusing all financial records, examining the nature of reporting in the documents, and analyzing all transaction trials. The main goal is to evaluate the accuracy of reporting and trace the origin and extent of any fraud caused by those in charge of financial accountability.

2.3.2 Fraud Prevention Practices

Prevention practice as at the core of the forensic accounting process and it is put forward as a risk management instrument that ensures full compliance of the laid down policies and procedures that ensures integrity in financial reporting (Simeunović, Grubor, & Ristić, 2016).

Fraud prevention is a practice of cushioning the implication of the adverse effects of financial irregularities in both expenditure and reporting. Individuals with the intention of committing financial fraud are prevented from doing so when there are sound prevention measures put forward by the management. The most prudent prevention of financial fraud is establishing proactive measures that are well stipulated and clear to all people involved in the financial management of an entity. Forensic auditors must possess the capacity to come up with a proper investigative framework that allows them to analyse the existing policies and procedures and where necessary give recommendations to improve the existing policy to deter occurrence of any financial fraud. To accomplish this task, there is need for proper training and experience from the auditors to provide the best prevention measures (Smith, 2015).

DeZoort & Harrison (2018) looked at auditors' sense of responsibility for detecting fraud within organizations in Canada. The study used a cross sectional analysis of auditors from different sections within the government institutions. A sample of 878 auditors was used to collect data through interviews, brainstorming sessions and also through focus discussion groups. To obtain the data, an experiment was also conducted to evaluate the rate of risk detection between auditors and accountants. From the analysis, it was established that auditors had a higher rate of detecting fraud compared to accountants even under manipulative and work pressure. The study also established that with more experience in the work, auditors were able to detect risks and crimes within the financial systems in varying accuracy. The study concluded that perceived responsibility has a positive and strong effect on fraud detection by auditors working in the public sector in Canada. The study however was contracted only to the public sector.

Olongo (2013) did a study on the effects of financial fraud and liquidity on financial performance of commercial banks in Kenya. The study focused on objectives such as causes of financial fraud, types of financial fraud and the possible preventive measures by banks to reduce financial fraud in banks. The study adopted a descriptive research design to analysis the results and explain the relationship between the variables. Regression model was adopted to quantify the nature and strength of the variable's relationship. The study found that banks were faced with many kinds of fraud such as accounts hacking and accounts re-direction by a composition of bank employees and outsiders. The study also established a positive relationship between bank performance and fraud prevention measures such and strong internal controls on handling finances and customer accounts and its effects on financial performance. Banks handle huge sums of money and unless banks adopt strong internal fraud prevention techniques, customers money will be lost. This study was however done on private sector hence the need for another study in the public sector.

In China, Mao, Sun, Zhu & Li (2022) evaluated the financial fraud detection using the related-party transaction knowledge graph. The study adopted a cross sectional research method to analyse how modern financial fraud detection was reliable and accurate compared to conventional methods. Data was collected through practical experiments on different auditors with China. The study established that financial fraud detection was one of the leading areas of interest for researchers' practitioners and even government regulation bodies. The study found out that with the adoption of related-party transaction (RPTs) organizations in China and other developed countries have significantly improved their ability to detect financial fraud. The findings indicated that companies that employed auditors with RPT knowledge were able to detect fraud better that those with inexperienced auditors.

In Nigeria, Akani & Ogbeide (2017) did a study to examine forensic accounting and fraudulent practices effectiveness in the public sector. The study employed a descriptive research design and targeted ten government institutions selected randomly. Primary data in form of liker-scale questionnaire was collected and analyzed by used inferential and descriptive statistics. The study results revealed a positive relationship between forensic accounting and fraud investigation in the public sector. With proper training and understanding of the financial rules and regulations as well as reporting procedures equips employees with skills that are necessary to prevent fraud from happening. The public sector is prone to financial fraud through improper accounting policies but with forensic accounting skills among its key finance staff is a key platform that prevents fraud from taking place. The study recommended that the public sector should training its employees on forensic accounting skills that will improve on its financial accountability.

Kuria and Moronge, (2013) did a study conducted a study on the effects of insurance fraud investigation mechanism on the performance of the insurance industry. Descriptive research design was used in the study and the target population was all 49 insurance companies in Kenya. Census was adopted to collect primary data from the insurance managers on fraud investigation measures adopted by the firms and how this translated to performance of the sector. Linear regression was used to show the relationship of the study variables. The study found that there was a positive relationship between fraud investigation and performance of the insurance sector in Kenya. The sector is engulfed with a myriad of fraud risks such false claims, collusion by the employees and the insured, and improper financial reporting all meant to defraud the firms and the investors. With a proper investigation capacity, the insurance companies are able to mitigate the risk of financial fraud.

Kabue (2015) did a study to evaluate the effect of internal controls on fraud detection and investigation among commercial banks in Kenya. The study utilized an exploratory research design and did a census of all registered banks in Kenya. Primary data was mostly preferred as there was a need to get the perception from all bank's employees. Data was analyzed using descriptive analysis and a linear regression was run to show the relationship in the study variables. The study results showed a positive and strong relationship between the risk investigation and fraud prevention in commercial banks in Kenya. The study also established that commercial banks had committed less budget and personnel to fraud investigations with a reason that all its processes had been automated. To effectively prevent any risk from happening among the banks, there is need for a proper fraud prevention mechanism that exists with internal rules and regulations on all financial expenditure and reporting.

Ahmed & Nganga (2019) did a study to assess the internal control practices and financial performance among county governments in Kenya targeting the coast region. The study adopted a descriptive research design and used a target population of thirty employees from four different counties in the region. A census was used since the target population was small. Both secondary and primary data was utilized for the purpose of undertaking the study variables and how they relate. The study established a positive relationship between internal controls and risk prevention in the county governments. When the internal controls are fully in place and employees are deterred from committing any fraud since they will be charged and may end up losing their jobs. The county governments are governed by internal controls that are initiated by the county leadership, the national government controls and well as global best practice fraud prevention mechanisms. Therefore, the occurrence of fraud in the county governments has been minimized and or eliminated.

Kyalo Kalio & Ngahu (2019) did a study to establish the role of fraud prevention on effective financial reporting in the County Government of Nakuru. Descriptive design was deemed fit for the study. The target population was 106 employees from different departments in Nakuru County government and primary data was collected by use of questionnaires that were distributed and picked later after they were filled. Inferential statistics were used to test the study questions. The study established that fraud prevention mechanism was in place in Nakuru county. however, the policy was not devoid of loopholes, and it was therefore easy for employees to bent the reporting procedures to report wrong figures in the financial statements. in addition, the internal auditing unit in the county was aware of the loopholes that existed within the financial reporting function. The study concluded that despite the existence of these policies, there was a need for the county government to improve on the policy and train its employees on forensic accounting as at to improve on its financial reporting.

2.3.3 Fraud Examination Practices

In forensic accounting, fraud examination takes into account an expertise in analyzing, inspecting and deep perusal of all financial records such as audit reports, income statements, and all transactions to ensure all monies have been accounted for and those responsible have been held into account if and when irregularities have been identified (Du Toit, Van Zyl, & Schütte, 2017). To examine the complex financial reports in government and even in the private corporate world, the forensic auditors must be highly skilled (Simeunović, et al., 2016). A correctly implemented fraud examination process meet several objectives within an organization that can be addressed as: Identification of indecorous conduct among the works, revealing of the fraudsters and reducing the effects of their actions while giving recommendations of closing the

loopholes while giving out a proposal on how to deal with the mischievous employees (Du Toit, Van Zyl, & Schütte, 2017).

Rezaee & Wang (2018) did research on the relevance of big data in forensic accounting practices. The study adopted a survey research design on academicians and practitioners in public organizations in China. Snow- ball sampling was used to obtain primary data that was used to test the study hypothesis. The research was to establish the role of big data examination as part of the forensic accounting practice. Linear regression and descriptive analysis were used to evaluate the relationship of the study variables. The study results indicates that organizations in both private and government sectors have adopted the use of big data technologies in examining all financial records with an aim of fast tracking all activities and identify anomalies. The accounting function has become complex and examination of fraud through traditional methods have become impossible. This calls for more utilization of modern technology in the examination of all transactions and records to identify irregularities.

Akani & Ogbeide (2017) did a study to examine forensic accounting and fraudulent practices effectiveness in the public sector in South Africa. The study employed a descriptive research design and targeted ten government institutions selected randomly. Primary data in form of liker-scale questionnaire was collected and analyzed by used inferential and descriptive statistics. The study results revealed a positive relationship between forensic accounting and fraud investigation in the public sector. With proper training and understanding of the financial rules and regulations as well as reporting procedures equips employees with skills that are necessary to prevent fraud from happening. The public sector is prone to financial fraud through improper accounting policies but with forensic accounting skills among its key finance staff is a key platform that prevents fraud from taking place. The study recommended that the public

sector should training its employees on forensic accounting skills that will improve on its financial accountability.

Opiyo (2017), conducted a study to establish the role of forensic accounting in mitigating fraud among parastatals in Kenya. The data was collected using semi structured questionnaires. The data collected data was coded and keyed into SPSS and data presented using descriptive statistics such as frequencies and percentages. The association between forensic accounting and fraud mitigation amongst Kenyan parastatals was established using descriptive statistics. The study concludes that all the Kenyan parastatals has robust internal controls, proactive fraud audit function and litigation processes which greatly combat fraud. The further revealed that Kenyan parastatals have compliance policies, managements override controls and segregation of duties help in fraud mitigation to large extent.

Abdi (2017) conducted a research study on the effect of forensic audit services on fraud detection among Kenyan commercial banks. The descriptive research design was adopted for the study. The population of the study included all 43 licensed commercial banks by Central Bank of Kenya. Both secondary and primary data were used for the study. Structured questionnaire was used to collect primary data while secondary data was obtained from banks' annual reports for a period of five years from 2012-2016. Data collected was coded by use of both descriptive and inferential statistic methods through SPSS. The findings of the study found that there is a negative correlation between fraud examination and forensic auditing services. The study concluded that the most common types of fraud occurring in commercial banks included theft of cash fraud, payroll fraud and procurement fraud. The study however revealed that was a need for better fraud examination services in the banks to identify the causes of key fraud cases and identify the perpetrators before taking a legal action.

Onyango (2018) conducted a study on the effect of internal controls on performance of county governments in Kenya. Descriptive design was used while questionnaire was used to collect data from a population of 47 county staff. The respondents were employees working in the finance department. The study established that internal audits were absent in county governments and the Auditor General was advised to improve financial resources' management and noted that there was no clear separation of roles among workers and employees work were not counter checked. The study also established that county government did not have the capacity to examine key fraud cases that occurred routinely leading to loss of millions of monies. The study recommends that top management should carry employee evaluation to motivate and achieve desired goals and leaders should be exposed to international arena to learn. The study further recommends that county government should embrace ICT to improve on service delivery and generate reports online.

Kabue and Aduda (2017) examined the effect of forensic accounting services as a tool to deter fraudulent practices in the public service in Kenya. The study examined high level corruption cases that have been half examined in the country with the culprits still walking free in the country. the country has lost a lot of money through improper examinations of corruptions cases and weak punishment of those involved in defrauding the country of its financial resources. The study revealed that having a sound fraud examination by forensic auditors and government agencies such as the Ethics and anti-corruption agencies was key in bringing out the culprits. The internal auditors had failed to examine, investigate and come out with a comprehensive report on the transactions conducted by the NYS officials but on the adoption of forensic accounting, the entire scandal was demystified, and litigation process initiated.

Kiprono & Ng'ang'a (2018) did a study on the effect of fraud management practices on financial performance of Kenya Ports Authority Kenya, the study adopted descriptive research design and targeted 242 Kenya ports Authority employees from all departments. Stratified sampling methods was used to sample the population and a questionnaire was used to collect primary data while financial statement form the company website were analyzed. The study established that strong internal fraud examination activities acts as a preventive measure of fraud in public institutions. The study established that the use of technological gadgets such as CCTV cameras and scanners ensured that all activities were undertaken according to the policy and any deviation or malpractice would easily be noted and acted upon. Kenya ports authority just like any other public institution in the country faced a challenge of financial crime but with the adoption of technology in the examination process and all operations ensured a reduction of the fraud from its staff.

2.4 Research Gaps

Several studies have been done on Forensic Accounting and financial accountability. In Indonesia, Sari, Ghazali, & Achmad (2017) found internal controls have a positive influence on financial accountability in public institutions. However, the study combined both internal controls system and internal auditing. Locally, Lagat & Okelo (2016) looked at how internal control systems affects financial management in Baringo county government, Kenya. The study established that a positive relationship between study variables and recommended another study be done in other counties. Secondly, Muhunyo, & Jagongo (2018) looked at the internal control systems and financial performance among public schools and established that the control activities risk assessment, control environment, and information and communication greatly influence the financial performance of such institutions. However, this study looked at financial

performance which differs from the current study which will look at financial accountability. Moreover, Ahmed, & Nganga (2019) found a positive relationship between internal controls and risk prevention in the county governments. The above studies have different conclusions on the concept of forensic accounting giving a gap to be filled by this study

Other studies used deterrence theory, general strain theory, anomie theory, mindset and problem representation theory, fraud diamond model and fraud savvy theory which are different from theories used in this study. Other studies have focused on other forensic accounting practices and policies for example forensic accounting policies, fraud management tools, awareness on methods of forensic accounting, and forensic accounting skills. With different dependent variance for example financial performance and internal control while this study fills the gap of financial accountability. Many studies focused on national government leaving county government not focused.

2.5 Summary of Literature Review

The current literature review shows that forensic accounting is a top with immeasurable interest from different scholar and practitioners across the globe. Most of the reviewed studies in this paper have indicated the importance of having a practical forensic accounting process that is crucial in addressing organizations risks such as improper financial reporting, financial fraud, and compromised quality in financial expenditure. (Modugu, 2013; Islam et al., 2011; Omar 2013). However, there has been a concern that forensic accounting has been under-utilized in most countries and that those charged with the responsibility of overseeing the process become part of the fraudsters making the entire concept ineffective (Islam et al., 2011). Despite the known facts on the importance of forensic accounting on financial accountability and financial performance, there has been varying conclusions as to whether it's a practical concept or not.

2.6 Conceptual Framework

Mugenda and Mugenda (2013) defines a conceptual framework as a diagram which depicts the relationship between the independent and dependent variables in a study. In this study, fraud investigation, fraud prevention and fraud examination will be presented as the independent variables while financial accountability will be presented as the dependent variable.

Independent Variables

Dependent Variable

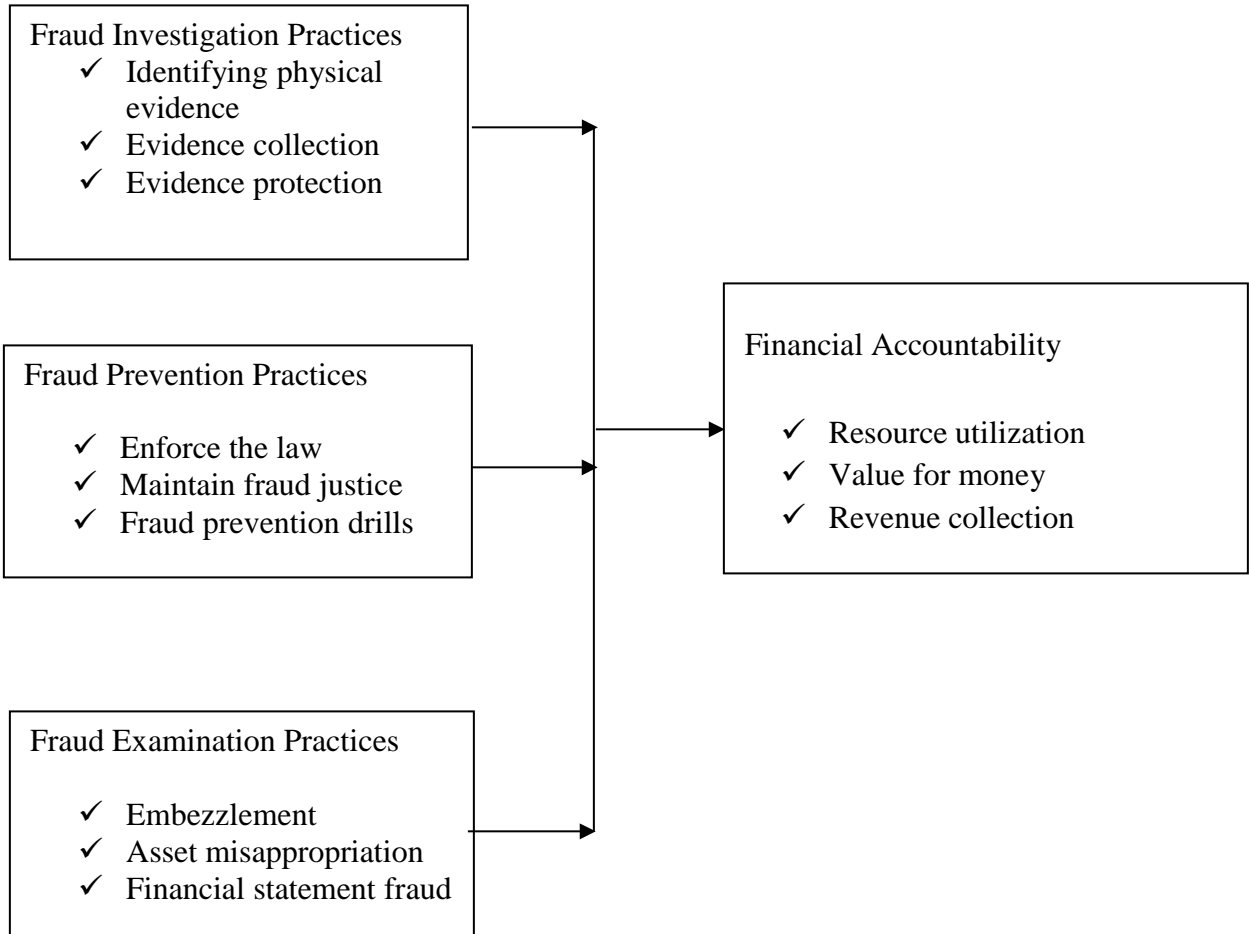


Figure 2 1 Conceptual Framework

2.7 Operationalization of Variables

Variable Type	Variable	Indicator	Measurement
Dependent	Financial Accountability	Value for money Resource utilization Revenue collection Reports accuracy	Ordinal scale
Independent	Fraud Investigation	Identifying physical evidence Evidence collection Evidence protection	Ordinal scale
Independent	Fraud Prevention	Enforce the law Maintain fraud justice Fraud prevention drills	Ordinal scale
Independent	Fraud Examination	Embezzlement Asset misappropriation Financial statement fraud	Ordinal scale

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlined the methodology that was utilized to both collect and analyze field data. The sections of this chapter are the research design, the population of interest, the sample frame from which the sample was taken from, the sample size, the data collection procedures, pilot testing, data analysis and presentation technique.

3.2 Research Design

A research design is the overall strategy utilized by a research team to organize their research activities (White, & McBurney, 2013). It defines clear and logical sequential activities to be undertaken to solve created study questions. These activities encapsulate the accumulation, the analysis, discussion and finally interpretation of data. In this study, descriptive research design was chosen as the most suitable design. This design was chosen since its geared to deliver a comprehensive picture of a circumstance or phenomenon, it permits researchers to identify data of interest, gather it comprehensively, summaries the data, analyze and present the results for easy clarification of the phenomena under study (Tashakkori, Johnson & Teddlie 2018).

According to Kothari (2014) a descriptive research design helps the researcher to clearly explain the case and effect of the variables under review.

3.3 Target Population

According to Sekaran (2008), population is the sum total of all elements identified in research and upon which the researcher intends to obtain information from. Mugenda and

Mugenda (2013) defined population as the total number of elements targeted by research to provide required data for analysis in a research process. However, the research population should have similar identifiable features that can make it easy for the researcher to draw conclusions and where possible to get a representative. The population of interest should be large enough to provide reliable data using the pre-determined method selected to facilitate effective analysis and conclusion about the phenomenon under review. For this study, the target population was employees working in the finance, internal auditing and economic planning in Machakos County and the Kenya National Audit Office attached to the Machakos County government. According to the Machakos County Public service board records, the three departments have a total of 91 permanent and contractual employees while the KNEO has 15 employees attached to Machakos Office. These departments were chosen due to their in-depth knowledge of the financial operations of the county government and the forensic accounting function. The finance department is responsible for daily management of inflows and outflows of the county finance, the economic planning evaluates the value for money levels in all county government projects and therefore are responsible for ensuring value is delivered for all county government expenditure in projects while the auditing department verifies the income and expenditure of the county government in relation to the existing policy and regulations. This is shown in Table 3.1

TABLE 3.1

Target Population

Department	Target population	Percentage (%)
Finance	50	47.1
Internal audit	25	23.5
Economic Planning	16	15.2
Kenya National Audit	15	14.2
Office		
Total	106	100

Source, (Machakos County Public Service Board Records, 2022)

3.4 Sample Size and Sampling Procedure

As defined by Mugenda and Mugenda (2012), sampling technique is a specific method used by a researcher to get a sizeable number of respondents to represent the total population in a study. However, the sampling technique can either be probability or non-probability. To this study, stratified simple random sampling method was deemed fit for use.

The sample size denotes a fraction of the chosen population which is selected for collection of data. Kothari (2014) describes a sample as a list of elements strategically chosen to represent the entire universe. Orodho and Kombo (2012) hypothesizes a sample as a predetermined but representative number of objects chosen from the population. This study selected a sample size based on the Yamane’s (1967) formula. This formula is recommended whenever the sample to be collected is simple and random. The formula is stated as $n = N / (1 + Ne^2)$

Where:

n = the desired sample size

N = the Target population from which the sample is to be obtained.

e = the sampling error term.

In this study, n was derived as equal to $106 / (1 + 106(0.05 * 0.05)) = 84$ respondents. This represents a 79% of the total population which agrees with Mugenda and Mugenda that a sample size should be more than 30% of the target population. To select the 84 respondents, all targeted responded were allocated numbers and 79% randomly selected from each category. This is shown in Table 3.2

TABLE 3.2

Sample Size

Department	Target population	Sample Size
Finance	50	39
Internal audit	25	20
Economic Planning	16	13
Kenya National Audit	15	12
Office		
Total	106	84

Source (Author, 2022)

3.5 Instrumentation and Data Collection

Data collection is a predetermined procedure of accumulating the data of interest in a research process for the purpose of analyzing and identifying relationships in the study phenomena. Kombo and Tromp (2009) uphold that data collection is vital in any research since it allows proper spreading of precise data and the development of expressive perceptions. Data

collection instrument is a tool utilized by scientists to gather the required data in a research process. The common instruments: questionnaires, focus groups, interviews, and observation. For this study, questionnaires were used to collect primary data from the sample population. A Questionnaire was preferred because of its quickness and efficiency in obtaining data from many respondents within a short period. In addition, the study was mainly concerned with variables that cannot be directly observed such as views, opinions, perception, feelings, and attitude of employees in Machakos County and the Kenya National audit office representatives. Such information can be best collected with questionnaires that allowed respondents to give much of their opinions about the research problem (Cooper and Schindler, 2012). The questionnaires were piloted with subject experts and the research supervisor before final administration. This was done to cross verify the contents, structure and nature of the questions asked and to ensure the topic is well covered. To reach the employees, the researcher obtained an authorization letter from KCA University. The letter authorizing the researcher to collect the data was presented to the county executive and KNOA Office seeking permission to meet the employee in the three departments and authenticate the research process and enable them provide information to the research. Administration of the questionnaires by the researcher was through drop and pick basis.

3.6 Validity and Reliability

Reliability measures the level internal consistency or stability of the research instrument. Cronbach's alpha was used in this study to test the level of reliability of the research questionnaire. According to Sekaran (2013), Cooper & Schindler (2012), Cronbach's alpha coefficient gives the highest utility for the multi-item scales at the interval level of measurement. The values of the Cronbach's alpha coefficient cuts across -1 through 0 to 1. Cronbach's alpha

coefficient was determined through SPSS. The results were checked against the set criterion which indicates that a coefficient of 0.7 which is acceptable for a study.

To test the validity of the study, a pilot test was done. According to Saunders, Lewis & Thornhill, (2017), pilot test is undertaken to establish the level of appropriateness and accuracy of the questions presented to respondents. Cooper & Schindler (2012) agrees with this hypothesis that pilot test is done to detect any weakness in the purpose or structure of the research questions put forward for establishing the study variables relationship. In this study, a total of 8 respondents were chosen to be part of the pilot study. The eight respondents were issued with questionnaires to provide responses to the set questions. After the response, the questions were modified and revised to provide an accurate meaning to all respondents. The eight respondents were not included in the final data collection process.

3.7 Data Analysis and Technique and Presentation

Mugenda and Mugenda (2013) define data analysis as a mechanism summarizing, organizing, and producing findings that can be easily interpreted to explain a phenomenon under study. Data analysis as a creative and challenging process composed of coding the data and running matrixes to form relations that are meaningful to the researcher and readers. For this study, primary data collected from the employees was checked for completeness and accuracy then coded into IBM SPSS version 26.0 for analysis. Descriptive statistical analysis was involved in quantifying the averages and standard deviations of the responses to the questionnaires. Moreover, a regression linear regression model was used to determine the nature and the strength of the study variables. The regression analysis is a method used in research process to approximate the strength of relationships between two or more study variables. The linear regression used in this study was defined as follows:

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

Where:

Y = Financial Accountability

X1 = Fraud Investigation Practices

X2 = Fraud Prevention Practices

X3 = Fraud Examination Practices

ε = error term.

3.8 Diagnostic tests

The purpose of the assumption test was to verify whether the study could proceed and fit the regression model. There are multiple tests, but in this study, both the normality test and multicollinearity tests were used.

3.8.1 Normality test

In the regression model, the data was assumed to be normally distributed. The study employed several tests that was used to test for normality of the dependent variable. Among the tests used in this study were the Kolmogorov- Smirnov test, the Shapiro – Wilk among others. Normality test in statistics, is a test of the level at which the collected data is distributed across the scales set in the data collection instrument. The test determines the best model to be chosen in the study. For this study, fitness of normal model of distribution of data was determined and where it is skewed to the right or left adjustments was done (Henry, 2002).

3.8.2 Homoscedasticity Test

Rucker *et al.* (2011) describes homoscedasticity as an occurrence in linear regression where the error terms in the relationship between the predictor and dependent variables is the same across all the values of the variables. Levene's test was conducted to test if the variance

between independent and dependent variables is the same. According to Levene (1960), if the significance is greater than 0.05, the variances are roughly equal, and the assumption is tenable.

3.8.3 Multicollinearity

Multicollinearity is a case of multiple regression in which the predictor variables are highly correlated (Paul, 2006). If the goal is to understand how the various X variables impact Y, the multicollinearity is a big problem. Multicollinearity as defined by Kothari (2014) refers to an association that exists between two study variables in a multiple regression model.

Multicollinearity occurs when the Variance Inflation Factor (VIF) is less than five (5) between the study variables (Cooper and Schindler 2006). In this study, Pearson correlation was adopted and where the study variables depict a Multicollinearity level and where the $VIF < 5$, the variables were deemed fit for the study.

CHAPTER FOUR

PRESENTATION, INTERPRETATION AND ANALYSIS OF DATA

4.1 Introduction

This chapter covers data analysis, presentation of the data and interpretation of the study findings arranged from the response rate, the descriptive analysis based on all study variables responses from questionnaires presented to the respondents, study diagnostic tests, inferential statistics and finally the discussion of the results. The study independent variables were fraud investigation practices, fraud investigation practices and finally fraud examination while financial accountability by Machakos county government was presented as the dependent variable.

4.2 Response Rate

The researcher issued questionnaires to finance officers, internal auditors, economic planners in Machakos County and the Kenya National Audit Office attached to the Machakos County government. the filled questionnaires were collected after four days. Most of the respondents as shown in Table 4.1 filled and return the questionnaires.

TABLE 4.1

Response Rate

Response	Frequency	Percent
Responded	75	89.3
Did Not Respond	9	10.7
Total	84	100.0

After successful data collection process by use of questionnaires in Machakos county government, a total of 75 respondents filled satisfactorily and returned the data collection instrument to the researcher while 9 either returned blank or incomplete questionnaires. This translated into 89.3% response rate which was deemed fit for analysis in relation to Kothari (2014) postulation that response rate of above 50% is adequate for analysis and conclusion concerning the phenomenon under study.

4.2 Gender Response

The research asked respondents to indicate their gender. The responses are shown in table 4.2

TABLE 4.2

Gender Response

Gender	Frequency	Percentage
Male	49	65.3
Female	26	34.7
Total	75	100

From the analysis in Table 4.2, male employees were dominant with 65.3% while female were 34.7%. These responses indicated that Machakos County government had complied with the gender rule in their employment.

4.3 Age Bracket

The respondents were asked to indicate their age brackets and their responses are recorded in table 4.3

TABLE 4.3

Age Bracket

Age Bracket	Frequency	Percentage
25 years or below	1	1.33
26-30 years	5	6.67
31-35 years	8	10.67
36-40 years	17	22.67
41-45 years	24	32.00
46 years and above	20	26.67
Total	75	100

The responses indicated that most of the employees in Machakos county in the targeted departments were aged between 41-45 years followed by age bracket 36-40 represented by 32.00% and 22.67% respectively. This was followed by age bracket above 46 years representing 26.67% while the next category was 31-35% representing 10.67% while 26-30 followed with 6.67% and finally one respondent was below 25 years of age representing 1.33%. The age structure was a good representation of both youth and aged which represents technical knowledge.

4.4 Work Experience

The respondents were asked to indicate the number of working years in Machakos county government or in the targeted department. The responses are recorded in table 4.4

TABLE 4.4
Work Experience

Period	Frequency	Percentage
Less than one year	4	5.33
For 1-3 years	14	18.67
For 4-6 years	25	33.33
For 7 years and above	32	42.67
Total	75	100

From the analysis, 32 respondents representing 42.67% had worked in Machakos County government for more than seven years while 25 (33.33%) had worked for a period of 4 to six years. In addition, 14 respondents representing 18.67% had worked in Machakos county government for a period of 1-3 years and the remaining 4 (5.33%) had worked in the county government for a period of less than one year.

4.3 Descriptive Analysis

In this sub-section, both dependent and the independent variables for the study are discussed in detail and in relation to each other. The researcher presented questionnaires to the respondents for rating based on a Likert scale on all variables.

4.3.2 Fraud Investigation Practices and Financial Accountability

The respondents were presented with statements based on a five-point Likert scale to provide their level of agreement or disagreement on fraud investigation practices and how it affects financial accountability in Machakos county government. The highest scale was strongly agreed while the lowest was strongly disagree. The findings were presented in table 4.5

TABLE 4.5

Fraud Investigation Practices and Financial Accountability

	N	Mean	Std. Deviation
There is need for Forensic accountants to identify physical evidence during fraud investigation in the county government	75	4.0933	.80829
County government should establish forensic accountants to gather information concerning financial use in the county to detect any risk of fraud	75	3.8667	1.00449
Forensic accountants' key role is to interview the staffs and witness during fraud investigation	75	2.8533	1.23784
We need Forensic accountants to interrogate the suspect to detect the existence of any fraud	75	4.2267	.93828
There is a significant relationship between fraud investigation and financial accountability in county governments in Kenya	75	3.9200	1.11210

Fraud investigation is a part of the accounting practices which entails the careful inquisitive exploration and expediting trails of all financial transactions with an aim of providing evidence on the activities. The data collected and analyzed based on mean and standard deviation on fraud investigation indicates a positive relationship with financial accountability in Machakos county government. It's worth noting that the highest mean was denoted by 4.2267 and the lowest mean response was 2.8533.

From the findings, majority of the respondents held the view that forensic accountants should carefully interrogate the suspects to detect the existence of any fraud ($\mu = 4.2267$; $SD=.93828$). In addition, the need for forensic accountants to identify physical evidence during fraud investigation in the county government was highly viewed as a key aspect in fraud investigation by the respondents as shown by a mean response of 4.0933 and standard deviation of 0.80829. Similarly, as indicated by a mean of 3.9200 and $SD 1.11210$ there is a significant relationship between fraud investigation and financial accountability in county governments in Kenya. Moreover, County Government forensic accountants should gather information concerning financial use in the county to detect any risk of fraud ($\mu = 3.8667$; $SD=1.00449$). Finally, on whether the key role of forensic accountants is to interview the staffs and witness during fraud investigation, the respondents were indifferent as indicated by a mean of 2.8533 and standard deviation of 1.23784.

4.3.2 Fraud Prevention Practices and Financial Accountability

The respondents were presented with statements based on a five-point likert scale to provide their level of agreement or disagreement on fraud prevention practices and how it affects financial accountability in Machakos county government. The highest scale was strongly-agree while the lowest was strongly disagree. The findings were presented in table 4.6

TABLE 4.6**Fraud Prevention Practices and Financial Accountability**

	N	Mean	Std. Deviation
Establishment of forensic accounts department can ensure that there is fraud awareness and education in the county every year	75	3.1067	.90901
Forensic accountants improve transaction monitoring in the county to prevent any fraudulent transactions	75	2.5200	1.13137
Forensic accountants are best to prevent counterfeiting in the county	75	3.8133	1.19338
Forensic accounts department is best suited to excises law enforcement in preventing fraud occurrence	75	4.1200	1.03923
Computer system is useful to the forensic accountants in monitoring to ensure that they prevent any occurrence of fraud in county	75	4.0400	1.01927
Forensic accounts department will be responsible to maintaining fraud justice to prevent any fraud occurrence	75	3.2800	1.09742

Fraud prevention practice is at the core of the forensic accounting practices and it is put forward as a risk management instrument that ensures full compliance of the laid down policies and procedures that ensures integrity in financial reporting. Fraud prevention is a practice of cushioning the implication of the adverse effects of financial irregularities in both expenditure and reporting.

From the analysis, the highest mean response was ($\mu= 4.1200$; $SD=1.03923$) meaning that forensic accounts department is best suited to excises law enforcement in preventing fraud occurrence in the county government. Additionally, as supported by a mean response ($\mu= 4.0400$; $SD=1.01927$) most respondents stated that computer system is useful to the forensic accountants in monitoring to ensure that they prevent any occurrence of fraud in county Government. In addition, most of the respondents agreed that forensic accountants are best to

prevent counterfeiting in the county as shown by ($\mu= 3.8133$; $SD=1.19338$). This indicates that forensic accountants with their capacity to prevent any form of fraud in the administrations of funds allocated to the county government from the exchequer or even the locally collected funds. Moreover, most of the respondents felt that the forensic accounts department can ensure that there is fraud awareness and education in the county every year ($\mu= 3.1067$; $SD=0.90901$). the department it executing its mandate is required to carry out awareness programs for all government employees. As supported by ($\mu= 2.5200$; $SD=1.13137$) forensic accountants improves transaction monitoring in the county to prevent any transaction fraud. The examination comes in after all transactions have been undertaken but frequently and this keeps all parties involved on toes since they area ware of the preventive measures in place.

4.3.3 Fraud Examination Practices and Financial Accountability

The respondents were presented with statements based on a five-point likert scale to provide their level of agreement or disagreement on fraud examination practices and how it affects financial accountability in Machakos county government. The highest scale was strongly-agree while the lowest was strongly disagree. The findings were presented in table 4.7

TABLE 4.7**Fraud Examination Practices and Financial Accountability**

	N	Mean	Std. Deviation
Good interrogative skills are essential to forensic accountant during fraud examination.	75	4.0000	.95860
Forensic accountants have evidence data presentation styles which help them examine the fraud in the county without raising tension	75	3.9867	1.20240
Forensic accountants have self-control traits which help them examine the fraud in the county	75	1.9867	.79684
Forensic accountants are always aware of the potential dangers of an adversarial environment during fraud examination	75	3.6667	.99095
During fraud examination there is rigorous data detection and analysis with a built- in suspicion in the county	75	4.2400	.80270
During fraud examination violations of applicable laws, rules, and regulations are always detected in the county	75	3.7600	1.21744

To examine the complex financial reports in government and even in the private corporate world, the forensic auditors must be highly skilled. Fraud examination considers an expertise in analyzing, inspecting and deep perusal of all financial records such as audit reports, income statements, and all transactions to ensure all monies have been accounted for and those responsible have been held into account when irregularities have been identified.

Based on the study results, the respondents felt that during fraud examination there is rigorous data detection and analysis with a built- in suspicion in the county. This was supported by ($\mu = 4.2400$; $SD=0.80270$). In addition, respondents felt that to a great extent forensic accountants ought to have excellent interrogative skills to forensic accountant during fraud examination and the unearthing of all fraud ($\mu = 4.0000$; $SD=0.95860$). Moreover, the

respondents felt that forensic accountants have evidence data presentation styles which help them examine the fraud in the county without raising tension ($\mu = 3.9867$; $SD=1.20240$). However, most of the respondents disagreed with the question that forensic accountants have self-control traits which help them examine the fraud in the county. This was supported by a mean of 1.9867 and a standard deviation of 0.79684. as indicated by a mean of 3.6667 and SD 0.99095, the respondents opined that forensic accountants are always aware of the potential dangers of an adversarial environment during fraud examination. Finally, during fraud examination violations of applicable laws, rules, and regulations are always possible in the county and this was supported by most of the respondents as indicated by a mean of 3.7600 and SD 1.21744.

4.4.4 Financial Accountability in Machakos County Government

The respondents were presented with statements based on a five-point likert scale to provide their level of agreement or disagreement on financial accountability in Machakos county government. The highest scale was very great extent while the lowest was very small extent. The findings were presented in table 4.8

TABLE 4.8**Financial Accountability in Machakos County Government**

Does the county government utilize its financial resources as stipulated in the financial plans?	N	Mean	Std. Deviation
Application of forensic accounting practices improves resource utilization in county government?	75	4.4000	.92998
Application of forensic accounting practices enhances value for money approach in county government expenditure?	75	3.6533	1.00664
Application of forensic accounting practices improves county government collect revenue according to the existing framework?	75	3.7733	.86326
There is need for independent forensic accountants in county government to improve its financial accountability?	75	3.6133	1.05130

From the analysis, most of the respondents felt that the application of forensic accounting practices does much towards resource utilization in County Government ($\mu = 4.4000$; $SD=0.92998$). This meant that the respondents felt to a great extent that resource utilization is ensured once forensic practices are well applied. Secondly, the respondents felt that to great extent forensic accounting practices enhances value for money approach in county expenditures as this was seen in the mean response of 3.6533 and standard deviation of 1.00664. In addition, as shown by a mean of 3.7733 and standard deviation of 0.86326, the respondents indicated that to a great extent agreed that application of forensic accounting practices improves county revenue collection. Finally, on the question whether there is need for independent forensic accountant in county government to improve financial accountability, most of the respondents agreed as shown by a mean response of 3.6133 and a standard deviation of 1.05130.

4.4 Inferential Statistics

4.4.1 Diagnostic Tests

Diagnostic tests are key for researchers using regression model. The diagnostic tests checks if the data is fit for regression analysis by observing that the data does not violet the four principal assumptions of linear regression. According to Chatterjee and Hadi (2012), violation of the assumptions for regression analysis results to biased data whose interpretations and inferences does not reveal the true trend of the phenomena on study. Diagnostic test carried out in this study were, test of normality, multicollinearity, and heteroscedasticity.

4.4.1.1 Test of Normality

Test of normality is done to ascertain that there is normal distribution of the data.

Sharpiro-Wilk test was used to test normality.

TABLE 4.9

Normality Test

Variables	Statistic	Shapiro-Wilk	
		df	Sig.
Fraud Investigation	.979	75	.259
Fraud prevention	.978	75	.230
Fraud Examination	.973	75	.113
Financial Accountability	.951	75	.451

The null hypothesis held that the data was not normally distributed. The significance levels for Shapiro-Wilk test were above 0.05. According to Razali and Wah (2011), when using Shapiro-Wilk test, if the p-values are less than 0.05 then the data is not normally distributed.

Therefore, null hypothesis was dropped, and conclusion reached that the error term was normally distributed and hence the researcher could move ahead with inferential test.

4.4.1.2 Homoscedasticity Test

Levene's test of homogeneity of variances was used to test homoscedasticity. This test checks whether the variance between independent and dependent variables is the same.

TABLE 4.10

Homoscedasticity Test

	Levene Statistic	df1	df2	Sig.
Fraud Investigation	3.12	1	75	0.22
Fraud prevention	0.25	1	75	0.67
Fraud Examination	3.27	1	75	0.08
Financial Accountability	4.22	1	75	0.11

The significance level for all the variables was greater than 0.05. Therefore, the variances were significantly equal hence the homoscedasticity was evident. According to Levene (1960), if Levene's test is non-significant ($p > 0.05$), then the variances are roughly equal and the assumption that there is homoscedasticity is tenable.

4.4.1.3 Multicollinearity Test

Multicollinearity is a statistical phenomenon in which two or more predictor variables in a multiple regression model are highly correlated meaning that one can be linearly predicted from the others with a non-trivial degree of accuracy (Kothari, 2004). Multicollinearity test was done using variance inflation factor, as recommended by Cohen and Cohen (2003).

TABLE 4.11

Multicollinearity Test

	Collinearity Statistics	
	Tolerance	VIF
Fraud Investigation	.903	1.107
Fraud prevention	.974	1.027
Fraud Examination	.925	1.081

a. Dependent Variable: Financial accountability

According to Landau and Everett (2004), VIF less than 10 and tolerance greater than 0.1 indicates that there is no multicollinearity. Based on the data results, all the variables had VIF less than 10 and tolerance greater than 0.1. Therefore, the data in this study did not suffer multicollinearity problem.

4.4.2 Correlation

To test correlation between the research variables, spearman correlation was run by the research using SPSS. The spearman correlation uses r values to estimate the level of association between the research variables evaluated using ranked data. The resulted were checked against the spearman table of r values and their level of association between the study variables.

Range	Strength
0.00-0.20	Negligible
0.21-0.40	weak
0.41-0.60	Moderate
0.61-0.80	Strong
081-1.00	Very strong

The results of the spearman correlation are as shown in table 4.9.

TABLE 4.12
Spearman Correlation

Correlations		Fraud Investigation	Fraud prevention	Fraud Examination	Financial accountability
Fraud Investigation	Pearson Correlation	1			
	Sig. (1-tailed)				
	N	75			
Fraud prevention	Pearson Correlation	.654**	1		
	Sig. (1-tailed)	.004			
	N	75	75		
Fraud Examination	Pearson Correlation	.669**	.208	1	
	Sig. (1-tailed)	.010	.173		
	N	75	75	75	
Financial accountability	Pearson Correlation	.743**	.469**	.874**	1
	Sig. (1-tailed)	.000	.001	.000	
	N	75	75	75	75

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

From the analysis, the study identified positive and strong relationship between fraud investigation practices and fraud prevention practices undertaken by the forensic accountants as shown by a r value of 0.654 and p value of 0.004 at 95% confidence level. The P value was less than 0.05. in addition, as indicated a (r = 0.669; p = 0.010) at 95% confidence level, there was a strong and positive relationship between fraud investigation practices and fraud examination practices as part of the roles played by forensic accountants. Moreover, a positive and strong

relationship was identified between fraud investigation and financial accountability at 95% confidence as indicated by 0.743 r value and 0.000 p value which was less than 0.05.

Moreover, there was moderately strong relationship between fraud prevention and financial accountability as shown by r value of 0.469 and p value of 0.001 which was less than 0.05 at 95% confidence level. Finally, there was also a very strong and positive relationship between fraud examination and financial accountability in Machakos county government as identified by r value of 0.874 and p value of 0.000 which was less than 0.05 at 95% confidence level.

4.3.3 Factor Analysis

Factor Analysis is a technique for modelling observed variables, and their covariance structure, in terms of a smaller number of underlying unobservable factors. The factors typically are viewed as broad concepts or ideas that may describe an observed phenomenon. Factor analysis was conducted in this study to identify most factors that explain financial accountability in Machakos County government.

TABLE 4.13

KMO Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.950
Bartlett's Test of	Approx. Chi-Square	327.377
Sphericity	df	136
	Sig.	.000

The KMO Test is a measure of how data is appropriate for factor analysis. According to Cerny and Kaiser (1977) KMO sampling adequacy above 0.5 indicates data is suitable for factor

analysis. The significance of the test was 0.000 <0.05 meaning its significance at 95% confidence level. Thus, there is enough evidence to support the alternate hypothesis that is, there is correlation between the variables hence go ahead with Factor Analysis

Kaiser-Meyer-Olkin Measure of Sampling Adequacy - This measure varies between 0 and 1, and values closer to 1 are better. A value of 0.870 is a suggested minimum of Bartlett's Test of Sphericity This tests the null hypothesis that the correlation matrix is an identity matrix. An identity matrix is a matrix in which all the diagonal elements are 1 and all off diagonal elements are 0.

TABLE 4.14

Communalities in the Variables

Communalities		
	Initial	Extraction
Forensic accountants to need to identify physical evidence	1.000	.601
County government should establish forensic accountants to gather information	1.000	.454
Forensic accountant to interviews the staffs and witness	1.000	.739
Forensic accountants to interrogates the suspect in order to detect the existence of any fraud	1.000	.619
There is a relationship between fraud investigation and financialaccountability	1.000	.559
Forensic accounts department ensures fraud awareness and education	1.000	.556
Forensic accountants improve transaction monitoring	1.000	.495
Forensic accountants are best to ensure that counterfeiting prevention	1.000	.832
Forensic accounts department excises law enforcement in preventing fraud	1.000	.774
Computer system helps forensic accountants in monitoring	1.000	.667
Forensic accounts department maintains fraud justice	1.000	.559
Good interrogative skills are essential to forensic accountant during fraud examination.	1.000	.590
Forensic accountants have presentation styles which help them examine the fraud	1.000	.771
Forensic accountants have self-control traits	1.000	.835
Forensic accountants are aware of the potential dangers	1.000	.790
During fraud examination there is rigorous data detection and analysis	1.000	.548
During fraud examination violations of applicable laws, rules, and regulations are always possible in the county	1.000	.668

Extraction Method: Principal Component Analysis.

Communalities indicate the amount of variance in each variable that is accounted for.

From table 4.14, initial communalities in column 2 gives estimates of the variance in each variable accounted for by all components or factors. For principal component extraction, this is always equal to 1.0. Column 3 gives extraction communalities which are estimates of the variance in each variable accounted for by the components.

With principal factor axis factoring, the initial values on the diagonal of the correlation matrix are determined by the squared multiple correlation of the variable with the other variables. Extraction columns indicate the proportion of each variable's variance that can be explained by the retained factors. Variables with high values are well represented in the common factor space, while variables with low values are not well represented. The communalities in this study were all high indicating that the extracted components represent the variables well.

TABLE 4.15

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% Of Variance	Cumulative %	Total	% Of Variance	Cumulative %
1	3.145	18.497	18.497	3.145	18.497	18.497
2	1.899	11.168	29.665	1.899	11.168	29.665
3	1.824	10.731	40.396	1.824	10.731	40.396
4	1.689	9.938	50.334	1.689	9.938	50.334
5	1.313	7.725	58.059	1.313	7.725	58.059
6	1.185	6.973	65.032	1.185	6.973	65.032
7	.991	5.827	70.859			
8	.923	5.429	76.288			
9	.838	4.932	81.220			
10	.642	3.778	84.998			
11	.543	3.194	88.192			
12	.485	2.850	91.042			
13	.429	2.521	93.563			
14	.374	2.198	95.761			
15	.284	1.672	97.433			
16	.254	1.492	98.925			
17	.183	1.075	100.000			

Extraction Method: Principal Component Analysis.

Eigenvalues are the variances of the factors. Because the factor analysis was conducted on the correlation matrix, the variables are standardized, which means that each variable has a variance of 1, and the total variance is equal to the number of variables used in the analysis, in this case, 17.

From table 4.15 and with eigenvalues requested greater than 1.0, so the first four (6) factor components form the extracted solution. The six components explain 65.032% of the variability in the original 17 factors. Therefore, the complexity of the data set can considerably be reduced by using these components.

TABLE 4.16**Component Pattern Matrix**

Component Matrix	Component					
	1	2	3	4	5	6
Forensic accountants to need to identify physical evidence	.217	.296	.650	.192		
County government should establish forensic accountants to gather information	.111	.376	-.465	-.266	.107	
Forensic accountant to interviews the staffs and witness	.219	.236	.447	.392	.357	.393
Forensic accountants to interrogates the suspect to detect the existence of any fraud	.232	.100		-.592	-.444	
There is a relationship between fraud investigation and financial accountability	.611	.356		-.121	-.166	
Forensic accounts department ensures fraud awareness and education	-.367	.339		.442	-.298	.135
Forensic accountants improve transaction monitoring	-.554	-.167	-.252		.298	
Forensic accountants are best to ensure that counterfeiting prevention	.305	.282	-.303		.411	.629
Forensic accounts department excises law enforcement in preventing fraud	.388	.307	-.200	.542	-.442	
Computer system helps forensic accountants in monitoring	.346	-.623	.305	-.147	.199	
Forensic accounts department maintains fraud justice		.163	.669		-.206	.183
Good interrogative skills are essential to forensic accountant during fraud examination.	.387	.511	-.121	-.365		-.159
Forensic accountants have presentation styles which help them examine the fraud	.659	-.375		.331		-.284
Forensic accountants have self-control traits		.359	.377	.146	.442	-.586
Forensic accountants are aware of the potential dangers	.763		-.190	.397		-.114
During fraud examination there is rigorous data detection and analysis	.589		.156	-.326	.245	
During fraud examination violations of applicable laws, rules, and regulations are always possible in the county	.528	-.454	.124	-.144	-.245	.295

Extraction Method: Principal Component Analysis.
a. 6 components extracted.

The components can be interpreted as the correlation of each item with the component.

Each item has a loading corresponding to each of the 6 components. Item 1 is correlated 0.217 with the first component, 0.192 with the sixth component. The square of each loading represents

the proportion of variance explained by a particular component. For instance, Item 1, 21.7% of its variance is explained by the first component.

4.4.3 Regression Analysis

This study sought to analyze the effect of forensic accounting practices on financial accountability in Machakos County Government, Kenya. The independent variables therefore were fraud investigation practices, fraud prevention practices and fraud examination practices.

The dependent variable was financial accountability in Machakos county government.

Regression analysis was undertaken to establish if the independent variables significantly affect financial accountability in Machakos county government.

TABLE 4.17

Model Summary

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.497a	.447	.463	.45061

a. Predictors: (Constant), fraud investigation, fraud investigation, fraud examination

b. Dependent Variable: Financial accountability

Model summary in regression analysis points out to the results of goodness fit. R squared is the coefficient of determination. In this study, the coefficient of determination was 0.463. This indicates that 46.3% of variation in financial accountability in Machakos county government is explained by independent variables. Therefore, a proportion of 53.7% of variation in financial

accountability in Machakos county government is explained by other variables not included in this model.

TABLE 4.18

Analysis of Variance (ANOVA)

ANOVA						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.738	3	1.579	7.778	.000b
	Residual	14.417	71	.203		
	Total	19.155	74			

a. Dependent Variable: Financial accountability
b. Predictors: (Constant), fraud investigation, fraud investigation, fraud examination

Analysis of variance describes the significance of the overall model. From the results, the F statistic was 7.778. *P value* was 0.00 smaller than the critical p value 0.05. Therefore, the model was significant at 95% confidence level.

TABLE 4.19**Regression Coefficients**

Coefficients					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	2.305	.640		3.601	.001
Fraud Investigation	.298	.109	.298	2.734	.008
Fraud Prevention	.290	.143	.213	2.038	.045
Fraud examination	.259	.095	.292	2.727	.008

a. Dependent Variable: Financial Accountability

Constant for the regression model in this study had a coefficient of 2.305 significant at 95% confidence level (p value = 0.001 < 0.05). Fraud investigation practices had the greatest coefficient of 0.298 at 95% confidence level (P value = 0.008). This implies that, factoring fraud investigation practices in carrying out the forensic accounting function will improve the financial accountability significantly. The opposite is also true

Fraud prevention practice had a coefficient of 0.290 denoting a positive correlation with financial accountability in Machakos county government. This relationship was significant at 95% confidence level (p value = 0.045). This indicates that forensic accountants if conscious on fraud prevention aspect of their work they could significantly improve the level of financial accountability. Finally, fraud examination practices had a coefficient of 0.259 at confidence level of 95% and significance level of 0.008 which was less than 0.05.

Fitting the Regression Model

The regression model for this study was

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

Where:

Y = Financial Accountability

X₁ = Fraud Investigation Practices

X₂ = Fraud Prevention Practices

X₃ = Fraud Examination Practices

ε = error term.

Based on the significant variables, the fitted model became

$$Y = 2.305 + 0.298X_1 + 0.290X_2 + 0.259X_3$$

Interpretation of the Model

From the results shown in the model, at ceteris paribus there is a 2.305 change in financial accountability in Machakos county government. Secondly, when all other factors are held equal, there is 0.298 change in financial accountability in Machakos county government due to a unit change in fraud investigation practices. Moreover, when there is a unit change in fraud prevention practices holding all other factors constant, there will be a corresponding change of 0.290 in financial accountability in Machakos county government. Finally, there is a change of 0.259 in financial accountability in Machakos county government due to a unit change in fraud examination practices in when all other variables are held constant.

4.8 Discussion

The results indicated there is a positive relationship between fraud investigation practices as a shown by the mean responses, the correlation analysis, and the regression model. This

echoed the findings of Mukoro, Yamusa, & Faboyede (2019) on their study on the effect of forensic accounting on fraud prevention in Nigerian public where the results indicated a positive relationship between the forensic accounting practice and fraud investigation on the public sector. Additionally, the results agree with Hassan (2018) who did a study to establish the relationship between audit services and fraud investigation in Garissa Sub-Counties and revealed that audit services have the strongest positive influence on fraud investigation. The results showed that, the county government does not have forensic accountants in place and therefore the internal auditors are tasked with forensic practices which they do not have the knowledge and expertise hence need to introduce the function, they still report to the management, rendering the internal audit unit ineffective. Further, the study revealed that the county government has internal control system in place, but the management is reluctant to adhere to policies and procedures.

Secondly, the study revealed a moderate level of agreement between fraud prevention practices and financial accountability in Machakos county government through the descriptive, and inferential statistics. These results were like DeZoort & Harrison (2018) looked at auditors' sense of responsibility for detecting fraud within organizations in Canada and established that auditors had a higher rate of detecting fraud compared to accountants even under manipulative and work pressure. The study also established that with more experience in the work, auditors were able to detect risks and crimes within the financial systems in varying accuracy. The results and findings also resembled those of Akani & Ogbeide (2017) in Nigeria who did a study to examine forensic accounting and fraudulent practices effectiveness in the public sector. The study results revealed a positive relationship between forensic accounting and fraud investigation in the public sector. With proper training and understanding of the financial rules and regulations as well as reporting procedures equips employees with skills that are necessary to prevent fraud

from happening. The public sector is prone to financial fraud through improper accounting policies but with forensic accounting skills among its key finance staff is a key platform that prevents fraud from taking place.

Finally, the study indicated a strong and positive relationship between fraud examination practices and financial accountability in Machakos County government across the descriptive and inferential statistics. The adoption of computer systems to help in the examination process and easy identification of mischief. These results were like the results of Akani & Ogbeide (2017) who did a study to examine forensic accounting and fraudulent practices effectiveness in the public sector in South Africa. The study revealed a positive relationship between forensic accounting and fraud investigation in the public sector. With proper training and understanding of the financial rules and regulations as well as reporting procedures equips employees with skills that are necessary to prevent fraud from happening. This was also pointed out by Kabue and Aduda (2017) who ascertained that having a sound fraud examination by forensic auditors and government agencies such as the Ethics and anti-corruption agencies was key in bringing out the culprits. The internal auditors had failed to examine, investigate, and come out with a comprehensive report on the transactions conducted by the institution officials but on the adoption of forensic accounting, the entire scandal will be demystified, and litigation process initiated.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter covers summary of the findings, conclusion and recommendations based on the research findings. The chapter also highlights the findings on the relationship between the independent and the dependent variable, the conclusions from the findings, and the recommendations based on the conclusions which will help Machakos County improve on financial accountability.

5.2 Summary of the Findings

5.2.1 Effect of Fraud Investigation Practices on Financial Accountability

On this variable, the researcher established that forensic accountants should carefully interrogate the suspects to detect the existence of any fraud. Secondly, the need for forensic accountants to identify physical evidence during fraud detection in the county government was highly viewed as a key aspect in fraud investigation by the respondents. Similarly, it was established that there was a significant relationship between fraud investigation and financial accountability in county governments in Kenya. Finally, there was an indifferent view on whether the key role of forensic accountants is to interview the staffs and witness to detect any fraud risk in future.

5.2.2 Effect of Fraud Prevention Practices on Financial Accountability

On fraud prevention, the study found out that those forensic accounts department is best suited to excises law enforcement in preventing fraud occurrence in the county government. In addition, the study found out that computer system is useful to the forensic accountants in monitoring to ensure that they prevent any occurrence of fraud in county. In addition, most of the

respondents agreed that forensic accountants are best to ensure that counterfeiting prevention in the county. This indicates that forensic accountants with their capacity to prevent any form of fraud in the administrations of funds allocated to the county government from the exchequer or even the locally collected funds. Finally, forensic accountants improve transaction monitoring in the county to prevent any transaction fraud. The examination comes in after all transactions have been undertaken but frequently and this keeps all parties involved on toes since they are aware of the preventive measures in place.

5.2.3 Effect of Fraud Examination Practices on Financial Accountability

On fraud examination and financial accountability, the study found out that forensic accountants to a great extent ought to have excellent interrogative skills to examine frauds and the unearthing of all fraud. Secondly, the study found out that forensic accountants are always aware of the potential dangers of an adversarial environment during fraud examination.

Moreover, during fraud examination violations of applicable laws, rules, and regulations are always possible in the county. However, most of the respondents disagreed with the question that forensic accountants have self-control traits which help them examine the fraud in the county.

5.3 Conclusion

There is a strong and positive relationship between fraud investigation and financial accountability in. This implies that during fraud investigation activities such as bank accounts freezing, holding of email accounts, listening to all communications made by the perpetrators, and even making a follow up from the shadows are undertaken. In addition, physical evidence of the transactions such as procurement plans, all purchase orders, delivery notes, commercial invoices and even payment vouchers should all be available. The goal to have a vivid picture of

how the fraud transpired and the perpetrated to provide evidence in the court if and when legal measures are pursued by the aggrieved organization.

On fraud prevention, the study found a positive and moderately strongly relationship with financial accountability. Fraud prevention involves having legal framework and policies crafted and enforced by the right personnel to reduce the occurrence of fraud that any reduce financial accountability in the county government. Individuals with the intention of committing financial fraud are prevented from doing so when there are sound prevention measures put forward by the management. The most prudent prevention of financial fraud is establishing proactive measures that are well stipulated and clear to all employees involved in the financial management of an entity.

Fraud examination practice is key in ensuring financial accountability in county government. There was a positive between this variable and financial accountability. In forensic accounting, fraud examination considers an expertise in analyzing, inspecting and deep perusal of all financial records such as audit reports, income statements, and all transactions to ensure all monies have been accounted for and those responsible have been held into account if and when irregularities have been identified.

5.4 Recommendations

The study evaluated the effect of forensic accounting practices on financial accountability in Machakos County. From the study findings and conclusions, the study makes the following recommendations.

Forensic accounting activities in County governments in Kenya as at now is undertaken by the internal auditing function who may not have the required skills to professionally execute the function. This study therefore recommends that County governments should establish

forensic accounting departments and recruit competent employees. This will help in undertaking investigations on all frauds, recommend control measures, detect frauds in their early stages, prevent future frauds, examine fraud, collect fraud evidence, presents fraud case in court of law and identify areas of irregularities hence helping the county government improve on financial accountability by ensuring resources are well utilized, more revenue is collected and people Machakos county to get value for their money.

Secondly, the existing auditors at the county level and the national level should create sound policies that will prevent employees from engaging in financial fraud that could derail the county from service delivery and financial accountability. The Policies should cover all financial expenditure activities and revenue collection.

Finally, the study recommends that county governments should invest in modern technology to examine fraud in its expenditure since employees can easily evade traps when traditional methods are adopted. Technology will provide real time data on all transactions and where possible catch the preparators in the action. This will reduce the level of fraud and ensure the county government financial accountability and value for money has been achieved.

5.5 Suggestion for Further Research

The study looked at forensic accounting practices on financial accountability in the County Government. A similar study can be done on the same topic but in National Government to compare the results. In addition, another study can be done on the effect of forensic accounting practices on county government stall projects.

5.6 Limitations of the study

One of the main limitations of the study was that Machakos county employees were skeptical in providing the required research data as they thought the research area affected their

daily operations and in addition they would be victimized by their bosses. However, the researcher assured the respondents all information obtained was for academic purpose only and in addition, an introduction Letter from KCA university accompanied the questionnaires.

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APPENDIX I INTRODUCTION LETTER



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SCHOOL OF GRADUATE STUDIES

KCA/SGS/July.22/1

14th July 2022

TO WHOM IT MAY CONCERN

Dear Sir/Madam,

RE: SIMON KIOKO NZIOKI REG. NO 12/01436

It is my distinct pleasure to introduce to you Mr. Simon Kioko who is a student in our institution pursuing a Master of Science in Commerce at the School of Business.

Simon is conducting a research on a topic titled: *“Effect of Forensic Accounting Practices on Financial Accountability in Machakos County Government, Kenya”* which is part of the requirements of the program he is pursuing. The research as well as the data procured thereof shall be used for academic purposes only.

Any assistance accorded to him is highly appreciated.

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

Yours faithfully,

A handwritten signature in black ink, appearing to read 'Nyaribo Misuko'.

Dr. Nyaribo Misuko

Dean, School of Graduate Studies

APPENDIX II QUESTIONNAIRE

This study will be done to assess the effect of forensic accounting practices on financial accountability in Machakos County Government, Kenya. Assist in answering the following questions. Do not write your name anywhere. Note that there are no wrong or right answers.

PART A DEMOGRAPHIC INFORMATION

1. What is your gender?

Male Female

2. Kindly indicate your age bracket

25 years or below 26-30 years

31-35 years 36-40 years

41-45 years 46 years and above

3. Kindly the number of years you have been working in the Machakos County government?

Less than one year

For 1-3 years

For 4-6 years

For 7 years and above

PART B: EFFECT OF FRAUD INVESTIGATION PRACTICES ON FINANCIAL ACCOUNTABILITY IN MACHAKOS COUNTY GOVERNMENT

Please indicate the extent to which you agree with each statement with reference to the effect of market base on the financial performance of commercial banks in Kenya Given a scale of 1-5 where 1=strongly disagree, 2= disagree, 3= neutral, 4= agree, 5= strongly agree.

	Research question	1	2	3	4	5
(4)	There is need for Forensic accountants to identify physical evidence during fraud detection in the county government					
(5)	County government should establish forensic accountants to gather information concerning financial use in the county in order to detect any risk of fraud					
(6)	It`s the role Forensic accountant to interview the staffs and witness in order to detect any fraud risk in future					
(7)	We need Forensic accountants to interrogate the suspect in order to detect the existence of any fraud					
(8)	There is a significant relationship between fraud investigation and financial accountability in county governments in Kenya					

PART C: EFFECT OF FRAUD PREVENTION PRACTICES ON FINANCIAL ACCOUNTABILITY IN MACHAKOS COUNTY GOVERNMENT

Please indicate the extent to which you agree with each statement with reference to the effect of fraud prevention practices on financial accountability in Machakos county government Given a scale of 1-5 where 1=strongly disagree, 2= disagree, 3= neutral, 4= agree, 5= strongly agree.

	Research question	1	2	3	4	5
(9)	Establishment of forensic accounts department can ensure that there is fraud awareness and education in the county every year					
(10)	Forensic accountants can improve transaction monitoring in the county to prevent any transaction fraud					
(11)	Forensic accountants are best to ensure that counterfeiting prevention in the county					
(12)	Forensic accounts department is best suited to excises law enforcement in preventing fraud occurrence					
(13)	Computer system is useful to the forensic accountants in monitoring to ensure that they prevent any occurrence of fraud in county					
(14)	Forensic accounts department will be responsible to maintaining fraud justice in order to prevent any fraud occurrence					

PART D: EFFECT OF FRAUD EXAMINATION PRACTICES ON FINANCIAL ACCOUNTABILITY IN MACHAKOS COUNTY GOVERNMENT

Please indicate the extent to which you agree with each statement with reference to the effect of market base on the financial performance of commercial banks in Kenya Given a scale of 1-5 where 1=strongly disagree, 2= disagree, 3= neutral, 4= agree, 5= strongly agree.

	Research question	1	2	3	4	5
(15)	Good interrogative skills are essential to forensic accountant during fraud examination.					
(16)	Forensic accountants have presentation styles which help them examine the fraud in the county without raising tension					
(17)	Forensic accountants have self-control traits which help them examine the fraud in the county					
(18)	Forensic accountants are always aware of the potential dangers of an adversarial environment during fraud examination					
(19)	During fraud examination there is rigorous data detection and analysis with a built- in suspicion in the county					
(20)	During fraud examination violations of applicable laws, rules, and regulations are always possible in the county					

PART E: FINANCIAL ACCOUNTABILITY

Please indicate the extent to which you agree with each statement with reference to the effect of market base on the financial performance of commercial banks in Kenya Given a scale of 1-5 where 1=very small extent, 2=small extent, 3=some extent, 4= great extent, 5= very great extent.

	Research question	1	2	3	4	5
(21)	Application of forensic accounting practices improves resource utilization in county government?					
(22)	Application of forensic accounting practices enhances value for money approach in county government expenditure?					
(23)	Application of forensic accounting practices improves county government collect revenue according to the existing framework?					
(24)	There is need for independent forensic accountants in county government to improve its financial accountability?					