

**EFFECT OF INTERNAL AUDIT ON REDUCTION OF FRAUD ON STATE
CORPORATIONS IN KENYA**

(CASE OF STATE CORPORATIONS IN NAIROBI CBD)

BY

HAMRED CHUNGANI

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

JANUARY 2016

DECLARATION

I declare that this dissertation is my original work and has not been previously published or submitted elsewhere for award of a degree. I also declare that this contains no material written or published by other people except where due reference is made and author duly acknowledged.

Student Name: _____

Reg.No. _____

Sign: _____

Date: _____

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

HAMRED CHUNGANI

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

Sign: _____

Date: _____

Dr. Duncan Elly Ochieng, PhD, CIFA

Dissertation Supervisor

EFFECT OF INTERNAL AUDIT ON REDUCTION OF FRAUD ON STATE CORPORATIONS IN KENYA

(CASE OF STATE CORPORATIONS IN NAIROBI CBD)

ABSTRACT

Although internal auditing in state corporations in Kenya is intended to eradicate misuse of the entities' funds, fraud reduction has not been so successful, raising questions on its effectiveness. More often than not funds are lost and such lost funds are never recovered due to rampant fraud in these corporations. In Kenya, state corporations have been reported to be ineffective and corruption has led to their closure. The failure to ensure fraud reduction is attributable to weak internal auditing system of state corporations in Kenya. This then result into financial losses of these organizations. This means that weak internal auditing provide avenues for fraud in these organizations, which challenges the performance of these state corporations in Kenya. Studies have been carried out locally, regionally and globally on internal auditing and fraud. However, there is scanty information on fraud reduction of state corporations in Kenya as being as being influenced by audit staff competence, attributes of the audited, independence of the internal audit staff and objectivity of individual audit staff. This is despite the fact that there has been uncontrolled occurrence of fraudulent acts that have continued to challenge the performance of the state corporations in Kenya. It is in this light that the study sought to fill the existing gap by carrying out a research on the role of internal audit in fraud reduction on state corporations in Kenya. The study used descriptive survey and had the 64 state corporations in Nairobi CBD as its target population. Since the target population was easily reachable and accessible, the study used census during data collection. The data was analyzed using descriptive statistics on SPSS 20.0. The study found that that state corporations in Kenya fraud reduction in their state corporations is by caused internal audit. The main factors leading to this effect include; internal audit staff competence attributes of the audited, internal audit objectivity factors and internal audit staff independence. The study concludes that; internal audit staff competence, attributes of the audited, internal audit staff independence and internal audit objectivity highly influences fraud reduction of state corporations in Kenya. The study concludes that; internal audit staff competence attributes of the audited, internal audit staff independence, and internal audit objectivity factors, are useful in predicting fraud reduction of state corporations in Kenya. The study recommends that the state corporations in Kenya should come up with standards and policies that ensure staff competence, and ensure continuous assessments on the staff competency by qualified and recognized bodies and ensure frequent on job training of its audit staff to ensure vast experience in auditing of its staff. The study further recommends that state corporations in Kenya should allow their internal audit staff gain full access to all activities, records and properties, and have unrestricted access to all activities, records and properties, and ease of access to required records required for auditing. Further, the study recommends that there should be regulations and policies to internal audit staff independence and objectivity.

Keywords: Attributes of the Audited, Effectiveness, Internal Audit, Internal Audit Objectivity, Audit Staff Competence, Audit Staff Independence, Fraud Reduction, Management support, Organisation Policies and Procedures, State Corporations

TABLE OF CONTENTS	
DECLARATION.....	ii
ABSTRACT.....	iii
TABLE OF CONTENTS	iv
ACKNOWLEDGEMENT.....	vi
DEDICATION.....	vii
LIST OF FIGURES AND TABLES.....	viii
DEFINITION OF OPERATIONAL TERMS.....	ix
CHAPTER ONE	1
INTRODUCTION.....	1
1.1 Background of the Study	1
1.2 Statement of the Problem	5
1.3 Objectives of the Study	6
1.4 Research Questions	7
1.5 Significance of the Study.....	8
1.6 Scope of the Study	9
1.7 Chapter Summary.....	9
CHAPTER TWO	10
LITERATURE REVIEW	10
2.1 Introduction	10
2.2 Theoretical Review.....	14
2.3 Empirical Review	16
2.4 Conceptual Framework	23
2.5 Operationalization.....	25
CHAPTER THREE	27
RESEARCH METHODOLOGY	27
3.1 Introduction	27
3.2 Research Design.....	27
3.3 Target Population.....	27
3.4 Sample Procedure	28
3.5 Data Collection instruments.....	28
3.6 Pilot Testing	29
3.7 Data Analysis	30
3.8 Limitations of the Study	34
3.9 Research ethics	34
CHAPTER FOUR.....	36
RESULTS AND DISCUSSIONS.....	36
4.1 Introduction	36
4.2 Response Rate.....	38
4.3 Respondents' Demographics	39
4.4 Descriptive Analysis	42
4.5 Inferential Analysis	56
CHAPTER FIVE	65
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS	65
5.1 Introduction	65
5.2 Summary of Findings.....	65

5.3	Conclusions	67
5.4	Recommendations	68
	REFERENCES.....	71
	APPENDICES	77
	APPENDIX I: LIST OF STATE CORPORATIONS IN NAIROBI.....	77
	APPENDIX II:LIST OF STATE CORPORATIONS IN NCBD	81
	APPENDIX III:LETTER TO RESPONDENTS.....	83
	APPENDIX IV:QUESTIONNAIRE	84
	APPENDIX V: ADDITIONAL PAST STUDIES	89

ACKNOWLEDGEMENT

The completion of this dissertation was achieved through hard work and dedication of different actors. First and foremost I thank God the Almighty for finishing this dissertation. Secondly I sincerely acknowledge my supervisor Dr. Duncan Elly Ochiengfor his enabling support and guidance. I would also like to acknowledge the encouragement from all my colleagues and my MSC commerce classmates, friends and relatives whose remarkable devotion and dedication throughout the project work was incredible.

DEDICATION

This research study is dedicated to my late loving mother Alice Lung'atso Achimuta who despite being a single mother struggled to give me best education until her untimely demise on 5th August 2002. May God rest her soul in eternal peace.

LIST OF FIGURES AND TABLES

FIGURE 1: Conceptual Framework	24
FIGURE 2: Operational Framework.....	26
FIGURE 3: Analysis by Response Rate	38
FIGURE 4: Respondents' Sex	39
FIGURE 5: Analysis by Respondents Age	40
FIGURE 6: Analysis by Period worked in State Corporations.....	41
TABLE 1: Summary of literature review and research gaps	22
TABLE 2: Analytical Model	33
TABLE 3: Reliability Statistics	37
TABLE 4: Analysis by Fraud Reduction Status in SOEs in Nairobi	43
TABLE 5: Effects of Audit Staff Competence	46
TABLE 6: Effects of Attributes of the Audited.....	48
TABLE 7: Effects of Internal audit staff independence	50
TABLE 8: Effects of internal audit objectivity.....	52
TABLE 9: Effects of Organization policies and procedures	54
TABLE 10: Effects of Management Support	55
TABLE 11: Results of Multi-collinearity Tests on Independent variables	57
TABLE 12: Correlation Results.....	58
TABLE 13: ANOVA for fraud reduction in SOEs.....	61
TABLE 14: Regression Results of Dependent Variable against Predictor Variables	62
TABLE 15: Model Summary for Fraud reduction	63

DEFINITION OF OPERATIONAL TERMS

Auditing is a systematic process of objectively obtaining and evaluating evidence regarding assertions about economic actions and events to ascertain the degree of correspondence between those assertions and established criteria and communicating the results to interested users (Aamir & Farooq, 2011).

Fraud detection refers to identification of actual or potential fraud within an organization. It relies upon the implementation of appropriate systems and processes to spot early warnings of fraud (Salehi, 2010)

Internal audit helps an organization prepare accurate and complete period financial statements (yearly, monthly, and quarterly). An effective internal audit facilitates the evaluation and improvement of internal control systems by highlighting areas where the practical application of such guidelines often fails in many organizations. (IFAC, 2013).

Internal Audit Independence is the freedom from conditions that threaten objectivity or the appearance of objectivity. Such threats to objectivity must be managed at the individual auditor, engagement, functional and organizational levels (Stewart & Subramaniam, 2009)

Internal Audit Objectivity is an unbiased mental attitude that allows internal auditors to perform engagements in such a manner that they have an honest belief in their work product and that no significant quality compromises are made. Objectivity requires internal auditors not to subordinate their judgment on audit matters to that of others (Stewart & Subramaniam, 2009)

Internal auditing is an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control, and governance processes (IIA, 2011)

Management support is the management's response to the internal audit findings and recommendations (Cohen & Sayag, 2010).

Organisation policies and procedures are the set up ways of conducting activities in a given organization (Kasem, 2011).

Staff Competence: Is the knowledge, skills and other competencies needed by the audit staff to perform their responsibilities (Mihret & Yismaw, 2007).

State Corporation is a body corporate established by an Act of Parliament whose shares or a majority of whose shares are owned by government or by another state corporation and a subsidiary of a state corporation (Miring'u & Muoria, 2011).

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The Government of Kenya (GoK) has established certain positions and mechanisms to ensure effective internal auditing of financial transactions in state corporations (Karagiorgoset *al.*, 2010). More precisely, the objectives of internal auditing are: to identify business risks, analyze system inefficiencies, and take appropriate corrective action (Institute of Internal Audit, 2010). Internal auditing in government institutions provide a link between the operations and financial reporting processes of these entities (Cohen & Sayag, 2010). In fact, it plays the key role in monitoring the risk profile, by identifying the areas to improve risk management (Goodwin-Stewart & Kent, 2006).

The internal audit function singles itself out as the strongest pillar of a state corporations' corporate governance. In its position, internal audit ensures the integrity of the corporations' financial reporting process (Coram, Ferguson & Moroney, 2006). Specifically, internal audit allows state corporations to detect weakness in its financial operations such as; fraud, misappropriations, and corrupt deal, which makes it an indispensable management tool in firms. Therefore, internal audit provides a basis for correcting deficiencies that have sneaked through the first line of defense before these deficiencies become uncontrollable (Cohen & Sayag, 2010).

Actually, internal audit allows state corporations to achieve effective control in its operations by ensuring the corporations' accountability (Coram, Ferguson & Moroney 2008). Implementation of audit recommendations is highly relevant to fraud reduction (Van

Gansberghe, 2005, Coram *et al.*, 2008). Effective internal audit independently evaluates financial and operating information systems to ensure fraud detection (Van Gansberghe, 2005) in state corporations, by producing fraud detection report. According to Salehi (2010) fraud detection report determines effectiveness of the audit exercise. This is based on the premise that audit provides a signaling mechanism to the government that the information which internal auditing report produced is reliable. Audit report is very important to government and state corporations, making it the cornerstone of decision making in investments, divestments, and portfolios.

Although internal audit significantly influences accountability of state corporations, its recommendations would be a worthless cause if audit lacked effectiveness and allowed fraud to flow easily in the entity (Coram *et al.*, 2008). Furthermore, management support of internal audit should be effective if fraud is to be eliminated. A study by Salehi (2010) showed that audit functions enhance effectiveness through fraud reduction in state corporations. Such information is very useful in identifying the indicators of effective audit and helped clearly know its importance. Salehi (2010) study therefore provides very useful information to the present study, since it shows the effect of audit functions. Other journals, studies and theories such as by Mihret and Yismaw (2007) and (Cohen & Sayag, 2010) have shown that the effectiveness of internal auditing determine the level of fraud detection.

The main factors that that ensure that internal audit ensure reduction of fraud in states corporations include; audit staff competence (Mihret & Yismaw, 2007), attributes of the audited (Mihret & Yismaw, 2007), internal audit objectivity (Mat Zain & Subramaniam, 2007), and internal audit independence (Stewart & Subramaniam, 2009). The audit staffs have the responsibility for ensuring the quality of audits, supervise and review audit activities and the audit report. As such, the internal audit function needs professionally qualified staff, which

exposes competence to conduct the full range of audits (Institute of Internal Auditors [IIA], 2006).

Objectivity is a state of mind of the auditors, where they exhibit the highest level of professional objectivity in gathering, evaluating, and communicating information about the activity or process being examined. Audit committees can be viewed as a key safeguard mechanism for internal auditors in managing their professional objectivity (IIA, 2001). Objectivity ensures that the internal audit assist the state corporations' in maintaining effective controls by evaluating their effectiveness and efficiency and by promoting continuous improvement. Internal auditor's independence is the state of affairs that permits them to operate with an objective attitude (IIA, 2010).

The assurance services provided by auditors derive their value and credibility from the fundamental assumptions of independence of mind and independence in appearance (Stewart &Subramaniam, 2009). The independence allows the audit function to conduct work without interference by the entity under audit (IIA, 2006). Internal auditor's independence and objectivity are the cornerstones of the profession. Internal auditors should sufficiently maintain independence and objectivity (Wobschall, 2011) to reduce fraud in State corporations.

1.1.1 State Corporations

State corporations have been in existence in Kenya since the colonial times (Grosh, 1991) and even after Kenya attained independence. The GoK established several new and reorganized old State corporations after independence to further the implementation of economic development plans. In 1963 State corporations contributed 11.2% of the general GDP, rising to 14.4% in 1971

(Swainson, 1980). State corporations were set to serve political and economic interests, especially development in the agricultural sector (Friedman& Garner, 1976; Leys, 1975).

Most state corporations were started as commercial entities, with revenue producing functions. These entities' performances are assessed through the yardstick of profitability just as any other business entity (Friedman& Garner, 1976).To enhance the State corporations' monitoring role, and ensure capital is applied to its intended purpose, shareholders choose from amongst their ranks, individuals to represent them on the Board of Directors (Ongore&K'Obonyo, 2011). The Board of Directors is therefore put in place to safeguard the interests of the government (Jensen and Meckling, 1976).Government executives ensure the monitoring role of state corporations andthat capital is applied to its intended purpose by choosing shareholders from amongst their ranks to represent them on the Board of Directors (Ongore&K'Obonyo, 2011).

In Kenya, state corporations audit play a very vital role to avoid any weakness in its operations such as; fraud, misappropriations and corruption. In fact, strong state corporations in most towns are very prepared to engage in implementing internal control practices and procedures, such as internal audit, because they have greater access to revenues. Other state corporations, with less total financial capacity and population, continually struggle with such problems as unsustainable revenues and budget deficits, unpaid public employees and indebtedness. All state corporations are struggling to bring up full-pledged internal audit systems (Shah, 2007).

1.2 Statement of the Problem

The Kenya Government put all of its efforts on State corporations to grow the country's economy from the onset after independence (Grosh, 1991). The firm performance of most State corporations started declining in the year 1980s (Himbara, 1993), a status that continued to the extent that it reached 0.3% in the 1990s (Ileri, 2013), increasing the cost to the economy due to mismanagement by the management (Ouko, 2010; Ileri, 2013). In fact, many State corporations are a drain on the taxpayer and are virtually depending on the state to be bailed out (Cowan & Kinyanjui, 1977), rendering the story of State corporations in Kenya depressing (Tangri, 1999). Out of 100 reports of State corporations examined between 1993 and 2003, only 8 showed good firm performances and out of 130 State corporations reviewed over that period, only 23 showed good firm performances (Ileri, 2013).

For instance, up to Ksh. 54 billion was lost out of which Ksh. 14 billion was irrecoverable. In this saga; Kenya Posts and Telecommunications Corporation lost over Kshs. 24 billion, National Social Security Fund lost Kshs. 13 billion, National Cereals and Produce Board lost over Ksh. 3 billion, and Kenya Ports Authority and Kenya Railways Corporation lost over 2 billion each. In fact it is a matter of time before all the most significant SOEs in Kenya collapse (Himbara, 1993) since a report by the Parliamentary Investment Committee (PIC), showed that out of 125 SOE, only 25 were properly managed (Ileri, 2013). The poor firm performance of the SOEs was attributable to internal audit.

Various studies have been carried out locally, regionally and globally with some indicating that ineffectiveness in internal audit and fraud reduction. For instance the study by Badara and Saidin (2013) found that internal control system can influence the effectiveness of

internal audit. It was not clear how fraud is measured in internal audit. The study by Ruankaew (2013) found that Fraud affects business and has high costs but only looks at the factors that cause fraud and not fraud reduction. Other studies by Adeyemi and Fagbemi (2010), Arena and Azzone. (2010) and Cohen and Sayag (2010) addressed the audited attributes as related to internal audit but did not explain how audited attributes affects fraud reduction. Regional study by Aguolu (2009) on Staff Competence and internal audit falls short to explain how Staff competence could affect fraud reduction. In Kenya, studies were carried out by Kibet (2008), Kibara (2007) and Keitany (2000). All these studies revealed that internal audit control function had challenges in ensuring that internal audit realized fraud reductions. However, there is no enough information on fraud reduction of state corporations in Kenya as being influenced by audit staff competence, attributes of the audited, independence of the internal audit staff and objectivity of individual audit staff.

The cited studies fell short of explaining that internal audits' internal factors would enhance fraud reduction as regarded to internal audit staff competence, internal audit objectivity, attributes of the audited and internal audit staff independence. It is in this light that the study sought to fill the existing gap by carrying out a research on the effects of internal auditing on reduction of fraud in State Corporation in Kenya with regards to audit staff competence, attributes of the audited, independence of the internal audit staff and objectivity of individual audit staff.

1.3 Objectives of the Study

This section contains the objective of the study which showed the purpose and guided the study in achieving it purpose.

1.3.1 General Objectives

The main objective of the study was to assess the effect of internal audit on reduction of fraudulent activities on state corporations in Kenya.

1.3.2 Specific Objectives

The study was guided by the following specific objectives:

1. To establish the effects of audit staff competence on fraud detection in state corporations in Kenya.
2. To find out the extent to which attributes of the audited influence fraud detection in state corporations in Kenya.
3. To determine the influence of internal audit staff independence on fraud detection in state corporations in Kenya.
4. To find out the effect of objectivity of individual audit staff on fraud detection in state corporations in Kenya.

1.4 Research Questions

The study answered the following questions

1. What are the effects of audit staff competence on fraud detection in state corporations in Kenya?
2. How much influence does the attributes of the audited have on fraud detection in state corporations in Kenya?

3. What is the influence of internal audit staff independence on fraud detection in state corporations in Kenya?
4. What is the impact of objectivity of individual audit staff on fraud detection in state corporations in Kenya?

1.5 Significance of the Study

The purpose of this study was to evaluate the factors which determine the fraud detection in the state corporations, with a view of making recommendations to assist in correcting the worrying internal auditing status. An internal auditing system would help eradicate weakness in operations of state corporations. In this way, this study would benefit several stakeholders who include; ministry of state corporations, state corporation organizations, Government, Donors to the state corporations and citizens by making sure that their funds are accurately accounted for. It would ensure proper record keeping and accountability. Policy makers in both government and state corporations would benefit since they would be in a position to manage revenue with a lot of ease and ensure consistent budgets. The Government would benefit in ensuring that loss of funds through frauds and corruption is eliminated. The donors might be sure that their funds are well accounted for and citizens would be sure that their funds are properly managed and never misappropriated.

This research would be significant to state corporations in Kenya by providing an insight into the various approaches towards internal risk-based audit to ensure efficient utilization of resources and minimization of fraudulent actions. Government auditing is a cornerstone of good governance. By providing unbiased, objective assessments of whether state resources would be responsibly and effectively managed to achieve intended results, risk based audit might help state

corporations achieve accountability and integrity, improve operations, and instill confidence among citizens and stakeholders.

The study would be significant as it would offer insight toward effective decision-making process by providing an independent assessment of government programs, policies, operations, and results. Foresight identifies trends and emerging challenges improving service delivery in state corporations.

The study would also be significant to the researchers and scholars as it forms a background reference for future studies and contribute to the existing knowledge of literature. This study added more knowledge to the field of auditing, which makes the study useful to academicians and scholars. Lastly; the study is an eye opener to researchers for more research on auditing in state corporations.

1.6 Scope of the Study

The study was conducted on factors which determine fraud detection in state corporations. It was conducted on the 64 state corporations in Kenya.

1.7 Chapter Summary

This chapter dealt with the background of the study, statement of the problem, general objectives of the study, Specific objectives of the study, research questions, scope and Significance of the study about the effect of internal audit on reduction of fraud on state corporations in Kenya.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews selected literature and examines different theories which give an origin of what internal audit is all about. The literature reviewed explains how various studies have analyzed the concept of internal audit and what determine its effectiveness. This in essence enables the researcher to give a critical analysis of some of the thoughts and theories presented in past studies by various authors.

2.1.1 Internal Auditing and Fraud Reduction

According to Institute of Internal Auditors [IIA] (2011) internal audit aims at improving the organizational efficiency and effectiveness, which is achieved through constructive criticism. It helps an organization to carry out its objectives by bringing an organized, disciplined approach in order to assess and develop the effectiveness of risk management, control and governance processes. Internal auditing is performed by professionals with a thorough understanding of the state corporations' systems and processes. Effective internal audit independently evaluates the financial and operating information and of systems and procedures, to provide useful recommendations for improvements as necessary (Van Gansberghe, 2005). Internal audit produces the fraud detection report, which determined the effectiveness of the audit exercise as this help in fraud reduction Salehi (2010).

In fact the internal audit activity offers guarantee that internal controls in place are sufficient in order to alleviate the risks, ensure that governance processes are helpful and

competent, and ensure that organizational goals and objectives are met (IIA, 2011). This shows that internal audit has undergone a paradigm shift from an emphasis on accountability about the past to improving future outcome which help audited operate in more effective and efficient manner (Nagy & Cenker, 2002). To achieve high degree of fraud reduction in State Corporation, the internal audit needs to ensure proficient audit staff competence, quality attributes of the audited, independence of the internal audit and internal audit objectivity (Stewart & Subramaniam, 2009).

According to Mihret and Yismaw (2007), staff competence simply means the proficiency or expertise of the auditor and includes knowledge, skills and other competencies needed to perform their responsibilities. The audit staff must have sufficient academic and professional qualifications, as well as training to perform the internal auditor function effectively. Since, the internal audit work requires knowledge and experience on a wide range of systems and operations, it is imperative to deploy auditors with extensive professional skills and to upgrade their skills through continuing professional training and development.

Attributes of the audited highly determine fraud detection in State Corporation. To achieve effective audit work, auditors are required to have full and unrestricted access to all activities, records and properties, and be provided with cooperation from the audited. The ease of access to required records may vary among the units audited. The capability of the audited to meet their objectives also reflects on fraud detection quality. Effective internal auditing requires a high level of cooperation between the audited and audited (Mihret & Yismaw, 2007).

The internal auditors' ability to maintain their independence enables them to establish their own role and duties; the role of professional status; and the nature of the communications in

which they engage (Van Peurse, 2005). As such they are able to deal with the conflict between their audit oversight responsibilities and the provision of support to management. This enables them to deal with the tension involved in maintaining undesirable ambiguity, which is not necessary. The assurance services provided by internal audit derive the auditors' value and credibility from the fundamental assumptions of independence of mind and independence in appearance (Stewart &Subramaniam, 2009).The audit committees hold an importance and powerful position in enhancing internal audit objectivity (Mat Zain &Subramaniam, 2007). The internal auditors place significant trust in audit committees to take up the key questioning role in more formal settings.

However, there are intervening variables, which may have effects of the reduction of fraud. These are; management support, and organization policies and procedures. Management support is a very important factor for ensuring effectiveness of internal audit. It highly influences the auditor's attitude towards improving audit quality, commitment to work, and job satisfaction. When the auditor receives sufficient support from the management, then any hindrances are removed from the way, allowing him/her freedom and space to operate. This ensures that the results from audit exercise would now rely on the capability of the audit team (Cohen&Sayag, 2010).

Effectiveness of internal audit is also determined by Organisation policies and procedures. To make internal auditing effective, firm must have clear policies and procedures against which organizational practices are to be tied. Also, the results of internal audit services help improve those policies and procedures. The nature of institutional procedures greatly affect internal audit. An organization requires very simple procedures to ensure effective internal audit.

Such procedures reduce time wastage and complexity. Clumsy and time consuming procedures bring confusions and delays in internal audit (Kasem, 2011).

2.1.2 Internal Audit and State Corporations

Internal auditing involves; verification of written records; analysis of policy; evaluation of the logic and completeness of procedures, internal services and staffing to assure they are efficient and appropriate for the organization's policies, and reporting recommendations for improvements to management (Cohen & Sayag, 2010). It involves the utilization of a systematic methodology for analyzing processes or organizational problems and recommending solutions. However, the task, quality and strong point of an internal audit function may be different extensively within the approach of top executives and traditions of state corporations. Internal audit function subsists in all government owned entities, and in government ministries since it is an important managerial control device, which is directly linked to the organizational structure and the general rules of the government (Cai, 1997).

Internal auditing eventually produces an audit report, which is the medium of communication between the auditor and the end users of the audit report. The audit report contains information which must affect governments decisions (Salehi, 2010) with regards to the specific state corporation. It requires the executive to issue a set of financial information that shows the financial position and results of operations of the entity (Salehi, 2010).

2.2 Theoretical Review

The present study identified various theories and literature which explained fraud detection in terms of staff competence, organisational policies and procedures, attributes of the audited and the management support.

2.2.1 Agency Quality Theory

The Agency Quality Theory draws a relationship between two parties: investors and managers. The agent (i.e. manager) undertakes to perform certain duties for the principal (i.e. investors) and the principal undertakes to reward the agent (Jensen &Meckling, 1976). According to this theory, the auditor supervises the relationship between the manager and the owners. The auditor does not have responsibility of accounting, but only see that the auditing is done properly. Agency Quality theory demonstrates that accounting and auditing have an important task in providing information and this task is often associated with stewardship, in which an agent reports to the principal on the companies' events. The demand for auditing is sourced in the need to have some means of independent verification to reduce record keeping errors, asset misappropriation, and fraud within business and business organization”.

According to the theory, shareholders expect the stewards to act and make financial decisions in the interest of the shareholders (Padilla, 2002) with the aim of maximizing shareholders value. This theory provides a separation of ownership and control (Bhimani, 2008).

The agency theory was very beneficial to this study in that it creates a separation of ownership and control and can be referenced from two sides. On one side the auditor are supposed to work diligently and produce effective results (as a result of effectiveness of their

audit). In this perspective, the auditor is the steward. On the other side, the manager must provide the auditor with the appropriate support and provide independence. Although the manager belongs to the shareholders side, here he/she is the steward to the shareholders, who ensure that the shareholder is well represented. This reflects the four factor determining effectiveness of audit; auditor's competence, organisational policies and procedures, audited attributes, and managerial support.

Watkins, Hillison and Morecroft (2004) considered audit quality and perceptions of audit as two different concepts; monitoring strength and reputation to refer to the actual and perceived audit quality respectively. They said that the monitoring strength would help to maintain the quality of information in the financial statements, whereas the reputation influences the credibility of the creditor as perceived by the stakeholders. According to Watkins *et al.* (2004), the auditors monitoring strength is measured via the auditors' degree of competence and independence. However, it is difficult to observe or measure the reputation of the auditor since these are clients' beliefs.

2.2.2 Organization Theory

Organization theory seeks to identify similar themes within the organization structure which assists in problem solving, creating maximum efficiency and increase production capacity within the organization. This theory helps organizations to understand and manage the efficiency of a system, human resource and managers. The theory can be used on specific areas that require maintenance and attention. Its main objective is to completely understand the structure of the organization and the factors that need to be taken into account (Jensen, 1983).

According to the theory, organizations are open systems which interact directly with the environment they have inputs which include resources such as raw materials, finances, technologies and human resources. These inputs go through a process where they are planned, organized, motivated and controlled ultimately to meet the organization's goals. Outputs are the products and services that are offered to the market. For the process to be complete there is need for feedback which can be received from human resources carrying out the process or from the customers using the products. Feedback also comes from the larger environment of the organization like influences from government, society and technological changes (Jensen, 1983; Bacharha, 1989).

Organization theory contributed heavily to this study since it helps shareholders to understand how an organization functions, the different departments of the organization and the individuals within it. Organization enables people to work together to achieve common objectives through division of labor which is a key aspect in internal audit. For internal audit to be effective there must be segregation of duties. The theory was capable of bringing together the different factors that determine fraud detection, staff competence, organizational policies and procedures, audited attributes, and management support. It was possible to identify the position of these factors when ensuring the achievement of the organization goals.

2.3 Empirical Review

The study searched for and identify various past studies which have explained effectiveness of audit in terms of audit staff competence, organizational policies and procedures, attributes of the audited, and management support. For instance, Adeyemi and Fagbemi (2010) conducted a study on audit quality, corporate governance and firm characteristics in Nigeria after major

corporate collapses and related frauds had occurred in Nigeria and around the world. The study sought to provide evidence on corporate governance, audit quality, and firm related attributes. The study found that support from management had the possibility of increasing the quality of auditing. It was also found that the size of the company and business leverage were important factors in audit quality. The study suggests that the composition of non-executive directors as members of the board should be sustained and improved upon in order to enhance audit quality.

The studies by Beattie, Fearnley and Hines (2010) on factors affecting audit quality indicate that most factors of management support moderately or slightly enhanced audit quality. The information from the studies above was very useful to the current study. It helped to know that management support influences effectiveness of audit. The information gained helped to firmly consider management support as a factor determining effectiveness of internal audit. Without any doubt, management is considered as factor affecting effectiveness of audit.

A study by Karagiorgos *et al.*(2011) examined the contribution of auditing to corporate governance and examined the interaction between various corporate governance factors, such as the board of directors, the audit committee and the internal auditor, and the internal audit process. The results of the study indicated that auditing played a vital role in effective corporate governance. The study findings established a relationship between Organizational policies and procedures, and effectiveness of audit, where effectiveness of audit strengthened Organizational policies and procedures. Such a strong relationship has led to me as a researcher to develop an urge to establish what happens in the opposite (i.e. effects of Organizational policies and procedures on effectiveness of audit). This is what the present study sought to establish.

Adelopo (2010) conducted a study on the impact of corporate governance on auditor independence based on the agency Theory. This was based on the premise that control mechanism such as the board of directors and Audit Committee of the board reduce conflicts of interest as well between the shareholders and management by protecting the interests of the shareholders. The study found that there was positive relationship between Audit Committee activity, independent boards and internal auditor effectiveness, which appear more consistent with Stakeholder Theory.

Various studies related to audit staff competence have been reviewed. For instance, the study by Mansouri, Pirayesh and Salehi (2009) emphasized the need for audit committee participation in the audit function. The audit committee is a corporate or managerial function, which support audit functions. The study found out that failure by the management to effectively support audit function resulted to ineffectiveness in audit, otherwise known as audit failures, which would lead to delayed corrective action and would often allow the guilty to escape the punishment. Furthermore, auditors must work competently, by following as well as obeying their regulations and framework strictly where they must consider three basic characteristics of auditing: professional judgment, the specific nature of audit quality and the existence and effectiveness of private quality-assurance techniques. The study noticed that training played a key role into equipping the auditors for effective auditing. It suggested that auditor should be attending up-to day accounting and auditing short time courses.

Hudiwinarsih (2010) conducted a study which sought to relate the auditor's proficiency to effectiveness of the audit. The study indicated that existence of auditor profession was a primary requirement as it attempted to see the influence of experience, competency, and independency toward auditor professionalism. It was found that experience, competency, and

independency influenced significantly toward auditor professionalism. These results and findings proved very helpful in choosing audit staff competence as a factor determining the effectiveness of audit function in the state corporations.

In another study conducted by Iskandara, Rahmat and Ismail (2010), to establish the relationship between audit client satisfaction and audit quality, it was found that the audit quality attributes of audit firm are ranked higher than quality attributes of audit team. It was further found that client satisfaction was significantly related to audit firm quality attributes, i.e. prior experience, responsiveness, independence, and commitment of audit firm to quality audit. Results also show that client satisfaction is significantly related to certain quality attributes of audit team, i.e. experience with client, independence, involvement in the engagement, conduct of field works, and ethical and knowledge of accounting and auditing standards. This is to say that the competence of the audit staff influences quality of audit function, which was very helpful in relating the audit staff competence to effectiveness of the audit in the eyes of the client.

Al Matarneh (2011) conducted a study on factors determining internal audit quality in state corporations in Jordan. The study tried to examine the relationship between the competence, objectivity and performance of internal auditor. The study also sought to establish the quality of audit and provide results on relationship between the internal auditor's objectivity, qualification, and effectiveness and the internal audit quality. The study found out that performance had the highest relationship with audit quality, followed by competence and then objectivity. The study recommended that the state corporations must work to ensure the availability of the key factors to achieve the quality of the audit function.

The results from the study by Al Matarneh (2011) were beneficial to this study. These results clearly showed that the competence of the auditor will determine the effectiveness of audit. In this case it is referred to as the quality of audit. This helped to relate the audit staff competence to effectiveness of audit.

Aamir and Farooq (2011) conducted a study on auditor client relationship and audit Quality. The study results suggested that long-term audit tenure was vital for the audit quality; and factors such as specialization, knowledge and experience of the auditor, professional ethics, proper audit plan, providence of unbiased information by the client, and appointment of the auditor by the client-firm itself enhanced the audit quality. This means that the competence of the audit staff played a very important role in determining the effectiveness of the audit function, which was very beneficial to the present study in identifying audit staff competence as factors of effectiveness of audit of state corporations.

A study conducted by Suyono (2012) to analyze determinant factors affecting the audit quality identified: independence, experience, and accountability as the main factors which determine effectiveness of audit. The study found out that independence and accountability affect audit quality. Detailed result showed that; independence, experience and accountability affected audit quality simultaneously; independence and accountability affected audit quality partially. The same results showed that experience did not affect audit quality partially; and accountability was the dominant factor affecting audit quality.

Karagiorgos, Drogalas, and Giovanis (2011) conducted a study to examine the interaction between components of internal control system and performance of auditing in Greek hotel business. The results showed that the Control Environment component of internal control system

was most highly rated followed by Monitoring. Overall, the results stress the efficient functioning of all components of internal control system and their decisive role in the efficient functioning and consequently effectiveness of audit. The study findings and results showed that audit quality was responding to the attributes of the audited organization. When the audited was in response to the audit functions, audit was very effective. This information was very useful in regarding attributes of Audited and factor determining the effectiveness of audit, which was done effectively in this study. The present study used this information to study the attributes of the audited as a factor determining the audit quality in Kenya's state corporations.

Various studies are listed in table 1 and in appendix V.

TABLE 1
Summary of literature review and research gaps

Author and Year	Focus of the Study	Findings	Research Gaps	How Current study Addresses the Gaps
Badara, M. S, and Saidin, S. Z. (2013)	internal control system	internal control system can influence the effectiveness of internal audit	It was not clear how fraud is measured in internal audit	The current study related internal audit factors to effectiveness to reduction in fraud
Ruankaew (2013)	Fraud Factors	Fraud affects business and has high costs	The study only looks at the factors that cause fraud and not fraud reduction	The current study will embark on analyzing factors that influence fraud reduction
Badara, M. S, and Saidin, S. Z. (2012).	The relation-ship between risk management and internal audit effectiveness at local government level	The study reveals that risk management can influence the effectiveness of internal auditors at local level	The study fell short of explaining how the factors create to fraud reduction	The present study analyzed the main factors leading to fraud detection and related internal audit effectiveness to reduction in fraud
Dominic, S.B.S and Nonna, M. (2011)	Organisation policies and procedures	Internal audit is an outcome of proper policies along with human resources, in terms of staffing and competencies.	The study failed to show how organization policies and procedures and staff competence led to fraud detection	The current study establish the effects of organization policies and procedures and staff competencies in fraud reduction
Ussahawanitchakit and Intakhan (2011).	Audited attributes	Professionalism has a good positive impact on audit	The study failed to show how staff competence led to fraud reduction	The study analyzed the effects of professionalism on quality audit in fraud reduction
Arena, M and Azzone, G. (2010).	Audited attributes	Audited attributes lead to internal audit effectiveness	Did not explain how audited attributes would lead to fraud reduction	The present study found out how audited attributes relates to reduction of fraud
Cohen, A. and Sayag, G (2010)	Management Support	Support of management is very crucial internal audit	Failed to show how management support would lead to fraud reduction	The current study showed the relationship between support of management to fraud reduction

Source: Research Data (2015)

2.4 Conceptual Framework

The present study proposed that reduction of fraud in state corporations in Kenya was determined by audit staff competence, organizational policies and procedures, attributes of the audited, and management support. First, the study proposed that audit staff competence determine the effectiveness of audit. The indicators of audit staff competence included; skills and knowledge, adequate training and experience in all facets of an auditor's work. The audit should be performed and the report prepared with due professional care by persons who have adequate training, experience and competence in auditing for effective audit. Auditors should have academic training in accounting, taxation, auditing, and other areas related to their profession. In addition they should receive further training, both formal and informal, throughout their careers.

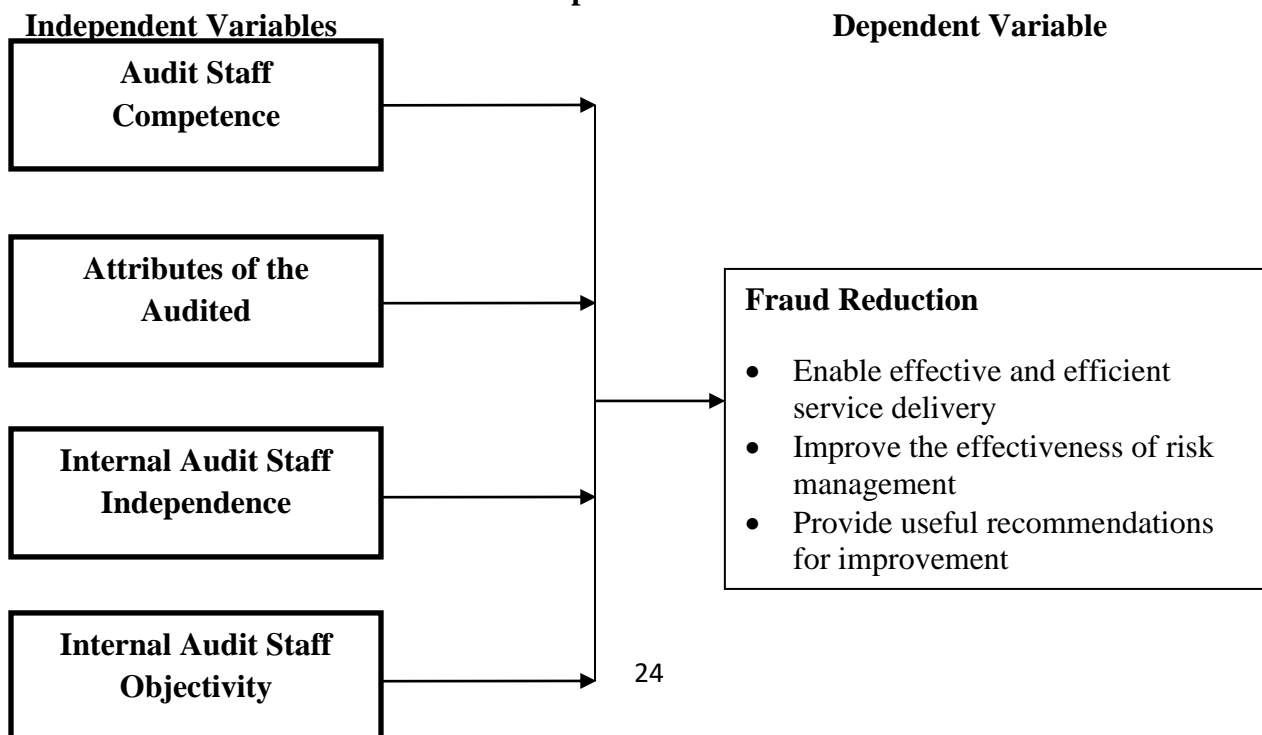
Secondly the study proposed that the organizational policies and procedures, which are based on the premise, that control mechanism reduce conflicts of interest as well between the shareholders and management by protecting the interests of the shareholders. These control mechanisms undertake decision control and supervisory roles in the organization. For instance, it is part of the responsibilities of the Audit Committee to review compliance with the internal control procedures in organisations, to review the risk management procedures in the firm and to review the independence of the internal auditors. These are with the view that it should reduce the agency cost of operation incurred by the organization. When the organization maintains effective and audit friendly organizational policies and procedures, there audit is very effective. It should also be noticed that availability and enhancement of proper organizational policies and procedures would ensure the accuracy, reliability, efficiency, effectiveness and security of the services. This blocks opportunities for corrupt use of processes and extends accessibility of

information within the firm and by providing enhanced accounting, monitoring and auditing systems.

Thirdly, the study proposed that attributes of the audited determine the effectiveness of audit. The attributes of the audited must be in support of the audit functions. Audit quality would only be through open and candid communication between the auditor and the client. In fact, auditors depend on their working relationships with clients. Such a relationship would allow the auditor to enquire about quality, transparency, and reliability of financial reports, hence effective audit.

Lastly, the study suggested that management support determines the effectiveness of audit. Management commitment to audit ensures avoidance of conflicts, thereby ensuring auditor independence and cordial working environment, which ensures proper and accurate detection of financial weakness. Once the weakness are detected in management operations, internal audit provides a basis for correcting deficiencies that have sneaked through the first line of defence before these deficiencies become uncontrollable, hence effective audit.

FIGURE 1
Conceptual Framework



2.5 Operationalization

This section of the study indicates how the independent variables were manipulated in order for the internal audit to be effective which enabled the organization to achieve its objectives and hence avoid mismanagement of funds. The Operationalization of the study is captured in figure 3.

FIGURE 3

Operational Framework

Variable	Type of Variable	Indicators	Scale of Measurement	Question
Fraud Reduction	Dependent Variable	<ul style="list-style-type: none"> - Effective and Efficient Service Delivery - Effectiveness of Risk Management - Useful Recommendations For Improvement - Fraud Court Cases 	Ordinal using 5 point Likert Scale	Question 4
Audit staff competence	Independent Variable	<ul style="list-style-type: none"> - Knowledge - Skills - Training - academic qualifications - professional qualifications 	Ordinal using 5 point Likert Scale	Question 5
Attributes of the audited	Independent Variable	<ul style="list-style-type: none"> - attributes of the Audited - cooperation of the audited - ease of access - capability of the audited to meet their objectives 	Ordinal using 5 point Likert Scale	Question 6
Internal Audit staff Independence	Independent Variable	<ul style="list-style-type: none"> - access to all information - commitment to work - job satisfaction - Strict adherence to audit standards 	Ordinal using 5 point Likert Scale	Question 7
Internal Audit staff Objectivity	Independent Variable	<ul style="list-style-type: none"> - Setting the risk management Desire - Assurance on risks - Taking decisions on risk responses - Implementing risk responses on management's behalf - Accountability for risk management 	Ordinal using 5 point Likert Scale	Question 8

Source: Researcher (2015)

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter seeks to provide an explanation of the research design and the methodology applied in carrying out the research study and justification for using a particular research design. It also intends to describe the characteristic of the population which was used in the study, detailed description of sampling methods used and procedures, data collection instruments and the procedure of data collection. Further, it focused on describing the appropriate data analysis method which generated the study results and ethical considerations.

3.2 Research Design

Descriptive research was used to carry out the research. Descriptive research was used to obtain information concerning the current status of the phenomena with respect to variables or conditions in a situation. The method was crucial for this study because the issue at hand required to be described and the phenomenon analyzed for conclusions. Descriptive design was used when collecting information about people's attitudes, opinions, habits and other possible behavior (Kombo& Tromp, 2006). The study aimed at describing the state of affairs as it is and therefore consider the descriptive research design as most appropriate for this study.

3.3 Target Population

Population has been defined by Mugenda and Mugenda (2003), as an entire group of individuals, events or objects having observable characteristics. In this research, target population was the

employees of the 64 State corporations in Nairobi CBD in Kenya. Kenya has 178 state corporations (Office of the Prime Minister, 2012), all located in Nairobi but only 64 are in Nairobi CBD (See Appendix II).

3.4 Sample Procedure

The study used census study methodology which enabled the researcher to gather more information to assist in analysis and arriving at accurate results. According to Mugenda (2003), a census is suitably used where the target population less than 100 subjects. This is because the target population is easily accessible and manageable. The study used the principal accountants of the 64 state corporations in Nairobi N CBD (Appendix II).

3.5 Data Collection instruments

There are several ways of collecting data. Each of them differs considerably from the other in terms of cost, time and other resources at the disposal of the researcher. These ways of data collection include observation, interviews, schedules questionnaires etc. In this study, the researcher used both primary and secondary sources to collect data. The primary data was used due to its nearness to truth and ease for control over errors (Copper and Schindler, 2003). In this case, the researcher administered questionnaires, with mainly closed ended questions to the respondents.

The researcher obtained a letter from KCA University approving and introducing him to the respondents. Before the data is collected, the study first conducted a pilot test on the research tool where data for testing was collected from respondents who were not allowed to participate in data collection for the study. During data collection, the researcher sought an appointment

with the state corporations of Kenya. Arrangements were then be made on when and how to conduct data collection. When collecting primary data, the researcher assisted the respondents to fill the questionnaire and at the end they confirmed any issues arising out of the data supplied (Kombo& Tromp, 2006).

3.6 Pilot Testing

The study conducted a pilot testing of the research instrument before administering it, in an attempt to test the reliability and validity of the research tool. The exercise enabled the study to identify possible problems; clarify on the instrument and appropriateness of the language during the main study. The pilot also assessed the relevance of the research objectives; tested the respondents' understanding of the research questionnaires and any potential problems. It also helped to establish how long it would take to complete the questionnaires.

The pilot testing aims at determining the reliability of the research tools including the wording, structure and sequence of the questions. According to Kvale (2007)) the pilot test is conducted to detect flaws and weakness in design and instrumentation and to provide data for selection of a probability sample. The pilot study was conducted on ten staff of the state corporations in Kenya, who did participate in the data collection. The research tool was administered to the respondents who were allowed three days to respond.

3.6.1 Validity

Validity, which is the degree to which result obtained from analysis of the data actually represents the phenomenon under study, was done to test the tool for accuracy and meaningfulness using content validity test. This measured the degree to which data collected

using a particular the tool would represent the specific domain of indicators/content of efficiency of irrigation water use. The assessment of content validity was carried by two professional experts; internal audit expert and the supervisor. The supervisor assessed the tools to establish what concept the instrument was trying to measure. The internal audit expert determined whether the sets of items can accurately measure the internal audit as a tool for reduction of fraud. The Experts were requested to comment on the representativeness and suitability of questions and give suggestions on the structure of the tools. This helped improve the content validity of the data that was collected.

3.6.2 Reliability

Reliability was conducted to a measure of the degree to which research instruments yield consistent results (Mugenda and Mugenda, 2003; Cooper and Schindler, 2008). The data was tested for reliability to establish issues such as data sources, methods of data collection, time of collection, presence of any biasness and the level of accuracy. The test for reliability established the extent to which results were consistent over time. The researcher improved the instrument by reviewing or deleting inconsistent items from the instrument. To test for reliability, the study used the internal consistency technique.

3.7 Data Analysis

This Section presents the information compiled from the mass of data collected. Sampling, classification and analysis were done in order to come up with clear, understandable, up-to-date, genuine and reliable information aimed at achieving objectives of the research study. The collected data was thoroughly examined and checked for and errors corrected accordingly. The various methods for analyzing data that were used included: bar graphs and pie charts, tables,

and editing (which is proof reading of a document to detect any errors and make corrections) (Aneshensel, 2004). Quantitative analysis was carried out first for each variable to describe that variable and how it relates to effectiveness of audit.

This analysis was achieved using descriptive statistics. Descriptive statistics especially, frequencies, was applied to help establish patterns, trends and relationships, and to make it easier for the researcher to understand and interpret implications of the study. Quantitative analysis was performed with the assistance of application SPSS 20.0.

Using inferential statistics, the study sought to establish a model to estimate dependent variable (response; Fraud Reduction) in terms of the independent variable (predictor; management support, organizational policies, audit staff competence and procedures, and attributes of the audited) based on the model shown below;

$$FR = \beta_0 + \beta_1SC + \beta_2AA + \beta_3SI + \beta_4AO + \varepsilon \dots\dots\dots(i)$$

Where:

β_0 - is a constant. This the value of dependent variable when all the independent variables are 0

$\beta_1 - \beta_4$ Regression coefficients of independent Variables or change induced by; SC, AA, SI and AO

ε - Error of prediction

FR = Fraud Reduction. This is the dependent variable which will have its data collected using 5-point Likert scale and have a mean obtained for all its indicators. The mean was used in multiple regressions

SC = Audit staff competencies is an independent variable. Its data was collected using 5-point Likert scale and have a mean obtained for all its indicators. The mean will be used in multiple regressions

AA = Attributes of the auditee is an independent variable. It was collected using 5-point Likert scale and have a mean obtained for all its indicators. The mean was used in multiple regressions

SI = internal audit staff independence is an independent variable. It was collected using 5-point Likert scale and will have a mean obtained for all its indicators. The mean was used in multiple regressions.

AO = internal audit objectivity is an independent variable. Its data was collected using 5-point Likert scale and have a mean obtained for all its indicators. The mean was used in multiple regressions

To successfully estimate the model, the study obtained a mean for each of the study variables above; management support, organizational policies, audit staff competence and procedures, and attributes of the auditee using weighted least square. The means obtained for all the independent variables; management support, organizational policies, audit staff competence and procedures, and attributes of the auditee were regressed against the mean obtained for Fraud Reduction using multiple regressions.

TABLE 2
Analytical Model

Objectives	Hypotheses	Tool of Analysis	Interpretation
To establish the effects of audit staff competence on fraud reduction in state corporations.	H₀: Audit staff competence does not significantly affect fraud reduction in state corporations. H₁: Audit staff competence significantly affects fraud reduction in state corporations.	Descriptive Regression Analysis	The significance will be tested at 0.05 level of significance and the Null hypothesis will be rejected when the p-value is less than 0.05 otherwise it is accepted
To find out the extent to which attributes of the audited influence the fraud reduction in state corporations	H₀: Attributes of the audited does not significantly influence fraud reduction in the state corporations H₁: Attributes of the audited significantly influences fraud reduction in state corporations	Descriptive Regression Analysis	The significance will be tested at 0.05 level of significance and the Null hypothesis will be rejected when the p-value is less than 0.05 otherwise it is accepted
To determine the influence of internal audit staff independence on fraud reduction in state corporations in Kenya.	H₀: Internal audit staff independence does not affect fraud reduction in state corporations in Kenya H₁: Internal audit staff independence affects fraud reduction in state corporations in Kenya	Descriptive Regression Analysis	The significance will be tested at 0.05 level of significance and the Null hypothesis will be rejected when the p-value is less than 0.05 otherwise it is accepted
To find out the effect of objectivity of individual audit staff on the effectiveness of fraud reduction in state corporations.	H₀: Management support does not significantly influence fraud reduction in state corporations H₁: Management support significantly influences fraud reduction in state corporations	Descriptive Regression Analysis	The significance will be tested at 0.05 level of significance and the Null hypothesis will be rejected when the p-value is less than 0.05 otherwise it is accepted

Source: Researcher (2015)

3.8 Limitations of the Study

The researcher faced the following limitations

3.8.1 Response Resistance and lack of Co-operation

The researcher faced limitation of the Respondents' response that took longer time to fill and return the questionnaires. Other respondents failed to answer or even return them at all. Another set of respondents felt being disturbed and therefore opted to avoid supplying the appropriate information. This led to lack of getting proper information.

3.8.2 Time

Considering the volume of work to be done, time allowed was not enough to do exhaustive research. There was limited time to complete the dissertation. The researcher was then compelled to take a leave off work to complete the research work.

3.8.3 Funding

The finance required to efficiently run was too high. The research could afford it in full. The researcher had to seek for sponsorship from well wishers.

3.9 Research ethics

Before data collection commenced, the researcher had to obtain authority to collect data from the appropriate authorities. First, I needed to obtain a letter from KCA University to carry out the research. This opened a way for me to go out and collect data required for the research. Lastly, an authority had to be sought from the state corporations to collect data from the staff. The study ensured confidentiality and security of data gathered from the respondents. In this regard, all the

data collected was in safe custody. The respondents were not required to write their names on the questionnaire to avoid exposing who gave what information. A letter of request to participate in the study was addressed to the respondents. This was a show of courtesy to the respondents as well as a mechanism of ensuring informed consent to participate in the study.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter presents an analysis, presentation and interpretation of the results obtained from the analysis of the study data and discussions on the findings. These results were presented by use of tables, charts and bar graphs for ease of understanding. The presentation of the results was guided by the study objectives and each presentation explained using a narrative. The study analyzed the results based on the objectives of the study. The response rate was first. Secondly, it contains the analysis of the response background. Thirdly, the chapter contains descriptive analysis of quantitative data and inferential analysis was also to establish whether the independent variables actually measured the dependent variables.

4.1.1 Pilot Testing

The study first carried out validity and reliability test before the research tool was administered to the respondents. During the pilot testing, the study tool was edited as appropriate. The reliability tests were conducted after successfully carrying out the validity tests. The research tools were corrected accordingly through removal and editing to arrive at highly reliable and valid instruments which were used in the study data collection. The instruments were therefore acceptable for data collection in this study. The pilot tests data collection took a period of two week, which gave the study a bearing on the average length of time the actual data collection would have taken. This opened the door for the study to continue with data collection as noted in the proceeding stages. The study tested the tool for validity and reliability.

The validity tests were conducted using content analysis where two experts in auditing and corporate governance were involved. The experts, one the dissertation supervisor, evaluated the tool and made recommendations accordingly. They both concurred that the research instruments (Questionnaire) would measure the desired objective and could be used in the industry. They however, suggested changes to be incorporated in the questionnaire, which were effectively done. The questionnaire was reviewed through restructuring and reduction of the questions.

The study tested the questionnaire for reliability using the internal consistency techniques based on the Cronbach Alpha method. It collected data from ten respondents who did not participate in the study data collection. The results obtained from the reliability testing of showed that a reliability coefficient (Cronbach Alpha) of .702 was obtained, are captured in Table 3.

TABLE 3
Reliability Statistics

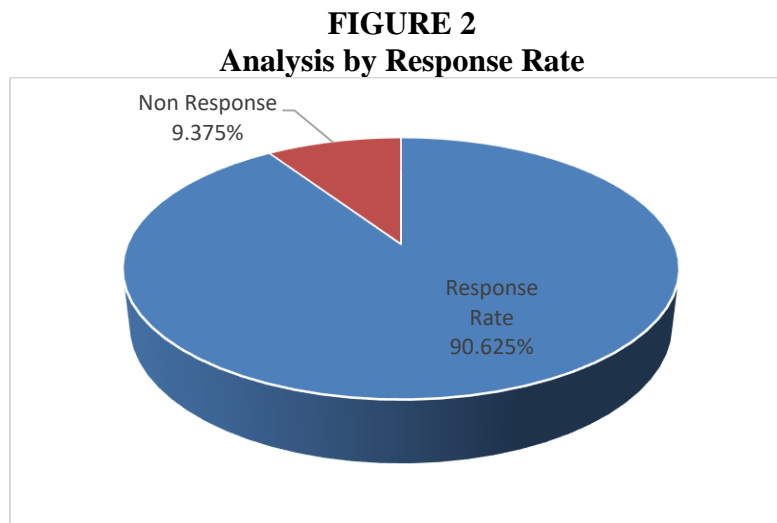
Variable	Scale Mean if Item Deleted	Cronbach's Alpha if Item Deleted
Fraud Detection	11.4067	.560
Staff Competence	11.1067	.749
Attributes of the Audited	11.7400	.574
Internal Audit Staff Independence	11.2067	.659
Internal Audit Objectivity	11.3667	.661
Cronbach's Alpha = .702		N of Items = 5

Source: Research Data (2015)

The results showed that the Cronbach's Alpha coefficient was .702, which was above the 0.7 threshold recommended by Nunnally (1978). The index shows high consistency between the items of the tool. Since the reliability tests indicated a high consistency, the tool items were retained as they were without any reduction or editing.

4.2 Response Rate

The questionnaire was distributed to 64 respondents out of which 58 responded representing a 90.625% response rate and the remaining 9.375% did not respond. All those who responded answered all the questions in the questionnaire quite well without leaving any questions unanswered. The results were captured in Figure 3.



Source: Research data (2015)

The study total response rate shows was 90.25% of the sample population. According to Mugenda and Mugenda (2003), a study response Rate above 69% was high and very good. This is to say that the study response for the present study was high and good. Mugenda and Mugenda (2003) indicate that such a high response would yield favorable results, which means going by this, the results from the present study would be favorable and accurate. It should further be noted that the response rate exceeded 30 subjects and Kombo and Tromp (2006) indicate that in a descriptive survey the sample size should be at least 30 elements. Considering that the study response was 58, then it is above the threshold.

4.3 Respondents' Demographics

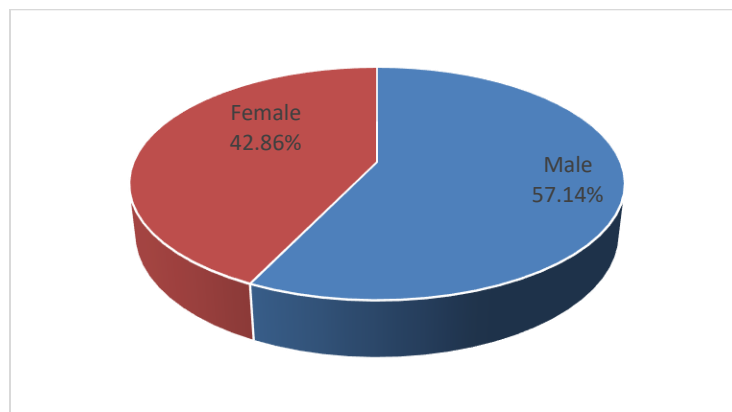
The study first sought to obtain information the Respondents' Demographics; respondents to sex; respondents' age, and period worked as employee of the state corporation.

4.3.1 Analysis by Respondents' Sex

The study requested the respondents to sex, which was either male or female. Most of them, who up 84.50% of the total response, indicated their age. The rest for reasons best known to them did not respond to this question. The results obtained were represented in figure 4.

FIGURE 3

Respondents' Sex



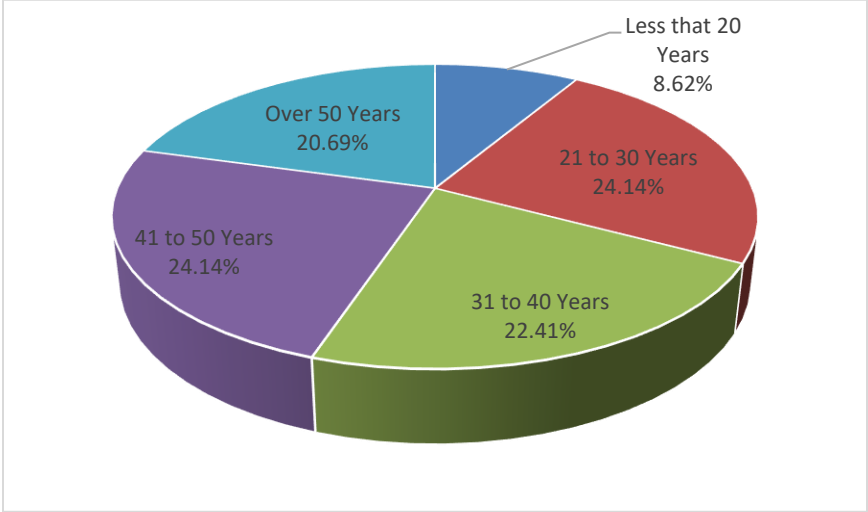
Source: Research data (2015)

From these results, 57.14% of the respondents were male as 42.86% were female. From these results it can be established that none of either sex was neither less than 1/3rd of the total response nor greater than 2/3rd of the total response. This was indicated of gender diversity in the senior audit officers in the SOE in Kenya (GoK, 2010) according to the new constitution of Kenya.

4.3.2 Age Bracket

The results on respondents' age were classified into age bracket; less than 20 years, 21 to 30 years, 31 to 40 years, 41 to 50 years, and over 50 years. This was recorded in Figure 5.

FIGURE 4
Analysis by Respondents Age



Source: Research data (2015)

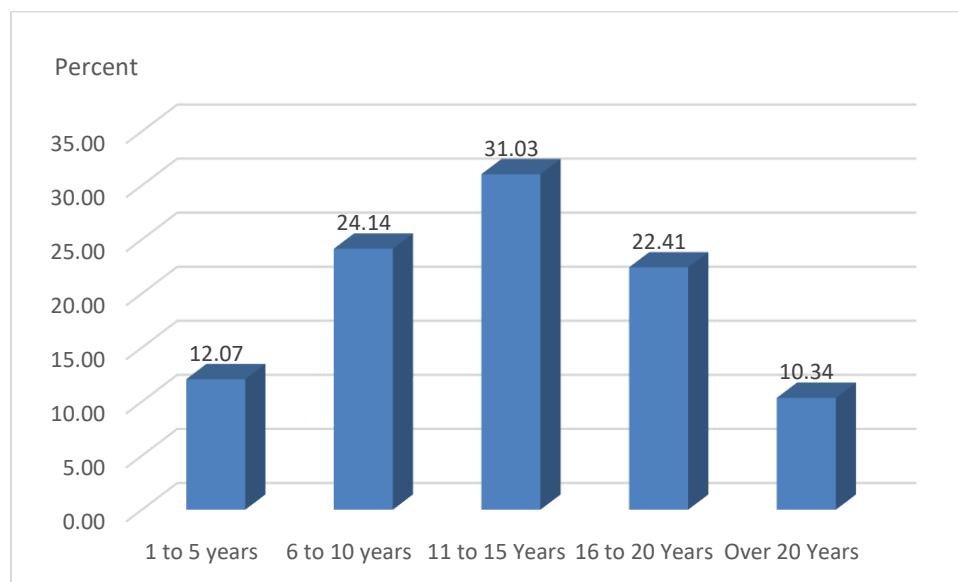
From figure5, it was shown that the ages of the respondents were shown to range from less than 20 years to over 50 years. Most of them showed they were between 41 to 50 years. These formed 24.14% and another 24.14% had showed they were between 21 and 30 years. They were followed by those who were 31 to 40, who made up 22.41% of the as 20.69% showed they were over 50 years and 8.62% indicated that they were less than 21 years

4.3.3 *Period worked as employee of the state corporation*

The results on the period of time (in years) been working in the SOE was classified into the periods; 1 to 5 years, 6 to 10 years, 11 to 15 years, 16 to 20 years, and over 20 years and then recorded in figure 6.

FIGURE 5

Analysis by Period worked in State Corporations



Source: Research Data (2015)

From figure 6, most of the respondents, who formed 31.03% of the total response, showed that length of time they had been in the SOEs for between 10 and 15 years. They were followed by those who showed that they had been with the SOEs for between 6 and 10 years, who made up 24.14%. Next were those who showed that they had been with the SOEs for between 16 and 20 years, who made up 22.41%. From the results, 12.07% showed that they had been with the SOEs for between 1 and 5 years as 10.34% showed that they had been with the SOEs for over 20 years. These results showed that most of the respondents had worked for SOEs

for considerable time, an indication that they had sufficient knowledge of the process and the demands in SOEs internal auditing functions. This is to say that they were expected to provide adequate response internal audit processes in the SOEs to the study.

4.4 Descriptive Analysis

The study analyzed the study objectives using the answers obtained using the questionnaire. The questions were measured on 5 point likert scale (0 – 4).The study used the scale; strongly Disagree = 0: Disagree= 1: Neutral = 2: Agree =3: Strongly Agree = 4 to measure the Dependent Variable (DV) and the scale; Not at All = 0; Low = 1; Moderate = 2; High = 3; Very High = 4 to measure the independent variables (IVs). The study further obtained a mean for each indicator for each variable (both DV and IVs) and another mean the respective variable.

4.4.1 Fraud Reduction Status

The study sought to establish the status of Fraud Reduction Status in Kenyan SOEs in Nairobi. Data collected on a 5-point Likert Scale (1: Strongly Disagree; 2: Disagree; 3: Neutral; 4: agree; 5: Strongly Agree). The study obtained the mean for each corporate governance indicators and for the corporate governance. The mean was interpretation as per the statistics; 0 – 0.8 for Strongly Disagree; above 0.8 – 1.6 for Disagree; above 1.6 – 2.4 for Neutral; above 2.4 – 3.2 for Agree; and above 3.2 – 4.0 for Strongly Agree. The results obtained were recorded in Table 4.

TABLE 4
Analysis by Fraud Reduction Status in SOEs in Nairobi

Fraud Reduction Statement	Frequency	Percent
Fraud reduction enables effective and efficient service delivery		
strongly disagree	2	3.40
Disagree	4	6.90
Neither	13	22.40
Agree	21	36.20
strongly agree	18	31.10
Total	58	100.00
Fraud reduction improves the effectiveness of risk management		
strongly disagree	3	5.10
Disagree	8	13.80
Neither	11	19.00
Agree	20	34.50
strongly agree	16	27.60
Total	58	100.00
Fraud reduction provides useful recommendations for improvement		
strongly disagree	4	6.80
Disagree	3	5.20
Neither	3	5.20
Agree	27	46.60
strongly agree	21	36.20
Total	58	100.00
Our organization has successively ensured fraud reduction through internal audit		
strongly disagree	1	1.80
Disagree	6	10.30
Neither	5	8.60
Agree	17	29.30
strongly agree	29	50.00
Total	58	100.00
There have been many fraud court cases due to fraud reduction in our corporation		
strongly disagree	1	1.80
Disagree	6	10.30
Neither	4	6.90
Agree	16	27.60
strongly agree	31	53.40
Total	58	100.00

Mean =2.974 Std. Deviation = 1.101

Source: Research data (2015)

The results in table 4 showed a majority of 36.20% of the respondents indicated that they agreed with the statement “Fraud reduction enables effective and efficient service delivery”. This was when 31.10% strongly agree with this statement “Fraud reduction enables effective and efficient service delivery”. From the results, 22.40% showed that they neutral on the statement “Fraud reduction enables effective and efficient service delivery”. As 6.90% indicated that they disagreed with the statement “Fraud reduction enables effective and efficient service delivery”, the remaining 3.40% strongly disagreed to the statement “Fraud reduction enables effective and efficient service delivery”.

As 34.50% of the respondents, who were the majority, indicated that they agreed to the statement “Fraud reduction improves the effectiveness of risk management”, 27.60% strongly agreed to this statement. The results indicated that 19.00% were neutral. These results showed that 13.80% disagreed on the statement “Fraud reduction improves the effectiveness of risk management” as 5.10% strongly disagreed with the statement.

From these results, most of the respondents 46.60% who were the majority showed that they agreed that the fraud reduction provided useful recommendations for improvement. Further. The results showed 36.20% strongly agreed that fraud reduction provided useful recommendations for improvement. However, 6.80% showed that fraud reduction provided useful recommendations for improvement, by strongly disagreeing to the statement. As 5.20% show that fraud reduction provided useful recommendations for improvement, another 5.20% were neutral on the statement “Fraud reduction provides useful recommendations for improvement”

A majority of 50.00% showed they strongly agreed to the fact that their organizations successively ensured fraud reduction through internal audit. It was also shown that 29.30% agreed that their organizations successively ensured fraud reduction through internal audit. However, 10.30% disagreed to the statement that “Our organization has successively ensured fraud reduction through internal audit” as 9.60% were neutral to the statement “Our organization has successively ensured fraud reduction through internal audit”. But 1.80% showed that they strongly disagreed that “Our organization has successively ensured fraud reduction through internal audit”.

The results showed a majority of 53.40% strongly agreed that there had been many fraud court cases due to fraud reduction for the last five years in their corporations as 27.60% indicated that they agreed to the statement “There have been many fraud court cases due to fraud reduction for the last five years in our corporation”. The results further showed that 10.30% indicated that there had not been many fraud court cases due to fraud reduction for the last five years in their corporations. However, 6.90% were neutral on the statement “There have been many fraud court cases due to fraud reduction for the last five years in our corporation” and 1.70% indicated that there had never been any fraud court cases due to fraud reduction for the last five years in their corporations. On overall, the respondents showed that internal audit led to fraud reduction which enhanced service delivery (Mean =2.974 Std. Deviation = 1.101).

These findings agreed to the study by Karagiorgoset *al.*(2011) which found that auditing played a vital role in effective corporate governance, by reducing fraud. Also the study by Ruankaew (2013) found out that certain fraud factors affects business and has high costs and without auditing there would not be fraud reduction. The current study findings also agree to the study by Durtschiet *al.* (2004), which found that Bedford’s law can be used in fraud detection.

Although the studies by Ruankaew (2013), Karagiorgoset *al.*(2011), and Durtschiet *al.* (2004) were useful in explaining the effects of fraud, they fell short of showing the relationship between fraud reduction and internal audit, which the present study established hence filling the knowledge gap.

4.4.2 Audit Staff Competence and Fraud Reduction

The study analyzed the level to which staff competence influences the fraud reduction in state corporations in an effort to analyse the first objective; to establish the effects of audit staff competence on fraud reduction in state corporations. During analysis, a mean was obtained for each indicator in a variable and an overall mean for the variable eventually computed. The mean obtained was interpreted using the statistics; 0 – 0.8 for Not at All, Above 0.8 – 1.6 for Low; Above 1.6 – 2.4 for Moderate; Above 2.4 – 3.2 for High and Above 3.2 – 4.0 for Very High. The results were recorded in Table 5

TABLE 5
Effects of Audit Staff Competence

Audit Staff Competence	Mean	Std Deviation
Academic qualifications	2.84	1.11
Professional qualifications	2.97	1.03
On the job training	3.14	0.91
Experience in auditing	2.83	0.82
Staff Competence	2.94	0.96

Source: Research data (2015)

The results in table 5 showed the respondents indicated that academic qualifications of audit staff highly influenced on fraud reduction (mean = 2.84, Std. Deviation = 1.11). The respondents also indicated that professional qualifications of audit staff highly influenced on the fraud reduction (mean = 2.97, Std. Deviation = 1.03). From these results, the respondents

showed that on the job training of audit staff highly influenced on the fraud reduction (mean = 3.14, Std. Deviation = 0.91) and experience in auditing highly influenced on the fraud reduction (mean = 2.83, Std. Deviation = 0.82) as well.

On overall, the respondents showed that internal audit staff competence highly influenced on the fraud reduction (mean = 2.94, Std. Deviation = 0.96). So, the study found that audit staff competence influenced fraud reduction, which is what various studies revealed. Further the study by Hudiwinarsih (2010) found that existence of auditor profession was a primary requirement as it attempted to see the influence of experience, competency, and independency toward auditor professionalism. It was found that experience, competency, and independency influenced significantly toward auditor professionalism. These results and findings proved same as in the current study (Iskandaraet *al.*, 2010). This is to say that the competence of the audit staff influences quality of audit function; hence the reduction of fraud as also established by Al Matarneh (2011) study.

Aamir and Farooq (2011) study indicated that factors such as specialization, knowledge and experience of the auditor, professional ethics, proper audit plan, providence of unbiased information by the client, and appointment of the auditor by the client-firm itself enhanced the audit quality. This means that the competence of the audit staff played a very important role in determining the effectiveness of the audit function, which will be very beneficial to the present study in identifying audit staff competence as factors of effectiveness of audit of state corporations (Ahmad *et al.*, 2009; Aguolu, 2009). All these study showed that the usual cause of audit failure is the internal audit based on staff incompetence. This means that effective audit staff competence would reduce fraud and hence ensure achievement of the SOEs goals.

These findings supported the findings in the study by Mansouriet *al* (2009), which revealed that, training played a key role into equipping the auditors for effective auditing. It suggested that auditor should be attending up-to day accounting and auditing short time courses. The studies by Aamir and Farooq (2011) , Al Matarneh (2011), Hudiwinarsih (2010) , Iskandaraet *al.* (2010), Ahmad *et al.* (2009), Aguolu(2009), Mansouriet *al* (2009) show the importance of staff competence in internal audit. However, these studies fell short of show the said internal audit quality related to fraud reduction, a knowledge gap that the current study filled.

4.4.3 Attributes of the Audited

The Attributes of the Audited influence on the fraud reduction of SOEs in Kenya were analyzed in an effort to assess the second objective; to find out the extent to which attributes of the audited influence fraud reduction in state corporations. During analysis, a mean was obtained for each indicator in the variable and an overall mean for the variable eventually computed. The mean obtained was interpreted using the statistics; 0 – 0.8 for Not at All, Above 0.8 – 1.6 for Low; Above 1.6 – 2.4 for Moderate; Above 2.4 – 3.2 for High and Above 3.2 – 4.0 for Very High. The results were captured in Table 6

TABLE 6
Effects of Attributes of the Audited

Attributes of the Audited	Mean	Std Deviation
Full access to all activities, records and properties	2.97	1.06
Unrestricted access to all activities, records and properties	3.00	1.16
Cooperation from the audited	2.97	1.11
Ease of access to required records	2.60	0.92
Overall Attributes of the Audited	2.89	1.06

Source: Research data (2015)

The results in table 6 showed the respondents indicated that full access to all activities, records and properties highly the fraud reduction (mean = 2.97, Std. Deviation = 1.06). It was also shown that the respondents indicated that unrestricted access to all activities, records and properties highly the fraud reduction (mean = 3.00, Std. Deviation = 1.16). From these results, the respondents showed that cooperation from the audited highly the fraud reduction (mean = 2.97, Std. Deviation = 1.11) and ease of access to required records highly fraud reduction (mean = 2.60, Std. Deviation = 0.96). On overall, the respondents showed that Attributes of the Audited highly influenced the fraud reduction of Kenyan state corporations (mean = 2.89, Std. Deviation = 1.05).

The current study found that by Attributes of the Audited highly influenced fraud reduction of Kenyan state corporations as was established by the Karagiorgos *et al.* (2011). The study by Karagiorgos *et al.* (2011) has sufficient evidence that audit quality, which led to fraud reduction in firm, was responding to the attributes of the audited organization. When the audited was in response to the audit functions, audit was very effective. Also the study by Mansouri, *et al.* (2009) had earlier found that failure by the management to effectively support audit function resulted to ineffectiveness in audit, which would lead to lack of fraud reduction. The same was later established by Arena and Azzone (2010), which found that audited attributes lead to internal audit effectiveness that would be a platform to reduction of fraud.

Although it seemed obvious that the study by Karagiorgos *et al.* (2011), Arena and Azzone (2010), and Mansouri, *et al.* (2009) showed the need for the quality attributes of the audited that to enhance audit quality. However, the studies did not reach the point where internal audit related to fraud reduction, which is what the present study found.

4.4.4 Internal Audit Staff Independence Factors

The study analyzed the results on influence of internal audit staff independence on fraud reduction in its effort to assess the third objective; to determine the influence of internal audit staff independence on fraud reduction in state corporations in Kenya. During analysis, a mean was obtained for each indicator in a variable and an overall mean for the variable eventually computed. The mean obtained was interpreted using the statistics; 0 – 0.8 for Not at All, Above 0.8 – 1.6 for Low; Above 1.6 – 2.4 for Moderate; Above 2.4 – 3.2 for High and Above 3.2 – 4.0 for Very High. The results were captured in Table 7.

TABLE 7
Effects of Internal audit staff independence

Internal audit staff independence Factors	Mean	Std Deviation
Access to all information	3.24	0.84
Commitment to work	3.24	0.78
Job satisfaction	2.97	1.14
Strict adherence to audit standards	2.75	1.11
Overall Internal audit staff independence	3.05	0.97

Source: Research data (2015)

From the results in table 7 it was shown the respondents indicated that internal audit staff independence highly influenced the fraud reduction in SOEs in Kenya (mean = 3.05, Std. Deviation = 0.97). The respondents indicated that Access to all information very highly influenced the fraud reduction (mean = 3.24, Std. Deviation = 0.84). These results obtained showed the respondents indicated that Commitment to work very highly influenced fraud reduction in state corporations in Kenya (mean = 3.24, Std. Deviation = 0.78) and Job satisfaction highly influenced fraud reduction in state corporations in Kenya (mean = 2.97, Std. Deviation =

1.14). It was also show that Strict adherence to audit standards highly influenced fraud reduction in state corporations in Kenya (mean = 2.75, Std. Deviation = 1.11).

So it means that the study found that internal audit staff independence highly influenced fraud reduction on state corporations in Kenya, which was what the study by Suyono (2012). The study by Suyono (2012) found out that independence and accountability affect audit quality, which therefore would enhance fraud reduction. This is to say that; audit independence, experience and accountability affected audit quality simultaneously (Adelopo, 2010).

Another study by Badara and Saidin (2012) showed that there exist a relationship between risk management and internal audit effectiveness at local government level. So, risk management can influence the effectiveness of internal auditors at local level. Earlier the study by Mansouriet al. (2009) found out that auditors must work competently, by following as well as obeying their regulations and framework strictly where they must consider three basic characteristics of auditing; professional judgment, the specific nature of audit quality and the existence and effectiveness of private quality-assurance techniques. So according to the study, internal audit independence played a key role in reducing fraud as it led to effective auditing.

Although the studies by Badara and Saidin (2012), Suyono (2012) , Adelopo (2010), and Mansouriet al. (2009) provided vital information on the importance of internal audit staff independence in internal audit quality, it did not relate it to fraud reduction, which is what the present study found.

4.4.5 Internal Audit Objectivity Influence

The internal audit objectivity influence on fraud reduction of state corporations in Kenya were analyzed in an effort to assess the second objective; to find out the effect of objectivity of individual audit staff on the effectiveness of fraud reduction in state corporations and the results were recorded in Table 8.

TABLE 8
Effects of internal audit objectivity

Internal audit objectivity Factors	Mean	Std Deviation
Setting the risk management Desire	3.16	0.88
Management assurance on risks	3.00	1.12
Taking and Implementing decisions on risk responses	2.93	1.15
Accountability for risk management	2.38	1.21
Overall Internal audit objectivity Factors	2.87	1.05

Source: Research data (2015)

The results in table 8 showed the respondents indicated that setting the risk management desire highly influenced the fraud reduction of state corporations (mean = 3.16, Std. Deviation = 0.88). The respondents indicated that management assurance on risks highly influenced the fraud reduction of state corporations in Kenya too (mean = 3.00, Std. Deviation = 1.12). From these results, the respondents showed that taking and implementing decisions on risk responses highly influenced the fraud reduction of state corporations in Kenya (mean = 2.93, Std. Deviation = 1.15) and accountability for risk management moderately influenced the fraud reduction of state corporations in Kenya (mean = 2.38, Std. Deviation = 1.21). On overall, the respondents showed that internal audit objectivity highly influenced the fraud reduction of state corporations in Kenya (mean = 2.87, Std. Deviation = 1.05).

These findings supported the findings in the study by Mansouriet *al.* (2009), which revealed that, auditors must work competently, by following as well as obeying their regulations and framework strictly. Earlier the study by Al Matarneh (2011) had established that internal audit objectivity and effectiveness among other factors influenced the internal audit quality. The study found out that audit performance had relationship with audit quality, followed by competence and then objectivity. The study recommended that the banks must work to ensure the availability of the key factors to achieve the quality of the audit function.

The studies by Al Matarneh (2011) and Mansouriet *al.* (2009) found that internal audit objectivity was vital for effectiveness and influenced the internal audit quality. However these empirical studies did not establish how internal audit objectivity related to fraud reduction. The current study also established that objectivity was a major influencing factor on the audit quality and led to fraud reduction. The study reviewed did not show how internal audit objectivity related to fraud reduction but this gap was filled by the present study.

4.4.6 Moderating Effect on dependent Variables

The intervening variables influence on the fraud reduction of state corporations in Kenya was also analyzed. The organization policies and procedures influence on the fraud reduction of state corporations in Kenya was analyzed first and results recorded in table 9.

TABLE 9
Effects of Organization policies and procedures

Organisation policies and procedures	Mean	Std Deviation
Clarity of policies	2.69	0.90
Simplicity of procedures	2.59	0.96
Time saving procedures	2.41	1.04
Understandability of procedures	2.48	0.94
Overall Organisation policies and procedures	2.54	0.96

Source: Research data (2015)

The results in table 9 showed the respondents indicated that clarity of policies highly influenced the fraud reduction of state corporations (mean = 2.69, Std. Deviation = 0.90). The respondents indicated that simplicity of procedures highly influenced the fraud reduction of state corporations in Kenya too (mean = 2.59, Std. Deviation = 0.96). From these results, the respondents showed that Time saving procedures highly influenced the fraud reduction of state corporations in Kenya (mean = 2.41, Std. Deviation = 1.04) and understandability of procedures highly influenced the fraud reduction of state corporations in Kenya (mean = 2.48, Std. Deviation = 0.94).

On overall, the respondents showed that organization policies and procedures highly influenced the fraud reduction of state corporations in Kenya (mean = 2.56, Std. Deviation = 0.96). These findings to some point agreed to the study Dominic and Nonna (2011), which found that internal audit is an outcome of proper organization policies and procedures Njagi (2009). The study by Belay (2007) has established that organization policies and procedures is critical in internal audit function.

These studies reviewed failed to show how organization policies and procedures and staff competence led to fraud detection. The current study established the effects of organization policies and procedures on fraud reduction

The study then assessed the effects of Management Support and the results recorded in Table 10.

TABLE 10
Effects of Management Support

Management Support	Mean	Std Deviation
Availing the appropriate resources	2.41	0.75
Giving ample time to auditor's	2.59	0.96
Reconciling the audit report	2.45	0.92
Overall Management Support	2.48	0.88

Source: Research data (2015)

The results in table 10 showed the respondents indicated that setting the availing the appropriate resources highly influenced the fraud reduction of state corporations (mean = 2.41, Std. Deviation = 0.75). The respondents indicated that giving ample time to auditors highly influenced the fraud reduction of state corporations in Kenya too (mean = 2.59, Std. Deviation = 0.96). From these results, the respondents showed that reconciling the audit report highly influenced the fraud reduction of state corporations in Kenya (mean = 2.45, Std. Deviation = 0.92). On overall, the respondents showed that management support highly influenced the fraud reduction of state corporations in Kenya (mean = 2.48, Std. Deviation = 0.88).

Adeyemi and Fagbemi (2010) found that support from management had the possibility of increasing the quality of auditing. The study by Beattie, Fearnley and Hines (2010) indicate that management support enhanced audit quality and strongly impact on audit effectiveness

(Mihret&Yismaw, 2007). The study by Cohen and Sayag (2010) also found that management Support is very crucial internal audit (Cassandra *et al.*, 2008; Beckmerhagen *et al.*, 2004). These studies failed to show how management support would lead to fraud reduction. However, the information from the studies above was very useful to the current study. It helped to know that management support influences, as a moderating factor, effectiveness of audit. The information gained will help to firmly consider management support as an intervening factor determining effectiveness of internal audit. Without any doubt, management is considered as factor affecting effectiveness of audit.

4.5 Inferential Analysis

The study sought to establish statistically, whether the independent variables were predictors the dependent variable. The study therefore tested for existence of significant relationship between the independent variable and the dependent variable. Correlation was carried out then multiple regressions was carried out to estimate a model that would explain dependent variable in terms of independent variables. In order to achieve this, the study used the mean of mean to obtain indices for all the variables. A mean of means was obtained from all the indicator of each variable to get the index for that variable.

4.5.1 Diagnostic Tests on Study Variables

Before estimating the model, the study first tested the study variables existence of multicollinearity in the independent variables to ensure that no variable in the model that was measuring the same relationship as was measured by another variable or group of variables. Mutlicollinearity exist when Variance Inflation Factor (VIF) is greater than 10 and Tolerance is greater than 1. The results obtained were captured in Table 11.

TABLE 11
Results of Multi-collinearity Tests on Independent variables

	Collinearity Statistics	
	Tolerance	VIF
Staff Competence	.826	1.211
Attributes of the Audited	.880	1.137
Internal Audit Staff Independence	.879	1.137
Internal Audit Objectivity	.759	1.317

a. Dependent Variable: Fraud Detection

Source: Research Data (2015)

The results in table 11 showed that the tolerance for; staff competence was 0.826; attributes of the audited was 0.880; internal audit staff independence was 0.879; and internal audit objectivity was 0.759. The tolerance for all predictor variables were greater than 0.1 or 10%; staff competence was 1.211; attributes of the audited was 1.137; internal audit staff independence was 1.137; and internal audit objectivity was 1.317, so the study concluded that there were no multi-collinearity among them. So the estimators computed were considered reliable to estimate the study model.

4.5.2 Correlation Analysis

The study performed a correlation analysis on the study to establish whether there was any relationship that existed between the Dependent Variable (DV) and each Independent Variable (IV). After establishing the IVs with relationship to DV (variables which were significantly related to it), the study regressed these against the DV to estimate the study model. A correlational analysis was performed to identify the whether independent variables were significantly related Dependent Variables. The data was analysed using the Pearson's product method correlating each Dependent Variable (DV) to all associated Independent variables (IV).

The study used Pearson correlation analysis to establish if a linear relationship exists between attributes of the audited, staff competence, internal audit staff independence, and internal audit objectivity and Fraud reduction. The correlation analysis was conducted at 95% confidence level (0.05 level of significance). The results obtained were recorded in Table 12.

TABLE 12
Correlation Results

		Correlations				
		Fraud Detection	Attributes of the Audited	Internal Audit Staff Independence	Internal Audit Objectivity	Staff Competence
Fraud Detection	Pearson Correlation	1	.453**	.392**	.477**	.490**
	Sig. (2-tailed)		.000	.002	.000	0.00
	N	58	58	58	58	58.00
Attributes of the Audited	Pearson Correlation	.453**	1	.196	.319*	0.22
	Sig. (2-tailed)	.000		.140	.015	0.10
	N	58	58	58	58	58.00
Internal Audit Staff Independence	Pearson Correlation	.392**	.196	1	.306*	0.25
	Sig. (2-tailed)	.002	.140		.019	0.06
	N	58	58	58	58	58.00
Internal Audit Objectivity	Pearson Correlation	.477**	.319*	.306*	1	.386**
	Sig. (2-tailed)	.000	.015	.019		0.00
	N	58	58	58	58	58.00
Staff Competence	Pearson Correlation	.490**	.218	.245	.386**	1.00
	Sig. (2-tailed)	.000	.100	.063	.003	
	N	58	58	58	58	58.00

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

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

Source: Research Data (2015)

The results of correlation analysis in table 12 show that under the Pearson correlation, internal audit staff competence, attributes of the audited, internal audit staff independence

factors, internal audit objectivity influence (the Independent Variables) were significantly related to fraud reduction. From the results; internal audit staff competence (r = .490, p-value = .000), internal audit objectivity influence (r = .477 p =.000), attributes of the audited (r = .453, p-value = .000), and internal audit staff independence factors (r = .392, p-value = .002)had their p-values less than .05 for each of them. In fact, for each Independent Variables, p<.05, which made their relationship with fraud reduction very significant.

It was shown that the relationship between each IV and DV was moderate since for each of them the correlation coefficient was greater 0.3. The result show that internal audit staff competence had the highest relationship (r = .490), followed by internal audit objectivity influence (r = .477), attributes of the audited (r = .453), and lastly internal audit staff independence factors (r = .392).

4.5.2 Estimating Study Model

The regression was achieved using multiple analysis to establish the nature of the relationship. In determining the establishing the model for predictingDVin terms of IVs, the study used linear regression analysis based on the model;

$$FR = \beta_0 + \beta_1SC + \beta_2AA + \beta_3SI + \beta_4AO + \varepsilon \dots\dots\dots(ii)$$

Where:

β_0 - is a constant. This the value of dependent variable when all the independent variables are 0

$\beta_1 - \beta_4$ Regression coefficients of independent Variables or change induced by; SC, AA, SI and AO

ε - Error of prediction

FR = Fraud Reduction. This is the dependent variable which will have its data collected using 5-point Likert scale and have a mean obtained for all its indicators. The mean was used in multiple regressions

SC = Audit staff competencies is an independent variable. Its data was collected using 5-point Likert scale and have a mean obtained for all its indicators. The mean will be used in multiple regressions

AA = Attributes of the auditee is an independent variable. It was collected using 5-point Likert scale and have a mean obtained for all its indicators. The mean was used in multiple regressions

SI = internal audit staff independence is an independent variable. It's was collected using 5-point Likert scale and will have a mean obtained for all its indicators. The mean was used in multiple regressions.

AO = internal audit objectivity is an independent variable. Its data was collected using 5-point Likert scale and have a mean obtained for all its indicators. The mean was used in multiple regressions

Analysis of Variance (ANOVA) was done, to estimate the model fitness, and these results are captured in Table 13 below.

TABLE 13
ANOVA for fraud reduction in SOEs

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	15.475	4	3.869	10.956	.000 ^b
	Residual	18.716	53	.353		
	Total	34.192	57			

a. Dependent Variable: Fraud Detection

b. Predictors: (Constant), Internal Audit Objectivity, Internal Audit Staff Independence, Attributes of the Audited, Staff Competence

The study generated a hypothesis to test the study model. The hypothesis was

$$H_0: \beta_1 = \beta_2 = \beta_3 = \beta_4 = 0 \text{ (the coefficient of AC, AA, SI, and AO are all zero)}$$

$$H_a: \text{At least one } \beta_i \neq 0$$

H_0 is accepted if p-value > .05 (at 5% level of significance)

H_0 is reject if p-value <= .05 (at 5% level of significance) and H_a : is accepted

From Table 13, it can observed that p-value = .001. Since p-value < .001 < .05 (F=10.956, P-value=.000), then we reject then null hypothesis and accepted the alternative hypothesis. So, at the 5% significance level (i.e $\alpha=0.05$, level of significance), there exists enough evidence to conclude that at least one of the predictors; internal audit staff competence, attributes of the audited, internal audit staff independence, and internal audit objectivity factors, is useful in

predicting the fraud reduction of state corporations. Therefore the model is useful in explaining fraud reduction of state corporations.

The IVs and DV were then regressed to estimate the study model. The study obtained result shown in Table 14.

TABLE 14
Regression Results of Dependent Variable against Predictor Variables
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
1 (Constant)	.079	.593		1.329	0.019
Staff Competence	.334	.125	.298	2.668	0.010
Attributes of the Audited	.328	.126	.282	2.602	0.012
Internal Audit Staff Independence	.255	.139	.199	1.832	0.043
Internal Audit Objectivity	.324	.179	.211	1.811	0.046

a. Dependent Variable: Fraud Detection

Source: Research Data (2015)

From the results in Table 14, the p-value for internal audit staff competence is .019, attributes of the audited is .010, internal audit staff independence is .012 and internal audit objectivity factors is .043. Since the p-value for each predictor variable was less than 0.46, there is an indication that there was a significant relationship between each independent variable (internal audit staff competence, attributes of the audited, internal audit staff independence, and internal audit objectivity factors) and the dependent variable; fraud reduction. This is to say that all the predictor variable; internal audit staff competence, attributes of the audited, internal audit staff independence, and internal audit objectivity factors could estimate the dependent variable, fraud reduction.

The coefficient for internal audit staff competence is.334, Attributes of the Audited is .328, internal audit staff independence= .255 and internal audit objectivity factors is.324. The estimated model was therefore fitted as;

$$FR = 0.079 + 0.344SC + 0.328AA + 0.255SI + 0.324AO + \varepsilon \dots\dots\dots(iii)$$

Table 15 shows that internal audit staff competence, attributes of the audited, internal audit staff independence, and internal audit objectivity factors have positive coefficients. This implies that the variables are directly proportional to the fraud reduction in Kenyan state corporations i.e. an increase in any of these variables; internal audit staff competence, attributes of the audited, internal audit staff independence, and internal audit objectivity factors leads to an increase in fraud reduction in Kenyan state corporations.

TABLE 15
Model Summary for Fraud reduction

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.673 ^a	.453	.411	.59425

a. Predictors: (Constant), Internal Audit Objectivity, Internal Audit Staff Independence, Attributes of the Audited, Staff Competence

Source: Research data (2015)

Table 15 shows the coefficient of determination was .411, an indication that 41.10% of variation in fraud reduction in Kenyan state corporations is explained by internal audit staff competence, attributes of the audited, internal audit staff independence, and internal audit objectivity factors. Therefore, all the variable; internal audit staff competence, attributes of the

audited, internal audit staff independence, and internal audit objectivity factors are strong determinants of fraud reduction in Kenyan state corporations.

In conclusion, the inferential statistics showed that the dependent variable, fraud reduction in Kenyan state corporations was explained by internal audit staff competence, attributes of the audited, internal audit staff independence, and internal audit objectivity factors. Therefore internal audit staff competence attributes of the audited, internal audit staff independence, and internal audit objectivity factors are predictors of fraud reduction in Kenyan state corporations.

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

This chapter provides the summary of findings, conclusions from the study findings as well as the recommendations based on the findings. The summary, conclusions, and recommendations were based on the study objectives, to; establish the effects of audit staff competence on fraud reduction in state corporations, find out the extent to which attributes of the audited influence the fraud reduction in state corporations, determine the influence of internal audit staff independence on fraud reduction in state corporations in Kenya, and find out the effect of objectivity of individual audit staff on the effectiveness of fraud reduction in state corporations.

5.2 Summary of Findings

This section is simply a summary of findings from the results obtained and interpreted in chapter four.

5.2.1 Findings on fraud reduction status of state corporations in Kenya

The study found that fraud reduction enables effective and efficient service delivery in the Kenyan state corporations (36.20%) as fraud reduction improves the effectiveness of risk management in the SOEs (34.50%). From these results, it was found that fraud reduction provided useful recommendations for improvement in Kenyan state corporations (46.60%). Further, it was found that SOEs successively ensured fraud reduction through internal audit as indicated by a majority of 50.00% of the respondents. It was found out that there had been many

fraud court cases due to fraud reduction for the last five years in their corporations (53.40%). On overall, internal audit led to fraud reduction which enhanced service (Mean =2.974).

5.2.2 Findings on Internal audit staff competence

The study found that the academic qualifications of audit staff highly influenced on the fraud reduction (mean = 2.84) as the professional qualifications of audit staff highly influenced on the fraud reduction (mean = 2.97). It was found that the job training of audit staff highly influenced on the fraud reduction (mean = 3.14) and Experience in auditing highly influenced on the fraud reduction (mean = 2.83) too. On overall, internal audit staff competence was found to highly influence on the fraud reduction (mean = 2.94).

5.2.3 Findings on Attributes of the Audited

The study found out that Attributes of the Audited highly influence fraud reduction on state corporations in Kenya (mean = 2.89). It was further analysed that indicators were the greatest contributors to this. Full access to all activities, records and properties was found to highly influence fraud reduction on state corporations in Kenya (mean = 2.97), unrestricted access to all activities, records and properties highly influenced fraud reduction on state corporations in Kenya (mean = 3.00). Cooperation from the audited highly influenced fraud reduction on state corporations in Kenya (mean = 2.97) and ease of access to required records highly influenced fraud reduction too (mean = 2.60).

5.2.4 Findings on Internal audit staff independence

On internal audit staff independence, the study found Access to all information very highly influenced fraud reduction of state corporations in Kenya (mean = 3.24) and the commitment to

work very highly influenced fraud reduction of state corporations in Kenya (mean = 3.24). It was also found out that job satisfaction highly influenced fraud reduction of state corporations in Kenya (mean = 2.97). Other findings were; strict adherence to audit standards highly influenced fraud reduction of state corporations in Kenya (mean = 2.759). In summary, the study found that internal audit staff independence considerably influence fraud reduction of state corporations in Kenya (mean = 3.05).

5.2.5 Findings on Internal audit objectivity

The study found out that setting the risk management desire highly influenced fraud reduction of state corporations in Kenya (mean = 3.16) and that management assurance on risks highly influenced fraud reduction of state corporations in Kenya too (mean = 3.00). From these results, the study found that taking and implementing decisions on risk responses highly influenced fraud reduction of state corporations in Kenya (mean = 2.93) and accountability for risk management highly influenced fraud reduction (Mean = 2.38). On overall, the internal audit objectivity highly influenced fraud reduction of state corporations in Kenya (mean = 2.87).

5.3 Conclusions

The study concludes that in Kenya fraud reduction in state corporations is caused internal audit roles. The main factors leading to this effect include; internal audit staff competence, attributes of the audited, internal audit objectivity factors, and internal audit staff independence.

The study established that internal audit staff competence highly influences fraud reduction and the factors leading to this are; academic qualifications of audit staff, professional qualifications of audit staff, on the job training of audit staff, and experience in auditing.

The study concludes that on overall, the respondents showed that attributes of the audited highly influenced fraud reduction of state corporations in Kenyan through; full access to all activities, records and properties, unrestricted access to all activities, records and properties, cooperation from the audited, and ease of access to required records.

The study reveals that internal audit staff independence highly influences fraud reduction on state corporations in Kenya. The factors that are important to influencing fraud reduction are; access to all information, commitment to work, job satisfaction and strict adherence to audit standards.

The study concludes internal audit objectivity highly influences fraud reduction of state corporations in Kenya through; setting the risk management desire, management assurance on risks, taking and implementing decisions on risk responses, and accountability for risk management.

The study concludes that; internal audit staff competence, attributes of the audited, internal audit staff independence, and internal audit objectivity factors are useful in predicting fraud reduction of state corporations in Kenya.

5.4 Recommendations

The study suggested policy recommendation and recommendation for further study.

5.4.1 Recommendations on Research Findings

The study recommends that first; the internal staff should have relevant academic qualifications and professional qualifications. The state corporations in Kenya should come up with standards

and policies that ensure that the staff with adequate relevant academic qualifications and professional qualifications are recruited and retained. There should be continuous assessments on the staff competency of audit staff of state corporations in Kenya by qualified and recognized bodies. Further the state corporations in Kenya should ensure frequent on job training of its audit staff to ensure vast experience in auditing of its staff.

Secondly, the study recommends that the state corporations in Kenya should allow their internal audit staff gain full access to all activities, records and properties, and have unrestricted access to all activities, records and properties. Based on the same the state corporations in Kenya should ensure high level of cooperation with the internal audit staff and the staff should have ease of access to required records required for auditing.

Thirdly the study recommends that state corporations should create an environment for internal audit staff to have independence. There should be regulations to ensure that the internal audit staff have access to all information and that would ensure commitment to work and hence job satisfaction. Such policies should be set to ensure that there is strict adherence to audit standards.

Fourthly the study recommends that state corporations should ensure there is internal audit objectivity. There should be clear supervisory regulations to ensure that internal audit staff achieve the risk management Desire and are able to ensure management assurance on risks. These regulations should be focused to ensuring that the audit staff are capable of taking and implementing decisions on risk responses and enhance their accountability for risk management.

5.4.2 Recommendations for Further Study

The current study relied on primary data, which entirely captured the respondents' opinions.

Other suggested studies include:-

1. Further research needs to be conducted to assess the factors influencing fraud reduction of state corporations in Kenya using secondary data.
2. The study established that attributes of the audited, staff competence, internal audit staff independence, and internal audit objectivity only influence 41.10% of change in fraud reduction in state corporations in Kenya. So, further research be carried out to determine what other factors influence the remaining 58.90% of the fraud reduction in Kenya.

REFERENCES

- Aamir, S. & Farooq, U. (2011). *Auditor client relationship and audit Quality. The effects of long-term auditor client relationship on audit quality in SMEs*. Unpublished Master thesis in Master Degree in Accounting, Umea:Umea University.
- Adelopo, A. (2010). *The Impact of Corporate Governance on Auditor Independence: A Study of Audit Committees in UK Listed Companies*. Unpublished Phd Thesis. De Montfort University, UK
- Adeyemi, S. B. &Fagbemi, T. O. (2010). Audit Quality, Corporate Governance and Firm Characteristics in Nigeria. *International Journal of Business and Management*, 5(5), 169-179.
- Al Matarneh, G. F. (2011). Factors Determining the Internal Audit Quality in State corporations: Empirical Evidence from Jordan. *International Research Journal of Finance and Economics*, 73, 99-108.
- Aneshensel, C. S (2004) *Univariate Analysis: Central Tendency, Spread, and Associations*. University of California, Los Angeles.
- Bacharach, S.B. (1989). Organizational Theories: Some Criteria for Evaluation. *The Academy of Management Review*, 14(4), 496-515.
- Beattie,V., Fearnley, S. and Hines, T. (2010). *Factors Affecting Audit Quality in the 2007 UK Regulatory Environment: Perceptions of Chief Financial Officers, Audit Committee Chairs and Audit Engagement Partners*.unpublished Research project.
- Bhimani, A. (2008). Making Corporate Governance Count: The Fusion of Ethics and Economic Rationality. *Journal of Management and Governance*, 2(2), 135-147.
- Cai, Chun (1997), On the Functions and Objectives of Internal Audit and their Underlying conditions.*Managerial Auditing Journal*, 12(4), pp. 247-250.
- Chola O. A. T., (2000). *The Status of Computer Auditing in Kenya*.Unpublished MBA Project.University of Nairobi.
- Cohen, A. &Sayag, G. (2010). The Effectiveness of External auditing: An Empirical Examination of its Determinants in Israeli Organisations. *Australian Accounting Review No. 54*, 20(3), 296-307.
- Cooper & Schindler. (2008). *Business Research Methods*. 10th Edition, New York: McGraw Hill Irwin.
- Cooper and Schindler.(2008). *Business Research Methods*. 10th Edition, New York, McGraw Hill Irwin .
- Coram, P., Ferguson, C. &Moroney, R. (2006). *The Value of External audit in Fraud Detection*.unpublishedRessearch,. The University of Melbourne, Melbourne, Australia.

- Coram, P., Ferguson, C. & Moroney, R. (2008). External audit, Alternative External audit Structures and the Level of Misappropriation of Assets Fraud. *Accounting and Finance*, 48: 543–59.
- Cowan, M P & Kinyanjui, K. (1977). *Some Problems of Capital and Class in Kenya*. Conf. Discussion Paper, IDS, Nairobi.
- Durtschi, C, Hillison, W, and Pacini, C. (2004). The effective use of Benford's law to assist in detecting fraud in Accounting data. *Journal of Forensic Accounting*, volume 5 , 17-34.
- Friedmann, W. G. & Garner, J F. (1976). *Government Enterprise: A Comparative Study*. Ed, New York: Columbia University Press.
- GOK (2003) .Challenges Facing State Corporations in Kenya. Government Printer.
- Goodwin-Stewart, J. & Kent, P. (2006). The relation between external audit fees, audit committee characteristics and internal audit. *Journal of finance*, 1 (3), 124-41
- Goodwin-Stewart, J. & Kent, P. (2006). The Use of External audit by Australian Companies', *Managerial Auditing Journal*, 21, 81–101.
- Grosh, B. (1991). *Public Enterprise in Kenya: What Works, What does not, and Why?* Boulder : Lynne Rienner Publishers.
- Grosh, B. (1991). *Public Enterprise in Kenya: What Works, What does not, and Why?* Boulder : Lynne Rienner Publishers.
- Gunther, J. W., & Moore, R. R. (2002). Auditing and Auditors: Oversight or Overkill? Federal Research Bank of Dallas *Economic and Financial Policy Review*, 1(5),
- Hayes RS., Schilder A., Dassen R., & Wallage, P. (1999). *Principles of Auditing: An International Perspective*, McGraw-Hill Publishing Company, London.
- Himbara, D. (1993). Myths and Realities of Kenyan Capitalism. *African Journal of Modern African Studies*, 31 (1), 93.
- Hudiwinarsih, G. (2010). Auditors' Experience, Competency, And Their Independency As The Influential Factors In Professionalism. *Journal of Economics, Business and Accountancy Ventura*, 13(3), 253 – 264.
- Institute of Economic Affairs [IEA]. (2006). *Fiscal Decentralization in Kenya: Priority issues for Consideration*, Policy Brief (February 2006).
- Institute of Internal Auditors (2006). *The Role of Auditing in Public Sector Governance*. Available online at: <http://www.theiia.org/guidance/>
- Institute of Internal Auditors [IIA]. (2001). *Independence and Objectivity: A Framework for Internal Auditors*. The Institute of Internal Auditors: Altamonte Springs, FL.

- Institute of Internal Auditors. (2011). *International Standards for the Professional Practice of Internal Auditing*. Altamonte, FL: Author. Institute of Internal Auditors.(2012). 2012 Annual report. Altamonte, FL: Author.
- International Federation of Accounts [IFAC] (2013). *Evaluating and Improving Internal Control in Organizations*. International Federation of Accounts,New York.
- Ireri, A. N. (2013). *Appointment of Board of Directors to State Owned Enterprises in Kenya: Towards A Stricter Regulatory Framework*. Unpublished Master's Thesis, Nairobi: The University of Nairobi.
- Iskandara, T. M., Rahmat, M. M. &Ismail.H. (2010). The Relationship Between Audit Client Satisfaction and Audit Quality Attributes: Case of Malaysian Listed Companies. *International Journal of Economics and Management* 4(1), 155 – 180.
- Jensen, M.C. & Meckling, W.H. (1976). Theory of the Firm: Managerial Behaviour, Agency Costs, and Ownership Structure, *Journal of Financial Economics*, 3, 305-360.
- Jensen, M.C. (1983) Organization Theory and Methodology.*The Accounting Review*, LVIII(2), 319 – 339.
- Jensen, M.C., &Meckling, W (1976). Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure. *Journal of Financial Economics*, 3, 305-60.
- Karagiorgos, T. Drogalas, G. &Giovanis, N. (2011).Evaluation of the Effectiveness of Internal Audit in Greek Hotel Business.*International Journal of Economic Sciences and Applied Research*, 4 (1): 19-34.
- Karagiorgos, T., Drogalas, G., Gotzamanis, E. &Tampakoudis, J (2011). Internal Auditing as an Effective Tool for Corporate Governance..*Journal of Business Management*, 4(1),15-23.
- Karagiorgos, T., Drogalas, G., Gotzamaniz, E. &Tampakoudis, I. (2010).Internal auditing as an effective tool for corporate governance.*Journal of Business Management*, 2(1), 15-20.
- Kariuki, M.N. (2004). *Corporate Governance Practices. A case study of the Kenya union of savings and credit coops ltd* (Unpublished MBA project) University of Nairobi
- Kasem, M. I. (2011). *Exploring the Realities of Service Delivery in the Offices of Assistant Commissioner (Land) in Dhaka City*.Unpublishedmasters Thesis. Dhaka City.
- Keitany, J.L. (2000). *The Internal Audit control function and its implication for risk assessment by the external auditor: A case of quoted companies*. Unpublished MBA Project, University of Nairobi.
- Kibara, C.W. (2007). *A survey of internal auditors' risk management practices in the banking industry in Kenya*. Unpublished MBA Project, University of Nairobi

- Kibet, P.K. (2008). *A survey on the role of internal audit in promoting good corporate governance in SOEs*. Unpublished MBA Project, University of Nairobi.
- Kiprop, C. N. (2010). *Response strategies to fraud related challenges by Barclays bank of Kenya*. MBA Project Thesis .2010, Nairobi, Kenya.
- Kombo, D.K. & Tromp D.L.A, (2006). *Proposal and Thesis Writing An Introduction*. Pualines Publications Africa, Nairobi, Kenya.
- Kvale, S. (2007). *Doing interviews*. Thousand Oaks, CA: Sage.
- Leys, C. (1975). *Capital Accumulation, Class Formation and Dependency: The Significance of the Kenyan Case* . Kingston, Canada: Queens University.
- Mansouri, A., Pirayesh, R. & Salehi, M. (2009). Audit Competence and Audit Quality: Case in Emerging Economy. *International Journal of Business and Management*, 4 (2), 17-25.
- Mat Zain, M. & N. Subramaniam. 2007. Internal auditor perceptions on audit committee interactions: A qualitative study in Malaysian public corporations. *Corporate Governance: An International Review*.
- McNamara, C. (2009). *General guidelines for conducting interviews*. Retrieved January 11, 2010, from <http://managementhelp.org/evaluatn/interview.htm>.
- Mihret, D.G. & Yismaw, A. W. (2007). External audit effectiveness: an Ethiopian public sector case study. *Managerial Auditing Journal*, 22 (5). pp. 470-484.
- Miring'u A. N. & Muoria E. T. (2011). *An analysis of the effect of Corporate Governance on Performance of Commercial State Corporations in Kenya*.
- Mugenda O.M & Mugenda A.G (2003) *Research methods: Quantitative and Qualitative Approaches*. Nairobi Kenya: ACTS.
- Muting, R, (1987). *Corporate Governance*, Blackwell Business, Cambridge, MA, .
- Nagy, A. and Cenker, W. (2002). An Assessment of the Newly Defined Internal Audit Function. *Managerial Auditing Journal*, 17(3), pp. 130-137.
- Njagi, L. W. (2009). *Effectiveness of know your customer (KYC) policies adopted by commercial state corporations in Kenya in reducing money laundering and fraud incidences*. Unpublished Research Project . Nairobi, Kenya.
- Nyamu, R. (2012). *An overview of fraud and money laundering in the East Africa financial services industry*. Nairobi: Deloitte Forensic.
- Nunnally, J. (1978). *Psychometric theory*. New York: McGraw-Hill

- Office of the Prime Minister. (2012). Report on Evaluation of the Performance of Public Agencies for the Year, 2011/2012. Nairobi: Government Printers.
- Ongore, V. O., K'Obonyo, P. O. & Ogutu, M. (2011). *Implications of Firm Ownership Identity and Managerial Discretion on Financial Performance: Empirical Evidence from Nairobi Stock Exchange*, 1(3), 187 - 195.
- Ouko, A. A. O. (2010) *Corporate Governance of Parastatals: A Critique in the Context of the New Constitution*. Unpublished LLM Thesis. Nairobi: University of Nairobi.
- Parliamentary Budget Office [PBO] (2011). *Fund Accounts in Kenya: Managing Complexities of Public Financial Management*. Nairobi, Kenya: Parliamentary Budget Office.
- Republic of Kenya (1971., *Ndegwa Commission Report*. Nairobi: Government Printer.
- Salehi, M. (2010). Evaluating Effectiveness of External Auditors' Report: Empirical Evidence from Iran. *Pak. J. Commer. Soc. Sci.* 2010, 4 (1), 69-83 .
- Shah, A. (2007). *Local Public Financial Management*. Washington, D.C: The World Bank.
- Smith, E., Bedard, J.C. & Johnstone, K.M. (2009). *How good is your audit firm?*. *Bloomberg Business Week*. Available online at http://www.businessweek.com/managing/content/jun2009/ca20090626_76498_8.htm.
- Stewart, J & Subramaniam, N. (2009). *Internal audit independence and objectivity: a review of current literature and opportunities for future research*. Queensland, Australia: Griffith University
- Suyono, E.(2012). Determinant Factors Affecting The Audit Quality : An Indonesian Perspective. *Global Review of Accounting and Finance*, 3(2), 42 – 57.
- Swainson, N. (1980). *The Development of Corporate Capitalism in Kenya 1918-1977*. London: Heinemann.
- Tangri, R. (1999) *The Politics of Patronage in Africa: Parastatals Privatization and Private Enterprise*. Oxford : James Currey.
- The Institute for Social Accountability [TISA].(2010). *The Nairobi social audit report*. Nairobi, Kenya: The Institute for Social Accountability (TISA).
- Van Gansberghe, C.N. (2005). External auditing in the public sector: a consultative forum in Nairobi, Kenya, shores up best practices for government audit professionals in developing nations", *External auditor*, 62(4), 69-73.
- Van Peurse, K. 2005. Conversations with internal auditors: The power of ambiguity. *Managerial Auditing Journal*, 20 (5): 489-512.

- Wang, Y., Yu, L., Zhang, Z. & Zao, Y. (2012). *Engaging audit partner experience and audit quality*. Working Paper. Xiamen University: China.
- Watkins, A. L., W. Hillison, & S. E. Morecroft. 2004. Audit quality: A synthesis of theory and empirical evidence. *Journal of Accounting Literature* 23: 153-193.
- Wobschall C (2011). *Internal Audit Quality Assessment Framework*. London: HM Treasury.

APPENDICES

APPENDIX I

LIST OF STATE CORPORATIONS IN NAIROBI

1. Agricultural Development Corporation
2. Agricultural Finance Corporation
3. Bomas of Kenya
4. Brand Kenya Board
5. Capital Markets Authority
6. Catering and Tourism
7. Centre for Mathematics
8. Coffee Board of Kenya
9. Coffee Development Fund
10. Communications Commission of Kenya
11. Consolidated Bank of Kenya
12. Constituency Development Fund
13. Co-operative College of Kenya
14. Cotton Development Authority
15. Council of legal Education
16. Development Bank of Kenya
17. East African Portland Cement Company
18. Energy Regulatory Commission
19. Export Processing Zones Authority
20. Export Promotion Council
21. Higher Education Loans Board
22. Horticultural Crops Development Authority
23. Industrial and Commercial Development Corporation
24. Industrial Development Bank
25. Insurance Regulatory Authority
26. Jomo Kenyatta Foundation
27. Karen Technical Training Institute for the Deaf
28. Kenya Accountants and Secretaries National Examinations Board
29. Kenya Agricultural Research Institute
30. Kenya Airports Authority
31. Kenya Animal Genetic Resources
32. Kenya Broadcasting Corporation
33. Kenya Bureau of Standards
34. Kenya Civil Aviation Authority
35. Kenya College of Communications and Technology
36. Kenya Copyright Board
37. Kenya Education Staff Institute

38. Kenya Electricity Generating Company Ltd.
39. Kenya Electricity Transmission Company
40. Kenya Film Classification Board
41. Kenya Film Commission
42. Kenya Forest Service
43. Kenya Forestry Research Institute
44. Kenya ICT Board
45. Kenya Industrial Estates
46. Kenya Industrial Property Institute
47. Kenya Industrial Research and Development Institute
48. Kenya Institute for Public Policy
49. Kenya Institute for the Blind
50. Kenya Institute of Administration (Government School)
51. Kenya Institute of Education
52. Kenya Institute of Special Education
53. Kenya Investment Authority
54. Kenya Literature Bureau
55. Kenya Meat Commission
56. Kenya Medical Research Institute
57. Kenya Medical Supplies Agency
58. Kenya Medical Training College
59. Kenya National Assurance Company (2001) Ltd
60. Kenya National Bureau of Statistics
61. Kenya National Examinations Council
62. Kenya National Highways Authority
63. Kenya National Library Services
64. Kenya National Trading Corporation
65. Kenya Ordnance Factories Corporation
66. Kenya Pipeline Company Ltd
67. Kenya Post Office Savings Bank
68. Kenya Power and Lighting Company Ltd
69. Kenya Railways Corporation
70. Kenya Re-Insurance Corporation
71. Kenya Roads Board
72. Kenya Rural Roads Authority
73. Kenya Sugar Board
74. Kenya Sugar Research Foundation
75. Kenya Technical University
76. Kenya Tourist Development Corporation
77. Kenya Urban Roads Authority

78. Kenya Utalii College
79. Kenya Water Institute
80. Kenya Wildlife Service
81. Kenya Wine Agencies Ltd
82. Kenya Yearbook Editorial
83. Kenyatta International Conference Centre
84. Kenyatta National Hospital
85. Kenyatta University
86. Local Authorities Provident Fund
87. Multi-Media University College of Kenya
88. Nairobi Technical Training Institute
89. National Aids Control Council
90. National Bank of Kenya Ltd
91. National Bio-safety Authority
92. National Campaign Against Drug Abuse Authority
93. National Cereals and Produce Board
94. National Commission on Gender and Development
95. National Council for Children Services
96. National Council for Persons with Disabilities
97. National Council for Science and Technology
98. National Crime Research Centre
99. National Environmental Management Authority
100. National Hospital Insurance Fund
101. National Housing Corporation
102. National Irrigation Board
103. National Museums of Kenya
104. National Oil Corporation of Kenya
105. National Social Security Fund
106. National Water Conservation and Pipeline Corporation
107. New Kenya Cooperative Creameries Ltd
108. NGO Coordination Board
109. Numerical Machining Complex
110. Pest Control Products Board
111. Postal Corporation of Kenya
112. Public Procurement Oversight Authority
113. Pyrethrum Board of Kenya
114. Research and Analysis
115. Retirement Benefits Authority
116. Rural Electrification Authority
117. Sacco Societies Regulatory Authority

118. Safaricom Limited
119. School Equipment Production Unit
120. Sports Stadia Management Board
121. Tea Board of Kenya
122. Teachers Service Commission
123. Telkom Kenya Ltd
124. Training Development Levy Trustees
125. University of Nairobi
126. University of Nairobi Enterprise Services
127. Water Appeals Board
128. Water Resources Management Authority
129. Water Services Regulatory Board
130. Water Services Trust Fund
131. Youth Enterprise Development Fund

Source: Office of the Prime Minister (2012).

APPENDIX II

LIST OF STATE CORPORATIONS IN NCBD

1. Agricultural Finance Corporation
2. Brand Kenya Board
3. Catering and Tourism
4. Centre for Mathematics
5. Commission for Higher Education
6. Consolidated Bank of Kenya
7. Constituency Development Fund
8. Council of legal Education
9. Development Bank of Kenya
10. Energy Regulatory Commission
11. Export Processing Zones Authority
12. Export Promotion Council
13. Higher Education Loans Board
14. Industrial and Commercial Development Corporation
15. Industrial Development Bank
16. Kenya Broadcasting Corporation
17. Kenya College of Communications and Technology
18. Kenya Copyright Board
19. Kenya Electricity Generating Company Ltd.
20. Kenya ICT Board
21. Kenya Institute of Special Education
22. Kenya Investment Authority
23. Kenya National Assurance Company (2001) Ltd
24. Kenya National Bureau of Statistics
25. Kenya National Trading Corporation
26. Kenya Post Office Savings Bank
27. Kenya Power and Lighting Company Ltd
28. Kenya Railways Corporation
29. Kenya Re-Insurance Corporation
30. Kenya Technical University
31. Kenya Tourist Development Corporation
32. Kenya Urban Roads Authority
33. Kenya Yearbook Editorial
34. Kenyatta International Conference Centre
35. Kenyatta National Hospital
36. Kenyatta University
37. Local Authorities Provident Fund
38. National Aids Control Council
39. National Bank of Kenya Ltd
40. National Commission on Gender and Development
41. National Council for Children Services

42. National Council for Persons with Disabilities
43. National Council for Science and Technology
44. National Crime Research Centre
45. National Environmental Management Authority
46. National Housing Corporation
47. National Oil Corporation of Kenya
48. National Social Security Fund
49. Numerical Machining Complex
50. Postal Corporation of Kenya
51. Public Procurement Oversight Authority
52. Retirement Benefits Authority
53. Rural Electrification Authority
54. Sacco Societies Regulatory Authority
55. Safaricom Limited
56. Telkom Kenya Ltd
57. Training Development Levy Trustees
58. University of Nairobi
59. University of Nairobi Enterprise Services
60. Water Appeals Board
61. WARMA
62. Youth Enterprise Development Fund

Source: Office of the Prime Minister (2012).

APPENDIX III
LETTER TO RESPONDENTS

Hamred Chungani
KCA University
Town Campus,
NAIROBI.

Dear Respondent,

RE: ACCEPTANCE LETTER

I am a student at KCA University undertaking a Masters Degree in Finance and Investment. I have chosen your state corporation to participate in this research on assessment on the effect of internal audit roles on reduction of fraud on state corporations in Kenya. Your responses will be used for the research purpose only and your identity treated with a lot of confidentiality.

Kindly respond sincerely to the issues in the questionnaire. Please read and answer the questions by ticking the correct answer (choice) to the questions given.

Thanking you in advance of your response.

Yours truly,

HamredChungani
Reg no 14/00737

APPENDIX IV
QUESTIONNAIRE

Questionnaire on the an assessment on the effect of internal audit roles on reduction of fraud on state corporations in Kenya

Instructions

Please answer the following questions as accurately as possible.

Tick the correct answer in the boxes provided against the questions where necessary.

Write brief answers where explanation is required.

You need not write your name on the questionnaire.

Information will be treated with confidentiality.

SECTION A: DEMOGRAPHIC CHARACTERISTICS

1. Sex Male Female

2. Age (in years)

3. How long have you been an employee of the state corporation you are currently working for
?(years)

SECTION B: FRAUD REDUCTION

4. Please indicate your level of agreement or disagreement with the following statements in regards to fraud reduction on state corporations in Kenya in your organization. Please tick (√) the space corresponding to the correct answer in each question below.

Scale: Strongly Disagree = 0: Disagree= 1: Neutral = 2: Agree =3: Strongly Agree = 4

Fraud Reduction Indicator	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Fraud reduction enables effective and efficient service delivery					
Fraud reduction improves the effectiveness of risk management					
Fraud reduction provides useful recommendations for improvement					
Our organization has successively ensured fraud reduction through internal audit					
There have been many fraud court cases due to fraud reduction for the last five years in our corporation					

SECTION C STAFF COMPETENCE

5. Please indicate in your own opinion the level of influence of each the following indicators of Staff competence in influencing fraud reduction in State Corporation. For each indicator indicate the level of influence by ticking (√) on the space corresponding to the correct answer in each question below.

Scale: Not at All = 0; Low = 1; Moderate = 2; High = 3; Very High = 4

	Staff Competence Indicator	Not at All	Low	Moderate	High	Very High
(a)	Academic qualifications					
(b)	Professional qualifications					
(c)	On the job training					
(d)	Experience in auditing					

SECTION D: ATTRIBUTES OF THE AUDITED

6. Please indicate your degree of agreement or disagreement with the following indicators of attributes of the audited in influencing fraud reduction in state corporations. For each indicator indicate the level of influence by ticking (√) on the space corresponding to the correct answer in each question below.

Scale: Not at All = 0; Low = 1; Moderate = 2; High = 3; Very High = 4

	Attributes of the Audited Indicator	Not at All	Low	Moderate	High	Very High
(a)	Full access to all activities, records and properties					
(b)	Unrestricted access to all activities, records and properties					
(c)	Cooperation from the audited					
(d)	Ease of access to required records					

SECTION E: INTERNAL AUDIT STAFF INDEPENDENCE

7. Please indicate your degree of agreement or disagreement with the following indicators of internal audit staff independence in influencing fraud reduction in state corporations. For each indicator indicate the level of influence by ticking (√) on the space corresponding to the correct answer in each question below.

Scale: Not at All = 0; Low = 1; Moderate = 2; High = 3; Very High = 4

	Internal Audit Staff Independence Indicators	Not at All	Low	Moderate	High	Very High
(a)	Access to all information					
(b)	Commitment to work					
(c)	Job satisfaction					
(d)	Strict adherence to audit standards					

SECTION F: INTERNAL AUDIT OBJECTIVITY

8. Please indicate in your own opinion on the level of influence of each the following indicators of internal audit objectivity in influencing fraud reduction in State Corporations. For each indicator indicate the level of influence by ticking (√) on the space corresponding to the correct answer in each question below.

Scale: Not at All = 0; Low = 1; Moderate = 2; High = 3; Very High = 4

	Internal Audit Staff Objectivity Indicator	Not at All	Low	Moderate	High	Very High
(a)	Setting the risk management Desire					
(b)	Management assurance on risks					
(c)	Taking and Implementing decisions on risk responses					
(e)	Accountability for risk management					

SECTION G: INTERVENING VARIABLES

9. Please indicate your degree of agreement or disagreement with the following indicators of Organisation policies and procedures in influencing fraud reduction in State Corporation. For each indicator indicate the level of influence by ticking (√) on the space corresponding to the correct answer in each question below.

Scale: Not at All = 0; Low = 1; Moderate = 2; High = 3; Very High = 4

	Organisation Policies and Procedures Indicator	Not at All	Low	Moderate	High	Very High
(a)	clarity of policies					
(b)	simplicity of procedures					
(c)	Time saving procedures					
(d)	Understandability of procedures					

10. Please indicate in your own opinion on the level of influence of each the following indicators of management support in influencing fraud reduction in State Corporations. For each indicator indicate the level of influence by ticking (√) on the space corresponding to the correct answer in each question below.

Scale: Not at All = 0; Low = 1; Moderate = 2; High = 3; Very High = 4

	Management Support Indicator	Not at All	Low	Moderate	High	Very High
(a)	Availing the appropriate resources					
(b)	Giving ample time to auditor's					
(c)	Reconciling the audit report					

Thank you for your co-operation. God Bless you

APPENDIX V
ADDITIONAL PAST STUDIES

Author and Year	Focus of the Study	Findings	Research Gaps	How Current study Addresses the Gaps
Ahmad <i>et al.</i> , (2009).	Staff Competence	Lack of training audit staff affects internal auditing.	Staff training affects internal auditing but fails to show how staff competence and other main factors affect the fraud reduction	The present study analyzed other main factors leading fraud detection including staff competence
Aguolu, O. (2009).	Staff Competence	The usual cause of audit failure is the internal audit based on staff incompetence	The study falls short to explain how Staff competence could lead to fraud fraud reduction	The present study established the effects of staff competence and how it could lead to fraud identification and analyze other main factors leading fraud detection
Njagi (2009).	Organisation policies and procedures	It identified the fraud incidences resulting from organisation policies and procedures	Did not show how organisation policies and procedures could lead to fraud reduction	Related the organization policies and procedures to fraud detection
Cassandra <i>et al.</i> (2008)	management support	Management must support internal audit	It was not shown how internal audit reduced fraud	internal audit factor and reduction of fraud will be linked and assessed
Belay (2007)	Organisation policies and procedures	Need for leadership for internal audit function	It was not established how leadership is critical in internal audit function.	The present study established factors of internal audit leading to reduction of fraud with leadership of internal audit function as the main focus
Mihret, D. G. and Yismaw, A. W. (2007)	Management Support	Management support do not have a strong impact on audit effectiveness	Failed to show how factor could affect fraud reduction if strengthened	Relate management support strengthening to fraud reduction

Author and Year	Focus of the Study	Findings	Research Gaps	How Current study Addresses the Gaps
New Delhi. (2006).	Management Support	Functional clarity.	Did not relate internal audit to fraud reduction directly	The current study established how internal audit influences and lead to fraud reduction using internal audit factors
Beckmerhagen, <i>et al</i> (2004)	Management Support	Management must support internal audit	The study fell short of showing how management support influenced fraud detection	The present study established how management support influence fraud detection and address other internal audit factors affecting fraud detection
Durtschi, Hillison, and Pacini, (2004)	Fraud Detection	Finds that in many industries, the Bedford's law can be used in fraud detection	The study fails to address fraud reduction factors	The current study will establish internal audit factors affecting fraud detection

Source: Research Data (2015)