

**EFFECTIVENESS OF INTERNAL CONTROL ON DETECTION
AND PREVENTION OF FRAUD ON COMMERCIAL BANKS
LISTED IN NAIROBI SECURITIES EXCHANGE**

BY

SILAS NYAGA MICHENI

D63/77855/2015

**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF
THE REQUIREMENT FOR THE AWARD OF MASTER OF SCIENCE-
FINANCE, UNIVERSITY OF NAIROBI**

OCTOBER, 2016

DECLARATION

This research project is my original work and has not been submitted to any other university for examination.

Signed:.....

Date:.....

Silas Nyaga Micheni

D63/77855/2015

This research project has been submitted for examination with my approval as the university supervisor,

Signature.....

Date.....

SUPERVISOR: MR. ODIPO MARTIN KHOYA

Senior Lecturer Department of Finance and Accounting

School of Business

University Of Nairobi

ACKNOWLEDGEMENT

Firstly, I would like to acknowledge almighty God for without whom I would not have come this far

Secondly I would like to thank my supervisor Mr. Odipo Martin Khoya for his time, guidance, advice and constructive assistance towards the content of the report.

I would also like to thank my parents for prayers, advice and encouragement throughout my studies.

To all those who contributed to completion of this research report in one way or another, I recognize and appreciate your effort.

TABLE OF CONTENTS

DECLARATION.....	ii
ACKNOWLEDGEMENT.....	iii
TABLE OF CONTENT.....	iv
LIST OF ABBREVIATIONS.....	vii
LIST OF TABLES.....	viii
LIST OF FIGURES.....	ix
ABSTRACT.....	x

CHAPTER ONE: INTRODUCTION

1.1 Background of the study.....	1
1.1.1 Internal controls.....	2
1.1.2 Fraud.....	3
1.1.3 Prevention and detection of fraud.....	4
1.1.4 Commercial banks.....	5
1.2 Statement of the problem.....	6
1.3 Research objective.....	7
1.4 Research Question.....	7
1.5 Value of the Research.....	7
1.6 Scope of study.....	8

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction.....	9
2.2 Theoretical Framework.....	9
2.2.1 Systems Theory.....	9
2.2.1.1 Control Environment.....	10
2.2.1.2 Risk Assessment.....	10
2.2.1.3 Control Activities.....	11
2.2.1.4 Information and Communication.....	11
2.2.1.5 Monitoring.....	12
2.2.2 Fraud Triangle Theory.....	12
2.2.2.1 Perceived Pressure.....	13
2.2.2.2 Perceived Opportunity.....	13

2.2.2.3 Rationalization.....	14
2.2.3 Fraud Diamond Theory.....	14
2.2.3.1 Capability.....	15
2.2.3.2 Position.....	15
2.2.3.3 Intelligence.....	15
2.2.3.4 Coercion.....	16
2.3 Review of Empirical Literature.....	16
2.4 Summary of Literature Review.....	17
2.5 Conceptual Framework.....	18

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction.....	19
3.2 Research Design.....	19
3.3 Target population.....	19
3.4 Data collection.....	20
3.5 Validity.....	20
3.6 Reliability.....	21
3.7 Data Analysis.....	21
3.7.1 Analytical model.....	21

CHAPTER FOUR: DATA PRESENTATION AND DISCUSSION OF FINDINGS

4.0 Introduction.....	23
4.1 Profile of the Respondents.....	23
4.1.1 Gender of the Respondents	23
4.1.2 Education Level of the Respondents.....	24
4.1.3 Length of Service at Workplace.....	26
4.1.4 Description of Age group of the Respondents.....	27
4.2 To Examine the major causes of fraud and factors that have contributed to its growth.....	28
4.3 Descriptive Score of the Impact of components on internal Controls on Fraud Prevention and detection.....	30
4.4 Inferential Statistics.....	30
4.4.1 Correlation Analysis.....	31
4.4.2 Regression Analysis.....	32

4.4.3 Analysis of Variance.....	32
4.5 Interpretation of the Findings.....	34
 CHAPTER FIVE SUMMARY, CONCLUSION AND RECOMMENDATIONS	
5.1 Introduction.....	36
5.2 Summary.....	36
5.3 Conclusion.....	37
5.4 Recommendation.....	37
5.5 Suggestion for further Research.....	38
 REFERENCES.....	
APPENDICES.....	43
Appendix 1: List of commercial banks listed in (NSE).....	43
Appendix 2: Operationalization of variables.....	44

LIST OF ABBREVIATIONS

CBK - Central Bank of Kenya

CMA- Certified Management Accountant

COSO -Committee of sponsoring organizations

I C - Internal Controls

ICS- Internal Control System

ISA-International standards on Auditing

NSE -Nairobi Securities Exchange

PWC - Pricewaterhouse coopers

LIST OF TABLES

Table 4.1 Gender of the respondents.....	23
Table 4.2 Education Level of Respondents.....	24
Table 4.3 Description of Age groups of the Respondents.....	27
Table 4.4 Impacts of components of internal controls on fraud prevention and detection.....	30
Table 4.5 Relationship between internal control system on Scam prevention and detection.....	31
Table 4.6 Analysis of Variance (ANOVA) Results.....	32
Table 4.7 Regression Analysis.....	32

LIST OF FIGURES

Figure 4.1 Education Level of the Respondents and Professional Certification.....	25
Figure 4.2 Length of Service at Work place.....	26
Figure 4.3 Age of the Respondents.....	27

ABSTRACT

Fraud related practices have increasingly been reported in Kenya financial ecosystem particularly commercial banks. Despite many of these banks instituting internal controls, losses arising from fraud were on the rise. This study sought to establish the effectiveness of internal controls on prevention and detection of fraud on commercial banks listed at NSE. The research study targeted eleven (11) Heads of audit. Questionnaires were administered to solicit information from respondents. Data collected was analyzed descriptively using figures and tables and inferentially using Microsoft office spreadsheet program (Excel). Validity and reliability was ascertained using test-retest method and also experience and competence of the respondents.

The findings of the study revealed a strong positive association between internal controls instituted by an organization and prevention and detection of fraud ($r=0.664$, $P < 0.05$). Findings also showed that each component of internal controls as proposed by COSO positively impacted on fraud prevention and detection. Control Environment positively prevent fraudulent practices ($\beta_1=0.2366$, $P < 0.05$). Risk assessment particularly fraud risk assessment would positively prevent fraud related practices ($\beta_2=0.096$, $P > 0.05$). Findings also showed that information and communication would expose lapses hence preventing fraudulent practice ($\beta_3=0.043$, $P < 0.5$). The study also found out that control activities significantly prevented fraudulent practices ($\beta_4=0.6548$, $P < 0.05$). The study also showed that monitoring activities would serve as a precursor in preventing fraudulent practices ($\beta_5=0.3305$).

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Any financial institution can be vulnerable to fraudulent financial reporting. Fraud can get into a corporate financial reporting system undetected and can spread silently involving more people and affecting more accounts to the extent that anyone responsible for the fraud cannot tell to what extent it has spread. Fraud therefore is a risk that is an inherent part of business life. According to Certified Management Accountant (CMA, 2009), fraud is a risk that impact negatively on the business growth. Economic survey carried out by Pricewaterhousecoopers (PWC, 2010) showed that fraud incidents increased significantly. Roughly 90% of the respondents to the study indicated that most of the businesses had recorded some fraud related activities while banks had lost over 1.7 billion within just three months. The rise of fraudulent practices was necessitated by expansion of banks which prompted implementation of complex systems that provided a lee way for fraud (PWC, 2011).Further to that the internal controls implemented by commercial banks were weak in comparison to skills of fraudsters (PWC ,2011).

Quite a considerable number of financial institutions have made frantic efforts to address fraud related activities through addressing supervisory issues that encourage sound risk management practices. An internal control structure is a significant component of any financial institution and a foundation to safe operation within it. Abiola (2013), posits that internal control concept is very important for proper management of an organization's risk, which may constitute barriers to the attainment of its set objectives if neglected.

Internal control can therefore makes sure that aims as well as goals of a financial institution will be achieved thus enhance achievement of its long term productivity goals as well as maintaining consistent monetary and administrative reporting. The Kenyan banks placed under receivership could have avoided damaging their corporate brand by having strong systems of internal controls. This would be facilitated by improved structures of operations which stem from the control environment. Therefore, internal controls form a backbone of preventing fraudulent activity by ensuring proper authorization of transaction, avoiding errors and irregularities as well as exposing those already committed. The Committee of Sponsoring Organizations (COSO, 1994) provides five incorporated elements of internal controller which are; control environment, Risk Assessment, control activities, information and Communication and Monitoring activities. Our research considers effectiveness in the application of these components to deterrence and prevention of fraud.

1.1.1 Internal controls

Internal Control System is an autonomous assessment within a business for purpose of review of controls and performance in an organization (Millechamp, 2000). These controls ensure devotion to organization strategies, protection of the assets and safe as far as possible the wholeness and accuracy of the records. Internal Control Structure is a systemic merger of procedures and functions within controls instituted by management whose goal is to improve the business function (Hamed, 2009). Hongming & Yanan (2012) adds that Internal Control Structure look like the human nervous structure that is spread through the corporate carrying instructions as well as responses to and from the administration. It is openly connected to the administrative system and the overall guidelines of the corporate.

Whittington (2001) on the other hand defined that a structure of internal control goes beyond those issues which involves accounting as well as the monetary statements. Additionally, he notes that internal control is considered to be an organized process which leads to assess the point of connection between those recognized principles as well as the real outcomes of the corporate. Committee of Sponsoring Organization of the Treadway Commission (COSO,2002), describes Internal control as the procedure, produced by an unit's board of managements, administration, as well as other workers, intended to offer sensible declaration concerning the accomplishment of purposes relating to processes, reporting, as well as agreement. ICS are regarded as effective when they promote effectiveness, decrease peril of asset cost, deter and detect errors, fraud and theft and help to certify the consistency of monetary statements and agreement with rules (Manass'eh, 1993).

Internal control system becomes a central element in preventing and detecting fraud thus fostering successful operation and productivity of any organisation.

1.1.2 Fraud

Fraud is as an act of subterfuge intended to make one illegitimately gain advantage over the other Anyarou (1993). The international standards on Auditing (ISA 240) describes fraud as a deliberate act by single or more persons amongst organization, those charged with authority, staffs or third parties including the use of dishonesty to get on unfair or unlawful benefit. It may comprise management, fabrication or modification of documents as well as annals and intentional misapplication of accounting policies.

Fraud involves the use of artifice to get illegitimate advantage and willful misrepresentation affecting statements of accounts by individuals within management. Archibong, (1992) elucidate fraud as preordained and organized process carried out by an individual or group of persons whose intention is to gain unfair advantage, be it

financial or otherwise which would not ordinarily have occurred in the absence of such deceitful procedure.

Summatively fraud can therefore be said to be a deliberate misrepresentation by single or more persons amongst administration and employees with an intention to gain illegitimate advantage.

Fraudulent financial reporting culture has entrenched itself within the Kenyan financial ecosystem particularly in the banking sector. This has been evidenced by commercial banks such as Chase Bank, Imperial Bank that were placed under receivership. This has caused for reaching damage to the financial reputation as well as dilution of the financial strength of the banks.

1.1.3 Prevention and Detection of fraud

It is paramount for any institution to institute effective methods and procedures to prevent and detect fraud related activities from taking place (Bierstaker, Brody and Pacini, 2006). These approaches can take account of management communications on prevention and detection of fraud bent behaviour, implementing clear presentation as well as payment systems, pre-employment as well as on-going screening and, most considerably inspiring a culture of fraud consciousness (PwC, 2012).

A study carried out by PWC (2014) showed that thirty seven percent of respondents agreed that fraud had occurred in their organization as well as the rise of economic offenses were exposing the business into risk of survival. Ernst & Young (2014), reported that the fifty nine nations convoluted in the review approved on the incidences of scam and asserted that the circumstances are on the rise. New methods of scam continually arise and matters that controllers as well as public consider unsuitable or fake are developing. Scam stoppage thus calls for necessary measures to halt scam from happening. Detection of fraud comes next once scam stoppage has been

unsuccessful as it includes recognizing scam as fast as possible when it has been committed (Bolton and Hand, 2002).

1.1.4 Commercial Banks

A moneymaking bank is considered to be a type of monetary institute that offers services such as accepting credits, making commercial credits as well as providing rudimentary investment goods. A bank is an institution that deals with receiving money deposits from investors and lending it in form of short term loans and advances to its customers at prearranged rates of interest (Mbogo, 2003).

The Corporations Act, the Central Bank of Kenya (CBK), as well as the Investment act are the main controllers as well as managers of banking business in Kenya. These acts are applied together with the sensible strategies which CBK issues from time to time. According to bank supervision annual report of 2014, there are twenty six (26) commercial banks and one mortgage finance company eleven of which are listed in Nairobi securities exchange (NSE). Despite the regulation, many banks have collapsed and others placed under receivership due to frauds attributed to either weak or undermined ICS. The latest examples are Imperial and Dubai banks and Chase Bank in 2015. In the financial year 2011 and 2012, losses to the tune of Ksh four Billion was lost by financial institution in East Africa due to fraud related activities (Nyamu, 2012) with Kenya recording the highest by percentage (39%). Statistics by the banking scam examination division shows that 75% of described cases of scam linked offenses during the years 2010 to 2012 influenced banking organizations destructively in their operation (CBK, 2013). Of the total fraud stated cases from the year 2009 to 2012 electric scam constituted 28.07%; computer deception, 8.77%; credit fraud, 36.84%; misappropriation, 15.79%; and cheque fraud 10.53% (CBK, 2013).

This study therefore involves a cross-sectional study of profitable banks registered in NSE to help unravel the effectiveness of internal controls in combating fraudulent practices within the Kenyan banking sector. It is therefore flood of scam by the degree of internal control structure that gave growth to this study.

1.2 Statement of the Problem

The regularity and misappropriation of funds is creating fear, anxiety and loss of confidence in the minds of the customer. This is evidenced by panic recently witnessed during the recent failure of some banks in the banking sector. This failure can be attributed to poorly constituted internal controls and the prevalence of fraudulent practices among the employees of the banks and other financial institutions.

Increasing worldwide monetary disasters is the high end business fiascoes like Enron as well as WorldCom in the America, Parmalat in Europe, and related cases of company failure in the world attributed internal controller structures failure and ultimate avoidance of instituted controls by business management as causes of these corporate scandals.

Fraud related losses in Kenya's monetary ecosystem increased to KES 1.6 Billion for the third quarter of 2013 closely tripartite KES 656.6 million recounted embezzled in the same period of 2012 as reported by Banking Fraud Investigation Department. The forensic experts associated these major causes of fraud to liquidity and weak controls in the banking sector

The fraudulent financial reporting that hit the Kenyan banks placed under receivership was attributed to structural weaknesses. Chase bank particularly had KES 8.3 Billion Non-performing loan which came into books within ninety days. Despite the measures taken to institute internal controls, fraud was still on the rise. Given the bank of condemnations branded alongside the banking business international for internal

regulator difficulties, we wanted to evaluate the effectiveness of internal control structures in prevention and detection of fraud by concentrating on constituents of internal regulator as recommended by COSO on commercial banks listed in NSE.1

1.3 Research Objective

The aim of this research is to examine the effectiveness of the systems of internal controls on prevention and detection of fraud.

1.4 Research Questions

The following are the research question which will aid the understanding and efficient study of the problem.

- a) What relationship exist between detection and prevention of fraud and internal control system.
- b) Can strong internal control system fish-out factors that contributed to incident of fraud in banks?

1.5 Value of the research

The study investigates the effectiveness of internal Control system as borrowed from COSO framework on fraud detection and prevention in profitable banks registered at NSE. The findings of the research will help the management of the banks to maintain an enhanced controlled environment by helping the administration as well as workforces create and preserve surroundings in bank that set an optimistic as well as helpful attitude to internal controls, reliable management, operating personnel for effective internal control and internal audit for evaluating whether the appropriate controls have been implemented and functioning as intended.

1.6 Scope of Study

The scope of the research was restricted to effectiveness of the internal controls as ways of averting and identifying fraud. The research primarily exposed the inadequacy and

lapses of internal controls and how that has impacted on financial reporting. The scope was also limited to profitable banks registered in Nairobi securities exchange (NSE) covering the period 2010-2015.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section intends to discuss the conceptual and theoretical frame work relating to internal control and fraud. The journal of the accessible works hence tried to institute if there is association amid internal controls as an autonomous variable besides prevention & detection of fraud as a dependent variable. The assessment is predominantly centered on control Environment, control activities, information and communication and monitoring as the key elements of internal controls which were proposed by COSO.

2.2 Theoretical Framework.

The following theoretical framework will guide this study. We discussed systems theory relating to internal controls as well as fraud triangle theory and fraud diamond theory relating to fraud.

2.2.1 Systems Theory

A system is considered to be a set of interrelating or codependent constituent parts making a complex or intricate entire intended to achieve a set goal. An organization is a multifaceted system divided into numerous departments which needs a system of control over those subdivisions for its efficiency as well as survival.

Harvey and Brown, (1998), assert that an operational internal control structure needs to be an incorporated system with interconnected constituents as well as supporting values. They further identified controlled situation, accounting classification besides control actions forming key components of internal controls. An internal control

structure accessible for a company consist of ; administration oversight as well as control philosophy, control activities, hazard assessment and recognition, information and communication, monitoring actions and adjusting insufficiencies (Grievess,2000).

This paper adopted COSOs 1992 integrated internal control structure for internal controls. The committee of sponsoring organization (COCO) was custom-built in 1980s by the State Commission of Falsified Monetary Reporting (The Treadway Commission) to recognize as well as evaluate the aspects that instigated deceitful company monetary reports as well as make commendations and has since established to become a thought frontrunner in business risk administration (ERM), internal control, and deception discouragement (Amudo & Inanga, 2009).

2.2.1.1 Control Environment

The control environment helps to set the organization's tone, affecting the control Realization of its persons. It is the basis for all other elements of interior control, offering discipline as well as structure. Control atmosphere aspects comprise of reliability, moral standards as well as ability of the entity's individuals; administration's viewpoint and working style; the way organization allocates power as well as duty, arranges and progresses its persons; and the attention as well as direction offered by the board of managements (COSO, 2011).

2.2.1.2 Risk Assessment

Risk assessment is considered to be the identification as well as examination of applicable hazards which can damage the accomplishment of purposes, creating a base for determining how the hazards must be managed.

Fraud as an inherent risk needs to be assessed and anti-fraud programs generated as key to an effective internal control culture. Risks are evaluated to determine the probability of an occasion happening, the effect, as well as hazard patience (IIA,1999). To determine if hazard administration are operational, pertinent hazard information must be taken and conversed in efficiently across the organization, permitting management to do their tasks. (IIA, 1999).

2.2.1.3 Control Activities

Control activities are considered to be the procedures as well as actions that help to ensure that administration directives are done. They ensure that needed activities are taken to deal with hazards that hinder accomplishment of the entity's aims (COSO, 2011). Control actions, if automatic or manual, have numerous aims as well as functional at numerous administrative and practical levels. Usually control actions that may be pertinent to an examination may be characterized as plans and processes that relate to performance evaluation, information handling, physical control and separation of obligations.

2.2.1.4 Information and Communication

Information as well as communication is considered to be necessary to implementation of control. Information about an administration's idea, control atmosphere, peril control actions as well as performance should be conversed up, down, and across an organization. Relevant information should be recognized, seized and communicated in the time frame that enables persons to do their tasks. Information classifications offer reports comprising working, monetary as well as compliance associated information that makes it likely to run and control industry.

2.2.1.5 Monitoring

This is the valuation of internal control actions overtime. It is achieved by continuing monitoring actions as well as by distinct assessment of internal control, self- valuation, peer evaluation and internal inspection.

There is linkage as well as cooperation among elements creating an incorporated structure that responds enthusiastically to the varying circumstances. The internal control structure is entangled with entity functioning activities for essential occupational motives. Internal control is considered to be the most operational when controls are created into object's infrastructure and they are part of the principle of the initiative 'constructed in'. Control support superiority and authorization initiatives; evade superfluous expenses and allows fast reaction to varying circumstances. Monitoring evaluates the quality of the company internal control actions by tracing and checking the internal control setting and functioning grade and take the essential activities to make sure that internal control function efficiently.

2.2.2 The Fraud Triangle Theory (FTT)

Donald Cressey, (1950), focused his study on what drives persons to interrupt expectation. He questioned 250 offenders in five months whose conduct met two principles; primarily, individuals are accepting accountabilities of faith in good faith, and secondly situations make them breach the reliance. He noted that 3 aspects pressure, opportunity, as well as justification should be present for persons to breach their place of belief. The three basics of scam were shortened by Cressey (1953) as follows.

2.2.2.1 Perceived Pressure/Incentive/Motive

Any fraudulent behavior begins with gravity to cause fraud (Abdullahi and Mansor, 2015a). The pressure can be non-monetary or monetary. Fraud begins with the perpetrator believe that he or she is pressurized. Pressure exists in a number of ways, particularly in a non-sharable monetary requisite. Monetary force is commonly the factor forming basis of an organization to commit fraud. Albrecht et al., (2006) posits that about 95% of all fraud cases are related to perpetrator's financial pressure. Pressure therefore is an important factor in perpetration of fraud (Lister 2007). He further determined three types of pressure which include stress due to employment, personal and pressure from external environment. Vona (2008), examined corporate and personal forces as key motivation for fraud to be committed. Examples of pressure include addiction to drug, financial challenges related to family, huge debts as well as expenses.

Lister, (2007) defines pressure to commit fraud as the source however this pressure is not necessarily the reason for fraudsters committing fraud. Pressure could be linked to social, monetary, political and non-monetary aspects. Social and governmental pressure happens particularly where a person feels they cannot fail because of their reputation or status (Murdock 2008). Rae and Subramanian (2008) posit that pressure related to workers motive to commit scam.

2.2.2.2 Observed Opportunity

Opportunity is produced by weak controls or poor authority structure that permits a worker to commit employee scam. It is referred to as weaknesses in internal controls. Kelly and Hartley, (2010) asserts that persons will take gain of the accessible situations. Opportunity will exist in the awareness of the culprit. Mostly, the low the probabilities

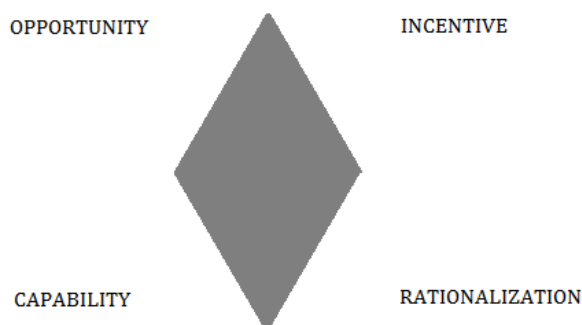
of being found, the more the likelihood of fraud occurring (Cressey 1953). Wilson (2004) defines opportunity being the capability to supersede given scam controls. Opportunity is the power and ability of a worker to establish weak institutional systems of control and capitalize on committing fraud (Rae and Subramanian 2008).

2.2.2.3 Rationalization.

For fraud to occur, the perpetrator formulates unacceptable idea to him before committing fraud. The person carrying out the scam frequently justifies the scam. Justifications may comprise, “I will remunerate the cash back”, “They will not miss the moneys”, or “They do not pay me sufficient.” Hooper and Pornelli, (2010) posits that fraudsters have a specific mind-set that allow them to rationalize their behavior.

2.2.3 The Fraud Diamond Philosophy

Wolfe and Hermanson (2004), claimed that though apparent pressure may exist with a prospect as well as a justification, it is improbable for scam to happen except if the fourth component (ability) is also existing.



Researcher design based on
Wolfe and Hermanson (2004)

2.2.3.1 Capability

This is having the characteristics necessary for an individual to commit scam. This is where the impostor acknowledged the specific scam opportunity as well as capability to go it into realism. Albrecht et al. (1995), consider that only the individual with high capability to comprehend the prevailing internal control classification and detect its flaws will commit scam.

2.2.3.2 Place/Purpose

The original aspect that enables the impostor into committing fraud is their designation in their work place. The place as well as role performed by the worker might facilitate his way to violate the administrative belief. (Wolfe and Hermanson, 2004). They further explained that numerous companies do not execute adequate checks as well as balances to alleviate their CEO's abilities to influence and disseminate scams. This largely creates a situation for management to override over the existing controls.

2.2.3.3 Intelligence/Creativity and Ego

For fraud to take place the perpetrator needs to be capable of exploiting weaknesses in internal controls and their designation to their gain (Abdullahi and Mansor, 2015b). Creative, intellectual and knowledgeable employees with a concrete understanding of existing controls as well as weaknesses, commit most of the fraud. This knowledge and understanding influences person's apprehension to approve admittance to classifications or assets (Wolfe and Hermanson, 2004:40). This impact on internal controls instituted within the organization. Thus people who commit fraud need to have strong ego which enables them exploit loopholes in the internal controls.

2.2.3.4 Pressure, Deception and Stress

Rudewicz (2011) asserts that an effective impostor can force others to conceal or commit fraud. A fraudster who has succeeded in committing fraud will coerce others into committing fraud or even concealing it.

2.3 Review of Empirical Literature

Incongruous results have been established regarding internal control system instituted and the occurrence of scam (Beasley, 1996; McMullen, 1960; Dechow et al., 1996). Nevertheless, effectiveness of internal controls have reduced fraudulent practices within companies prone to fraud (Abbott et al., 2000).

Researchers posit that incentives, pressure and rationalization forces fraudsters to focus on weaknesses within the internal controls that could permit them to commit fraud (Mars Group, 2008). In Kenya particularly, GFRP issued directions to all accounting officers in all government bodies to ensure an effective internal control units to shield against fraudulent practices. It further directed the accounting staffs to make sure that the system of internal inspecting occurs under the direction as well as regulator of an Internal Accountant General to assess the efficiency of internal controls.

Organizational environment effect on scam has been steadily determined in the past studies. Worker stealing has been discovered to be affected by company's work environment (Weber et al., 2003; Appelbaum et al., 2006; Kulas et al., 2007) as well as staffs attitudes toward morality (Greenberg, 2002).

The significance of internal control instruments in cutting fraud-bent behavior, especially worker scam, has been inspected. Where upon management devotes attention towards controls instituted, perpetrators of fraud were likely to reduce Holmes et al

(2002). Similar study established that admittance to numerous control mechanisms only does not control losses because of fraud (Holtfreter, 2004). Flouting the Scam Triangle is the main to scam discovery. Breaking the Scam Triangle suggests that the company should remove one of the essentials in the scam triangle to decrease the possibility of deceitful actions. Out of the three essentials, elimination of opportunity is most explicitly influenced by the structure of internal controls and usually offers the most illegal route to discovery of scam (Cressey Cendrowski, et al, 2002) .

2.4 Summary of the Literature Review

The empirical evidence has provided mixed view of the efficiency of internal controls on prevention as well as detection of fraud. The researchers have not conclusively agreed the impact of internal controls on curbing fraudulent behavior particularly on private and government institutions.

Holtfreter, (2004) postulates that admittance to numerous control mechanisms only does not control loss because of scam. However, Abbott et al., (2000) asserts that that internal control efficacy has been established to decrease the probability that corporations are endorsed to deceitful monetary reporting.

While all the aforementioned studies provide acknowledgement efforts regarding the effectiveness of internal controls on fraud prevention and detection, it is important to underscore that a gap exist as to effectiveness of internal controls in preventing and detecting fraud. It is thus on this basis that this research seeks to fill the gap by inspecting the efficacy of internal controls on preventing and detection of fraud on commercial banks listed in NSE.

2.5 Conceptual Framework

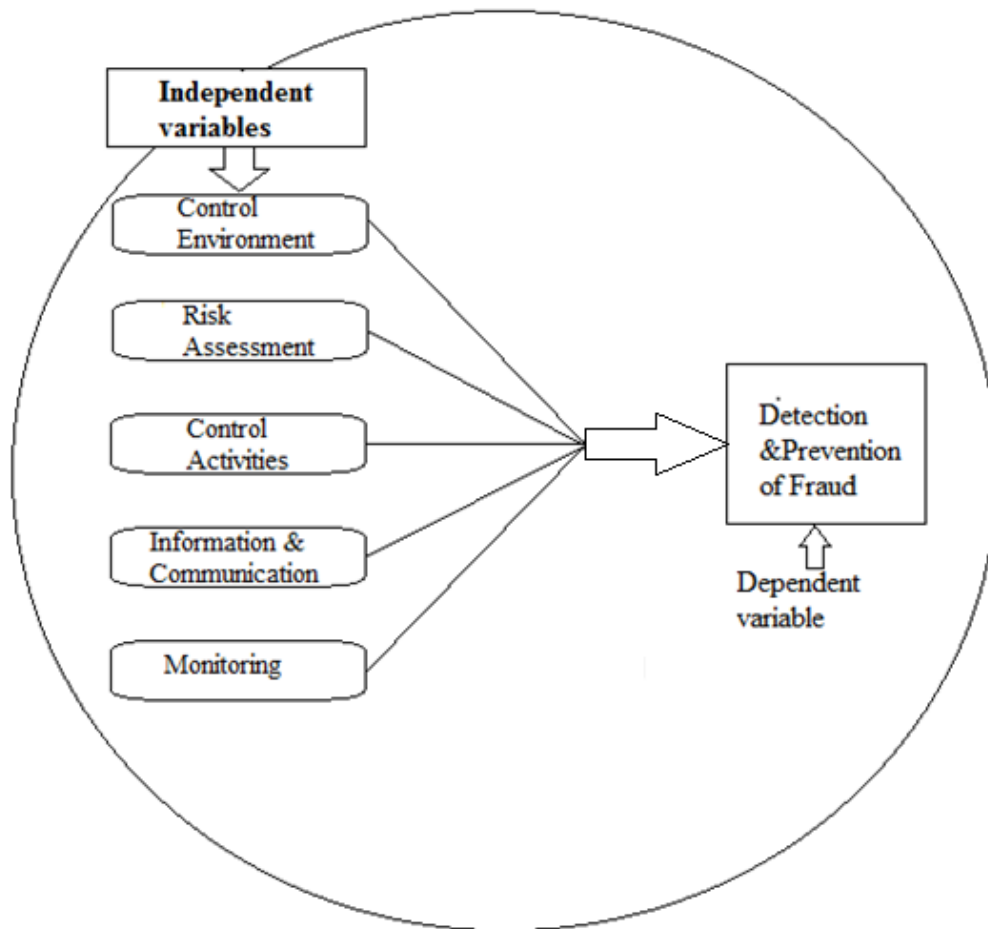


Figure one; The Conceptual Framework of Internal Control.

Source: Researchers design based on COSO's Internal Control framework.

CHAPTER 3

Research Methodology

3.1 Introduction

This section contains the study method. It outlines the study plan, target population, data gathering, data examination procedures and data validity and reliability.

3.2 Research Design

Study design outlines the methods for data collection, measurement and analysis (cooper and schindler, 2001). The study design employed was explanatory study design. Descriptive research designs are considered to be significant in responding to “how” queries. Such plans try to elucidate how one variable influence the other. The usage of the descriptive study is considered suitable to be applied any time there is necessity to elucidate an apparent problem. Every time there is a difficult, it is significant to totally comprehend it before resolving it as well as the usage of descriptive study to deal with such a problem is suggested (Johnson, 2006). Descriptive research plan was chosen because the research wants to find the effectiveness of internal control system on the detection and prevention of fraud in commercial banks listed in Nairobi securities exchange.

3.3 Target Population

Population is the whole group of persons, actions or items having mutual visible features in which the results will be generalized in the target population (Mugenda & Mugenda, 2003). The study population was comprised of the eleven (11) profitable banks listed in Nairobi Securities Exchange (NSE).

3.4 Data Collection

This research applied questionnaire as the main research instrument. Both closed as well as open ended questions were applied to gather the primary data. Questions were used to collect data from eleven audit manager. The questionnaire was applied to five segments namely; control environment, Hazard valuation, Control actions, communication, information as well as Monitoring. The questionnaire presented statements on the effectiveness of five components of interior controls as provided by COSO in detecting and preventing fraud rated on a scale of 1 to 5 as shown in appendix 2.

3.5 Validity.

Validity can be described as the degree to which the review tools acts as the correct forecaster. Legitimacy comprises the extent to which the inquiry form as regards to research measures precisely what is supposed to be measured.

According to Show and Right (1991), there are 4 overall processes for approximating the legitimacy of the survey. These includes: content legitimacy which comprises evaluating the capability of the replies provoked by the tool. In this case the researcher ensured all the questions are in line with the research objective, predictive validity which assesses the degree to which the gotten score could be used to approximate person's future standing in respect to the principle variable, create legitimacy which includes understanding the attained instrument, understanding the factors that underlie the obtained instruments, concurrent validity that assesses the degree to which the attained score may be used to evaluate personal current standing with respect to the other variables. Validity was also being tested through pretesting.

3.6 Reliability.

This is ensuring that a measure is consistent or stable (Creswell, 2002). The instrument reliability was tested after it was administered to a group of banks which were used in the final sample. It involved administering the instrument to a group, then testing them again after two weeks. Then their score compared and correlated using Spearman-Rank formulae to test reliability.

3.7 Data Analysis

The research used both quantitative as well as qualitative data. Qualitative data was examined by the use of explanatory method which comprises cataloguing as well as coding data as well as usage of the arithmetical set for social sciences (SPSS). Quantifiable data was analyzed using regression analysis. Multiple linear regression was used to model the association amid the descriptive variables as well as a reply variable by fitting a linear equation to experimental data.

3.7.1 Analytical model

The analytical model that used is as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + e$$

Where;

Y = Fraud Detection and Prevention.

$\beta_0 - \beta_4$ - (Regression co-efficient of independent variables).

X₁ – Control Environment

X₂ – Risk Assessment.

X₃ –Communication as well as Information.

X₄ – Control Activities.

X₅ – Monitoring

e - Error term accounts for the probable aspects that could affect the dependent variable that were not seized in the study.

Dependent variable:

Fraud Detection and Prevention measured by indicators of fraud prevention and detection through;

Accountability for funds
Efficiency and effectiveness of operations
Economy in project/programs implementation
Number of fraudulent incidences.

Independent variables were measured through 5-Point Likert scale; SA –Strongly agree, A- Agree, N-Not sure, SD-Strongly disagree, D- Disagree.

CHAPTER FOUR

DATA PRESENTATION AND DISCUSSION OF FINDINGS

4.0 Introduction

This section demonstrates the results of the data examination. The demonstrations are done in the form of results of data examination. The demonstrations are in form of tables as well as statements. Data was gathered as well as evaluated centered on the research objectives and questions. The questionnaires were distributed to eleven heads of audit in respective banks listed in Nairobi Securities Exchange.

4.1 Profile of the Respondents

The research study involved eleven respondents who were heading Audit department in commercial banks listed in Nairobi Securities Limited. The outline of the participants covers age, education and gender.

4.1.1 Gender of the Respondents

The study involved eleven respondents out of which 63.6% were male while 36.4 % were female as shown in table 4.1

VARIABLE	OCCURRENCE	PERCENTAGE
MEN	7	63.6%
WOMEN	4	36.4%
AGGREGATE	11	100%

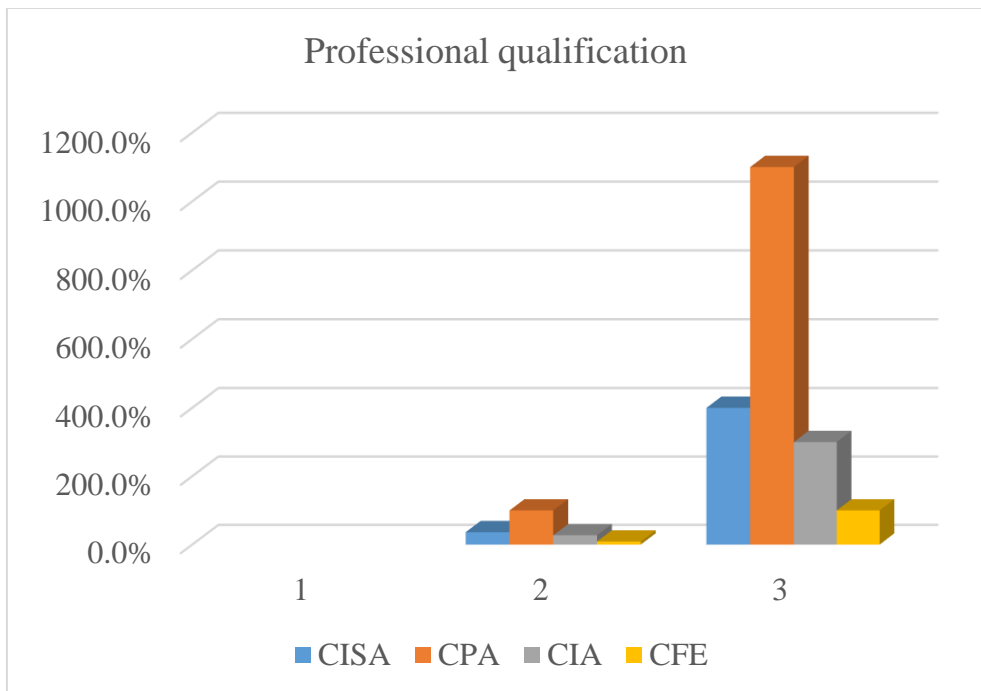
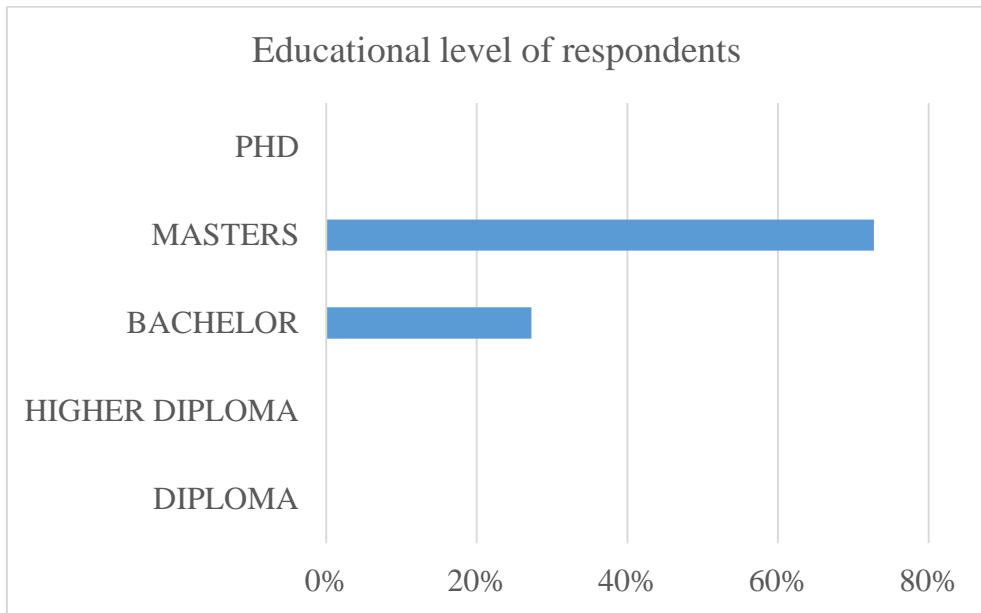
Source: Primary data

4.1.2 Education Level of the Participants

The research sought to determine the highest level of education of the participants who served in internal audit department. The findings are presented in the table 4.2.

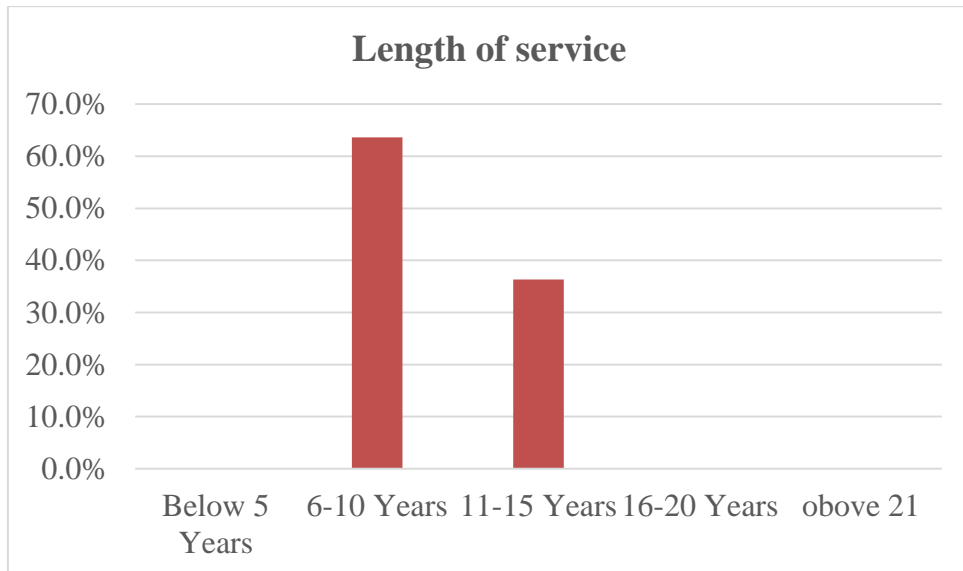
VARIABLE	FREQUENCY	PERCENTAGE
Diploma	0	0%
Higher Diploma	0	0%
Bachelors	3	27%
Masters	8	73%
PhD	0	0%
Total	11	100%

The results shows that 73% of the respondents had post graduate qualification and 27% had under graduate qualification. The results also shows that the work force in the internal audit department is highly qualified with 100% of respondents being certified public accountants, 36.4% are certified information system auditors, 27.3% being certified internal auditors and 9.1% being fraud examiners. This shows the level of competence in their capability to comprehend the idea of controls as well as scam detection as well prevention at areas of their work. This is also reinforces dependability of their response. Figure 4.1



4.1.3 Length of service at work place

The study also wanted to find how many years the participants served in the organization. The results of the results are shown in figure 4.2



Source: primary data.

The results pointed out that 63.6% of the respondents had served between 6-10 years while 36.4% had served between 11-15 years. This further affirmed that the respondents were well positioned to reply correctly to queries relating internal controls and scam detection and prevention.

4.1.4 Description of the age groups of respondents

The research study also sought to establish the age of the respondents and the results of the findings are shown in Table 4.3

VARIABLE	FREQUENCY	PERCENTAGE
18-25	0	0%
26-35	6	54.6%
36-45	4	36.4%
46-55	1	9.1%
Above 55	0	0%

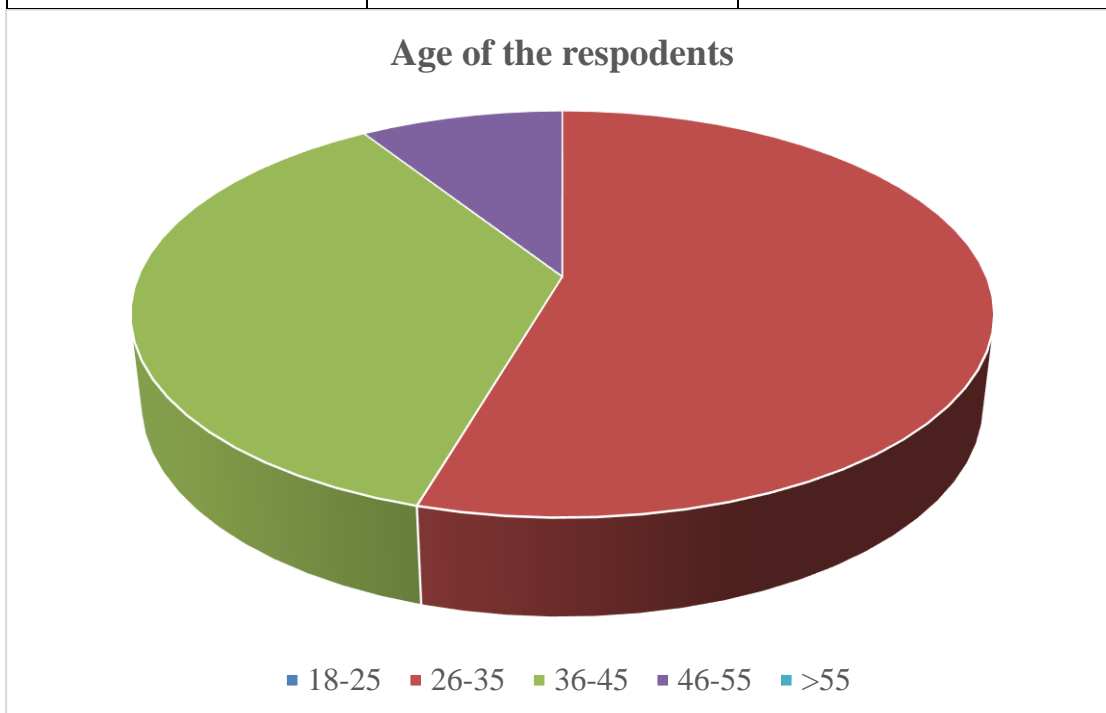


Figure 4.3. Source: primary data

Outcomes of the research showed that 54.6% of the participants were aged between 26-35 years, 36.4% were between 36-45 years, 9.1% were between 46-55. From the findings

the respondents were of productive age and reasonably experienced to provide reliable data for the study.

4.2 To examine the major causes of fraud and factors that have contributed to its growth.

Items	Questions	SA	A	N	DA	SD
1.	Inadequate training of bank personnel serves as a lapse open to fraudsters to operate	18.2%	63.6%	18.2%	0%	0%
2.	Lack of effective machinery that guarantee severe punishment for fraud perpetrator and forgers encourages perpetration of fraud.	36.4%	45.5%	0%	18.2%	0%
3.	Job insecurity can lead people into committing fraud	36.4%	63.4%	27.3%	0%	0%
4.	Increased financial burden on individual and bank personnel could lead them to commit fraudulent act	18.2%	45.5%	0%	9.1%	0%
5.	Weak/poor management control monitoring and supervision of internal control system can cause perpetration of fraud	54.4%	45.5%	0%	9.1%	0%

6.	Non –adherence to ethical standards set by the bank management and regulatory body(CBK) could lead to fraud perpetration	36.4%	63.6%	0%	0%	0%
7.	Weak internal control system could also lead to perpetration of fraud	54.4%	45.5%	0%	0%	0%
8.	Bad leadership of the bank’s top management and executives could encourage others to perpetrate fraud	63.6%	36.4%	0%	0%	0%

Source: Field survey

Results from the finding revealed that 18.2% strongly agreed that inadequate training of bank personnel contributed to fraud while 63.6% agreed to it however 18.2% remained neutral.36.4% of the respondents strongly agreed that job insecurity contributed to fraud with 63.6% agreeing that is served as major cause of fraud. Weak or poor management control monitoring and supervision of internal control system significantly led to fraud perpetration with 54.5% of the respondents strongly agreeing go it while 45.5% also agreeing to it.36.4% of the respondents strongly agreed that non-adherence to ethical standards set by the top management had a fair share of its contribution to fraud with 36.4% of the respondents strongly agreeing and 63.6% of the respondents agreeing to it .Increased financial burden on individual and bank personnel significantly contributed to fraud with 45.5% of the respondents agreeing to it .54.4% of the respondents attributed weaknesses in internal controls as a major cause of fraud with 45.5 % agreeing to it. Bad leadership of the bank’s top management and executive

strongly encouraged employees to perpetrate fraud with 63.6% of the respondents strongly agreeing to it and 36.4% of the respondents agreeing to it. All these factors from the research findings served as a major cause of fraud.

4.3 Descriptive Score of the impact of components of internal controls on scam prevention and detection.

Effect Of components of Internal Control On Scam Prevention and Detection	Strongly Agree	Agree	Not sure	Disagree	Strongly Disagree
Info and Communication	16.7%	71.2%	7.6%	4.5%	0%
Fraud Risk management	25%	58%	17%	0%	0%
Monitoring	13.2%	80.8%	4.0%	2.0%	0%
Control Environment	12.1%	86.4%	1.5%	0%	0%
Control Activities	14.8%	85.2%	0%	0%	0%

Table 4.4

Results of the survey reveal that a large percentage of the respondents agree that internal control system based on COSO framework significantly impacted or influenced fraud prevention and detection on commercial banks listed in Nairobi Securities Exchange.

4.4 Inferential Statistics

Inferential statistics involves making prediction or inferences about a given population. The study has applied correlational analysis, regression analysis and ANOVA to make inferences on the effectiveness of internal control classification on discovery as well as stoppage of scam on commercial banks listed in NSE.

4.4.1 Correlation Analysis

The study examined whether internal control system within the banks listed on NSE had effect on fraud prevention and detection. The test was carried using Pearson correspondence number at 95% sureness level and the results accessible in table 4.5

Table 4.5 Association between Internal Control Structures on Scam Prevention and Detection of fraud

		Fraud Prevention and detection
Internal	Pearson Connection	0.6447
Control	Sig.(2-tailed)	.000
Systems	N	12

**Relationship is important at 0.05 levels (2- tailed)

*Relationship important at 0.01 levels (2 - tailed)

Source: Research findings

The results of the finding shows a statistically strong constructive association amid internal control system as well as scam stoppage and detection ($r=0.6447$; $P < 0.05$). This shows that strong systems of internal controls significantly prevented occurrence of fraud.

4.4.2 Regression Analysis

Table 4.5 presented a summary of the regression analysis. The research study found that the concept elucidated 56.2% of the variance in fraud prevention and detection as shown by R^2 .

SUMMARY OUTPUT

<i>Reversion Data</i>	
Manifold R	0.517729384
R Square	0.268043715
Accustomed R Square	0.561846997
Average Error	0.932307936
Clarifications	8

Source: Research findings

4.4.3 Analysis of Variance

Table 4.6 shows the analysis of variance results from the study. The F value of 5.954 was significant 1% confidence level. Thus the regression used in the study was significant.

Table 4.6

ANOVA

	<i>Df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Importance F</i>
Reversion	5	0.636603824	0.127320765	5.954	0.962802
Outstanding	2	1.738396176	0.869198088		
Aggregate	7	2.375			

Table 4.7 provides the coefficient outcomes of the regression analysis.

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>
β_0	1.971	18.272	-0.1079	0.923
Risk Assessment	0.0960	1.731	0.0554	0.960
Information and Communication	0.04354	3.163	0.0137	0.990
Control Activities	0.6548	1.162	0.5632	0.629
Control Environment	0.2366	1.948	0.1214	0.914
Monitoring	0.33054	0.987	0.3346	0.769

The investigator carried out a reversion study to determine the association amid internal control system as well as prevention and detection of fraud. The following regression was obtained

$$Y = 1.9717 + .2366X_1 + .096X_2 + .0435X_3 + .6548X_4 + .3305X_5 + e$$

Where

Y = Fraud Detection and Prevention.

$\beta_0 - \beta_4$ - (Regression co-efficient of independent variables).

X_1 – Control situation

X_2 –Hazard Valuation.

X_3 –Communication as well as Information.

X₄ – Control Activities.

X₅ – Checking

e - Error term accounts for the possible factors that could influence the dependent variable that were not captured in the model.

Dependent variable:

Fraud Detection and Prevention measured by indicators of fraud prevention and detection through;

- Accountability for funds
- Efficiency and effectiveness of operations
- Economy in project/programs implementation
- Number of fraudulent incidences.

4.5 Interpretation of the findings

From the correlation of variance we can interpret that there is a strong association between dependent variable and independent variable. This shows that internal controls impacted significantly on fraud prevention and detection. The study found that fraud risk assessment had a positive effect on prevention and detection of fraud on commercial banks listed in NSE (0.2366, P<0.9608). This show that frequent fraud risk assessment by banks can significantly prevent fraudulent practices. The study showed that all the components of internal control system positively impacted on fraud prevention and detection.

The study also found that job insecurity, weak or poor management of bank, Increased financial burden on managers, inadequate training of bank personnel on fraud practices,

Non –adherence to ethical standards set by the bank management and regulatory body (CBK), Weak internal control system, Bad leadership of the bank’s top management and executives as the major causes of fraud within the banking sector.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This section presents the summary of the research. From the statistics examination in the preceding sections, the following deductions as well as recommendations of the study was made established on the results.

5.2 Summary

The study examined the effectiveness of internal controls on prevention and detection of fraud on profitable banks listed in NSE. The research used descriptive study plan. The population of research encompassed of eleven Commercial banks. Data was analyzed using descriptive, correlation and regression analysis.

Correlational analysis showed that there is a solid constructive relationship in internal controls instituted by banks management and prevention and detection of fraud ($r=0.6447$; $P < 0.05$). Regression results revealed that 56.2% of the variability of fraud detection and prevention was explained by the independent components of internal controls. The ANOVA showed that the model was statistically important at 1 percent level of importance. The model found that all the constituents of interior controls as proposed by COSO have a significant effect on discovery as well as stoppage of fraud. The research also sought to identify major causes of fraud within the banking sector in Kenya and that job insecurity, weak or poor management of bank, Increased financial burden on managers, inadequate training of bank personnel on fraud practices, Non – adherence to ethical standards set by the bank management and regulatory body (CBK), Weak internal control system, Bad leadership of the bank's top management and executives as the major causes of fraud within the banking sector.

5.3 Conclusions

Based on the objectives of study effective internal control system would prevent fraudulent practices within commercial banks. This in line with results of the research as there is a positive link between interior controls as well as discovery and prevention of scam. The findings that control environment which constitute of reliability, moral standards as well as ability of the unit's persons; administration's viewpoint and style of function; the way organization allocates power and duty, arranges as well as progresses its persons; and the consideration and course delivered by the directors (COSO, 2011) contributes suggestively towards discovery and prevention of scam. Technology as well as Info relevant information should be detected, taken and communicated in form of specific time that enables persons to conduct their tasks.

Job insecurity, weak or poor management of bank, Increased financial burden on managers, inadequate training of bank personnel on fraud practices, Non –adherence to ethical standards set by the bank management and regulatory body (CBK), Weak internal control system, Bad leadership of the bank's top management and executives were identified as the major causes of fraud within the banking sector. Therefore management should focus on evaluating these factors on a continuous basis.

5.4 Recommendation

The management of commercial bank needs to seal the loopholes that undermine the internal control structure. All the constituents of internal controls structure as postulated by COSO needs to be evaluated on a continuous basis to reduce or eliminate fraudulent practices within the banking sector. The banks management should subsequently adopt a dynamic approach to fraud risk assessment and institute fraud policies and effectively identify controls to handling risks and assess security controls in their systems The five identified COSO constituents of operational interior controls: control situation; hazard

valuation; control actions; info as well as communications and observing, need to be functional in a synergistic relationship to form an incorporated structure that responds vigorously to varying circumstances. The internal control structure must be tangled with the effective actions of commercial banks to proactively identify and stop scam.

5.5 Suggestion for Further study

1. The impact of developing technologies within the banking industry especially mobile banking and internet banking on internal controls instituted by banks.

REFERENCES

- Abiola, J. (2013). The Impact of ICT on Internal Control's Effectiveness in Prevention and detection of Fraud. Available: <http://www.dora.dmu.ac.uk>
- Abiola, I. & Oyewole, A.T. (2013). Internal control system on Fraud: A Nigerian Experience. *Journal of accounting and finance*, 13 (5), 141-153
- Abbott, L.J., Parker, S. and Park, Y. (2000). The Effects of Audit Committee Activity and Independence on Corporate Fraud. *Managerial Finance* 26 (11): 55-67.
- Abdullahi, R. and Mansor, N. (2015a). Concomitant Debacle of Fraud Incidences in the Nigeria Public Sector: Understanding the Power of Fraud Triangle Theory. *International Journal of Academic Research in Business and Social Sciences*, Vol. 5, No. 5, pp, 312-326.
- Albrecht, W. S., Albrecht, C. & Albrecht, C. C. (2008). Current Trends in Fraud and its Detection: A Global Perspective. *Information Security Journal* Vol.17. Retrieved from www.ebscohost.com on 11th June, 2014.
- Alleyne, P., Howard, M. (2005). An exploratory study of auditor's responsibility for fraud detection in Barbado, *Managerial Auditing Journal*, 20(3), 284-303.
- Basel. (2004). Bank Failures in Mature Economies. Basel: Bank for International Settlements. Basel. (1998). *Framework for internal control system in banking organisations*. Basel: Basel committee. BBC. (2012, December 11). BBC News.
- Basel Committee. (2011). *Principles for the Sound Management of Operational Risk*. Basel, Switzerland: Bank for International Settlements Communications
- Beasley, M. S. (1996). An Empirical Analysis of the Relation between the Board of Director Composition and Financial Statement Fraud. *The Accounting Review* 71 (4): 443- 465.

- Central Bank of Kenya (2011). *Central Bank of Kenya, Quarterly report on Development in the Kenyan banking Sector for the period ended 30th June 2011*. Retrieved on 8th August 2011.
- Central Bank of Kenya, (2006). Prudential guidelines for institutions licensed under the Banking Act. [Online] retrieved from: <http://www.centralbank.go.ke>
- Central Bank of Kenya, (2013). Annual Reports. Retrieved from: <http://www.centralbank.go.ke>
- COSO (1994): "Committee of Sponsoring Organization of Treadway Commission." *Internal Control-Integrated Framework New*
- COSO (1992). *Internal Control-Integrated Framework*. New Jersey: COSO. Retrieved August 6, 2014, from BBC:
- Cressey, C. and Martin, P. (2002). *The Handbook of Fraud Deterrence*.
- Cressey, D.R. (1953). *Other People's Money*. Montclair, NJ: Patterson Smith, pp.1300
- Dunn, P. (2004). The Impact of Insider Power on Fraudulent Financial Reporting . *Journal of Management* 30 (3): 397-412.
- Greenberg. "Who Stole the Money, and When? Individual and Situational Determinants of Employee Theft," *Organizational Behaviour and Human Decision Processes*
- Hollinger, R.C. and Clark, J. P. (1983). Deterrence in the Workplace: Perceived Certainty, Perceived Severity, and Employee Theft, *Social Force*.
- Holmes, S.A., Langford, M., Welch, O. J., and Welch, S. T. (2002). "Associations between Internal Controls and Organizational Citizenship Behaviour," *Journal of Managerial Issues*, (14:1), spring.

- Holtfreter, K. (2004). Fraud in US Organizations: An Examination of Control Mechanisms. *Journal of Financial Crime*.
- Hardouin, P. (2009). Banks governance and public-private partnership in preventing and confronting organized crime, corruption and terrorism financing. *Journal of Financial Crime*, 16 (3), 199-209.
- Hillison, W., Pacini, C. & Sinason, D. (1999). The internal auditor as fraud- buster. *Managerial Auditing Journal*, 14 (7), 351-363.
- Hochberg, Y., Sapienza, P., Jorgensen, A. (2009). A lobbying approach to evaluating the Sarbanes-Oxley Act of 2002. *Journal of Accounting Research*, 47(2), 51-583.
- The Committee of sponsoring organization of the Treadway commission (COSO), “*internal control-integrated framework*” July 1994.
- Kimani, J. (2011). Fraud Risk Assessment Plan for Barclays Bank of Kenya. Tampere University of Applied Sciences.
- Levi, M. (2008). Organized frauds and organizing frauds: unpacking the research on networks and organization. *Journal of Criminology and Criminal Justice*, (7), 389-419.
- Munyua, J.M. (2013). Operational response strategies to payment card fraud by commercial banks in Kenya. Unpublished MBA Project. University of Nairobi.
- Mustafa, S., Youssef, N. (2010). Audit committee financial expertise and misappropriation of assets. *Managerial Auditing Journal*, 25(3).
- Manas’seh, P.N. (1993). *Principals of Auditing*. Focus publications Ltd. Nairobi, Kenya.

- Millichamp, W.C. (2002). 'Embracing risk-based auditing in internal corporate Governance.' In *Finance Review*, June, 17-20.
- Nyamu, R. (2012). *An overview of fraud and money laundering in the East Africa financial services industry*. Deloitte forensic Nairobi:
- O'Leary, C., Iselin, E., and Sharma, D. "The Relative Effects of Elements of Internal Control on Auditor's Evaluations of Internal Control (2006). *Pacific Accounting Review*
- PricewaterhouseCoopers. (2012). Financial services. Retrieved August 11, 2014, from pwc:<http://www.pwc.com/gh/en/industries/financial-services.jhtml>
- PricewaterhouseCoopers. (2007, August 28). Internal Control System and Risk Management. Retrieved June 26, 2014, from GRC White Paper:https://www.pwc.ch/user_content/editor/files/publ_adv/pwc_grc_white_
- Sharma, V. D. (2004). Board of Director Characteristics, Institutional Ownership, and Fraud: Evidence from Australia. *Auditing: A Journal of Practice & Theory*
- Mars Group (2008). Report on Corruption in Kenya
- Weber, K. L. B. and Pentico, D.W. (2003). Why Do Employees Steal? *Business and Society*.
- Robinson, S. L. and Bennett, R. J. (1995). A Typology of Deviant Workplace Behaviours: A Multidimensional Scaling Study, *Academy of Management Journal*.
- Rae, K. and Subramaniam, N. (2008). Quality of Internal Control Procedures: Antecedents and Moderating Effect on Organizational Justice and Employee Fraud," *Managerial Auditing Journal*

Rae, K., & Subramaniam, N. (2008), Quality of internal control procedures: Antecedents and moderating effect on organisational justice and employee fraud. *Managerial Auditing Journal*, 23(2), 104-124.

Vona, I. W. (2008). *Fraud Risk Assessment: Building a Fraud Audit Programme*: Hoboken, New Jersey: John Wiley and Sons.

APPENDICES

Appendix 1: List of commercial banks listed in (NSE).

1	BARCLAYS BANK OF KENYA LTD
2	CFC STANBIC OF KENYA HOLDINGS LTD
3	DIAMOND TRUST BANK KENYA
4	EQUITY GROUP HOLDINGS LTD
5	HOUSING FINANCE GROUP LTD
6	I&M HOLDINGS LTD
7	KCB GROUP LTD
8	NATIONAL BANK OF KENYA
9	NIC BANK LTD
10	STANDARD CHARTERED BANK KENYA
11	THE CO-OPERATIVE BANK OF KENYA LTD

Appendix 2 Operationalization of variables.

Section A: To examine the major causes of fraud and factors that have contributed to its growth and how to curb it.

Please rank the following statement on Likert scale ranging from strongly agree to strongly disagree

Where; 5= strongly disagree 4= disagree 3= not sure 2= agree 1= strongly agree.

Items	Questions	1	2	3	4	5
1.	Inadequate training of bank personnel serves as a lapse open to fraudsters to operate					
2.	Lack of effective machinery that guarantee severe punishment for fraud perpetrator and forgers encourages perpetration of fraud.					
3.	Job insecurity can lead people into committing fraud					
4.	Increased financial burden on individual and bank personnel could lead them to commit fraudulent act					
5.	Weak/poor management control monitoring and supervision of internal control system can cause perpetration of fraud					
6.	Non –adherence to ethical standards set by the bank management and regulatory body(CBK) could lead to fraud perpetration					

7.	Weak internal control system could also lead to perpetration of fraud					
8.	Bad leadership of the bank's top management and executives could encourage others to perpetrate fraud					

Section B: To determine the impact of internal control system on the management of commercial banks listed in Nairobi Securities Exchange.

Items	Questions	1	2	3	4	5
1.	Does internal control system capable of ensuring and promoting the effectiveness and efficiency of operations in banks?					
2.	Does the implementation of effective and strong internal control system capable of enhancing customers' confidence and trust in the Bank?					
3.	Does the implementation of internal control system in the banks ensure the reliability of financial reporting by the users of banks financial statements					
4.	Does effective monitoring and auditing of the functional operation of the internal control system promote growth, profitability and continuous existence of Banks?					

5.	Does the overriding of control by Bank's management capable of making banks to liquidate and eventually collapse					
----	--	--	--	--	--	--

Section C: To examine the functionality of internal controls and Their impact on fraud prevention and detection.

a) Fraud Risk Assessment.

Item	Questions	1	2	3	4	5
1.	Does proactively identifying and addressing an organizations vulnerabilities to external and internal fraud significantly impact on fraud detection and prevention					
2.	Does the Board of Directors set an appropriate tone and realistic expectations on management to enforce an anti-fraud culture?					
3.	Does the management assess the risk appetite and assess its ability to meet organizations strategic, operational, and reporting and compliance objectives particularly preventing and detecting fraud?					
4.	Does the board of directors monitor the organizations fraud risk management activities and as result significantly prevented and detected fraud?					

5.	Does the audit committee receive regular reports on the status of reported or alleged fraud?					
6.	Does the audit committee engage in candid and open conversation with external auditors about suspected fraud?					
7.	Does the audit committee provide external auditors with evidence that the committee is dedicated to effective fraud risk management					
8.	Staff members have basic understanding of fraud and aware of the red flags					
9.	Staff members read and undertake policies and procedures relating to fraud					
10	Staff understand their roles within the organizations internal control framework relating to how their job procedures are designed to manage fraud risks and when noncompliance might create an opportunity for fraud.					
11.	Staff reports suspicious or incidences of fraud.					
12	Does the organization conduct ethical and security training for new employees with periodic updates for existing employees					
13	Management has for any and all frauds that the bank has experienced in the past, have the					

	reasons that led to fraud been evaluated and corrective action taken?					
14	Has a ‘catastrophic’ opportunity level been set; that is has management asked its self the question, Have we ensured that no single employee or group of employees in collusion can commit a fraud that could place an organization in imminent risk of survival?					

b) Information and Communication

Item	Question	1	2	3	4	5
1.	There is open access to organization wide resources and clear lines of communication and dissemination of information in a timely manner to all parties.					
2.	Antifraud policies and procedures are effectively communicated.					
3.	Management is involved in delivering messages both in person and web based communication on fraud prevention and detection.					
4.	There is positive affirmation of high risk area function which includes periodic reminders on major fraud risk areas facing the bank					

5.	There is broad roll out of anti-corruption measures					
6.	There is training of staff to recognize and communicate red flags either through special training for finance professionals, special training for senior executives.					

c) Control Activities

Item	Question	1	2	3	4	5
1.	The institution has clear separation of roles					
2.	There is appropriate supervision by senior staff on the work of their juniors					
3	Top level reviews - Boards of directors and senior management often request presentations and performance reports that enable them to review the bank's progress toward its goals. For example, senior management may review reports showing actual financial results to date versus the budget.					
4	Staff are trained to implement the accounting and financial management system.					
5	There is Verifications of transaction details and activities and the output of risk management models reported to the					

	appropriate levels of management whenever problems or potential problems are detected.					
6	It is impossible for one staff to have access to all valuable information without the consent of senior staff					
7	The banks security system identifies and safeguard Institutional Assets					
8	There are elaborate mechanisms put in place to address weaknesses of controls					

d) Control Environment

Item	Question	1	2	3	4	5
1.	Management sets an enabling environment that permit controls designed to be effective.					
2.	The management maintains a good corporate culture and sets appropriate tone towards management of banks.					
3.	The Board has set up an independent committee saddled with the responsibility of overseeing the internal controls of the bank.					
4.	The Board and the management has an effective whistle-blowing policy and procedure for reporting fraud and other unethical practices.					

5.	Appropriate measures are taken to correct misfeasance in operation of Accounting & Finance Management System					
6.	Management acts with a great degree of integrity in execution of their roles.					

e) Monitoring

Item	Question	1	2	3	4	5
1.	Management assesses systems of control from time to time.					
2.	The bank has an independent monitoring unit					
3.	There is appropriate communication to the management on the effectiveness of the ongoing monitoring process on risk and control matters.					
4.	The management of the bank reviews the result of the audit					
5.	Periodically, management reviews audit or internal controls in place.					

Internal Controls on Fraud Prevention and Detection.

8Item	Question	1	2	3	4	5
-------	----------	---	---	---	---	---

1.	Does the implementation of strong internal control system able to detect and prevent fraudulent act and practice?					
2.	Does the efficient implementation and supervision of strong internal control system capable of revealing fraudster's mode of operation?					
3.	Does the awareness of internal control system by management and staff reduces an attempt to perpetrate fraud?					
4	Does an effective internal control system sufficient enough to reveal the lapses and inadequacies in the bank open to fraudsters within and outside the bank?					
5.	Does top management adherence and submission to the control procedures sets in place in all departments of the bank able to prevent the occurrence of management fraud?					