THE EFFECT OF FORENSIC ACCOUNTING SERVICES ON CORPORATE CRIME MITIGATION AMONG LISTED FIRMS IN THE NAIROBI SECURITIES EXCHANGE

BY

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DECLARATION

This Research Project is my original work and has not been submitted for the award of a degree in any other university.

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This research project has been submitted for examination with my approval as University Supervisor.

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DEDICATION

This research project is dedicated to my wife Pauline Wangui. Thank you for the love, support and encouragement. I also dedicate this paper to my parents Mr. And Mrs. George Kimani for their support, encouragement, patience and faith in the completion of my studies.

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LIST OF ABBREVIATIONS AND ACRONYMS

AICPA - American Institute of Public Accountants

ANOVA – Analysis of Variance

CCM – Corporate Crime Mitigation

CSDR – Clear segregation of Duties and Responsibilities

FA – Forensic Accounting

ICAEW – Institute of Chartered Accountants in England and Wales

KPMG – Klynveld Peat Marwick Goerdeler

MOC – Management Override of Controls

NSE – Nairobi Securities Exchange

PCAOB – Public Company Accounting Oversight Board

RIC – Robust Internal Controls

ABSTRACT

Kenya is leading the world in occupational fraud, a major corporate crime, with an incidence of 66%, which is about twice the global average of 34%. It is dominantly occurring in many governmental and non-governmental organisations especially those related with financial services most of which are listed in the NSE. These crimes are very difficult to detect, investigate, or even mitigate, and many managers in these institutions shy away from such endeavours due to the consequences the institutions would suffer after such exposures.The objective of this study was to examine the effect of forensic accounting services on corporate crime mitigation among listed firms in the NSE. The choice of the companies listed in the NSE is because they shift usage of money from less productive activities in the economy to more productive activities which translate to high profits. This profits make NSE companies a worthy target for corporate crime in terms of fraud hence the need to see the effect of forensic accounting in this companies and also due to proximity issues. The study adopted descriptive research design and primary data was used. The questionnaires were sorted and coded in the statistical package for social science (SPSS) software and descriptive statistics was also used to analyse data in form of frequencies, percentages, tables and diagrams. Findings from the study show that corporate crimes are minimized when forensic accounting services were employed. The main policy recommendation for the study was that internal controls need to be reviewed and rectified frequently as infrequent review may increase the fraud risk, as the fraudster can identify and exploit the weaknesses in internal control.

CHAPTER ONE: INTRODUCTION

1.1. Background of the Study

Due to the rapid changes in the socio-economic structures, modes of communication and technology, there has been increased globalization (Sudti, 2008). Due to this, there has been a translational growth of transactions and diversification of economic activities. These developments and changes have therefore led to enormous opportunities for economic and financial crimes, which have gained a global concern. Such events have necessitated the need for forensic interventions hence the reason why forensic auditing and accounting are gaining fast-paced precedence. This harsh global environment has also necessitated for a great impact on the controls and procedures to be established by forensic accountants and auditors in the conduct of the examination to detect, prevent and respond to such crimes with fraud as a crime being at the forefront. Various measures have been put in place to prevent and detect corporate crime in many organizations, but employees and external fraudsters have not been deterred by this from taking part in fraud in organizations.

It can be said that forensic accountants exist mainly for the same reasons why prosecutors and commercial branch investigators exist (Popoola, Ahmad, & Samsudin, 2014). This is due to the presence and manifestation of criminals in the areas of fraud, white-collar crime, corruption, money laundering, computer fraud, and theft (Popoola et al., 2014; Popoola, Ahmad, Samsudin, & Yussof, 2013).

Such crimes have led to financial devastation of employers, investors and severely harmed the reputation of auditors, analysts and managers. It is in realization of this that various initiatives have been put in place to enhance and enforce the applicability of forensic accounting services by use of the right people, tools, techniques and insight to prevent and detect fraudulent activities and to ensure that the applicability of such services are effective (Omondi, 2013). According to KPMG Forensic Survey (2012), over the last 15 years fraud has continued to rise in corporate Australia and New Zealand despite enhanced risk mitigation from $105 million in 1997 to $373 million in 2012. The figure in 2012 represents an average loss of $3.08 million per organization for the organizations surveyed, thus showing the extent of fraud prevalence.

Due to this, the study will focus on the effects of forensic accounting on corporate crime mitigation among listed firms in the Nairobi Securities Exchange (NSE). Previous theoretical evidence leads to a prediction that the application of forensic accounting helps to prevent the occurrence of corporate crime in firms. The application of forensic accounting increases the chances of detecting and disclosing fraud activities, and if potential fraudsters are aware of this they tend to fear committing fraud.

1.1.1. Forensic Accounting

Peloubet (1946), developed the term forensic accounting in his essay “Forensic Accounting: Its Place in Today’s Economy.” Although forensic accounting was not formalized in the 1940’s, it had proven its worth during World War II. It is not until the 1980s when scientific studies were brought into the public limelight and Forensic

accounting became a novel profession. In Africa, forensic accounting is becoming important and this is especially due to the increased economic crimes being perpetrated by employees and management in various institutions (Omondi, 2013).

Forensic accounting is a science that involves the use of accounting knowledge and investigative skills as tools to detect and decipher legal issues especially those involving money laundering (Houck, Kranacher, Morris, & Riley Jr, 2006). Popoola et al., (2014), defines forensic accounting as the process from the implementation of any fraud investigation to the formation of accounting records after the discovery that they have been manipulated. Boleigha (2011), noted that forensic accounting is the application of a broad range of accounting, auditing, and investigative skills to measure and verify economic damages and resolve financial disputes. Popoola et al., (2013), defines forensic accounting as the integration of specialized accounting knowledge and positive mental attitude to resolve legal issues.

Forensic accounting entails litigation services that recognize the role of an accountant, and the investigative service components (Houck et al., 2006). It is a special area of the accountancy profession which describes engagements that result from actual or anticipated disputes or litigation. “Forensic” means “suitable for use in a court of law,” and it is to that standard and potential outcome that forensic accountants generally are obliged to work (Enofe, Okpako, and Atube, 2013).

1.1.2. Corporate Crime Mitigation

Braithwaite, as sighted in Enofe, Ekpulu, and Ajala, (2015) defined corporate crime as the conduct of a corporation, or of employees acting on behalf of a corporation, which is proscribed and punishable by law. Corporate crime intersects and is usually confused with white-collar crime, organised crime and state-corporate crime (Enofe et al., 2015). Edwin Sutherland was the first to coin the term white-collar crime, and he defined it as the crime committed by a person of respectability and high status in the course of his occupation (Sutherland, 1940). Corporate crime is often committed by skilled perpetrators and more often by a conspiring group who are usually ahead of the law enforcement authorities. These characteristics make corporate crime a serious threat and difficult to prevent, deter and combat not only at the domestic level but also at the global level (Sudti, 2008). The world has become a global village as progression in information, communication, and technologies have been made, thus making the commission of corporate crime more sophisticated and complicated (Sudti, 2008).

Corporate crime is difficult to be detected and identified and is not as evident as the conventional crime (Enofe et al., 2015). It is of essence therefore for legal action and other administrative measures to be taken to prevent, defeat and reduce the occurrence and the impact of this crime (Sudti-autasilp, 2008). This kind of crime involves a complex web of deception and conspiracy that most times mask the actual cause of the fraud (Enofe et al., 2015). Forensic accounting tools, accounting and computer forensic are the investigators best weapon in detecting and mitigating corporate crime (Hansen, 2009).

Detection and therefore mitigation of corporate crime or white-collar crime are made possible by the application of investigative tools by the forensic accountant (Baird & Zelin, 2009). Examples of types of corporate crimes committed by corporate individuals and institutional management include but not limited to; securities-related crimes, consumer fraud, tax fraud, insider-trading, insurance fraud, bribery, corruption, political fraud, bankruptcy etc. (Enofe et al., 2015).

1.1.3. Effect of Forensic Accounting Services on Corporate Crime Mitigation

Different researchers have different opinions on the effectiveness of forensic accounting in corporate crime mitigation. Fiia (2013), in his examination of forensic accounting as a tool for corporate crimes detection and prevention, thereof, found that the use of forensic accounting significantly reduces the occurrence of fraud cases in the public sector and, therefore, can help in detecting and preventing fraud cases in the public sector organization. Another study showed that the use of forensic accounting by different companies in Nigeria was not effective in curbing these crimes (Okunbor and Obaretin, 2010). Islam, Rahman, and Hossan (2011), in their study established that forensic accounting as a corporate crime detection tool had relevance as it appeared to be one of the strategic tools for dealing with such crimes. Boritz, Kotchetova, and Robinson, (2008) in another study, probed forensic accountants and auditors to establish the advantages of involving fraud specialist in the processes of developing an audit plan that would effectively identify fraud. They found out that this would lead to better results than merely consulting with them.

In addition, Koh, Arokiasamy, and Suat (2009), in their study, examined forensic accounting in the aspect of public acceptance towards fraud detection and they accentuated that the important subject was that forensic accounting is conducted to improve the understanding in detecting and reducing accounting crimes. They thought that it has been practiced by audit firm as one of the tools to investigate a company's financial statements for fraudulent activities as requested by certain parties. They emphasized that the forensic accounting activities such as investigative accounting and litigation support would enrich the managerial performance. Stoel, Havelka, and Merhout (2012), in their study, emphasized the increasing importance of information technologies in accounting, auditing and also dealt with the data mining technique that the forensic accountant can benefit from when faced with the corporate crimes. This is because technology is being used for vicious purposes and struggle with this kind of crimes. Singleton and Aaron (2010), in their study, highlighted forensic accounting and fraud auditing, and they concentrated on topics such as responsibility of the auditors, red tags, and fraud detection, protection from fraud and control, forensic accounting with the dimension of expert testimony in protection from corporate crimes.

With the drastic increase in public demand for honesty, fairness, and transparency, there has recently been an increased need for forensic accountants (Ramaswamy, 2011). The author emphasized the difference between forensic accountants skill set with that of auditors or financial accountants. It was also pointed out that there is a need for universities to prepare education programs in order to train qualified forensic accountants to meet the potential future needs. From these studies, it can be deduced that there is a

dire need to embrace forensic accounting to aid in detecting and therefore mitigating corporate crimes that are increasing by the day in financial institutes.

1.1.4. Nairobi Securities Exchange

The Nairobi Securities Exchange (NSE) history can be traced back to the colonial times, when it started transactions in stocks (Shalom, 2012). It was constituted in 1954 Aduda, Masila, and Onsongo (2012), as a voluntary association of stockbrokers and was charged with the responsibility of developing the stock market and regulating trading activities (Ngugi, 2003). The stock market is an important institution in a country and is of great concern to investors, stakeholders and the Government (Olweny and Omondi, 2011). NSE has been the heart of financial markets in East and Central Africa and it's the best performing in the region (Ngugi, 2003).

A survey conducted by KPMG on fraud, a corporate crime, revealed that increasing number of companies are experiencing an increased number of fraud incidents as compared to some years back (Forensic, 2003). It can be deduced that many of such companies are listed in the NSE. It is cumbersome and difficult to detect, uncover and investigate such crimes and top managers avoid such situations as they would involve exposing companies' weak points and even damaging organizational reputation (Omondi, 2013). This, therefore, means that stringent measures should be taken to combat such crimes and launching anti-fraud initiatives could be a way forward, (Forensic, 2003) and this is where forensic accounting as a tool becomes important. Many studies have been carried out, and other studies have been carried out in Kenya but none of these studies

had a specific focus on effects of forensic accounting as a tool to mitigate corporate crimes among the listed companies in the NSE, justifying this study.

1.2.Research Problem

Corporate crimes are costly, and it is estimated that $3.5 trillion worldwide were lost due to fraudulent financial statements, asset misappropriation, and corruption in 2011 as cited by (Enofe, Okpako, and Atube, 2013b). It is deep rooted and inescapable in Kenya and any efforts to curb it may cause a great loss on the Kenya's economy and have negative impacts on its growth (Warutere, 2006). This glaring problem requires that there be active involvement of forensic accountants in all stages of risk assessment and developments of audit plans, and not just involve them as merely consultants (Boritz, Kotchetova, and Robinson, 2008). This will lead to success in early detection and therefore mitigation of these crimes thereby reducing any greater losses in the Kenyan economy. Without constant involvement of the public and improvement in forensic accounting, fraud cases will be hard to detect and thus lead to greater success in financial fraud, which also translates into the failure to meet the expectations of the public, shareholders or even other stakeholders (Enofe, Okpako, and Atube, 2013).

Kenya has developed business connections with the rest of the world Marjory because of its strategic location as the gateway to Eastern Africa, making it very important for tourism and other economic operations thus making her vulnerable to corporate crimes (Warutere, 2006). Corporate crime is increasing, and it is believed to be one of the gravest problems in the current economic environment (Popoola, Ahmad, and Samsudin,

2014). As cited by (Mahinda, 2012), Kenya is leading the world in occupational fraud, a major corporate crime, with an incidence of 66%, which is about twice the global average of 34%. It is dominantly occurring in many governmental and non-governmental organisations especially those related with financial services (Mahinda, 2012), most of which are listed in the NSE. These crimes are very difficult to detect, investigate, or even mitigate, and many managers in these institutions shy away from such endeavours due to the consequences the institutions would suffer after such exposures (Omondi, 2013).

This therefore, justifies the study in that forensic accounting is not widely used despite its benefits in crime detection and prevention. Hence the study seeks to answer the question: what are the forensic accounting measures present at the NSE, their effects on crime mitigation and the challenges faced by the NSE in corporate crime mitigation through forensic accounting services?

1.3. Objective of the Study

To establish the effect of forensic accounting services on corporate crime mitigation among listed firms in the Nairobi Securities Exchange.

1.4. Value of the Study

The study was expected to be of importance to researchers and academicians as it contributes to theory on effectiveness of forensic accounting on corporate crime mitigation. It also forms the basis for future researchers and academicians carrying out

studies in the same field and provides a source of reference to further empirical studies in the area of forensic accounting and corporate crime mitigation.

The findings of this study assists in policy formulation for listed firms in the NSE, as pertains to duties and roles of forensic auditors. It will also provide first-hand evidence on the effects of forensic accounting on corporate crime mitigation, thus contributing to policy formulation and implementation. Another importance of the study was to the management of listed firms in the NSE by offering suggestions as to internal controls that these firms can implement to reduce the incidences of corporate crime and also strengthen forensic accounting services.

Investors, both potential and current also benefits from the study as it seeks to inform the investors about the importance of forensic accounting services and further advice on the risks related to their exclusion from listed firms in the NSE. As a result this was to inform the investors' decisions on whether to dispose or buy their shares so as to benefit from their investments in the future.

CHAPTER TWO: LITERATURE REVIEW

2.1. Introduction

The literature review serves the purpose of examining the already existing literature in this field of study that will provide guidance for the research. Critical analysis can be gained from a review of the literature available and thus help improve the methodology to be used. Survival and success of the listed firms in the NSE are normally influenced by their ability to reduce fraudulent activities to a minimum ranging from bribery to securities-related crimes which relates to the main area of study that is concerned with the application of forensic accounting on corporate crime mitigation in the NSE.

2.2. Theoretical Review

A theoretical definition gives the meaning of a concept or word in terms of the theories of that particular discipline, and this type of definition is based on the knowledge and acceptance of the theories that it depends on. This section will examine theories related to corporate crime mitigation which include white collar fraud theory, fraud triangle theory, and fraud scale theory.

2.2.1. White Collar Fraud Theory

The theory of white collar fraud was pioneered by Sutherland in 1939 and it generally means a crime committed by a person of respectability and high social status in the course of his/her occupation (Sutherland, 1939). In developing this theory, Sutherland made a comparison of crime in the upper or white collar class and crime in the lower

class composed of persons of low socioeconomic status. Crime was seen as a preserve of the poor and poverty was blamed as the main source of crime, but Sutherland claimed that was not entirely true as the crimes of respectable business and professional men were largely ignored and therefore used the concept to challenge conventional stereotypes and theories. An assumption of this theory is that prosecutors are more lenient on white-collar as opposed to street criminals. These varied types of white collar crimes in business and the professions consist principally of violation of delegated or implied trust. The United States Justice Department defines white collar crime as involving criminals who occupy positions of responsibility and trust in government, industry, the professions and civil organizations; who perform illegal acts that employ deceit and concealment rather than the application of force.

2.2.2. Fraud Triangle Theory

According to Albrecht, W., and Albrecht, C.C (2008) fraud is composed of three elements, namely a perceived pressure, a perceived opportunity and rationalization of the act of fraud; these three elements are called the fraud triangle. This three-step process, was presented to explain a trust violation by Cressey (1953), who adamantly argued that whenever all three characteristics were present, a trust violation would occur, while the absence of any one of the elements would result in the absence of such a violation. These three elements are common to all frauds (Wells, 2001).

A perceived opportunity to commit fraud, conceal it, and to avoid being punished is the first element of the fraud triangle. He also mentioned that perceived opportunity arises

when the fraudster sees a way to use their position of trust to solve the financial problem, knowing they are unlikely to be caught (Cressey, 1950). Examples of perceived opportunities to commit fraud include; a weak board of directors, a lack of or circumvention of controls that prevent/detect fraudulent behavior, failure to discipline fraud perpetrators, lack of access to information, and the lack of an audit trail (Albretch et al., 2008). The Committee of Sponsoring Organizations (2002) identified five elements of an organization's internal control framework that must be taken into consideration in order to avoid fraudulent opportunities and they include the control environment, risk assessment, control activities, information and communication, and monitoring.

The second element of the fraud triangle is pressure. These pressures don't have to be real, they only have to seem real to the perpetrator. When it comes to perceived pressure also referred to as non-shareable financial problem, Cressey stated "persons become trust violators when they conceive of themselves as having incurred financial obligations which are considered as non-socially sanctionable and which, consequently, must be satisfied by a private or secret means" (Cressey, 1950). Pressures arise from problems such as difficulty in paying back debts, problems resulting from personal failure, uncontrollable business failures such as inflation or recession, physical isolation of trust violator from people who can help him, living beyond one's means, and employer-employee relations where employer's treatment on employee is unfair (Cressey, 1953).

The third element of the fraud triangle is rationalization. Perpetrators of fraud must find ways to rationalize their illegal acts as being acceptable and, in the process, rationalize

the dishonesty of their acts (Albrecht et al, 2006). As for rationalization, Cressey believed that most fraudsters are first-time offenders with no criminal record and see themselves as ordinary, honest people who are caught in a bad situation (Cressey, 1950). Lister (2007) defined rationalization as “the oxygen that keeps the fire burning” and mentioned that although auditors may not be able to assess the personal value systems of each individual in the organization, they can assess the corporate culture. It is through rationalization that trust violators justify the crime to themselves in a way that makes it acceptable or justifiable.

2.2.3. Fraud Scale Theory

The fraud scale theory was developed by Albrecht et al., (1984) as an alternative to the fraud triangle model. It is very similar to the fraud triangle but the fraud scale introduces an element called “personal integrity” in place of rationalization. This personal integrity element is associated with each individual’s personal code of ethical behaviour and they defined it as “the personal code of ethical behavior each person adopts”.Albrecht et al. (1984) also argued that, unlike rationalization in the fraud triangle theory, personal integrity can be observed in both an individual’s decisions and the decision-making process, which can help in assessing integrity and determining the likelihood that an individual will commit fraud.

That person’s commitment to ethical decision making can be observed and this can help in assessing integrity and thus the likelihood of an individual committing fraud (Kassem and Higson, 2012). Other research has been consistent with this argument such as

Dorminey (2010), who agreed that fraud and other unethical behaviours often occur due to an individual's lack of personal integrity or other moral reasoning, as moral and ethical norms play essential roles in an individual's decisions and judgement.

2.3. Determinants of Corporate Crime Mitigation

The importance of corporate crime mitigation cannot be overlooked and organizations need to take measures to prevent and detect corporate crime at all levels. However, successful corporate crime mitigation is a challenge and several factors need to be taken in consideration if successful corporate mitigation is to be achieved. Some of the determinants of corporate crime mitigation are discussed below and they include robust internal controls, management override of controls and clear segregation of duties.

2.3.1. Robust Internal Controls

According to Mohd-Sanusi (2015), internal control can be defined as a process, effected by an entity's board of directors, management and other personnel, designed to provide reasonable assurance regarding the achievement of objectives in the effectiveness and efficiency of operations, the reliability of financial reporting, and the compliance of applicable laws and regulations. Internal control can also be defined as a process effected by the organization's structure, work and authority flows, people and management information systems, designed to help the organization accomplish specific goals and objectives (AICPA, 2003). Without proper controls, fraudsters will exploit the numerous weaknesses to commit fraud and therefore, the organization has to address fraud risk in a robust manner so that the internal control structure is effective.

Oguda (2015), pointed out that the components of effective internal controls which include control environment, risk assessment, control activities, information and communication, and monitoring need to be applied in a synergistic linkage to form an integrated system that reacts dynamically to changing conditions. Internal controls also have to be reviewed and rectified frequently as infrequent review may increase the fraud risk, as the fraudster can identify and exploit the weaknesses in internal control (Mohd-Sanusi 2015).

According to Fardon (2013), various techniques are required in order to have a robust internal control system that is essential if management is going to be able to detect and deal with fraud, and they include: having experienced staff that work full-time on fraud prevention and detection, proper supervision of accounting activities on a regular basis, ensuring physical security by locking valuable items away so as to deter theft, and put in place authorisation limits to some accounting activities such as petty cash and signing of cheques over certain amounts.

2.3.2. Management Override of Controls

Professional literature makes it clear that the responsibility of internal controls, proper reporting, and the adoption of sound accounting policies rests solely with management and not the auditors (Farrel and Franco, 1999). As a result management can intentionally override controls for personal gain or to provide a misleading image of the organization's financial position. Even though internal control over financial reporting may appear to be well-designed and effective, controls that are otherwise effective can be overridden by

management, and such management override is very difficult to detect. According to KPMG Fraud Survey (2012), there is a real concern over the growing incidence of fraud committed by senior executives and company directors, with survey data revealing that the damage to corporate is exponentially greater when senior management is involved with the quantum of loss significantly higher when the fraudster sits further up the chain.

It is almost virtually impossible for an entity to have controls on management override that will be totally effective but entities should nevertheless have controls that minimise the risk, such as controls over the authorisation and processing of journals and other adjustments to the financial statements (ICAEW, 2010).

According to Di Napoli (2010), internal auditors or confidential fraud/ abuse hotlines, hiring and promoting managers with good character and high ethical values can go a long way in building a positive control environment and diminishing the risk of management override of controls.

PCAOB (2009), lays down the guidelines for auditors to use in assessing the risk of management override and they include: conducting an engagement team discussion regarding fraud risks; making inquiries of management, the audit committee, and others in the company to obtain views about the risks of fraud and how those risks are addressed; considering fraud risk factors such as incentives and pressures for management to override controls, and attitudes or rationalizations that enable management to justify override of controls.

Therefore, for effective corporate crime mitigation, management override of controls should be put in check. The American Institute of Certified Public Accountants (2005) identified that this can be done by the audit committee of the organization by taking actions such as: maintaining an appropriate level of scepticism, strengthening committee understanding of the business, brainstorming about fraud risks, using the code of conduct to assess financial reporting culture and ensuring the entity cultivates a vigorous whistle-blower program.

2.3.3. Clear Segregation of Duties and Responsibilities

Clear segregation of duties in the organization enables the organization to ensure no single person controls all or multiple segments of a process which can increase the potential for fraud. Examples of segregation of duties includes simple procedures such as not letting the person writing the cheques reconcile the bank statement, not letting the receiving department maintain physical inventory records and not letting the person initiating the purchase order approve the payment (Farrel and Franco, 1999). Assigning different people responsibility for authorizing transactions, recording transactions, reconciling information, and maintaining custody of assets reduces the opportunity for any one employee to conceal errors or perpetrate fraud in the normal course of his or her duties (PCAOB, 2009).

However, even with segregation of duties, employees sometimes manage to circumvent the segregation through collusion in order to commit fraud. Seetharaman et al., (2014) found collusion to be a key motive for the commitment of white collar crime mostly

between managers and employees, and is a pervasive problem as it is very difficult to prevent and detect. Collusion is a secret agreement or cooperation between two or more employees for an illegal or dishonest purpose and management should be aware that collusion between two or more employees can defeat a system of controls (Di Napoli, 2010). Di Napoli adds that it is difficult to set up a system of internal controls to protect against collusion and management therefore needs to be alert to close personal and family relationships that might present opportunities to circumvent controls in place.

KPMG Fraud Survey (2012) revealed that while 23% of internal fraud involved collusion the figure jumped to 29% in 2012 and identified collusion as groups of employees and /or suppliers raising and approving transactions together, change and change-back bank account details, sharing passwords, awarding contracts, providing excessive discounts to customers, and purchasing of goods above market value. According to PCAOB (2009), the size of the company will also affect the segregation of duties policy with smaller companies facing a challenge due to personnel limitations. Therefore smaller companies approach segregation of duties in a different manner including dividing incompatible functions by using services of external parties, and implementing alternative controls intended to achieve the same objectives as segregation of duties (PCAOB, 2009).

2.4. Empirical Review

There are several empirical studies on forensic accounting and corporate crime mitigation. Many of these studies draw evidence from countries like Nigeria, Malaysia and Bangladesh. Empirical evidence also exists on the relationship between forensic

accounting and fraud detection. The following studies show the methodology, sample and main findings of these studies.

2.4.1. International Evidence

Njanike, Dube and Mashayanye (2009), used the questionnaire which consisted of three parts that is personal, detection and investigation sections designed to capture information on the forensic auditing status quo and the suggestions on the way forward. A sample of thirty forensic auditors from thirteen commercial banks, four building societies and four audit firms in Zimbabwe. Result was that forensic audit departments suffer from multiple challenges, amongst them being lack of materials resources, technical knowhow, interference from management and unclear recognition of profession.

Islam, Rahman and Hossan (2011), looked at forensic accounting as a tool for detecting fraud and corruption in Bangladesh. In this study 100 sample size has been taken to reflect the actual scenario regarding the application of forensic accounting in Bangladesh and data was collected by administering a brief questionnaire. The research revealed that forensic accounting as a fraud detection tool has relevance to efforts for combating fraud and corruption in Bangladesh. However, the result that emerges from the analysis of expert views is that formally forensic accounting has not long been in practice in Bangladesh except in a very few multinational corporations.

Modugu and Anyaduba (2013), examined forensic accounting and financial fraud in Nigeria and specifically if there is significant agreement amongst stakeholders on the effectiveness of forensic accounting in financial fraud control, financial reporting and internal control quality. The survey design was used in the study with a sample size of 143 consisting of accountants, management staffs, practicing auditors and shareholders. The simple random technique was utilized in selecting the sample size, while the binomial test was employed in the data analysis. Among the findings of the study was that there is significant agreement amongst stakeholders on the effectiveness of forensic accounting in fraud control, financial reporting and internal control quality and therefore recommended formalization and specialization in the field of forensic accounting.

Omar (2013), examined the relevance of forensic accounting in public sector with focus on selected government agencies in Klang Valley of Malaysia. Structured interviews and 50 questionnaires were distributed and collected from three selected government agencies in the Klang Valley including Inland Revenue Board of Malaysia, Ministry of Education and Shah Alam Court Council. The results showed that majority of the government administrators understands the role of forensic accountants and believe that the existence of forensic accounting is a financial strategy to curb and resolve the financial fraud and crime in Malaysian economy.

Ezeagba (2014), carried out a study on the role of forensic accounting and quality assurance in financial reporting in selected commercial banks in Nigeria. The study adopts survey and descriptive approaches as its research design. Secondary data for this

study were sourced from the annual reports of the chosen commercial banks. Primary data were also sourced to elicit information from accountants using a five scale Likert structured questionnaire which were administered to a sample size of Two Hundred and fifty respondents who were chosen by simple stratification. The study reveals among others that the fundamental qualitative characteristics (relevance and faithful representation) of financial reporting, accounting and the enhancing qualitative characteristics (understandability) can be significantly enhanced through forensic accounting.

2.4.2. Local Evidence

Gichuki (2009), examined factors influencing utilization of forensic accounting services in detection of fraud in commercial banks in Kenya. The study adopted a descriptive research design and the sample size was 50% of all the licensed commercial banks in Kenya. According to the results, awareness of forensic accounting services, availability of forensic accounting services and the benefits of forensic accounting services all influence the utilization of forensic accounting services in licensed commercial banks in Kenya. Therefore, it was realized that despite the numerous benefits of forensic accounting, the commercial banks did not use the services due to low awareness or unavailability of the services.

Wanjohi (2011), carried out a study on the rationale for use of forensic accounting as a mechanism for expectations gap with focus on cooperative societies in Central Kenya. The study employed a descriptive research design and used a sample of 134 respondents

comprising of 118 cooperatives and 16 audit firms which were selected using a stratified systematic sampling approach. The data collection was done using questionnaires, and analysed using inferential statistics. Study findings indicate that there is a significant difference in responses between the auditors and cooperative members thus implying the existence audit expectations gap in Kenyan audit engagements. In addition, t-tests indicate that forensic accounting, user education and better auditing standards are important mechanisms in reducing the audit expectations gap.

Omondi (2013), looked at the impact of forensic accounting services on fraud detection and prevention among commercial banks in Kenya. The study used descriptive research survey design and used a sample of 47 respondents in 16 commercial banks in Kenya. The findings indicated that the application of forensic accounting services by banks led to increased fraud prevention in the commercial banks and the highest application was on enhancing quality of financial reporting.

Kyalo (2013), carried out a study to establish the role of fraud prevention on effective financial reporting in the County Government of Nakuru. The study adopted a descriptive approach and the sample size was 106 accountants, finance officers, auditors and procurement officers in the County Government of Nakuru. Data was collected by the use of structured questionnaires and this data was analyzed using descriptive statistics comprising means and standard deviations. The study concluded that fraud prevention influenced effective financial reporting in the county government of Nakuru and this

effect is supported by the significant positive relationship observed between fraud policy and effective financial reporting in the county government of Nakuru.

Oguda (2015), examined the effect of internal control on fraud detection and prevention in district treasuries of Kakamega County. Purposive sampling method was used to select treasury staffs while simple random sampling method was used to select heads of departments to respond to the data collection instruments. Findings of the study revealed that there was a statistically significant and positive relationship between the adequacy of internal control systems and fraud prevention and detection in district treasuries in Kakamega County.

2.5. Summary of the Literature Review

A review of literature indicates that forensic accounting is a discourse that has attracted some attention from scholars and organizations across the world. Theoretical literature examined three theories namely white collar fraud theory, fraud triangle theory and fraud scale theory. White collar theory brought to attention the crimes committed by respectable business and professional men which are largely ignored. Fraud triangle theory narrowed down fraud to three elements including: a perceived pressure, a perceived opportunity and rationalization of the acts of fraud. Finally fraud scale theory which is similar to the fraud triangle introduces an element called personal integrity in place of rationalization such that a person commits fraud due to a lack of personal integrity.

From the empirical literature, most of the studies carried out point out the importance and effectiveness of forensic accounting in fraud control, financial reporting, and internal control quality in different countries which include Nigeria, Bangladesh and Malaysia (Modugu and Anyaduba, 2013; Islam et al. 2011; Omar et al. 2013). However, forensic accounting services are not widely in use (Islam et al. 2011). Njanike et al. (2009) found that forensic accounting departments in Zimbabwe suffer from multiple challenges such as lack of material resources and technical know-how.

In the Kenyan context there are few studies examining forensic accounting and corporate crime mitigation. Kyalo (2013) looked at fraud prevention in general in the county government of Nakuru and the role of forensic accounting does not come out clearly, while Wanjohi (2011) examined forensic accounting and expectations gap. However, Omondi (2013) and Gichuki (2009) looked at the impact of forensic accounting services on fraud detection and prevention on commercial banks in Kenya which showed the importance of forensic accounting in fraud detection and prevention.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1. Introduction

This chapter is a presentation of the methodology used by the researcher to answer research questions. It presents the research design, population of the study, sample size and method, data collection and the data analysis methods. It's an outline of how the researcher will conduct the study from data collection to analysis and finally conclusion from findings.

3.2. Research Design

Research design can be described as the plan, structure and strategy of investigation conceived so as to obtain answers to research questions and control of variance (Kerlinger, 2000). Saunders et al. (2003) describes research design as a procedure that provides answers to issues such as techniques to use to gather data, the kind of sampling strategies and tools to be used and how time and cost constrain will be dealt with. He asserts that once the research problem has been devised, a research design is developed so as to provide a format for comprehensive steps in the study.

This study adopted a descriptive research design. According to Thorn hill (2003) the key purpose of descriptive research is that it describes affairs as they exist and involves collection of data to test hypothesis regarding the current status of the study subject. This study used descriptive research because it closely examines and determines data and reports information within a specific context.

3.3. Population

The population of concern in this study comprised of 61 firms listed in the Nairobi Securities Exchange (NSE) as provided in Appendix II. The choice of the companies listed in the NSE is because they shift usage of money from less productive activities in the economy to more productive activities which translate to high profits. This profits make NSE companies a worthy target for corporate crime in terms of fraud hence the need to see the effect of forensic accounting in the companies and also due to proximity issues.

3.4. Data Collection

The researcher used primary data for the study which is data observed or collected directly from the first-hand experience and structured questionnaire was used to collect data on the dependent and independent variables. This is because structured questionnaires are easier to administer, analyze and economical in terms of time and money. The questionnaires were issued to the respondents through informal self-introduction through the help of a research assistant. Each entity within the questionnaire was developed to tackle a specific objective and research question to fit best in the research problem. Structured questionnaires are more convenient as most top managers are busy people and it is expected that they would have less time to take part in oral interviews.

The questionnaires were managed through mail and drop and pick method. The questionnaire had three sections. Section one comprised of questions that seek to find the

general information about the firm. Section two seeks information on the effect of forensic accounting on corporate crime mitigation and section three seeks to information on how to mitigate corporate crime. The target respondents were the audit managers for all 61 firms listed in the NSE.

3.4.1. Data Validity and Reliability

Validity determines whether the research truly measures that which it was intended to measure or how truthful the research results are (Golafshani, 2003). To ensure validity of the questionnaires used for the study, the draft form of the questionnaire was presented to researchers and lecturers at the University for their Independent reviews on its content. Based on their comments and suggestions, necessary adjustments were done on the draft.

Reliability refers to the extent to which results are consistent over time and the results of the study can be reproduced under a similar methodology (Joppe, 2000). Reliability is increased by including many similar items on a measure, by testing a diverse sample of individuals and by uniform testing procedures (Kubasu, 2014). For verification of the reliability of the questionnaire used in this study, it was subjected to pre-trial tests by administering the instrument to a sample selected from the entire population of listed firms in the NSE, after which the results were analysed and assessed for reliability.

3.5. Data Analysis

The data generated by the study after fieldwork was edited, coded then entered into a computer for processing using the Statistical Package for Social Sciences (SPSS v.17.0).

A master codebook designed to ensure that all the questionnaires are coded uniformly was used. According to Cohen and Manion (1980), editing of responses is intended to identify and eliminate errors made by the interviewer or respondents. Consequently, data was edited for completeness and consistency before analysis. Descriptive statistics was used to analyse information generated from respondents. This involved the use of frequencies, percentages and means.

3.5.1. Analytical Model

A regression model of the form $Y= \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \varepsilon$ was used whereby:

Y- Corporate crime mitigation (CCM) as measured by: effective internal audit, vigorous fraud hotlines and a company's culture.

X_1- Robust internal controls (RIC) as a measure of control environment, risk assessment, control activities, information and communication and monitoring.

X_2- Management overrides of controls (MOC) as a measure of an effective audit committee, functional whistle blower program and company code of conduct.

X_3- Clear segregation of duties and responsibilities (CSDR) as a measure of control of processes and collusion of employees.

3.5.2. Test of Significance

The test of significance is a method of making due allowance for the sampling fluctuation affecting the results of experiments or observations by distinguishing whether the observed difference connotes any real difference among the groups.

For the purpose of the study, coefficient of determination, denoted as $R^2$was used to indicate how well data fit into the statistical model. F-statistics was used to undertake further analysis. Analysis of variance (ANOVA) tests was also used in the analysis of experimental data to test the variables for statistical significance.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND INTERPRETATION

4.1. Introduction

This chapter covers data analysis, findings of the research and discussion of the major findings. The completed questionnaires were edited for completeness and consistency before analysis. The questionnaires were sorted and coded in the Statistical package for Social Sciences (SPSS) software. The chapter used descriptive survey design and the main instrument for data collection was a questionnaire. The data was summarized and presented in form of frequencies, percentages, tables and diagrams. The analyzed data was arranged under themes that reflected the research objectives.The statistical techniques adopted were mean rating and regression analysis.

4.2. Response Rate

The number of questionnaires that were administered was 61. A total of 58 questionnaires were properly filled and returned. This represented an overall successful response rate of 95.081% as shown on Table 4.1. According to Mugenda and Mugenda (2003) and also Kothari (2004) a response rate of above 50% is adequate for a descriptive study. Barbie (2004) also asserted that return rates of above 50% are acceptable to analyze and publish, 60% is good and 70% is very good. Based on these assertions from renowned scholars, 95.081% response rate is very good for the study.

Table 4.1: Response Rate

Response	Frequency	Percent
Returned	58	95.081%
Unreturned	3	4.919%
Total	**61**	**100%**

Source: Research Findings

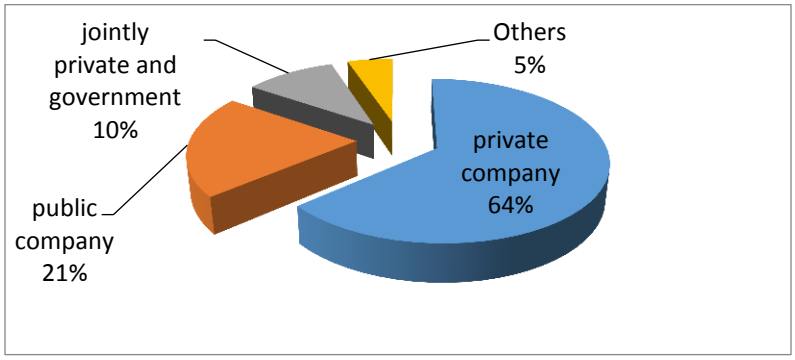
4.3. Demographic Characteristics

This section consists of information that describes basic characteristics such as ownership, years in operation and number of employees in the firm.

4.3.1. Ownership of the company

The respondents were asked to indicate the ownership of the company. Majority of the companies were private companies who represented 64% of the sample, 21% were public companies, 10% were jointly owned by government and private while 5% were 'others'. This implies that the firms listed in NSE are private dominated.

Figure 4.1: Company ownership

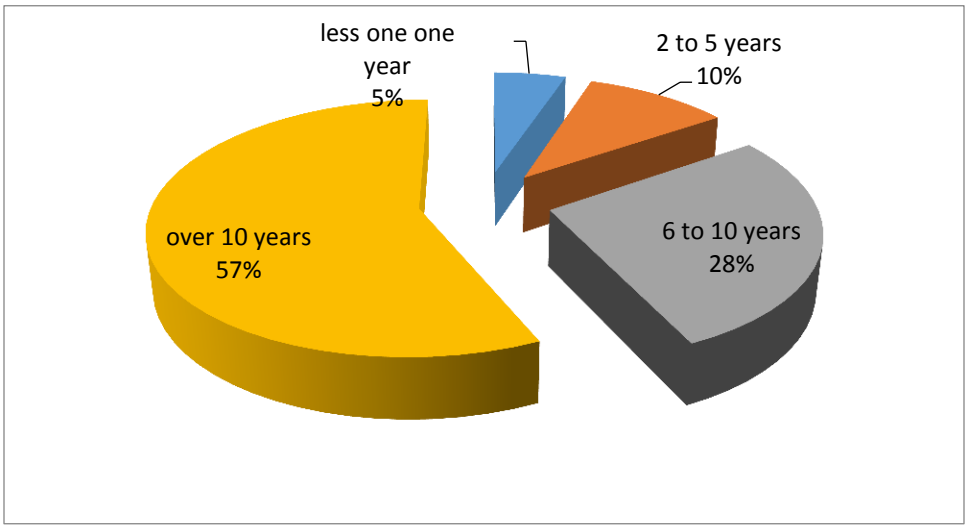


Source: Research Findings

4.3.2. Years in Operation

On the question of the duration being operation, majority of the respondents who were 57% indicated that their firms have been in operation for over 10 years, 28% had been in the operation for 6-10years, 10% had been in operation for 2-5 years while only 5% had been in operation for a period less than 1 year. This implies that majority of the respondents had been in the operation for a good period of time thus a well-established operation base.

Figure 4.2: Years in Operation

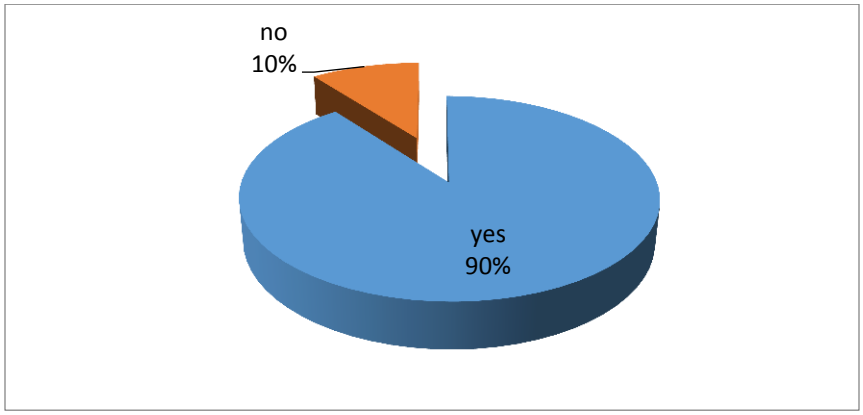


Source: Research Findings

4.3.3. Forensic Accounting Department

The respondents were asked to indicate if their firms use had Forensic Accounting department.90% who were the majority indicated that they have forensic accounting departments in their firms while only 10% indicated that their firms did not have forensic accounting departments. This implies that majority of the firms practice forensic accounting.

Figure 4.3: Forensic Accounting Department

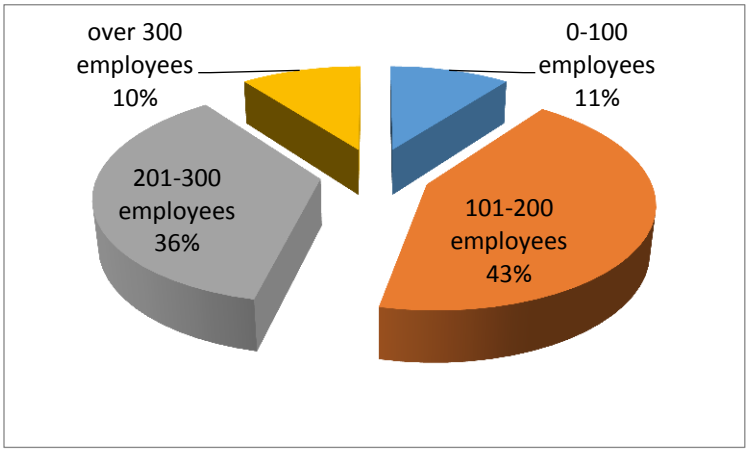


Source: Research Findings

4.3.4. Number of employees

On the question of number of employees in the firm, 43% respondents who were the majority indicated that they had between 101-200 employees in their firms, 36% indicated that they had between 201-300 employees, 11% indicated that they had between 0-100 employees while only 10% indicated that they had over 300 employees in their firms.

Figure 4.4: Number of employees



Source: Research Findings

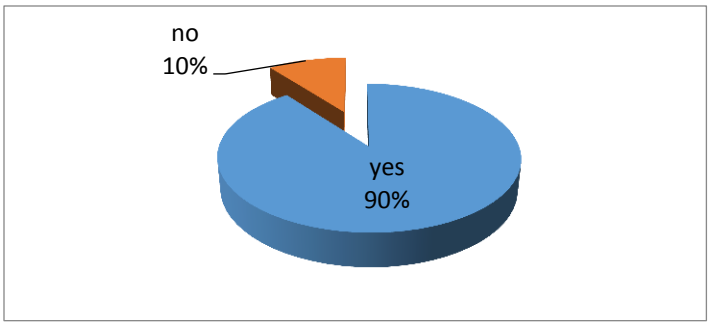
4.4. Descriptive Statistics

This section presents the descriptive results on robust internal controls, management override controls and segregation of duties and responsibilities.

4.4.1. Robust Internal Controls

The first objective of the study was to establish the effect of robust internal controls on corporate crime mitigation. The respondents were asked to indicate if their firms had working robust internal controls. Majority who were 90% indicated that their firms had a working robust internal control while only 10% indicated that they did not have.

Figure 4.5: Robust Internal Control



Source: Research Findings

On the likert scale, results are presented in table 4.2 shows that 74.2% (34.5%+39.7%) of the respondents agreed that there exist a code of conduct in their organization.Further results found that the firm has a robust audit committee as indicated by 69% of the respondents. Results also showed that 75.1 % of the respondents agreed thattheir firm regularly conduct corporate crime risk assessment In addition, results show that 656% of the respondents agreed that their firms has a functional whistle blower programme. Further, 75.9% of the respondents agreed that their firm always look into alleged fraud or

illegal activity. These results imply that robust internal controls influence corporate crime mitigation.

The average likert scale of the responses is 3.91 which indicates that majority of the respondents agreed to the statements. The standard deviation was 1.25 which indicates that the responses were varied.

Table 4.2: Robust Internal Controls

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	MEAN	STD Dev
There exist a code of conduct in the organization	5.20%	15.50%	5.20%	34.50%	39.70%	3.88	1.244
The firm has a Robust audit committee	10.30%	12.10%	8.60%	22.40%	46.60%	3.83	1.403
The firm regularly conduct corporate crime risk assessment	5.20%	5.20%	13.80%	32.80%	43.10%	4.03	1.123
The firm has a functional whistle blower programme	5.20%	6.90%	22.40%	25.90%	39.70%	3.88	1.171
The firm always Look into alleged fraud or illegal activity	10.30%	5.20%	8.60%	32.80%	43.10%	3.93	1.296
Average						**3.91**	**1.25**

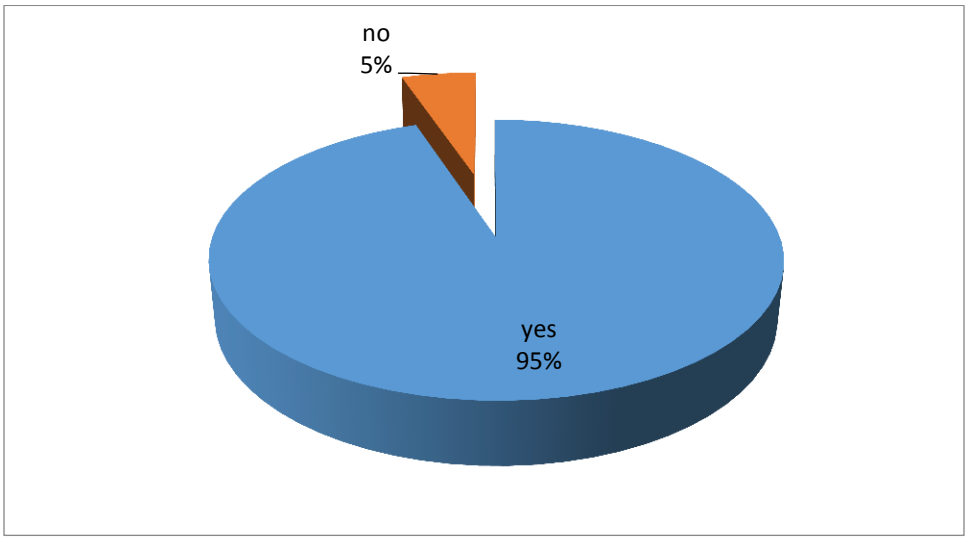
Source: Research Findings

4.4.2. Management override controls

The second objective of the study was to establish the effect of management override controls on corporate crime mitigation. The respondents were asked to indicate if their

firms had management override controls checks. Majority who were 95% indicated that their firms had a management override controls checks while only 5% indicated that they did not have.

Figure 4.6: Management override Control



Source: Research Findings

On the likert scale, results are presented in table 4.3 shows that 70.1% (12.1%+58.6%) of the respondents agreed that the firm maintains an appropriate level of skepticism, 72.5% of the respondents agreed the firm strengthen committee understanding of the business, 81% of the respondents supported that their firms brainstorm about fraud risks, 84.5% agreed that their firm uses the code of conduct to assess financial reporting culture while 72.4% agreed that their firm ensures that the entity cultivates a vigorous whistle-blower program.

Using a five point scale likert mean, the overall mean of the responses was 3.95 which indicates that majority of the respondents agreed to the statement of the questionnaire. Additionally, the standard deviation of 1.18 indicates that the responses were varied. The

results herein imply that that management override controls checks influence corporate crime mitigation.

Table 4.3: Management override Control /checks

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Dev
The firm maintains an appropriate level of skepticism	17.20%	3.40%	8.60%	12.10%	58.60%	3.91	1.548
The firm strengthen committee understanding of the business	3.40%	15.50%	8.60%	39.70%	32.80%	3.83	1.157
The firm brainstorm about fraud risks	3.40%	3.40%	12.10%	43.10%	37.90%	4.09	0.978
The firm uses the code of conduct to assess financial reporting culture	3.40%	5.20%	6.90%	43.10%	41.40%	4.14	0.999
The firm ensures that the entity cultivates a vigorous whistle-blower program.	10.30%	5.20%	12.10%	43.10%	29.30%	3.76	1.233
Average						**3.95**	**1.18**

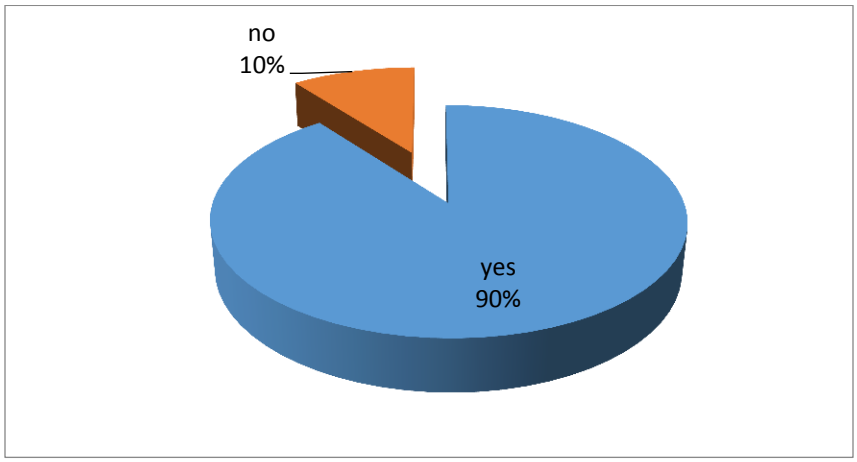
Source: Research Findings

4.4.3. Segregation of duties and responsibilities

The third objective of the study was to establish the effect of segregation of duties on corporate crime mitigation. The respondents were asked to indicate if their firms had a clear segregation of duties among the employees. Majority who were 90% indicated that

their firms had a clear segregation of duties while only 10% indicated that they did not have.

Figure 4.7: Segregation of duties



Source: Research Findings

Further, the respondents were asked to respond on statements on segregation of duties and responsibilities. The responses were rated on a five likert scale as presented in Table 4.4. Majority of 81% (51.7%+29.3%) of the respondents agreed with the statement that the organization does not let the person writing the cheques to reconcile the bank statement,, risk assessment is a continuous and permanent process., 72.4% agreed with the statement that the organization does not let the person initiating the purchase order approve the payment., 65.5% of the respondents agreed that the organization assign different people responsibility for authorizing transactions, 81% of the respondents agreed that the organization assign different people responsibility for recording transactions, while another 81.% of the respondents agreed thatthe organization assign different people responsibility for maintaining custody of assets.The results herein imply that that segregation of duties influence corporate crime mitigation.

On a five point scale, the average mean of the responses was 3.91 which mean that majority of the respondents were agreeing with most of the statements; however the answers were varied as shown by a standard deviation of 1.09.

Table 4.4: Segregation of Duties

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Dev.
The organization does not let the person writing the cheques to reconcile the bank statement,	3.40%	6.90%	8.60%	51.70%	29.30%	3.97	0.991
The organization does not let the person initiating the purchase order approve the payment	3.40%	12.10%	12.10%	36.20%	36.20%	3.9	1.135
The organization assign different people responsibility for authorizing transactions	12.10%	3.40%	19.00%	37.90%	27.60%	3.66	1.264
The organization assign different people responsibility for recording transactions	6.90%	6.90%	5.20%	60.30%	20.70%	3.81	1.067
The organization assign different people responsibility for maintaining custody of assets	0.00%	12.10%	6.90%	27.60%	53.40%	4.22	1.027
Average						**3.91**	**1.09**

4.5. Inferential Statistics

Inferential analysis was conducted to generate correlation results, model of fitness, analysis of the variance and regression coefficients.

4.5.1. Correlation Analysis

Table 4.5 below presents the results of the correlation analysis. The results revealed that Robust internal controlsand corporate crime mitigation are positively and significant related (r=0.410, p=0.001). The table further indicated that Management Override controlsand corporate crime mitigation are positively and significantly related (r=0.369, p=0.004). It was further established that Segregation of dutiesand corporate crime mitigation were positively and significantly related (r=0.397, p=0.002).

Table 4.5: Correlation Matrix

		Corporate crime mitigation	**Robust internal controls**	**Management Override controls**	**Segregation of duties**
corporate crime mitigation	Pearson Correlation	1.000			
	Sig. (2-tailed)				
Robust internal controls	Pearson Correlation	.410**	1.000		
	Sig. (2-tailed)	**0.001**			
Management Override controls	Pearson Correlation	.369**	0.189	1.000	
	Sig. (2-tailed)	**0.004**	0.154		
Segregation of duties	Pearson Correlation	.397**	0.063	0.185	1.000
	Sig. (2-tailed)	**0.002**	0.638	0.164	

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

Source: Research Findings

In statistics significance testing the p-value indicates the level of relation of the independent variable to the dependent variable. If the significance number found is less than the critical value also known as the probability value (p) which is statistically set at 0.05, then the conclusion would be that the model is significant in explaining the relationship; else the model would be regarded as non-significant.

4.5.2. Regression Coefficients

Regression of coefficients results in table 4.8 shows that Robust internal controls and corporate crime mitigation are positively and significant related (r=0.381, p=0.003). The table further indicated that Management Override controls checks and corporate crime mitigation are positively and significantly related (r=0.24, p=0.035). It was further established that Segregation of duties and corporate crime mitigation were positively and significantly related (r=0.332, p=0.004).

Table 4.6: Regression Coefficients

Variable	B	Std. Error	T	Sig.
(Constant)	0.199	0.683	0.291	0.772
Robust internal controls	0.381	0.123	3.094	**0.003**
Management Override controls	0.24	0.111	2.161	**0.035**
Segregation of duties	0.332	0.111	2.984	**0.004**

Source: Research Findings

The results presented in table 4.6 shows the fitness of model used of the regression model in explaining the study phenomena. Robust internal controls, management override controls and segregation of duties and responsibilities were found to be satisfactory variables in explaining in corporate crime mitigation. This is supported by coefficient of

determination also known as the R square of 36.1%. This means that robust internal controls, management override controls and segregation of duties and responsibilities explain 36.1% of the variations in the dependent variable which is corporate crime mitigation of firms listed in NSE. This results further means that the model applied to link the relationship of the variables was satisfactory.

Table 4.7: Model Fitness

Indicator	Coefficient
R	0.601
R Square	**0.361**
Adjusted R Square	0.326
Std. Error of the Estimate	0.4158266

Source: Research Findings

Thus, the optimal model for the study is;

Corporate crime mitigation= 0.199+ 0.381Robust internal controls+ 0.24Management Override controls checks+0.332Segregation of duties and responsibilities.

4.5.3. Analysis of the Variance

Table 4.7 provides the results on the analysis of the variance (ANOVA). The results indicate that the overall model was statistically significant. Further, the results imply that the independent variables are good predictors of corporate crime mitigation. This was supported by an F statistic of 10.181 and the reported p value (0.000) which was less than the conventional probability of 0.05significant levels.

Table 4.8: ANOVA

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	5.283	3	1.761	10.185	**0.000**
Residual	9.337	54	0.173		
Total	14.621	57			

Source: Research Findings

4.6 Interpretation of the Findings

Regression results reveal that management override controls has a positive and significant effect on corporate crime mitigation of firms listed in NSE. This finding agree with that of ICAEW (2010) who argued that it is almost virtually impossible for an entity to have controls on management override that will be totally effective but entities should nevertheless have controls that minimise the risk, such as controls over the authorisation and processing of journals and other adjustments to the financial statements . According to Di Napoli (2010), internal auditors or confidential fraud/ abuse hotlines, hiring and promoting managers with good character and high ethical values can go a long way in building a positive control environment and diminishing the risk of management override of controls.

The regression results also revealed that segregation of duties has a positive and significant effect on corporate crime mitigation. This finding is consistent with that of Farrel and Franco, (1999) who found out that clear segregation of duties in the organization enables the organization to ensure no single person controls all or multiple segments of a process which can increase the potential for fraud.

Examples of segregation of duties includes simple procedures such as not letting the person writing the cheques reconcile the bank statement, not letting the receiving department maintain physical inventory records and not letting the person initiating the purchase order approve the payment.

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This Chapter discusses in brief the summary and conclusions that have been made from the project paper. Section 5.2 gives the authors summary based on the findings and data analysis. Section 5.3 discusses conclusion of the study, section 5.4 gives recommendations, 5.5 discusses the limitations of the study and 5.6 discusses areas further for research.

5.2. Summary

This section provided a summary of the findings from the analysis. This was done in line with the objectives of the study. The first objective of the study was to establish the effect of robust internal controls on corporate crime mitigation in firms listed in NSE. The findings revealed that robust internal controls have a positive and significant effect on corporate crime mitigation of firms listed in NSE. This was also supported by the statements which majority of the respondents agreed. This finding is consistent with that of Mohd-Sanusi et al. (2015) who argued that internal control is designed to provide reasonable assurance regarding the achievement of objectives in the effectiveness and efficiency of operations, the reliability of financial reporting, and the compliance of applicable laws and regulations. Without proper controls, fraudsters will exploit the numerous weaknesses to commit fraud and therefore, the organization has to address fraud risk in a robust manner so that the internal control structure is effective.

The second objective of the study was to establish the effect of management override controls on corporate crime mitigation of firms listed in NSE. Regression results reveal that management override controls has a positive and significant on corporate crime mitigation of firms listed in NSE. This finding was also supported by statements which majority of the respondents agreed.

This finding agree with that of ICAEW (2010) who argued that it is almost virtually impossible for an entity to have controls on management override that will be totally effective but entities should nevertheless have controls that minimise the risk, such as controls over the authorisation and processing of journals and other adjustments to the financial statements . According to Di Napoli (2010), internal auditors or confidential fraud/ abuse hotlines, hiring and promoting managers with good character and high ethical values can go a long way in building a positive control environment and diminishing the risk of management override of controls.

The third objective of the study was to establish the effect of segregation of duties on corporate crime mitigation. The regression results revealed that segregation of duties has a positive and significant effect on corporate crime mitigation. This finding also was supported by most of the statements which the respondents agreed. This finding is consistent with that of Farrel and Franco, (1999) who found out that clear segregation of duties in the organization enables the organization to ensure no single person controls all or multiple segments of a process which can increase the potential for fraud. Examples of segregation of duties includes simple procedures such as not letting the person writing the

cheques reconcile the bank statement, not letting the receiving department maintain physical inventory records and not letting the person initiating the purchase order approve the payment.

5.3. Conclusions

Based on the findings above, the study concluded that robust internal controls, management override controls and segregation of duties and responsibilities have a based and significant effect on corporate crime mitigation. The study further concluded that use of forensic accounting services significantly reduces the occurrence of fraud cases and therefore, can help in detecting and preventing fraud cases among firms listed in the NSE. Forensic accounting as a corporate crime detection tool is one of the strategic tools for dealing with such crimes.

The study also concluded that the use of forensic accounting services leads to better results in the organizations. Forensic accounting is conducted to improve the understanding in detecting and reducing accounting crimes. It is practiced by majority of firms as one of the tools to investigate a company's financial statements for fraudulent activities as requested by certain parties. Forensic accounting activities such as investigative accounting and litigation support enrich the firms' performance.

5.4. Recommendations for Policy and Practice

The following recommendations based on the study findings are suggested to help boost the corporate crime mitigation. Internal controls need to be reviewed and rectified

frequently as infrequent review may increase the fraud risk, as the fraudster can identify and exploit the weaknesses in internal control.

To minimize management overrides, the study recommended the following; conducting an engagement team discussion regarding fraud risks; making inquiries of management, the audit committee, and others in the company to obtain views about the risks of fraud and how those risks are addressed; considering fraud risk factors such as incentives and pressures for management to override controls, and attitudes or rationalizations that enable management to justify override of controls. Therefore, for effective corporate crime mitigation, management override of controls should be put in check.

5.5 Limitation of the Study

The accuracy of the study was limited to the honesty of the respondents. The researcher could not deduce the extent of the truth especially on matters pertaining to frauds in the firms as per the information given by the respondents. Time available for the respondents to give deeper and more elaborate qualitative responses was limited. Many were very busy to respond due to their work schedules.

Since this research was based on frauds, which in the opinion of the respondents could be viewed as sensitive, many were reluctant to fill the questionnaire. The data collection instrument was a questionnaire; in-depth analysis could not be realized compared to if the interview was used. Some respondents also seem not to understand some of the indicators used in the questionnaire.

The research also had the constraint of time as it was conducted under a given time and limited financial resources. Funding the research was therefore limited to the available resources within the researcher's disposal.

5.6. Areas for Further Research

This study focussed on effect of forensic accounting services on corporate crime mitigation on firm listed in NSE. Thus the study looked on firms listed in NSE only. The same study can be done but on other firms that are not listed in NSE. This will be used for comparison purposes. The same kind of study should be carried out but on a longer time span and an increased sample size of firms listed in the NSE to take care of time series and increased reliability of the findings. Future studies should also be carried out on potentials, opportunities and challenges abound for a forensic accountant in his role to fraud investigation.

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APPENDICES

Appendix I: Letter of Introduction

UNIVERSITY OF NAIROBI
SCHOOL OF BUSINESS
MSC. FINANCE PROGRAMME

Telephone: 020-2059162
Telegrams: "Varsity", Nairobi
Telex: 22095 Varsity

P.O. Box 30197
Nairobi, Kenya

Date 25/09/2015

TO WHOM IT MAY CONCERN

The bearer of this letter PAUL WAHINYA KIMANI
Registration No D63/67065/2013
is a bona fide student in the Master of Science in Finance (MSc. Finance) degree program in this University.

He/She is required to submit as part of his/her coursework assessment a research project on Finance problems. We would like the student to do their projects on real problems affecting firms in Kenya. Your organization has been identified for the study and we would, therefore appreciate your assistance to enable him/her collect data in your reputable organization.

The results of the report will be used solely for academic purposes and a copy of the same will be availed to the interviewed organization on request.

JANE MUTURI
MSc. FINANCE ADMINISTRATOR
SCHOOL OF BUSINESS

Appendix II: Questionnaire

This research work is intended to explore the general overview of the effect of forensic accounting on corporate crime mitigation among in listed firms in the NSE. Please provide answers to the following questions against the most suitable alternative or by giving narrative responses in the spaces provided. (Responses will be treated with utmost confidentiality).

Questionnaire Number……

Date……...

Section One: General Background Information

1. Ownership (please tick appropriately)

   [ ] Private company [ ] Public company [ ] Jointly private and Government

   [ ] Others, Specify

2. How many years has the firm been in operation? ….. Years.

   a) less than 1 year ☐

   b) 2 to 5 years ☐

   c) 6 to 10 years ☐

   d) over 10 years ☐

3. Do you have Forensic Accounting department? (please tick appropriately)

   [ ] Yes [ ] No

4. How many employees do you have? (please tick appropriately)

[ ] 0-100

[ ] 101-200

[ ] 201-300

[ ] Above 300

Section two: Components of Forensic Accounting

A .Robust internal controls

Does the organization have working robust internal controls?

(a) Yes [ ]

(b) No [ ]

To what extent do you agree with the following attributes as ways that robust internal controls impact on corporate crime mitigation in the firm? Rate your agreement with the following statements using the likert scale below: (Please tick appropriately)

Key: 1- Strongly Disagree, 3-Disagree, 3-Neutral 4-Agree, 5-Strongly Agree

No	Description	1	2	3	4	5
1	There exist a code of conduct in the organization					
2	The firm has a Robust audit committee					
3	The firm regularly conduct corporate crime risk assessment					
4	The firm has a functional whistle blower programme					
5	The firm always Look into alleged fraud or illegal activity					

B Management override controls

Does the organization has a working management override controls?

(a) Yes [ ]

(b) No [ ]

To what extent do you agree with the following attributes as ways that management override controls impact on corporate crime mitigation in the firm? Rate your agreement with the following statements using the likert scale below: (Please tick appropriately)

Key: 1- Strongly Disagree, 3-Disagree, 3-Neutral 4-Agree, 5-Strongly Agree

No	**Description**	**1**	**2**	**3**	**4**	**5**
1	The firm maintains an appropriate level of scepticism					
2	The firm strengthen committee understanding of the business					
3	The firm brainstorm about fraud risks					
4	The firm uses the code of conduct to assess financial reporting culture					
5	The firm ensures that the entity cultivates a vigorous whistle-blower program.					

C Segregation of duties

Is there clear segregation of duties?

a) Yes [ ]

b) No [ ]

To what extent do you agree with the following attributes as ways that segregation of duties impact on corporate crime mitigation in the firm? Rate your agreement with the following statements using the likert scale below: (Please tick appropriately)

No	Description	1	2	3	4	5
1	The organization does not let the person writing the cheques to reconcile the bank statement,					
2	The organization does not let the person initiating the purchase order approve the payment					
3	The organization assign different people responsibility for authorizing transactions					
4	The organization assign different people responsibility for recording transactions					
5	The organization assign different people responsibility for maintaining custody of assets					

Section Three: Corporate crime mitigation

To what extent do you agree on corporate crime mitigation in the firm? Rate your agreement with the following statements using the likert scale below: (Please tick appropriately)

No	Description	1	2	3	4	5
1	The firm has effective internal audit					
2	The firm has vigorous fraud hotlines					
3	The firm has a structure for regulatory compliance strategies					
4	The firm Probe suspect financial performance					
5	The firm has a risk assessment culture					

Filled by…….

Designation……....

Thank you for taking the time to complete the questionnaire

Appendix III: List of listed firms in the NSE

Agricultural

1. Eaagads Ltd
2. Kakuzi Ltd
3. Kapchorua Tea Co. Ltd
4. The Limuru Tea Co. Ltd
5. Rea Vipingo Plantations Ltd
6. Sasini Ltd
7. Williamson Tea Kenya Ltd

Automobiles and accessories

8. Car & General (K) Ltd
9. Marshalls (E.A) Ltd
10. Sameer Africa Ltd

Banking

11. Barclays Bank Of Kenya Ltd
12. CFC Stanbic of Kenya Holdings Ltd
13. Diamond Trust Bank Kenya Ltd
14. Equity Bank Ltd
15. Housing Finance Co. Kenya Ltd
16. I&M Holdings Ltd
17. Kenya Commercial Bank Ltd
18. National Bank of Kenya Ltd
19. NIC Bank Ltd
20. Standard Chartered Bank Kenya Ltd
21. The Co-operative Bank of Kenya Ltd

Commercial and services

22. Express Kenya Ltd
23. Hutchings Biemer Ltd
24. Kenya Airways Ltd
25. Longhorn Kenya Ltd
26. Scangroup Ltd
27. Standard group Ltd
28. TPS Eastern Africa ltd
29. Uchumi Supermarket Ltd

Construction and allied

30. ARM Cement Ltd
31. Bamburi Cement Ltd
32. Crown Paints Kenya Ltd
33. E.A Cables Ltd

34. E. A Portland Cement Co. Ltd

Energy and petroleum

35. KenGen Co. Ltd
36. KenolKobil Ltd
37. Kenya Power & Lighting Co. Ltd
38. Total Kenya Ltd
39. Umeme Ltd

Insurance

40. British-American Investments Co. (Kenya) Ltd
41. CIC Insurance Group Ltd
42. Jubilee Holdings Ltd
43. Kenya Re-Insurance Corporation Ltd
44. Liberty Kenya Holdings Ltd
45. Pan Africa Insurance Holdings Ltd

Investment

46. Centum Investment Co. Ltd
47. Olympia Capital holdings Ltd
48. Trans-Century ltd

Investment Services

49. Nairobi Securities Exchange Ltd

Manufacturing & Allied

50. A. Baumann & Co. Ltd
51. B.O. C Kenya Ltd
52. British American Tobacco Kenya Ltd
53. Carbacid Investments Ltd
54. East African Breweries Ltd
55. Eveready East Africa Ltd
56. Kenya Orchards Ltd
57. Mumias Sugar Co. Ltd
58. Unga Group Ltd

Telecommunication & Technology

59. Safaricom Ltd

Growth Enterprise Market Segment (GEMS)

60. Flame Tree Group Holdings Ltd
61. Home Afrika ltd

Source: Nairobi Securities Exchange (2015).