

**RELATIONSHIP BETWEEN EXECUTIVE COMPENSATION AND
FRAUD PREVENTION AND DETECTION IN COMMERCIAL
BANKS IN KENYA**

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FULFILMENT OF REQUIREMENTS FOR AWARD OF DEGREE OF
MASTER OF SCIENCE FINANCE AT THE SCHOOL OF BUSINESS OF THE
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DECLARATION

This research project is my original work and has not been presented for a degree in any other University.

Signature.....

Date.....

Ngima Linus Ndichu

D63/81844/2015

This research project has been submitted for examinations with my approval as the University supervisor.

Signed.....

Date.....

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DEDICATION

I would like to dedicate this research project to my mother, who taught me that everything is possible when we trust in God. She encouraged me to start the course and she has been supporting me financially and morally. Mom, I attribute my academic and professional achievements to the values you instilled in me. Thank you!

ACKNOWLEDGEMENT

This research project marks the end of my journey towards obtaining my master of Science in finance. This journey has been long with so many challenges along the way. For me to see the end of this project, I have been supported enormously by different people.

In this regard, I express my sincere gratitude to my supervisor Dr. Kennedy Okiro, for his guidance, support, patience and encouragement in writing this project.

I would also want to thank my family members especially my lovely wife, Christabel, thank you for all the nights you kept me company as I researched on my project. To my beloved daughter, Ivy Ndichu, Thank you for your support.

Lastly, I appreciate the work of those who took part in this research. It is because of your work that this research came to be. God bless you.

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LIST OF ABBREVIATIONS AND ACRONYMS

GAAP	Generally Accepted Accounting Principles
CBK	Central Bank of Kenya
CMA	Capital Market Authority
SACCOS	Savings and Credit Co-Operative Society
KCB	Kenya Commercial Bank
IRB	Institutional Review Board
NBK	National Bank of Kenya
CEO	Chief executive officer
SPSS	Statistical package for the social sciences

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ABSTRACT

The overriding purpose of this study was to investigate the relationship between executive compensation and Fraud prevention and detection in commercial banks in Kenya. A mixed research approach was utilized to achieve this aim, in which data was collected and analysed through both quantitative and qualitative approaches. The quantitative data was partially collected from secondary sources and partially from primary sources through a closed questionnaire featuring a Likert scale. The secondary collection of data for this study was limited to only 11 banks out of the 43 registered banking institutions in Kenya. Data for the 11 banks was considered to be easily available based on the fact that they are listed under the Nairobi Securities Exchange, and therefore under an obligation to disclose their financial reports and statements. The assessed executive compensation packages include basic salaries, allowances, bonuses, stock options, and annual cash incentives. The qualitative data was collected entirely from primary sources using both closed and open ended questionnaires in which 55 respondents from the banking sector, identified through both stratified and simple random sampling. Data was analysed through statistical tools of data analysis namely correlation analysis and regression analysis besides through content analysis. For the collective period, it was concluded that executive compensation does not have a relation with fraud prevention and detection. However, for the specific variables, both stock options and bonuses had a significant positive relationship with fraud prevention and detection ($t = 3.345$) and ($t = 2.248$), to mean that the two parameter directly influence the measures that executives take for curbing fraud in banking institutions. Responses from the survey depicted the relationship between the dependent and the independent variables of this researcher as a nebulous issue, which cannot be explicitly accepted or annulled. It is recommended for banks to set up autonomous units for the prevention and detection of fraudulent behaviours.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The perception that financial services institutions were responsible for the 2008 global financial crisis has increased the interest among the researchers in the levels of executive compensation precisely in the banking sector (Omoriegic & Kelikume, 2017). According to Słomka-Gołębiowska and Urbanek (2016), banking institutions among other companies have seen unprecedented increments in executive compensations precisely across the twenty-first century. These annual increments in executive compensation have transformed executive compensation into a bulwark of capitalism as Karabell (2018) opined.

To some extent, the topic of executive compensation has nearly become inseparable from that of corporate governance and management, especially given the increasing awareness of the two (Baixauli-Soler, & Sanchez-Marin, 2015). A focus that was initially on global financial institutions concerning compensation especially following the 2008 crisis, has caught up with developing countries like Kenya (Aduda, 2011). The transparency efforts by the Capital Markets Authority of Kenya have recently revealed exceptional compensations in total annual compensations that banking executives in top banks have been receiving (Capital Markets Authority, 2016). For instance, close to KES 2 billion in top listed banking institutions in Kenya is spent on remunerating top executives (Juma, 2018).

The remunerations today have surged out of kilter that it has become nearly difficult to compare the compensation for the executive and that of the typical workers. According to Karabell (2018), Chief executives were paid about 376 times more than typical workers in their industry. This ratio has increased tenfold compared to the ratio between chief executives and workers half a century ago (Omorieg & Kelikume, 2017). The changes in this remunerations over the years have been triggered by a number of factors. These include the changes in the sizes of business institutions, improved firm performances, as well as boosted corporate governances (Słomka-Gołębiowska & Urbanek, 2016).

With increasing remuneration packages comes the need for senior management to monitor the integrity and competencies of the executive officers in an organization. Although not much has been done to assess the relationship that executive remunerations have on corporate ethical practices, Ling (2016) suggested that there could be an imminent association between the two. In particular, Ling (2016) noted that ethical behaviours in a corporate environment are important indicators for the deferred success or company performance. As such, forecasting the long-term performance has to put into consideration such ethical issues demonstrated by the executive in an organization.

1.1.1 Executive Compensation

The topic of executive compensation has nearly become inseparable from that of corporate governance and management, especially given the increasing awareness of the two (Baixauli-Soler, & Sanchez-Marin, 2015). A focus that was initially on global financial institutions concerning compensation especially following the 2008 crisis, has caught up with developing countries like Kenya (Aduda, 2011). The transparency efforts

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Several arguments have been fronted as the principle reasons for high compensations to these corporate executives. For instance, according to Pepper and Gore (2015), good remunerations serve not only as motivational tokens but also as appreciation of the value these executives add to respective companies. Selden (2017) noted that good compensation schemes served as an encouragement to leaders to expedite decisions that improved the value and wealth of shareholders. Most boards of directors believe that the inclusion of incentive components in the compensation packages they provide to their top leaders is the only way to encourage them to make decisions that are in the best interest of their stakeholders. For instance, according to Omoregie and Kelikume (2017), a top executive whose only remuneration is a basic salary is not inclined or motivated to grow the share value since he/she has no ownership. Pittino et al. (2016) noted that high remunerations were used as a form of retention of skilled managers to prevent them from being poached by competitors and other competitions.

1.1.2 Fraud Detection and Prevention

Pamungkas, Ghozali, and Achmad (2018) defines Fraud as the intentional manipulation of accounting records of an institution to make them more appealing and provide a skewed perception about the firm's financial performance. This does not only occur

through doctoring of annual results but also through illegal collusions and swindling of funds for the advantage of individuals (Pamungkas, Ghozali, & Achmad, 2018). Stringent measures stipulated by the Generally Accepted Accounting Principles (GAAP) and banking frameworks such as the Basel II and Basel III frameworks have not prevented some commercial banks from engaging in these kinds of malpractices (Sarahman, Shevchenko, & Koren, 2016). According to Pamungkas, Ghozali, and Achmad (2018), such actions are mainly motivated by individuals' ill intentions and internal corruption tendencies. In addition, Fraudulence can also be motivated by the desire of banking executives to gaining market favor by cheating their investors as noted by Lisic et al. (2015).

Frauds are among the most prevalent corporate scandals in the modern business world. A report published by Kroll (2017) noted that this type of corporate fraud had consistently increased for the past eight years, with three-quarters (75%) of the involved companies involved in the survey reporting that they had fallen victim to a fraud incident within the past one year. The report further indicated a 14% increase in the number of companies involved in Fraud between 2014 and 2017. The number of businesses suffering loss because of Fraud had also increased from 64% to 69% (Kroll, 2017). Despite its prevalence, detecting Fraud can be a challenging task as opined by Purda & Skillicorn (2015). One has to understand the motive behind a particular fraud besides identifying the misalignments concealed in numbers. This means having knowledge of suspicious transactions and those with signs of deliberate manipulations for close scrutiny (Purda & Skillicorn, 2015).

1.1.3 Executive Compensation and Fraud Prevention

Unfortunately, high compensation packages for top executives in the banking sector have not always translated into progressive or remarkable firm performances. Contrastingly, banks and financial institutions have been among the corporations with most fraudulent activities such as Fraudulence (Barako& Brown, 2016). For instance, the 2007-2009 financial crisis was mainly blamed on the fraudulent accounting of the banking sector in the US (Miao & Wang, 2015). According to Barako and Brown (2016), institutions undergoing financial losses because of fraudulent accounting had increased by 5% between 2014 and 2016. While some of the culprits in the cases of Frauds are outside the banking domain, investigations have been revealing massive roles played by banks in enabling the accounting to take place (Miao & Wang, 2015).

According to Barako and Brown (2016), managers had a tendency to exploit non-linearities through earnings compared to their relations with compensation. Barako and colleague underscored the fact that executive compensation did not prevent fraud from occurring. Similarly, Purda and Skillicorn (2015) noted that use of employee stock option on executive did not decrease instances of fraudulent manipulation of financial statements. Despite compensating executive with more remunerations outside the normal salaries, fraudulent accounting behaviours were still prevalent. This observation resonates with that made by Miao and Wang (2015) who noted that the pressure to compensate employees resulted in different instances of fraudulence in companies.

1.1.4 Commercial Banks in Kenya

With a total of 43 banks and eight representative offices of foreign banks authorized by the Central bank to operate within the Kenyan financial arena, commercial banks are undeniably a vital part of the local financial system (Kisirkoi, 2017). Precisely, Kisirkoi (2017) indicated that the banking sector has been growing consistently on a year basis to emerge as a significant financial hub in Africa. However, the growth of these commercial banks has not always translated into a strong reputation. On the contrary, the growth story of these banks has been marred by different allegations and indictments for malicious and fraudulent activities.

Annual supervisory reports released by the Central Bank have been providing a perspective that commercial banks have been malicious not only on the customers' end but also inside their management teams (CBK, 2017). One for the complaints that the regulator has raised against commercial banks concerns the exposure of borrowers to surging interest rates on loan products presumably because of lack of comparable information on the pricing of these products (CBK, 2017). While that implies the customer aspects of the commercial banks' services, there has been actions that implicate the governance aspects of these banks.

Top executives of National Bank of Kenya (NBK), for instance, were fined millions of shillings by the Capital Market Authority (CMA) for misrepresentation of financial statements and embezzlement of funds on April 2018 (Ngugi, 2018). This followed a series of cases that has seen some banking institutions suspended by the regulator for financial malpractices. In addition, the regulator has had to suspend some institutions

such as the Dubai Bank because of fraudulent and malicious activities concerning the code of conduct put in place (Ngugi, 2018). This is an indication that the leaders or executives of these banks have not always performed as would be expected.

1.2 Research Problem

The above discussions only raise the question about the impact that executive compensation has on fraud among commercial banks, and not just in Kenya. The anticipated relationship between the executive compensation and fraud prevention is that an increase in executive compensation makes fraud prevention more difficult. Compensation competition for top executives among commercial banks in Kenya has significantly rose over the past five year. For instance, the chief executive officer (CEO) for the Kenya Commercial Bank (KCB) received sh. 400 million in earnings for 2017, a 15.3% increment from the 2016 package (Mwiti, 2018). The figure closely resonates with that of the Cooperative Bank, which paid its chief executive sh. 370 million through it was distant from Equity Bank's and Standard Chartered's CEOs who received sh. 130 million and sh.104 million in salary and bonuses, respectively (Mwiti, 2018; Juma, 2018). Not all banks CEOs have been receiving hundreds of millions in compensations. NIC Bank paid 98 million to its chief executive while the National Bank of Kenya paid sh. 48 million to its chief executive despite the fact that he had only served for a year (Juma, 2018). On the other hand,

Coincidentally, the same sector offering these hefty remunerations has been rocked with scandals and fraud cases recently, which has seen some institutions suspended or put under the receivership of the Central Bank of Kenya (CBK). For instance, the Imperial

Bank of Kenya was suspended on October 2015 following reports that its top executives had provided more than sh. 3 billion in bad loans (Kimathi &Mungai, 2018). The illegal withdraw of sh.48 by its top executives saw Dubai Bank suspended on August 2015 and subsequently put under CBK's receivership (Kimathi &Mungai, 2018). Although presently reinstated, the deliberate understatement of non-performing loans led Chase Bank to being suspended for nearly 6 months by the regulator (Daily Nation, 2016). All these are institutions known to provide their top executives with millions in base salaries and bonuses per year.

Being among the top ten banks in Kenya, the compensation trends for the previously stated banks is likely to put pressure among the top executives for smaller commercial banks as they strive to protect their leaders from poaching. Notably, most of currently documented accounting scandals have been within tier 2 banks as opposed to tier 1 banks. According to Wei et al. (2013), attributes such as financial pressure and desire for wealth accumulation have a higher likely of compelling individuals to commit a fraud, whether accounting or not. As such, an individual is likely to commit Fraud if it is incentivizing.

Unfortunately, there is inadequate research that can help in concluding whether executive compensation has had an effect on Fraud in Kenya. Although some studies have in the past found a negative correlation between executive compensation and corporate fraud (Conyon& He, 2016; Ling, 2016), none has been done with a specific focus on Kenya. In addition, these studies were not specifically directed towards Fraud in particular but rather fraud in general, which makes their findings inadequate for the present case.

Concerning that, the present study seeks to assess the relationship between executive compensation on the prevention of fraud among commercial banks in Kenya.

1.3 Research Objective

To assessing the relationship between executive compensation and Fraud prevention and detection in commercial banks in Kenya.

1.4 Value of the Study

The results of This study might help in shaping the direction of executive remunerations for the banking sector in Kenya. As previously noted, financial and wealth-creation pressure can drive individuals including executives to commit fraudulent activities for personal gains. If executive compensation has a positive effect on Fraud, the findings herein might help in shaping the amount of remunerations offered to top executives and encourage financial prudence. In addition, the findings from This study might be material to the current body of knowledge, by demonstrating an additional source of Fraud, particularly if the results turn out positive. In addition, the findings might serve as an addition to the currently documented implications of executive compensation not only in the banking sector but also other institutions.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Having highlighted the aim of This study, this chapter provides a critical review of the literature relating to the effect of executive compensation on Fraud prevention and detection. The chapter contains three theories related to fraud and their strengths and weaknesses. Also, the chapter contains findings of studies relating to employees' theft and fraud, determinants of fraud detection, and a conceptual framework that is intended to act as a thinking guide for this study. Finally, a summary is offered, highlighting knowledge gaps in the existing literature that this study sought to fill.

2.2 Theoretical Review

Following the identification of executive compensation as a potential contributor to executive fraud, a critical review of the extant theoretical literature on Fraud prevention was done and three theories were found to be relevant: The Fraud Triangle Theory, the Fraud Diamond Theory, and the Fraud Scale. The first two theories focus on the necessary elements for fraud to occur while the latter focuses on the motivations of fraud.

2.2.1 The Fraud Triangle Theory

The Fraud Triangle Theory was developed by Donald Cressey, a criminologist, who argued that there must be a reason behind everything that people do. According to this theory, there are three elements necessary for fraud to occur: perceived incentive or pressure, rationalization, and perceived opportunity (Cressey, 1953). A perceived incentive is the motivation that leads to the commission of fraud and mostly involves a

non-sharable financial need while a perceived opportunity results in weaknesses in the internal control systems that allow individuals to commit organizational fraud (Cressey, 1953). As the name suggests, perceived incentives and opportunities do not have to be real, but the perpetrator of fraud must believe that they exist. The third element of fraud is rationalization which entails the justification that a fraud perpetrator provides for engaging in a fraudulent behavior (Cressey, 1953).

2.2.2 The Fraud Diamond Theory

Wolfe David and Dana Hermanson expanded the Fraud Triangle Theory by postulating the Fraud Diamond Theory which entails an additional element (capacity) to the three elements in the Fraud Triangle Theory. The reasoning behind the addition of the element of capacity is that even in the presence of the other three other elements, the commission of fraud is impossible if the potential perpetrator does not have the ability and skills to commit fraud (Wolfe &Hermanson, 2004). According to Wolfe and colleague, an individual's capability to commit a fraud involves their ability to recognize an opportunity to commit fraud and exploit the opportunity, especially in the case of long-term and large-scale frauds. The capability to commit fraud, according to this theory, depends on intelligence, stress, deceit, coercion, ego, and position (Wolfe &Hermanson, 2004).

Apart from the additional element of capacity in the Fraud Diamond Theory, this theory and the Fraud Triangle Theory are similar hence their weaknesses are similar. For instance, the two theories discuss the elements required for fraud to occur but do not specify the relationship between specific variables such as Fraud prevention and

executive compensation. Although there is mention of financial incentive as one of the components of perceived incentive to commit fraud, the perceived incentive also includes other variables such as personal debt, gambling, and drug addiction. Also, the wide range of components that fit the definition of perceived opportunity and incentive, rationalization, and capacity makes it difficult to quantify the effect of these elements on Fraud prevention. Moreover, some of the elements required for fraud to occur are only abstractions hence impossible to quantify. For instance, it is difficult to observe the rationalization of fraud given the challenges in reading the mind of a fraud perpetrator. As such, these two theories sufficiently explain the relationship between executive compensation and Fraud prevention.

2.2.3 The Fraud Scale

The Fraud Scale was developed by Steve Albrecht to explain the situations where fraud is most likely to occur. According to Albrecht et al. (2011) the top three personal characteristics that motivate fraud are living beyond one's means, overwhelming desire for gain, and personal debt while too much trust in key employees is a major risk factor in fraud. Albrecht and colleagues postulate that fraud is likely to occur when the situational pressure is high, personal integrity is low, and perceived opportunity is high. Although executive compensation may be included in the motivations to commit fraud such as the overwhelming desire for gain and situational pressure, the theory does not explain the relationship between specific variables such as executive compensation and fraud prevention but uses general terms such as the desire for gain and situational pressure to explain fraud.

2.3 Determinants of Fraud Prevention and Detection

Following a critical review of the extant literature, disproportionate management bonuses based on short-term targets was one of the red flags of Fraud. According to Apostolou, Hassell, Webber, and Summers (2011), such bonuses incentivize the commission of fraud by the management so that they can receive the bonuses. Giroux (2010) and Shrand and Zechman (2012) found that Fraud results from the belief by the perpetrators that they can gain financially from committing fraud and get away with it. These studies point out to executive compensation in terms of short-term bonuses as one of the red flags to Fraud. Nonetheless, the studies do not consider the relationship between management and shareholder's interest and commission of fraud and the effect of bonuses on the commission of Fraud in the long-run.

Another indicator of financial fraud is inconsistent trends in the performance or practices of a bank. As Kenyon and Tilton (2012) note, these inconsistencies are either in relation to the performance of the banking industry or the previous performance of a bank. For instance, consistent gross profit margins of a bank when the industry is experiencing poor performance or a shift in the trend of the performance of a bank could be signs of fraud (Apostolou et al., 2011). In the case of Chase Bank in Kenya, an investigation of an inconsistent reduction in non-performing loans led to uncovering of fraud in the form of understated non-performing loans (Daily Nation, April 8th, 2016). On the other hand, Gullkvist and Jokipii (2013) note that inconsistent performance of a bank could be due to the superior or inferior performance of the bank in relation to its previous performance or the industry performance rather than due to Fraud.

Inconsistent trends in the practices of a bank could take various forms. Wells (2008) notes increasing reconciling items and excess purchases as one of the red flags of fraud since the former could be due to stolen deposits and other forms of theft while the latter could be used to cover fraud by paying ghost payees. Another inconsistency in the practices of a bank that could indicate the commission of fraud is estimates of useful life of assets that are not in line with those of industry hence overstatement of the life of assets and lower depreciation expenses (Gullkvist&Jokipii, 2013). Kranacher, Riley, and Wells (2010) cite unexplained missing documents and replacement of auditors resulting in missing accounting periods as some of the indicators of fraud. However, as Apostolou et al. (2011) and Gullkvist and Jokipii (2013) note, inconsistencies in the trends of a firm may not indicate fraud, especially when there are sufficient explanations for such inconsistencies. However, insufficient explanations of the inconsistencies warrant investigations to determine whether or not there is fraud.

Wells (2008) identified non-adherence to accounting standards as a pointer to the desire by management to cover up fraud or other inconsistencies. Likewise, Charles (2015) found that most of the financial statements that had Fraud did not adhere to accounting standards. Kranacher et al. (2010), on the other hand, found that differences in the movement of cash flows relative to sales over time such as growing revenues without growth in cash flows are a red flag for fraud. Another accounting flag that could be due to fraud, according to Gullkvist and Jokipii (2013) is the large-build-up of fixed assets. Although Gullkvist and colleague note that such build-up could be due to ordinary

businesses, it could also be due to capitalization of operating expenses instead of expense recognition.

Apart from the factors discussed above, there are other red flags of fraud. For instance, Hartmann-Wendels, Mählmann, and Versen (2009) indicate that a weak system of internal control is a red flag of fraud since the system makes the detection of fraud unlikely. Another red flag of fraud is complaints by employees, customers, or other stakeholders which according to USA Today (11th Sep. 2016) have led to the detection of most cases of fraud such as the Wells Fargo fraud which resulted from customer complaints. Stale items in reconciliation are another indicator of fraud and require investigations (Apostolouet at., 2011). Another indicator of fraud is the presence of numerous and complex third-party or related-party transactions since the transactions could be a sign of concealment of debt off the balance sheet or commission of other forms of Fraud, especially if the transactions do not add tangible value to a business (Kenyon & Tilton, 2012).

2.4 Empirical Literature Review

There have been various studies assessing the impact of compensation on theft and fraud by employees. For instance, in a study to assess whether or not compensation of Chief Executive Officers (CEO) in the form of equity incentives would motivate them to manipulate accounting reports, Armstrong, Jagolinzer, and Larcker (2010) found no positive relationships between CEO equity incentives and accounting irregularities. However, this study only considered equity incentives, yet there are different forms of executive compensation including cash compensation, retirement packages, and

executive perquisites. The findings of the study could, therefore, have been different if Armstrong and colleagues included all forms of executive compensation. This study is not applicable in the context of the Kenyan banking industry since as Kyalo (2015) and Macharia (2017) note, executive compensation in this industry takes different forms.

Another study on the impact of employee compensation on theft and fraud is Gong and Wu (2012) on the ability of increased civil service pay to deter corruption in China. In this study, Gong and colleague found that steady and substantial increase in civil service pay in China did not deter corruption in the country. Although this study provides insights into the effect of employee compensation of theft and fraud, its findings are not applicable in the Kenyan banking industry for various reasons. For instance, the study was on the Chinese civil service (public sector), which limits its applicability in the Kenyan banking industry (private sector). Also, as Gong and Wu (2012) acknowledge, their study was short-term hence its generalizability is limited.

In a study to determine whether or not high levels of employee compensation could deter employee theft in a sample of 327 stores in the United States, Chen and Sandino (2012) found a negative relationship between relative wages and employee theft after controlling for monitoring and socio-economic environment and employee characteristics. The findings of this study may not apply to the Kenyan banking industry due to the differences between the business models of the banking sector and the retail sector. Also, the study captures the suspected level of theft rather than actual theft and does not account for the effect of employees' comparison of their salaries with the salaries of other employees in the same organization on employee theft.

In a study on the relationship between low pay and corruption in Cambodia, Kim (2015) found that low pay in the public sector provided a breeding ground for corruption practices. As such, Kim (2015) infers that pay increases would decrease the intention of corruption leading to the recommendation of increased pay as one of the methods to curb corruption. However, this study did not account for other important variables such as changes in anti-corruption law enforcement and their effect on the intention of corruption. This study is also not applicable in the Kenyan banking sector since it involved public institutions while the Kenyan banking sector involves both private and public institutions. Furthermore, the findings of the study were limited to Cambodia and may not be applicable in the context of the Kenyan banking sector.

In a Ghanaian study on the effect of an increase in the salaries of police officers to mitigate petty corruption, Foltz and Opuku-Agyemang (2015) found that doubling the salaries of police officers did not decrease petty corruption. In contrast, the salary increases increased the value of bribes to police officers, the efforts by police to collect bribes, and the amounts of bribes given to police officers by truck drivers, and Ghanaian police did not collect significantly fewer bribes than other officials in the country (Foltz & Opuku-Agyemang, 2015). However, this study was limited to Ghana and the police service in the country hence its applicability to the Kenyan banking industry is limited.

In Kenya, only a few studies have assessed the impact of compensation on employees' theft and fraud. For example, the effect of poor pay (including to top executives) on the occurrence of fraud in Kenyan Saccos comes out clearly in Kamau (2016) study on the causes and characteristics of fraud in Kenyan Savings and Credit Co-Operative Society

(SACCOS) where poor pay came out as one of the causes of fraud. Although Kamau's findings have merit, the study could not conclusively recommend increasing executive compensation to reduce Fraud in Kenyan SACCOS since the poor pay was only identified as one among various factors that increase the occurrence of fraud. Therefore, this study does not show the impact of compensation on employees' fraud.

Ochieng' (2013), on the other hand, suggested that the structure of executive compensation may have contributed to different forms of corporate fraud in Kenyan organizations. Nonetheless, Ochieng' only theorized this relationship and did not specify the extent or nature of the effect of executive compensation on corporate fraud prevention. Also, the study involved companies in different sectors hence may not apply to a specific industry such as the Kenyan banking industry. In a study to assess the determinants of fraud in commercial banks in Kenya, Mahinda (2012) found that the desire for financial gain and other forms of gains was one of the factors that motivated bank employees in Kenya to engage in financial fraud. Although executive compensation for superior performance is one of the financial gains that may incentivize executives to engage in frauds, Mahinda (2012) did not specify these gains since the study focused on the determinants of occupational fraud rather than how specific factors affect the fraud. Therefore, Mahinda's study does not adequately bring out the relationship between employee compensation and prevention of employee theft and fraud.

2.5 Conceptual Framework

The following conceptual framework has been formulated on the basis of the research question and objectives to capture all important variables in this study. In the study, the

dependent variable is Fraud prevention and detection in Kenyan commercial banks, the independent variable is executive compensation while control variable is law enforcement against fraud. The three variables are obtained from the reviewed literature and are in line with the objectives of the study. The anticipated relationship between the executive compensation and Fraud prevention is that an increase in executive compensation makes Fraud prevention more difficult.

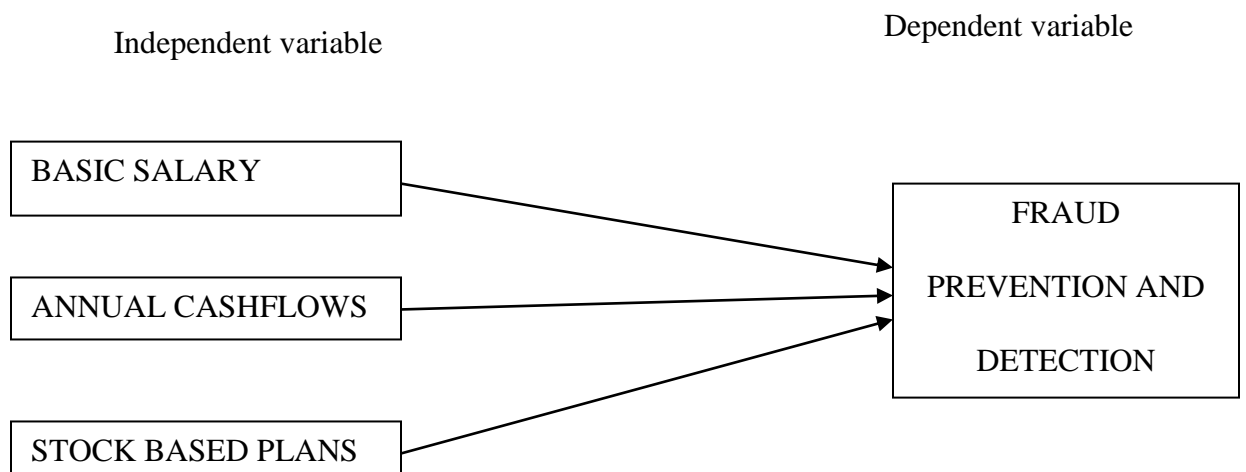


Figure 4: Conceptual model on the effect of executive compensation on Fraud prevention and detection.

2.6 Chapter Summary and Literature Gap

This chapter has provided a critical review of the theoretical and empirical literature relating to Fraud and executive compensation. Three theories were found to be relevant to this study: The Fraud Triangle Theory, The Fraud Diamond Theory, and the Fraud Scale Theory. These theories cannot sufficiently explain the relationship between executive compensation and Fraud prevention since they discuss the elements needed for fraud to

occur and the motivations for fraud but do not specify the relationship between executive compensation and Fraud prevention.

The findings of studies assessing the relationship between compensation and fraud and theft have been different with some of them reporting decreased theft and fraud due to increased compensation while other reported an opposite effect or no effect. Also, the findings of these studies cannot be replicated in the Kenyan banking sector since the studies had various limitations. For instance, most of the studies were limited to specific countries and non-banking sectors hence limiting their generalizability. Also, none of the studies assessed the impact of compensation on the prevention of employee fraud and theft in the banking sector.

Although Fraud and employees' theft in the Kenyan banking industry has been on the rise as evidenced by the suspension of banks such as Dubai Bank and Imperial Bank and criminal proceedings against bank executives, no study has been conducted to assess the primary factors leading to this problem or the impact of executive compensation on Fraud prevention. The only related studies have assessed other aspects of executive compensation such as Kyalo (2015) and Macharia (2017) which focused on the effect of executive compensation on firm performance. These literature gaps and the research problem identified warrant conducting this study whose aim is to investigate the relationship between executive compensation and Fraud prevention in Kenyan commercial banks.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

As noted in the introduction chapter, the overriding aim of this study is to explore the effects of executive compensation on Fraud prevention, besides establishing effects of fraud on commercial banks and factors that lead to Fraud in Kenyan banking sector. Achievement of this core objective necessitates the development of a clear, well defined methodological framework followed by the researcher in this study. On that note, the present chapter clearly describes various methodological components that guided the researcher throughout the entire study. The chapter details the research approach and design adopted by the researcher, the research population, and data collection and analysis techniques. The chapter further describes various ethical guidelines that were observed by the researcher as well as the measures employed to promote the reliability and trustworthiness of this study.

3.2 Research Design

As noted by De Vaus (2013), a research strategy is the overall plan followed by a researcher to study a research phenomenon. This study utilized a descriptive research design to investigate the effects of executive compensation on fraud in Kenyan commercial banks. The use of descriptive research design in this study is anchored on the following reasons. According to Christensen, Johnson, Turner, and Christensen (2011), a descriptive research design allows the researcher to utilize the elements of both qualitative and quantitative methodologies into a single study. In other words, the

descriptive research allows the researcher to apply research design and data analysis technique that is pertinent to the research question.

Lambert & Lambert (2012) noted that the research question is the ultimate determinant of the appropriate approach or strategy to apply in a descriptive research. By allowing the application of both qualitative and quantitative methodologies into a single study, the researcher believed that this strategy would be effective in addressing the research questions in this study. This is because the first and the second objectives of this study can best be addressed using the quantitative approach while the third objective can appropriately be met using qualitative data.

Furthermore, the use of descriptive statistics in descriptive studies allows a researcher to organize and tabulate numerical data into manageable form and summarize it using various measures of central tendency such as mean, mode, deviation, percentage, variation, and establishment of correlation between variables (De Vaus, 2013; Lambert & Lambert, 2012). Besides, it gives a room for qualitative description/explanations of patterns that emerge from analysis of data. Thus, it is appropriate in studies aiming to describe, explain and validate findings.

3.3 Population and Sampling

The research population for this study is individuals working in the 43 commercial banks in Kenya. However, working with this population is costly and slower, and hence the researcher selected some members of this population to participate through sampling (Connelly, 2014). Therefore, this study utilized two sampling techniques, namely

stratified and simple random sampling. Through the stratified sampling, the researcher categorized the participants into three strata, namely the board of directors, chief executive officers, chief finance officers, and human resource management. In each stratum, a simple random sampling technique was used to recruit participants from each bank. This involved feeding each stratum into the MS Excel and use the function RAND (), to output the randomly selected participants for the three strata in each bank. Using the two sampling techniques, the researcher intends to recruit 55 participants across the 43 Kenyan commercial banks (See Appendix II on their details). The researcher believed that this sample was adequate for credible and conclusive findings.

3.4 Data Collection

This study utilized both primary and secondary data. The primary data was collected using physically administered survey questionnaires while the secondary data on executive compensation and fraud was obtained from the banks' financial statements and publications for the last 5 years, that is, from 2013 to 2018. The secondary data helped to analyse the nature and trend of executive compensation for commercial banks in Kenya. The questionnaire contained statements that gave the respondents the opportunity to express their opinions.

The questionnaire utilized a five-point Likert scale where the participants were requested to indicate their level of agreement with the enlisted statements. The responses ranged from level 1 to 5 whereby 1 denotes 'strongly agree'; 2- 'agree'; 3- 'neither agree nor disagree'; 4 – 'disagree'; and 5- 'strongly disagree' (See Appendix I). The questionnaire was structured into three sections; the first part collected demographic information of the

participants while the second section collected information regarding the relationship between executive compensation and Fraud. The third part collected information on measures to curb fraud among commercial banks in Kenya.

3.5 Data Analysis

The collected data was analysed using statistical package for the social sciences (SPSS) version 22 to generate descriptive statistics and graphs. In particular, a regression model was used to determine the relationship between the independent and dependent variables. This model helped to explain the magnitude and direction of the relationship by using correlations. The two main variables in this study are executive compensation, which is an independent variable measured using the following indicators: basic salaries, bonuses, stock-based plans, allowances, and annual cash incentive. The dependent variable is the Fraud.

Therefore, the regression model used in this study was as shown below:

$$FPD = \beta + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon$$

Whereby;

FPD=Fraud Prevention and Detection (dependent variable)

β =A constant

X_1 =Basic Salary

X_2 = Annual cash incentives

X_3 = Bonuses

X_4 =Allowances

X_5 = Stock options

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ are coefficients of X_1, X_2, X_3, X_4, X_5 , respectively, and

ε = is the error term for unexplained variations in the model

3.5.1 Validity and Reliability

The success of any research process is based on how the findings are valid, reliable, and credible (Darawsheh, 2014). In this regard, the researcher ensured that the validity of this research is achieved through the following strategies. First, the researcher ensured that the research design, data collection, and analysis techniques are in line with the research design of the study. Also, as noted by Darawsheh (2014) and Marshall and Rossman (2014), data triangulation is a significant strategy for enhancing the credibility and reliability of the findings. On that note, this study involved the collection of data from multiple sources, that is, review of primary and secondary sources on financial performance of the banks and questionnaires. This, therefore, helped in the triangulation of the findings and hence promoted the credibility of the findings.

Besides, the researcher ensured that the survey questionnaire designed to collect data from the participants were piloted prior to the research to identify any hiccups. As such a mock up study was conducted on three participants to establish whether the questions included would lead to achievement of the desired research objectives, whether there are

ambiguous or unclear questions or statements, and whether there are any repetitive questions. All the weakness identified during the mock study were addressed accordingly in order to enhance the reliability and trustworthiness of the data (Marshall & Rossman, 2014; Darawsheh, 2014).

3.5.2 Test of Significance

This study utilized inferential statistics to test the significance of the overall model at 95 percent level of confidence. To test the magnitude of relationship between the dependent and independent variables used in this study, the researcher used coefficient of correlation (R). Furthermore, coefficient of determination R^2 was used to show the percentage for which each independent and the combination of all independent variables used to define executive compensation explain the change in dependent variable (fraud prevention and detection). According to Benesty, Chen, Huang, and Cohen (2009), R^2 is used in descriptive statistics to measure the proportion of the variance of the dependent variable, which is explained using explanatory variables used in the study (with an exception of the constant used).

Therefore, Pearson correlation coefficient (r) and beta coefficient (denoted by b_1, b_2, b_3, b_4, b_5) were used to explain the relationship between executive compensation and fraud detection and prevention. As noted by Benesty et al. (2009), Pearson correlation coefficient is imperative in measurement of degree of association or relationship between variables. In this regard, if one variable increases while the other increases, the correlation was considered to be positive; if one variable increases while the other decreases, the correlation was considered to be negative; and zero if no correlation is

observed. Therefore, through the Pearson coefficient correlation, the researcher was able to understand the relationship between the dependent variable and each independent variable.

CHAPTER FOUR:

DATA ANALYSIS, RESULTS, AND DISCUSSIONS

4.1 Introduction

The previous chapter has presented an explication of the research methods adopted in conducting this study. The present chapter consists of the findings obtained with regard to the research subject underscoring this study. The chapter contains explanation for the demographic profiles and the descriptive statistics of the variables used in this study. Also presented in this chapter include the empirical results from the statistical analysis, the opinions of the respondents, as well as a discussion and interpretation of the obtained findings.

4.2 Descriptive statistics and demographic profiles

The goal of collecting the demographic information of the respondents was to help in comprehending their characteristics, which was aimed at enhancing the analysis of the data collected thereof. It is worth noting that these profiles were extracted from the questionnaires availed to the respondents involved in this study. The intention of breaking down the responses from the respondents into different portions such as the level of academia was to achieve several advantages to the researcher. For instance, by identifying the proportion of males and females in the study, the research would tell whether the opinions leaned towards a certain gender or not. In addition, by gaining insights on the age of the respondents, the researcher would tell whether the opinions leaned more towards a certain age or not. Lastly, the level of education would help in

determining whether a certain category of respondents was better educated concerning the role and repercussions of executive compensations than others.

Table 1: Demographic profiles of the respondents

Main Category	Sub-category	Number	Percentage
Age cohorts			
	28-33	2	4.5
	34-50	13	29.5
	Above 50	29	65.9
Gender			
	Male	36	81.8
	Female	8	18.2
Academic level			
	Bachelor`s	4	9.1
	Masters`	27	61.4
	PhD	13	29.5
Occupational rank			
	Board of directors	16	36.4
	Chief Finance Officers	10	22.7
	Chief Executive Officers	7	15.9
	Human Resource	11	25.0

Out of the 55 respondents targeted for the study, only 44 managed to return the questionnaires as requested. This included 8 women and 36 men from all the strata, which showed that men dominated the senior management positions in commercial

banks, especially considering that the researcher utilized random sampling. A majority of this respondents were older than 50 years, which denoted rich experience in the sector, with only 15 respondents claiming a lower age. Moreover, a majority of the respondent were masters' degree holders, with only 13 and 4 PhD and Bachelor's degree holders respectively. A majority of the respondents (36.4%) in this study were members of the board of the involved banks. The research also managed to get a response from 7 chief executive officers, much more than the researcher anticipated. Other than that, the researcher involved 11 human resources managers and 10 chief finance officers of the involved companies.

Table 2: Descriptive statistics of the analyzed data

Variable	Mean	Standard Dev.	Minima	Maxima
Fraud Prevention	4.49	0.83	3.7	5
Fraud Detection	3.83	1.1	3.5	4.6
FPD	4.16	0.97	3.8	4.4
Annual Salary	47.4	5.7	33.0	99.8
Annual Cash Incentives	41.1	10.0	27.0	119.7
Bonus	40.2	9.8	26.4	117.2
Allowances	14.9	3.6	9.8	43.4
Stock options	0.633	0.34	0.2	127.8

For the quantitative data, the figure above shows a summary of the data collected. While variables of fraud prevention and detection (FPD) did not have precise units of measurements, those of executive compensation were measured in millions. The highest rating for fraud prevention was 5 while that for fraud detection was 4.6, with a mean of 4.49. For the stock options, the least recorded stocks were 200,000 with the highest number recorded being 127.8 million shares. Annual cash incentives were the highest

form of earning that the executive received, topping at 119 million compared to the highest 99.8 million in annual salaries.

4.3 Inferential statistics

As noted in the previous chapter, the present study adopted a mixed research approach. Both quantitative and qualitative approaches were involved in the collection and analysis of the data needed to address the overriding aim of this study. The quantitative analysis of the collected data was performed through correlation analysis and regression analysis as recommended by Cohen et al. (2013). On the other hand, qualitative data was analyzed through content analysis as noted in the previous chapter. For this reason, the results from those analyses are presented as empirical results (quantitative) and responses from respondents (qualitative).

4.3.1 Correlation analysis

Correlation analysis of the collected data was used to assess the correlation that could be present between both the output and the explanatory variables of the study. As defined by Cohen et al. (2013), correlation analysis refers to a mathematical process for determining the direction and strength of the relationship between the variables of a set of data. According to Grove et al. (2011), the existence of correlation among the explanatory variables influences the credibility of data through autocorrelation, which explains the need for the process. The observations from the correlation analysis are presented in the table below.

Table 3: Correlation analysis for fraud prevention and detection vs executive compensation

		Fraud prevention and detection
Executive compensation	Pearson's correlation	0.24
	Sig. (2-tailed)	.025
	N	11

Table 4: Correlation for the specific variables

Variables	FPD	Annual Salary	Cash Incentives	Bonus	Allowances	Stock options
FPD	1	0	0.22	0.37	0.19	0.17
Annual Salary		1	0.15	0.2	0.01	0.21
Cash Incentives			1	-0.12	0.31	0.27
Bonus				1	-0.14	0.16
Allowances					1	0.22
Stock options						1

In light of the collected data, there was a weak correlation between FPD and all the variables of executive compensation, with all recording less than 0.25 except bonuses, where the correlation was relatively moderate at 0.37. On the other hand, the correlation

amongst the explanatory variables were also weak, which denotes relatively poor correlation among the variables.

4.3.2 Regression analysis

The researcher also performed regression analysis of the collected data. Besides being recommended by Cohen et al. (2013) for credible and reliable data analysis, regression analysis helps in complementing the weaknesses of correlation analysis. Particularly, correlation analysis is not adequate when extracting the relation between two variables. This is because, the method only assesses how weak, strong, or moderate the relationship between two variables is. On the contrary, regression analysis shows the cause and effect of the association between dependent and independent variables, which made it suitable regarding the aim of this study. This becomes pivotal in the prediction of the direction and the extent to which a dependent variable can change as a result of changes in the explanatory variables. The regression analysis for this study was conducted at three levels to enhance clarity of the findings.

In the first level, the researcher looked into the association between fraud prevention and variables of executive compensation as shown in Table 5 below. R-squared (R²) was used to test for the fitness of the model in making the observations for this study. Collectively, executive compensation has accounted for only 2.6% of fraud in the banking sector since 2013 through 2017. This means that other factors could be attributed to fraud in the banking sector. Whether there have been cases reported for fraud or institutions has installed measures for curtailing fraud in the banking sector, the intentions have been motivated by other variables that have not been featured in this

model. However, analysis for respective years showed that fraud related activities were connected to executive compensation. For instance, in 2013 and 2014, executive compensation played a key role in the activities that Kenyan banks pursued with relation to fraud prevention. However, this was the case for last three years where executive compensation was showed to account for less than 15% of all the measures taken by banks to prevent fraudulent activities.

Table 5: Regression analysis for finding prevention and executive compensation

	Coefficients	t-statistic	p-value	Standard error
Intercept	0.013	1.940	0.820	20.33
Annual Salary	0.001	0.845	0.901	3.228
Annual Cash Incentives	0.000	0.040	0.584	1.478
Bonus	0.004	2.099	0.597	3.17
Allowances	0.000	-0.290	0.663	2.191
Stock options	0.015	2.891	0.850	2.627
R-squared	0.026	-	-	-
Adjusted R-squared	0.119	-	-	-
N	11	-	-	-

In the second level, the researcher tested the effect that executive compensation had on the detection of fraud. As seen in Table 6 below, the observations were not much differentiated in this case from the previous one. Precisely, the model explained only 1.8% of the changes or efforts that banks pursued for enhancing their fraud detection. More than 95% of the focus directed towards fraud detection at the commercial banks

was explainable by other variables that are not part of this study. The observations were, however, different for the respective years. The model showed that executive compensation packages provided by banks in 2014 and 2015 were directed towards detecting fraud. The particular model explains 19.3% and 23.9% of the measures of enhancing fraud detection in 2014 and 2015 respectively. This is unlike the other years namely 2013, 2016, and 2017 where the models showed that executive compensation might have had nothing to do with fraud detection. See Table 6 below.

Table 6: Regression analysis for fraud detection and executive compensation

	Coefficients	t-statistic	Standard error	p-value
Intercept	0.011	1.882	16.85	0.370
Annual Salary	0.003	0.819	4.151	0.919
Annual Cash Incentives	0.002	0.038	4.093	0.932
Bonus	0.005	2.036	5.425	0.973
Allowances	-0.001	-0.282	3.617	0.179
Stock options	0.008	2.804	1.521	0.575
R-squared	0.0184	-	-	-
Adjusted R-squared	0.0828	-	-	-
N	11	-	11	-

In the last level, the researcher tested the relationship between executive compensation and fraud prevention and detection. The observations were not significantly different for the combined perspective as shown in Table 7. Particularly, the model for the 5-year average was not significant considering that it presented executive compensation as only

responsible for 2.1% of the activities by commercial banks directed towards the prevention and detection of fraud. Much of the changes in the approaches towards the prevention and detection of fraud in the commercial banks has been orchestrated by other factors other than those assessed in this study. In other words, it is not executive compensation that has powered much of the measures that banks have put in place for curbing and detecting fraudulent activities and behaviors in the sector. For the respective periods, however, there were significant observations primarily from 2013 through 2016, where executive compensation appeared to explain more than 15% of changes in fraud prevention and detection initiatives. See Table 7 below.

Table 7: Regression analysis for fraud prevention and detection and executive compensation

	Coefficient	t-statistic	p-value	Standard error
Intercept	0.016	2.245	0.820	23.52
Annual Salary	0.001	0.977	0.901	1.420
Annual Cash Incentives	0.000	0.046	0.584	1.711
Bonus	0.004	2.428	0.597	3.367
Allowances	0.000	-0.336	0.663	2.535
Stock options	0.017	3.345	0.850	3.039
R-squared	0.021	-	-	-
Adjusted R-squared	0.096	-	-	-
N	11	-	11	-

The ultimate regression model was as shown below

$$FPD = 0.016 + 0.001X_1 + 0.00X_2 + 0.04X_3 + 0.00X_4 + 0.017X_5$$

Whereby;

FPD=Fraud Prevention and Detection (dependent variable)

β =A constant

X_1 =Basic Salary

X_2 = Annual cash incentives

X_3 = Bonuses

X_4 =Allowances

X_5 = Stock options

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ are coefficients of X_1, X_2, X_3, X_4, X_5 , respectively, and

ε = is the error term for unexplained variations in the model

4.4 Respondents opinions

Besides the empirical assessment of the research subject, the researcher had provided the respondents with an opportunity to opine regarding the relationship between executive compensation and the prevention and detection of fraud in Kenya commercial banks. The obtained responses were quite diverse. The respondents had distinct views concerning the role and essence of executive compensation in commercial banks as well as the

occurrences of fraud in these banks. On average, 43% of the respondents agreed to the idea that executive compensation influences the degree of fraud in the Kenya banking sector. 32% of the respondents indicated that the occurrence or detection of fraud was not in any way related to executive compensation in the banking sector. 25% of the respondent were indifferent as to whether executive compensation combats or helps in the detection of fraudulent activities in the banking sector. The Figure 1 below shows the proportion of the respondents in agreement or disagreement with the connection between executive compensation and accounting fraud.

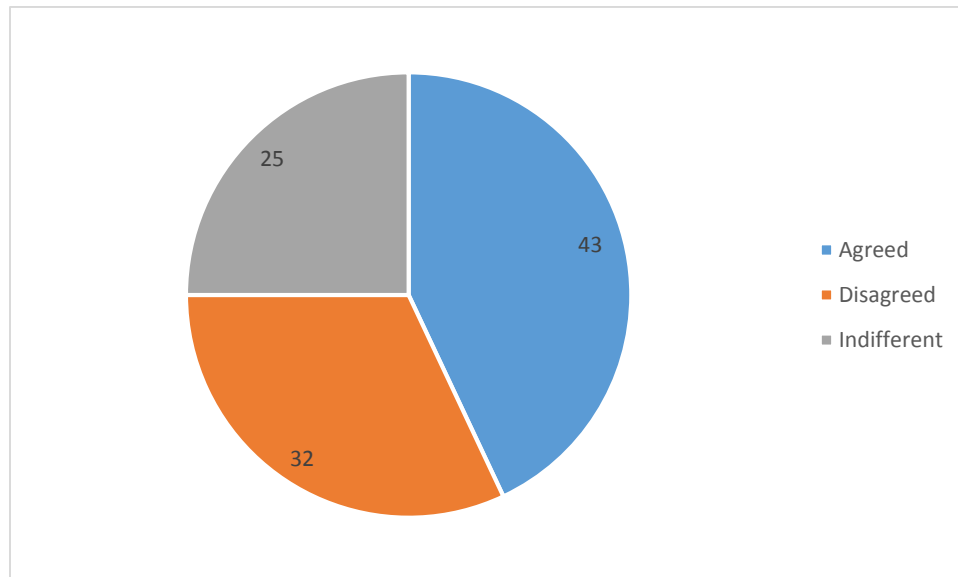


Figure 1: Do you think executive compensation affects fraud prevention and detection?

While this is the general view of the responses obtained with respect to the research subject, participants added diverse certain perspectives. In one of the opinions, respondent D02 noted that executive compensation was not provided to primarily counter

fraud in the banking sector. It was provided as a form of motivation for better performance of an institution, which was available in organizations. The respondent indicated, “All companies have some form of motivation for their leaders, as a form of motivating them to lead the company to higher levels. The bonuses and the allowances they are provided with are not to discourage them from malpractices, but rather to motivate them.” In a related opinion, D05 noted that even some of the well compensated leaders engaged in fraudulent activities. The participant noted, “We have seen institutions where the chief executives are well compensated yet they are implicated in fraud cases.”

D31 opined that the prevention of fraud in the banking sector had nothing to do with the amount of remuneration that the executive or employees received. Instead, fraud was only prevented by formulation and implementation of statutory packages both at state level and internally. This means that better packages would not help in combating fraud in the sector as policies would. In other words, the respondent suggested that executive compensation had no connection with the issue of fraud in the banking sector. The respondent explained, “if executive compensation influenced fraud in the banking sector, perhaps none of the big banks in Kenya would be involved or implicated in any cases relating to fraud as we have recently seen.” With the comments, D31 was referring to the media reports where executives from institutions such as National Bank of Kenya and Family Bank were implicated for fraudulent handling of financial statements through accounting fraud.

One of the respondents who supported a relationship between use of executive compensation to counter fraud indicated that these leaders oversaw large sums of money, which could tempt them to get involved. The respondent noted, “These executives oversee transactions of billions of shillings either daily or monthly. If they are not well paid and appreciated, who knows? Perhaps they may want to get a share of that money for personal gains.” To the respondent, the amount of remuneration that a leader was provided in a company acted either as a discouragement or an encourager for the executive to engage in fraud. With good remuneration packages, no one would be motivated to snoop into the affairs of the money they manage. In a concession, D42 indicated that low remuneration packages were likely to encourage the executive to conspire in fraudulent activities in the banking sector. As such, the researcher found it imperative to provide the executive with better pay packages to discourage the leaders from engaging in any form of fraud.

However, one respondent noted that better compensation for banking executives was likely to promote fraud. The respondent explained that, the motivation that compensation brought to the executive could easily become detrimental. She explained, “When you are well paid, you are inclined to make sure that the shareholders, who are your bosses, are well pleased. This can tempt some executive to twist the pen and doctor financial statement to figures that please the eye.” The respondent suggested that while compensation packages to the senior employees served an appraisal purpose, they were likely to turn into igniters for fraud in the banking sector, precisely when goals have not been met. Correspondingly, D16 indicated that with better remuneration packages,

banking executives were inclined to engage in little or no fraudulent activities. The respondent indicated, “With better bonuses, better salaries, incentives and good allowances, why would an executive be motivated to steal or commit fraud in their banks?” This means that executive compensation played a key role in discouraging fraudulent activities among the leaders.

Another respondent indicated that there is a connection between executive compensation and fraud prevention and detection in the banking sector. The respondent noted that higher packages indirectly discouraged the executive from any form of fraud in the sector. In particular, the respondent noted that when well remunerated, the executive felt inclined to protect the resources and wealth of their shareholders from any threat, one of which is fraud. He explained, “I think executive compensation indirectly discourages fraud in the banking sector through incentivizing the leaders to better protect their shareholders’ wealth. No one wants to hurt another if they benefit clearly from them.” The respondent view compensation for the leaders as pay to encourage them to safeguard all resources in a bank from any possible crime that can be orchestrated through fraud.

Other respondents did not find any connection between fraud and executive compensation in the banking sector. Echoing earlier comments, **D32** noted that prevention of fraud in the banking sector depended on policies from within and from outside the bank. The respondent noted that individuals would avoid engaging in fraudulent activities when they knew the repercussions of their activities from a given law. The respondent further noted that issues such as the detection of fraud in a bank depended on the infrastructure and tools that a given bank had put in place for efficient

flow of money. For instance, the respondent noted that some banks have installed strict bureaucratic tendencies revolving certain amounts of money, to ensure that individuals do not success in stealing or manipulating the systems for personal gains. Similarly, D21 indicated, “Preventing or detecting fraud in a bank, as in any other company, is about the kind of technology or policies that you have put in place. Whether poorly or well paid, detection of fraud will not be affected.”

4.5 Hypothesis testing and diagnostic test

Based on the purpose of this research, two research hypotheses were developed as stated below. This would help in arriving at conclusions concerning the research purpose guiding this study.

H₀: There is no significant relationship executive compensation and fraud prevention and detection for commercial banks in Kenya.

H_A: There is a significant relationship executive compensation and fraud prevention and detection for commercial banks in Kenya

To either annul or accept the hypothesis, the researcher relied on the values of the t-statistic.

The research used the t-statistic for analyzing and deciding on the hypothesis considering that it is a recommended test of significance. The decision criterion was such that, should the t-statistic emerge on an extreme end, that is, too negative or too positive from the alpha value, the null hypothesis was thereby rejected as recommended by Creswell (2013). Going by this criterion, there is a no association between executive compensation and fraud prevention and detection for commercial banks in Kenya. This conclusion was

arrived at from the fact that t-value for the main model too low in comparison with the alpha value of 0.05, the basis on which the null hypothesis was accepted. While the t-statistic was statistically significant for the cases of bonuses and stock options, it was not significant for the entire model.

As part of ensuring the credibility and reliability of this study, the researcher found it imperative to conduct a diagnostic test for assessing errors emanating from the use of Ordinary Least Squares in the regression analysis performed in this research. Although not all the possible errors (heteroscedasticity, autocorrelation, and multi-collinearity) were measurable due to time, the researcher opted to at measure the correlation among the predictor variables. Some of the questionable observations made in the regression section might have emanate from the increase in the variance of the coefficients of regression model arising from the problem of multi-collinearity. As such, the researcher found it imperative to measure the inter-correlation between the independent variables using the formula below.

$$VIF = \frac{1}{1 - R^2}$$

$$VIF = \frac{1}{1 - 0.021}$$

$$VIF = 11.82$$

The above formula, known as variance inflation factor (VIF), measures the extent to which the variation in an individual variable is explained by another parameter. As noted by Alin (2010), multi-collinearity increases the variance of coefficients, thus making it

cumbersome to interpret the coefficients. This makes it challenging to tell whether an independent variable is a significant predictor of the dependent variable. Normally, if the VIF is between 1 and 5, the variables are said to be moderately correlated while a universal (1) VIF denotes zero multi-collinearity and a VIF above 5 indicates high degree of correlation among the independent variables (Alin, 2010). For this study, the computed VIF was 1.02, which indicates low inter-correlation among the explanatory variables. As such, the variables might have been significant in explaining the behaviour of housing demand in Kenya, but their inter-correlation influenced their credibility.

4.6 Interpretation of the findings

The purpose of this study was to evaluate the effect of executive compensation on fraud prevention and detection among the commercial banks in Kenya. The focus of this study was confined to five variables of executive compensation namely basic salary, allowances, annual cash incentives, bonuses, and stock options. The focus also encompassed the activities relating to fraud prevention and detection that the banks have pursued over the years. While it was not possible to quantify the latter items in term of both time and the effort that banks have put in place, the researcher ensured that focus of the data used in the analysis was between 2013 and 2017. The researcher made several observations from the performed data analysis. First, the researcher noted that executive compensation packaged in Kenya have been gradually growing for commercial banks in Kenya. In particular, the researcher did not come across a period where the compensation packages diminished for a given leader. The analyzed institutions only improved their

packs on an annual basis. The trend was more visible for the leaders who have served for a longer period of time compared to those who were known to serve for a shorter period.

Secondly, the researcher noticed that different variables of executive compensation have varying impacts on fraud prevention and detection. In particular, the variables had distinct levels of significance when measured against the dependent variables, which in this case fraud prevention, fraud detection, and a combination of the two. For instance, elements such as cash incentives and allowances did not have a statistically significant relationship with the dependent variable. Contrastingly, stock options, bonuses and basic salary had a statistically significant relationship with the dependent variable. As such, they could be having an impact on fraud prevention in the banking sector to a certain degree. For instance, a unit increase in bonus enhanced fraud prevention by 0.004 units while a unit increase in stock options resulted in 0.017 units' increments in fraud prevention and detection measures in commercial banks.

Thirdly, the opinions from the respondents coincided with the empirical findings of this study. In particular, the respondent neither leaned towards supporting or neglecting the relationship between executive compensation and fraud prevention and detection in commercial banks. Some of the respondents noted that executive compensation influenced the degree of effort that the executive put in place to curb fraudulent tendencies in their institutions. With better packages, such leaders were less likely to engage in embezzlement of resources in their banks. On the other hand, other respondents noted that executive compensation did not influence the efforts adopted by a bank for preventing or detecting fraud. They indicated that executive compensation served an

appraisal and motivational role for better financial performance as opposed to playing an ethical role of preventing or detecting fraud. Other respondents were indifferent concerning the role of executive compensation in the banking sector, indicating that it was a nebulous tool. When too low, the executive would be tempted to top up their remuneration through embezzlement of funds and when too high, it would lead to some leaders misrepresenting financial information as a way to avoid ruining the image of a company.

The findings obtained herein can be extrapolated to imply a number of issues. First, based on the trend of the R-squared from the regression analysis performed, it can be argued that executive compensation has at some point been used as a countermeasure to fraud. At the beginning of the involved period, the R-squared was relatively high, to symbolize that executive compensation explained a significant portion of the measures taken to prevent or detect fraud in commercial banks in Kenya. However, by 2017, the model showed that the variables of executive compensation explain little concerning fraud prevention and detection. This is to mean that, while executive compensation may not be provided primarily to curtail fraud in the banks today (as at the time of this writing), it used to serve the purpose. As such, the relationship between the output and the explanatory variables cannot be entirely ruled out.

However, as showed in the literature review, the most recent of the fraudulent activities in the banking sector were committed in 2016. If indeed executive compensation was used to assist in curbing fraud, perhaps the malpractices seen in 2016 would not have occurred. The increment in executive compensation that all years have seen gradually

increase ought to have helped in curbing the fraudulent activities. At the same time, while the findings showed that the model explained a significant part of the activities pursued by the sector for curtailing fraud, it is important to pay attention also to the particular elements of executive compensation. Most of these elements were not statistically significant to warrant making meaningful conclusions.

To some extent, this observation aligns with the course of opinions provided by the respondents. As the empirical findings partially supported the relationship, the respondents were divided as to whether executive compensation was associated with fraud prevention and detection campaigns in the banking sector. Some were in support of support of the fact that executive compensation influences fraud prevention and detection while others were not. This could imply that executive compensation is at times used to prevent the executive from committing fraud and at times, it is used to serve a different purpose such as motivating. It is worth noting that time is a key fact in the amount of compensation that the executives received in a given company. Leaders who have served a bank for a longer period are mostly awarded bigger perks than their counterparts who have served for a shorter period. As such, the remuneration packages reviewed in this paper could be reflecting the direction during when the executive in a given bank have served an institution.

These findings have sidelined a number of items that would importantly add to the discussion, and perhaps the factors that could explain the other portion of the R-squared. For instance, the study does not account for personal values of the executives in a bank, which are important in enhancing ethics in the sector. Particularly, some individuals at

the high table could suppress fraud prevention systems in an institutions based on their personal ethics, which might not be tied to executive compensation. As such, it is possible that fraudulent tendencies in a company would occur because of flawed personal values and have nothing to do with either high or low remuneration packages. In addition, the inclusion of the different banking institutions in the assessment for executive compensation and fraud prevention and detection ignores the role that the size of a bank plays in the equation. For the most part, bigger banks could be better positioned to invest in the right tools of fraud prevention and detection, which would seal the institution from malevolent tendencies, whether poor or better perks were issued.

Besides, there is need to put into consideration that the investment that a banking institution makes in the training and education for the prevention and education of fraud among its team. Such measures are likely to entirely disassociate fraud from the compensation an individual gets in a bank. This means that an individual could not be in a position to manipulate earning or any other statement since the right training for other members of the team is in place to deter the fraudulent activities. Lastly, it is important to bring to the table the role that fraud culture in a bank can play. Some institutions have never had a case of fraud reported. This could be because of stringent measures put in place or the virtue of having the same CEO running the institution running the company for long. In one way or another, such a leader, if he has never engaged in fraud is less likely to try one. Increments in perks in such a company would be directed towards the time the leader has served as opposed to either motivating or encouraging his to perform in a certain way.

In some ways, the findings herein align and differ with some of the previously conducted studies relating to executive compensation, not only in the banking sector but also in other companies. For instance, as Ling (2016) noted, high executive compensation packages did not effectively prevent fraud from occurring. Rather, executives who were highly compensated were likely to commit accounting fraud through manipulating records to give a false impression of the financial performance of their companies. In particular, Ling (2016) observed that 8 out of 10 companies which were associated with fraud paid their CEOs better remuneration packs when measured against companies for which no fraud case was ever reported (Ling, 2016).

Although the scholar claimed that his statistic was not entirely dependent, he noted that the trend was spread across a number of industries. On average, CEOs from the fraudulent companies received \$5.6 million more than the payment packages received by CEOs in companies that were considered ethical (Ling, 2016). The observation was the same for chief finance officers (CFOs) in fraudulent, who received on average \$2million more than their ethical counterparts (Ling, 2016). This finding aligns in part with the responses of the respondents to this study. Precisely, this found that compensation packages were likely to trigger the executive to engage in fraudulent behaviors of manipulating financial records of a company for a false impression. This suggests that there could be a limit to which executive is imperative for the executive, past which it turns into a harmful tool for encouraging leaders to twist numbers for a certain impression.

In a related study, Johnson, Ryan, and Tian (2003) found that executives at fraud firms were likely to engage in fraudulent activities compared to the executive in considerably ethical companies, or rather, companies with size-matched compensations. This is despite the fact that the former group commended greater financial benefits and stock options than the latter in their respective companies. According to Johnson, Ryan, and Tian (2003), this likelihood of fraudulent behaviors was largely attributed to the power the sampled executives had, which made it easier for them to manipulate records for personal gains. With this finding, Johnson, Ryan, and Tian (2003) suggested that large compensation perks for the executive was not the primary issue in encouraging the executive to manipulate figures and records.

In contrasting findings, Conyon and He (2013) found a strong negative correlation between executive compensation and fraud activities for publicly traded companies in China. This meant that when awarded better remuneration packages, the executive was less likely to engage in fraud, and were more likely to prevent fraud from occurring to ensure that their packages kept improving with time. According to Conyon and He (2013), this was the case primarily in companies where the board were known to penalize malicious behaviors such as fraud in a company. Leaders in companies where fraud cases were frequently reported received low remuneration packages, sometimes below the industry average.

In a related finding, Perez and Juan (2017) noted that compensation packages were an unseen risk to companies. Besides serving their motivational purpose, Perez and colleague found that high executive perks increased the occurrence of risk for businesses and

particularly fraud risk as the executive sought to achieve better results, or an illusion of better results. In a corresponding perspective, Cable and Vermeulen (2016) noted that stock options and large bonuses were associated with overly risky behaviors and short-term thinking among the executive, part of which triggered the financial crisis. If the executive fell short from their targeted earnings, they are likely to become unethical and engage in manipulation activities (Cable & Vermeulen, 2016). This means that instead of improving on the prevention or detection of risks, higher executive perks would increase the risk of occurrence of fraud in commercial banks in Kenya. This perspective aligns with the views of some of the respondents concerning the impact of executive compensation on the prevention of fraud.

The strength of this findings can be attributed to a number of factors. First, the study has been based on real-time data as opposed to being based on speculations or analysis of other studies. The data analyzed in this study was collected from the field and subjected to rigorous analysis before being presented herein. For that reason, this study has maintained the desired research credibility. Secondly, this study has adopted both qualitative and quantitative methodologies. As such, it has consolidated their strengths into one study as part of achieving research credibility and reliability. Where needed, statistical evidence has been provided for the analysis of the research subject besides theoretical evidence for the same. Moreover, the findings of this study have not questionably deviated from those of researchers in the past. While deviation does not affect the credibility of a study, aligning with some of the past papers indicates that the methodology herein is reliable and replicable.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATION

5.1 Introduction

The previous chapter presented the findings obtained in line with the research purpose guiding this study. The chapter contained both empirical results from the statistical analysis as well as the responses from the surveyed respondents. This chapter contains the concluding remarks concerning the research purpose for this study. Sections in this chapter include a summary of the study, conclusions, policy recommendations, as well as recommendations for further studies.

5.2 Summary of the study

The overriding purpose of this study was to investigate the relationship between executive compensation and Fraud prevention and detection in commercial banks in Kenya. The study was guided by a set of null and alternative hypothesis aimed at aiding the decision making process for the study. The null hypothesis stated that there was no significant relationship between executive compensation and fraud prevention and detection in commercial banks in Kenya. The alternative hypothesis there was a significant relationship between executive compensation and fraud prevention and detection in commercial banks in Kenya. To achieve the principle purpose of this study, a mixed research approach was utilized, in which data was collected and analysed through both quantitative and qualitative approaches. The quantitative data was partially collected from secondary sources and partially from primary sources through a closed questionnaire featuring a Likert scale.

The secondary collection of data for this study was limited to only 11 banks out of the 43 registered banking institutions in Kenya. Data for the 11 banks was considered to be easily available based on the fact that they are listed under the Nairobi Securities Exchange, and therefore under an obligation to disclose their financial reports and statements. This was the gateway to gaining insights into the executive compensation packages for each banking institution. These include basic salaries, allowances, bonuses, stock options, and annual cash incentives. The qualitative data, on the other hand was collected entirely from primary sources using both closed and open ended questionnaires. In total, the study involved 55 respondents from the banking sector, identified through both stratified and simple random sampling.

The stratified sampling helped in grouping the respondents into four strata namely board of directors, chief financial officers, chief executive officers, and the human resource managers. The researcher intended to involve five respondents per institution, which would amount to the number of 55, for the 11 banks. This stratification was intended to help the researcher in collecting as many diversified perspectives as possible. Quantitative data was analysed through statistical tools of data analysis namely correlation analysis and regression analysis, both of which were performed through the statistical package for social sciences (SPSS) and MS Excel. On the other hand, qualitative data was analysed through content analysis, which is considered most favourable for analysing theoretical information.

5.3 Conclusions for the study

From the analysis conducted in this study, several conclusions were reached based on the observations made. First, for the collective period, the researcher concluded that executive compensation does not have a relation with fraud prevention and detection. This conclusion was motivated by the fact that the t-statistics for the model and a majority of the research parameters were too low ($t = 0.00$) when compared with an alpha of $\alpha = 0.05$, which was the significance level of the study. However, for the specific variables, both stock options and bonuses appeared to have a significant positive relationship with fraud prevention and detection ($t = 3.345$) and ($t = 2.248$). As such, it would be justified to argue that the two parameters directly influence the measures that executives take for curbing fraud in banking institutions. From the model, a unit increase in bonus enhanced fraud prevention by 0.004 units while a unit increase in stock options resulted in 0.017 units' increment in fraud prevention and detection measures in commercial banks. Elements such as cash incentives and allowances did not have a statistically significant relationship with the dependent variable. For instance, from the survey conducted, it was concluded that the relationship between the dependent and the independent variables of this researcher is a nebulous issue. It cannot be explicitly said that executive compensation either promotes or discourages the executive from pursuing fraud prevention or detection measures in their banking institutions. In that regard, the respondents' opinions neither leaned towards supporting or neglecting the relationship between executive compensation and fraud prevention and detection in commercial banks. Some of the respondents noted that executive compensation influenced the degree of effort that the executive put in place to curb fraudulent tendencies in their institutions.

With better packages, such leaders were less likely to engage in embezzlement of resources in their banks. On the other hand, other respondents noted that executive compensation did not influence the efforts adopted by a bank for preventing or detecting fraud. They indicated that executive compensation served an appraisal and motivational role for better financial performance as opposed to playing an ethical role of preventing or detecting fraud. Other respondents were indifferent concerning the role of executive compensation in the banking sector, indicating that it was a nebulous tool. When too low, the executive would be tempted to top up their remuneration through embezzlement of funds and when too high, it would lead to some leaders misrepresenting financial information as a way to avoid ruining the image of a company.

5.4 Policy recommendations

With regard to the observations made in this study, the researcher is inclined to make several policy recommendations, not only to banking institutions but also their regulators. First, investors in banking institutions could consider coming up with a policy that caps the level to which executive compensation packages should grow. It is evident that remuneration for senior employees has been continually increasing, without a particular limit to the surge. This may reach to the point where the executive feel pressured to deliver better performances that matches the compensation they receive, thereby increasing the risk of fraudulent activities. As such, there is need for a policy that curtails the level of remuneration packages that the executive in banking institutions receive. Besides that, without a capping, executive in small banks may feel challenged by their

counter parts in bigger institutions, which also increases the risk of fraudulent behaviors such as embezzlement of funds.

Second, both banking institutions and the regulator, the Central Bank of Kenya could consider setting up an autonomous team in each banking institution for monitoring the activities of both the executive and other employees. This would help in countering the most vocal issue raised of the executive being pressured to deliver and hence manipulating figures besides misuse of resources. An autonomous team in an institution would help in curtailing the power of the executive to manipulate earnings in an institution. In other words, with an oversight team for preventing and detecting fraud, core aspects of the institutions would remain immutable. As such, to ensure that leaders are not compelled to doctor numbers to give a false impression, a fraud prevention and detection team would be vital.

5.5 Limitations of the study

One of the limitations of this study is the assumption of homogeneity among all commercial banks, but in functions and size. The analysis conducted in this study does not consider the disparities between banks and their functions which could have an impact is otherwise factored. Banks are different entities with varying sizes and serving different functions, which means that they cannot be treated homogenously. Some banks have bigger stakes to invest in fraud prevention while others do not. As such, with good measures for preventing fraud, the remunerations provided by such institutions are less likely to be associated with fraud prevention, either positively or negatively. Also, this study assumes that banks have the same goals and objectives. As such, the banks are

likely to be faced with different issues relating to the prevention of fraud. Better yet, banks are likely to have different definitions and countermeasures for fraud. As such, the use of a standardized measure for assessing fraud prevention and detection capacity of a bank is considerably not the best approach.

Moreover, this study has been limited by the data collection methods used for fraud prevention and detection. Particularly, fraud prevention is a qualitative issue and so is fraud detection. Without a standardized mean of quantifying the parameters, the methods used in this study is entirely custom. This means that a different measure in a related study may produce entirely different results. Also, it is also likely that respondents provided their views in a way that favored their institutions, thereby creating room for biases in the collected data. Furthermore, the sample criterion used for the banking sector is considerably limiting. The consideration for only the banks that are listed with the NSE is arguably limiting, as it only considers ‘big banks’, which have a given muscle. This is likely to put to question the results that the research subject in this study would produce when smaller banks were put in context.

5.6 Suggestions for further studies

The discrepancy between the findings herein and those in previous related studies suggest that more research is need in the assessment of the connection between executive compensation and fraud prevention. For the most part, a majority of the reviewed studies have looked directly into how executive compensation encourages or promotes fraudulent activities in the sector. As such, they have not looked into the issue from the perspective of prevention and detection of fraud. This makes this study one of its kind in that it has

looked into whether executive compensation promotes the prevention or detection of fraud in the banking sector. It has looked as to whether executive remuneration perks affect the commitment of the senior management in preventing or detecting fraudulent activities in the banking sectors. For that reason, more studies are needed to look into the same issue and check whether other researchers can obtain similar results.

In addition, the fact that different scholars have different takes concerning the role of remuneration packages and varying compensation on company frauds, there is need for more studies, to add a literature base with more evidence in this domain. Nonetheless, this study was limited by its lack of inclusion of certain elements such as bank size and the time of service of executive management. This could have influenced the credibility of this study in some way. To counter this, future studies could be conducted with regard to the non-included perspectives to see whether similar observations would be made. Lastly, further studies are needed to adopt a different criterion for measuring fraud prevention in banks when conducting a study of this magnitude. As noted, this study used a custom criterion, which may not be replicable in another study unless tested.

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APPENDICES

Appendix A: Survey Questionnaire

I would like to thank you for accepting to participate in this study whose core objective is to assess the effect of executive compensation on Fraud detection and prevention for commercial banks in Kenya. This survey is divided into three sections: The first section will collect demographic information of the participants, while the second section will collect information pertaining to the relationship between executive compensation and Fraud detection and prevention in commercial banks in Kenya. The third information will solicit information on the measures put in place to curb Fraud among commercial banks in Kenya. The survey will take a maximum of 20 minutes. Your honest and sincere responses will be highly appreciated.

Appendix A: Demographic characteristics of the participants

1) Gender

- Male
- Female

2) How long have you worked in the banking sector?

- Less than one year
- 1-2 years
- 2-5 years
- 5 years
- 7 years or more

3) Which level of management are you currently serving

- A director at the board
- Chief executive officer
- Chief financial officer

Human resource manager

4) For the time you have worked in the banking sector, have your bank ever experienced any form of Fraud?

Yes

No

5) Would you say that executive compensation helps in preventing fraud in commercial banks in Kenya?

Yes

No

6) Do you think executive compensation improves the detection of fraud in commercial banks in Kenya?

Yes

No

7) What is your opinion concerning on the association between executive compensation and banking fraud in Kenya?

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8) What is your take on the use of executive compensation to enhance the detection of fraud in commercial banks in Kenya?

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Appendix B: Questionnaires for fraud detection

In a scale of 1 to 5, indicate how you agree with the following statements.

1-Strongly Agree	2-Agree	3-Neither Agree nor Disagree	4-Disagree	5-Strongly Disagree	
Parameter					
Rating					
	1	2	3	4	5
Your bank scrutinizes all payments to ensure there are no duplicate records.					
Employee records are regularly scrutinized to ensure that there are no ghost employees in operation.					
Employees expense accounts are scrutinized regularly to ensure reasonableness.					
Large payments to individuals are thoroughly scrutinized to check fraudulent tendencies.					
All financial statements are scrutinized to ensure that they are prepared in line with the IFRS					
Your bank ensure that all documents relating to the activities of the bank are well kept, to prevent fraudulent misplacements					
You bank is keen to monitor unusual behaviors among leaders.					

Appendix C: Questionnaire for fraud prevention

In a scale of 1 to 5, indicate how you agree with the following statements

1-Strongly Agree	2-Agree	3-Neither Agree nor Disagree	4-Disagree	5-Strongly Disagree	
Parameter					
Rating					
	1	2	3	4	5
Your institution has an audit committee that is independent of executive management and empowered audit committee that is knowledgeable of the bank's fraud risks					
You have been conducting regular and detailed fraud risk assessments					
Your bank has developed and promoted the tools for effective reporting of suspicious or inappropriate accounting practices in the bank					
Your bank has an effective and responsive anti-fraud policies and provision of adequate training to individuals working in commercial banks					
Your bank has a timely and quick response to any fraud allegation in the bank					
Your bank uses a system of checks and balances to ensure no one person has control over all parts of a financial transaction, for instance, separating financial transactions from record keeping					
Your bank has a mobile banking platform, to minimize chances of fraud					
Your bank provides better payment and other incentives to discourage Fraud					

Thank you for your time and effort to participate in this research. Your feedback is highly valued.