

**THE EFFECTS OF FINANCIAL FRAUD AND LIQUIDITY ON
FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA**

BY

FREDRICK ODHIAMBO OLONGO

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DECLARATION

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

Signature:

Date:

FREDRICK ODHIAMBO OLONGO

Registration: No. D61/62000/2010

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

Signature:

Date:

MR. HERRICK ONDIGO

Lecturer

Department of Finance and Accounting

School of Business

University of Nairobi

DEDICATION

I dedicate this work to my family for their moral support, their constant encouragement and demonstrating great concern during my study.

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It has been an exciting and instructive study period in the University of Nairobi and I feel privileged to have had the opportunity to carry out this study as demonstration of knowledge gained during the period studying for my master's degree. With these acknowledgments, it would be impossible to remember those who in one way or another, directly or indirectly, have played a role in the realization of this research project. Let me, therefore, thank them all equally.

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I am deeply obliged to my supervisor Mr. Herrick Ondigo for his exemplary guidance and support without whose help; this project would not have been a success. Finally, yet importantly, I take this opportunity to express my deep gratitude to the lasting memory of my loving family, and friends who are a constant source of motivation and for their never ending support and encouragement during this project.

ABSTRACT

Bank fraud in Kenya has increased and will continue to increase because it is a part of everyday life. According to data from the Banking Fraud Investigations Department (BFID), Kenyan banks lost KSh1.5 billion (approximately US\$17.64 million) over the last year, with only a third being recovered by investigators. Several cases are pending in court or are still under investigation. The objective of this study was to evaluate the effects of financial fraud and liquidity on the financial performance of the commercial banks in Kenya.

This research study adopted a descriptive research design. Regression analysis model was used in which the dependent variable was the ROA. The independent variables were the annual liquidity ratios and the annual fraud loss. The multiple regression analysis was used to determine how each of the dependent variable relates to ROA. The result showed that banks' financial performance variable Return on Assets (ROA) has significantly affected by liquidity ratios and fraud loss with positive correlation. The strong and positive Pearson correlation coefficients imply that financial fraud loss and liquidity ratios had a strong and significant influence of financial performance of commercial banks in Kenya for the period considered.

The study recommends that commercial banks in Kenya should put in place fraud detection mechanisms by setting up an efficient, reliable and working fraud detection department to oversee all the transactions that are considered prone to fraud to minimize the vice for them to maximize profits for better financial performance.

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LIST OF ABBREVIATIONS

ATM	Automatic Teller Machines
BFID	Banking Fraud Investigations Department/Unit
CBK	Central Bank of Kenya
CMA	Capital Markets Authority
ECA	Exchange Control Act
FITC	Financial Institution Training Centre-Nigeria
GDP	Gross Domestic Product
KBA	Kenya Bankers Association
KCB	Kenya Commercial Bank of Kenya
KES/KSH	Kenya Shillings
MFC	Mortgage Finance Company
NBFI	Non Banking Financial Institution
NSE	Nairobi Stock Exchange
PIN	Personal Identification Numbers
ROA	Return on Assets
US\$	United States Dollar

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The incidence of fraud in the Kenyan banking industry has assumed an alarming proportion of late. Fraud is the number one enemy of the business world, no company is immune to it and it is in all works of life. The fear is now rife that the increasing wave of fraud in the financial institutions in recent years, if not arrested might pose certain threats to stability and the survival of individual financial institution and the performance of the banking industry as a whole and no area of the economy is immune from fraudsters. Fraud if not checked might cause run on in the banking sector. The high turnover of frauds, theft, defalcations and forgeries in the banking system is capable of undermining the growth, development and stability of banks which at the moment seems to be doggedly affecting the financial sector of the economy (Nwanko, 1991).

1.1.1 Financial Fraud

Internationally, no precise legal definition of financial fraud exists (Dye in Shah 307). Hornby (1995) defined fraud as criminal deception. On the other hand, Ovuakprie (1994) sees bank fraud as any activity that lead to dishonest or unfair dealing. In its lexical meaning fraud is an act or course of deception of trickery deliberately practiced in order to gain some advantage dishonestly kartudu quoting Tanko in Damage and Hanid (2005) defined fraud as the use of deception with the intention of gaining an undue advantage, avoiding an obligation or causing loss to another party. Olufidipe (1994) defined fraud as “Deceit or trickery deliberately practiced in other to gain some advantaged is honesty.”

Black's law dictionary (6th edition, 1990) has defined fraud as "an intentional perversion of truth for the purpose of inducing another, relying upon it with some valuable thing belonging to him or to surrender a legal right. A false representation of a matter of fact, whether by words or by conduct, by false or misleading allegation or by concealment of that which deceives and is intended to deceive another so that he shall act upon it to his legal injury. By extension fraud will include embezzlement, theft or any attempt to steal or unlawful obtain, misuse or harm the assets of bank (Bank Administration Institute, 1989). Financial fraud can be broadly defined as an intentional act of deception involving financial transactions for purpose of personal gain. Fraud is a crime, and is also a civil law violation. Many fraud cases involve complicated financial transactions conducted by 'white collar criminals' such as business professionals with specialized knowledge and criminal intent.

According to KPMG Barometer 2012, Nigeria, Kenya, Zimbabwe and South Africa make up 74 percent of all fraud cases reported in Africa. In the East African region, Kenya is standing out with 7.75 percent of reported fraud cases, well ahead of Uganda (2.98 percent) and Tanzania (2.78 percent). Most fraud in Kenya targets government and financial sectors as elsewhere on the continent. "Fraud and misappropriation is high, as is bribery and corruption (KPMG, 2012)

In recent years, the volume and frequency of fraudulent practices in Kenyan banks have been on the increase. Fraud has become one of the most intractable and monumental problems in recent times. As a matter of fact, banks have become the main target of conmen for survival. It is not understatement that only well managed banks especially with respect to fraud prevention would survive in the coming years.

Bank fraud in Kenya has increased and will continue to increase because it is a part of everyday life. According to data from the Banking Fraud Investigations Department (BFID), Kenyan banks lost KSh1.5 billion (approximately US\$17.64 million) over the last year, with only a third being recovered by investigators. Several cases are pending in court or are still under investigation. Security experts say the amounts reported reflect only a small portion of the real losses suffered since banks prefer internal disciplinary measures in cases involving thieving employees (BFID, 2012).

The BFID data shows at least half of the crimes reported had a bank employee involved. The investigation agency, in its monthly crime reports, cited identity theft, electronic funds transfer, bad cheques, credit card fraud, loan fraud, forgery of documents and online fraud as some of the ways used to defraud financial institutions. Growing cases of fraud and cyber-crime mean that financial institutions need to urgently invest in detection and preventive mechanisms as today's fraudsters are increasingly sophisticated (BFID, 2012).

1.1.2 Liquidity in Commercial Banks

Liquidity has been variously defined; however liquidity definitions as will be given here are in the context of the banking business. The liquidity of a bank is meant its capacity to meet promptly demands that it pays its obligations. Liquidity is defined as stated bank balances, cash in vault, and those government securities which have not been used as collateral for borrowing. Liquidity is then a measure of the ease with which commercial banks can meet the demand for withdrawal of their deposits. A bank is considered to be liquid when it has sufficient cash and other liquid assets together with the ability to raise funds quickly from other sources to enable it

meet its payments, obligations and financial commitments in a timely manner. (Doubleglist, 2013)

The ability of a bank to provide liquidity requires the existence of a highly liquid and readily transferable stock of financial assets. Liquidity and transferability are the key ingredients for such transactions. The liquidity requirement means that financial assets must be available to owners on short notice (a day or less) at par. The transferability requirement means that ownership rights in financial assets must be portable, at par, to other economic agents, and in a form acceptable to the other party (Sinkey, 1998).

In the everyday usage of bankers the term liquidity when applied to bank assets, relates to the possibility of converting assets into cash without serious loss of time or money. When applied to a bank it refers to the extent, relative to the volume and character of liabilities, to which the bank holds assets that are either in the form of cash or readily convertible into cash without material loss. The liquidity problem of bank is primarily the problem of assuring that there will be an adequate amount of cash on hand, when needed, to meet all demands for cash. The task of providing sufficient cash presents itself in two ways: the individual bank, if it is to stay in business, must be able to meet all demands for cash; and banks as a whole must be able to supply whatever demands are made upon them for the purpose of drawing money out of the system, whether abroad or for use in the domestic circulation (Charles, 1945).

The amount of liquidity needed by individual banks depend on the amount variations that occur in deposits and the demand of cash needs, the expected level of liquid assets, and cash receipts would be regarded to measure the liquidity that a bank need over a given period of time.

Currently, an institution is required to maintain a statutory minimum of 20% of its deposit liabilities with the Central Bank (CBK, 2012).

1.1.3 Financial Performance

Sound financial health of a bank is the guarantee not only to its depositors but is equally significant for the shareholders, employees and whole economy as well. As a sequel to this maxim, efforts have been made from time to time, to measure the financial position of each bank and manage it efficiently and effectively. The purpose of CAMELS ratings (on the basis of the adequacy and quality of a bank's Capital, Assets -loans and investments, Management, Earnings, Liquidity, and Sensitivity to systemic-risk) is to determine a bank's overall condition and to identify its strengths and weaknesses in Financial, Operational and Managerial aspects. Despite the use of CAMEL Model by regulators to assess financial performance of banks, inefficiencies in performance have been experienced. Some countries have shifted to other Models like EAGLES (Earning ability, Asset quality, Growth, Liquidity, Equity and Strategy) (Hales, 2005).

(Githinji, 2010) did a study on the relationship between financial performance and camel rating of commercial banks in Kenya. It focused on banks registered by the Central bank of Kenya. From the findings of the study it was concluded that although CAMEL Model is used to measure financial performance of banks by regulators, no one factor in CAMEL Model is able to capture the efficiency of a bank. He also argued that no one CAMEL rating factor taken separately from the others could influence the financial performance of a bank. Therefore the CAMEL Model rating factors were to be considered together as a combination and are inter-related.

There are many different ways to measure financial performance but all measures should be taken in aggregation. Line items such as revenue from operations, operating income or cash flow from operations can be used as well as total unit sales. Furthermore, the analyst or investor may wish to look deeper into financial statements and seek out margin growth rates or any declining debt. Financial performance is a measure of how well a firm can use assets from its primary mode of business and generate revenues. This term is also used as a general measure of a firms' overall financial health over a given period of time and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation (Hales, 2005).

Though it appears the banking industry is one of the most profitable within the economy, higher performance could have been attained in terms of their performing a leading role in the reactivation of our economy, creation of wealth to her shareholders and rendition of social obligations to the larger society. The Kenyan Banking Sector registered improved performance with the size of assets standing at Ksh. 2.4 trillion, loans & advances amounting to Ksh. 1.4 trillion, while the deposit base stood at Ksh. 1.8 trillion and profit before tax of Ksh. 28.2 billion as at 31st March 2013. During the same period, the number of bank customer deposit and loan accounts stood at 17.3 million and 2.3 million respectively (CBK, 2013).

1.1.4 Effects of Financial Fraud and Liquidity on Financial Performance

The effect of fraud on bank deposits is better appreciated from the standpoint of cash depletion. The phenomenon is capable of creating a liquidity trap in the entire banking system and could possibly cause a bank failure depending on the size and frequency of occurrence. (NDIC: 2010).

Banking fraud hurts both banks and their customers. Banks incur substantial operating costs by refunding customers' monetary losses (Gates and Jacob, 2009), while bank customers experience considerable time and emotional losses. They have to detect the fraudulent transactions, communicate them to their bank, initiate the blocking and re-issuance or re-opening of a card or account, and dispute the reimbursement of their monetary losses (Douglass, 2009; Malphrus, 2009). Becoming a fraud victim may also impact customers' perception of feeling secure and protected at their bank. Accordingly, fraud may damage the bank-customer relationship because of shattered trust and confidence (Krummeck, 2000), as well as increased dissatisfaction because of a perceived service failure (Varela-Neira et al., 2010). This, in turn, may negatively affect customer loyalty and stimulate switching behavior (Rauyruen and Miller, 2007; Gruber, 2011), thereby hurting the banks' reputation and impeding the attraction of new customers (Buchanan, 2010).

According to Adebisi (2009), whenever there is a successful fraud incident, certain things happen in quick succession that will leave considerable social and psychological effects as well as painful memory or lasting scars on the organization, staff, government and the society at large. Fraud's effect on an organization's bottom line is just the tip of the iceberg. Without a proactive approach to combating fraud, the ability to gain and to maintain customer loyalty is almost non-existent. According to Meridian Research, in 2005 alone, the cost of U.S. companies not using anti-fraud applications was \$60 billion. Additionally, organizations are said to lose an average of six percent of their annual revenue to fraud and abuse committed by internal employees. An organization's loss of revenue is only the immediate issue involved in not dealing with fraud proactively. Lack of customer faith and of perceived security lead to long-term loss in revenue

and the inability to stay competitive in a quickly changing market. The high turnover of frauds, theft, defalcations and forgeries in the banking system is capable of undermining the growth, development and stability of banks which at the moment seems to be doggedly affecting the financial sector of the economy (FITC:1989)

1.1.5 Commercial Banks in Kenya

The Banking industry in Kenya is governed by the Companies Act, the Banking Act, the Central Bank of Kenya Act and the various prudential guidelines issued by the Central Bank of Kenya (CBK). The banking sector was liberalized in 1995 and exchange controls lifted. The CBK, which falls under the Minister for Finance docket, is responsible for formulating and implementing monetary policy and fostering the liquidity, solvency and proper functioning of the financial system. The banks have come together under the Kenya Bankers Association (KBA), which serves as a lobby for the banking sector's interests. The KBA serves a forum to address issues affecting members. As at 31st December 2012, there were 43 commercial banks in Kenya and 1 mortgage finance company – (MFC), Out of the 44 banking institutions, 31 locally owned banks comprise 3 with public shareholding and 28 privately owned while 13 are foreign owned as shown in Chart 1. The foreign owned financial institutions comprise of 9 locally incorporated foreign banks and 4 branches of foreign incorporated banks. Only 10 commercial banks are listed at NSE (CBK, 2012)

The banking sector total net assets stood at Kshs. 2.3 trillion as at 31st December 2012 and the 27 locally owned commercial banks¹¹ accounted for 62.4 percent. The 13 foreign owned commercial banks accounted for 33.4 percent of the sector's net assets. Kenyan commercial

banks are classified into three peer groups using a weighted composite index that comprises assets, deposits, capital size, number of deposit accounts and loan accounts. A bank with a weighted composite index of 5 percent and above is classified as a large bank, a medium bank has a weighted composite index of between 1 percent and 5 percent while a small bank has a weighted composite index of less than 1 percent. For the period ended 31st December 2012, there were 6 large banks which accounted for 53.7 percent of the market share, 15 medium banks with a market share of 36.8 percent and 22 small banks (CBK, 2012)

1.2 Research Problem

Bank fraud in Kenya has increased and will continue to increase because it is a part of everyday life. According to data from the Banking Fraud Investigations Department (BFID), fraudsters have stolen at least Ksh1.5 billion (\$17.64 million) from Kenyan banks in the past one year, in schemes hatched by technology-savvy bank employees. However, investigators managed to recover a mere Sh530 million with several cases are pending in court or still under investigation. The BFID data shows at least half of the crimes reported had a bank employee involved. Growing cases of fraud and cyber-crime mean that financial institutions need to urgently invest in detection and preventive mechanisms as today's fraudsters are increasingly sophisticated (BFID, 2012).

The investigation agency, in its monthly crime reports, cited identity theft, electronic funds transfer, bad cheques, credit card fraud, loan fraud, forgery of documents and online fraud as some of the ways used to defraud financial institutions. Kenya's top five banks by profitability — Equity, Co-operative, Standard Chartered, KCB and Barclays — were the worst hit by

fraudsters. Of the 20 cases taken to court in April, 15 are shared among the top five banks as complainants. Most of the attempted or actual fraud involved amounts between Ksh500,000 (\$5,880) and Ksh4 million (\$47,000). Late last year, Standard Chartered customers fell victim to the scam when they found anomalies, where withdrawals had been made from their accounts without their knowledge. The bank had to send cautionary messages to customers (Deloitte, 2013).

A number of studies have been carried out in the area of fraud. Notable works include that of financial institutions training centre, Lagos (FITC: 2005). The centre sought to investigate the relationship between sizes of bank frauds and the ages of such banks. The study concluded that experienced staff swindles the bank of larger sums of money compared to their relatively inexperienced counterparts. Idowu (2009) did a research aimed at finding means of minimizing the incidence of fraud in Nigerian banks. Findings of this study revealed that, so many factors contributed to the incidence of frauds in banks amongst which are poor management of policies and procedures, inadequate working conditions, bank staff staying longer on a particular job and staff feeling frustrated as a result of poor remunerations. Gikiri, Lucy Waigumo did a study to determine the influence of fraud risk management practices in commercial banks and their effect on fraud risk exposure. The main objective was to find the combined effect of fraud risk management practices; fraud prevention and fraud detection on fraud risk incidence in Commercial banks in Kenya.

While a very limited number of studies appear to include liquidity as an explanatory variable for bank profitability, this relationship is not the focus of those papers and the empirical results are

mixed. Liquid assets are generally included as a control variable in these studies with very limited discussion around the estimated parameter.

Many studies that examined fraud in banking are mostly qualitative in nature and focus on the details of types and causes of fraud, and strategies of responding to fraud, without providing compelling empirical support. This is the gap in literature that this study is attempting to fill by empirically investigating the effects of financial fraud and liquidity on financial performance of commercial banks in Kenya.

The following research questions will be answered at the end of the study

- i. To what extent does financial fraud affects the financial performance of banks.
- ii. How does the liquidity position affect the financial performance of banks?

1.3 Research Objectives

The general objective of this study is to evaluate the effects of financial fraud and liquidity on the financial performance of the commercial banks in Kenya.

The specific objectives of this study are:

- i. To determine the effect of fraud on the financial performance of banks.
- ii. To determine the effect of liquidity on the financial performance of banks.

1.4 Value of the Study

The finding of this study will be of great importance to the policy makers especially the Central bank of Kenya in their efforts to deter, prevent and at worst detect fraud timely, as the threat of

fraud in Kenya can be contained by taking the right steps. The regulator should be alert in ensuring all commercial banks put in place appropriate controls and policies, monitors the operation of these controls and their effectiveness, create favorable working environment and maintains an anti-fraud culture.

It will also assist the Central Bank of Kenya (CBK) to know when there are distress symptoms and to form measures to further securitize the banking system and restore depositor's confidence. This will enable the government to take drastic measures on whoever defaults. It is hopes that the finding of this study will help the customers and investors to know whether the banking system is safe and sound.

The study will also help the bankers to adhere strictly to their banking professional ethics and code of conduct. In addition, bank staff will use the benefit of the findings of the study to re-evaluate themselves and adopt appropriate measures and procedures of controlling or preventing bank fraud.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents the literature review on study done on the same study. The specific areas covered in this chapter include; the theoretical review, the causes of bank frauds and the types of fraud in banks.

2.2 Theoretical Framework on Fraud

There are quite a number of relevant theories on fraud that are relevant to this study.

2.2.1 Differential Association

Differential Association theory as postulated by Edwin (1883-1950), states that Crime is learned as we learn any other subject or trade and that learning of criminal behavior occur with other persons in a process of communication. Fraud costs are passed on to society through criminal activities funded by the fraudulent gains. Fraud losses pose a significant problem to many industries including banking and finance. Therefore the fraud losses impact every business enterprise.

2.2.2 Theory of Fraud Diamond

According to Wolfe and Hermerson, (2004), in the theory of fraud diamond, an individual's capability, personality traits and abilities can play a major role in determining whether fraud may occur. While opportunities can open the doorways to fraud, incentive and rationalization will

attract people to it, but such an individual must have the capability to recognize the open doorway as an opportunity and should be able to take an undue advantage of the identified loopholes.

2.2.3 The Theory of Fraud Triangle

Donald Cressey (1973), in the theory of fraud triangle was that fraud is likely to occur given a combination of three factors i.e. Pressure, (Motivation), Opportunity and rationalization. Trusted persons become trust violators when they conceive of themselves as having a financial problem which is non-shareable, are aware this problem can be secretly resolved by violation of the position of financial trust, and are able to apply to their own conduct in that situation verbalizations which enable them to adjust their conceptions of themselves as trusted persons with their conceptions of themselves as users of the entrusted funds or property.

2.2.4 The Anomie Theory on Fraud

According to the Anomie theory on fraud, in every competitive capitalist society, the other members of the society who are excluded from access to legitimate means to success and stardom will experience a sense of relative deprivation which they try to relieve by way of social vices like(1) aggressive criminal behaviors, like bank frauds, and armed robbery attacks,(2) Aggressive revolutionary behaviors like Coup de tat in the military and (3) A retreat into psychosomatic illnesses like drug addiction, alcoholism ,etc

2.2.5 Social Control Theory

Travis Hirschi, (1969), in the social control theory proposes that exploiting the process of socialization and social learning helps to build in self control in individuals and thus, reduce the inclination to indulge in behavior recognized as anti -social

2.3 The Causes and Catalysts of Bank Frauds

According to Benson and Edwards (2006), Nwaze (2009) and Adebisi (2009), there are many causes of fraud, depending on the enabling environment. We will focus our attention on the common ones under the following classifications: Social, technological and legal. Others are personal and management. These are briefly discussed below.

2.3.1 Technological Causes of Fraud

Continuous advancement in technology constitutes a major factor in enhancing fraud. The easier things become the more it is for fraudsters too. The cost of perpetrating fraud using available technology is very low. Technology facilitates near perfection of documents“ replication. It has turned the world to a global village. It has removed physical boundaries; hence fraud can be perpetrated along far distances. Proceeds from fraudulent activities can be obtained with ease, e.g. via electronic money transfers. Most of the technological fraudsters are youths with highly developed minds and are often influenced by successful peers. Technological frauds are not easy to detect or prevent. There are so many user points worldwide where such frauds can be perpetrated. Technological development is a continuous process. While a particular fraudulent act is being detected and prevented, other methods are being developed.

2.3.2 Legal Causes of Fraud

The legal system causes or encourages fraud in the following ways: Most fraudulent cases are “bail able offences”, hence perpetrators in most cases get off the hook even when caught. Fraud prosecution requires “due process of the law”. This involves a careful but very long investigation process before the culprits are brought to book. Sometimes when “suspects” or known fraudsters are arrested, they are discharged by the court for want of evidence. Documents that look like clear evidence to a layman are inadequate before the law. The rot in the law enforcement arm of the legal system i.e. police, judiciary etc, also assist fraudsters. In most cases, fraudsters settle their way out

2.3.3 Personal Causes of Fraud

The following are personal issues that have been found to cause, influence or encourage fraud:

There are professional criminals whose specialty is to defraud corporate bodies and banks. They go around recruiting interested people with impaired character. Research has shown that some people have insatiable appetite for adventure- criminal or otherwise. Such people will steal if they have opportunities, notwithstanding their status or material possessions (Kleptomaniacs)

Moral upbringing among people varies. While some parents pay attention to this important issue at home, others leave it to teachers, pastors or Islamic scholars. Wrong choice of friends or mentors can link one to fraudulent people. Such persons may be enticed with generous cash or material gifts before the “subject” is introduced to them. Some people are from good homes, attend good schools and have very good or refined religious backgrounds but they have

week minds and can easily be convinced. Some fraudsters believe in the use of their „crime fathers““, friends or parental influence to slow down investigation. These „backers““ are usually influential and may call on their big friends in high places to rescue their children or „boys““ from justice. In the process, the entire syndicate members could be let off the hook.

2.3.4 Management Causes of Fraud

Management actions or inactions could cause or create a fertile ground for fraud in banks. These include; recruitment of staff without rigorous character checks from reliable source like schools attended, previous employers etc, placement of high premium on paper qualification, to the detriment of performance causing certificate manipulation and other fraudulent acts, low remuneration package when the organization is perceived through its publications and utterance of key officials that they can afford to pay their staff better than they are doing, weak internal controls, checks and un-reconciled accounts/ books on a timely basis ,delay or total neglect of regular internal and external audits.

2.4 The Types of Bank Fraud

Since fraud means deceit or trick deliberately practiced in order to gain some advantage dishonestly, it becomes obvious that there must be a dishonest intention and the action per say must always being intended to benefit the perpetrator at the detriment of another. It therefore, follows that assumes many forms, inside or outside perpetrators.

2.4.1 Unauthorized Withdrawals

Unauthorized Withdrawal involves the withdrawal or transfer of funds from an individual's banking account without proper authorization or consent by the individual. Such incidents are normally the result of an individual knowingly, or unknowingly, divulging their personal information such as personal identification numbers (PIN) and password to fraudulent or third parties. Forgeries: This could be forgeries of customer's signature to draw fraudulently from customer's accounts or forgeries of other funds from one account to another or withdrawal of funds from one account to another through the use of ATM Automatic Teller Machine according to Ebe (2006). The forgery may be targeted on saving accounts, deposit accounts, current accounts and transfer instruments such as draft, mail transfers etc.

2.4.2 Unauthorized Use of Credit or Debit Card

Unauthorized Use of Credit or Debit Card is a transaction involving the charging of expenses/purchase of goods and services without the consent of the cardholder. Such transactions may occur as a consequence of credit or debit cards that are lost, stolen, not received, issued on a fraudulent application, counterfeit or other fraudulent conditions as defined by the credit or debit card issuer.

2.4.3 Illegal Foreign Exchange Trading Scheme

Illegal Foreign Exchange Trading Scheme refers to: Buying or selling of foreign currency by an individual/company who is not an authorized dealer, or by an individual/company that has not obtained the permission of the Controller of Foreign Exchange under the Exchange Control Act

1953 (ECA). Buying or selling of foreign currency by a resident who is not an authorized dealer, with a person outside Malaysia, or by a resident who has not obtained the permission of the Controller of Foreign Exchange under the ECA.

2.4.4 Illegal Deposit Taking

Illegal Deposit Taking is an act of receiving, taking or accepting of deposits (moneys, precious metals, precious stones, any other article etc.) from members of the public that promises a repayment with interest or returns in money or money's worth without a valid license under the Banking and Financial Institutions Act 1989 (BAFIA). Lending to ghost Borrowers: Granting of loan and overdraft whether such loan are being repaid by the “ghost” borrowers or not experience have revealed that some unscrupulous bank managers grant fictitious loans by themselves using fake names (non-existing), signature and non-customers as fronts.

2.5 Empirical Review

Gikiri (2012) did a study to determine the influence of fraud risk management practices in commercial banks and their effect on fraud risk exposure. The main objective was to find the combined effect of fraud risk management practices; fraud prevention and fraud detection on fraud risk incidence in Commercial banks in Kenya.

Abdulrasheed, Babaitu&Yinusa (2012) examined the impact of fraud on bank performance in Nigeria. The study revealed that Nigerian banks recorded the highest cases of fraud in 2008. Result of the study shows that, there is a significant relationship between banks profit and total

amount of funds involved in fraud. Lastly, Adeyemo (2012) examined the nature, causes, effects and remedy for bank fraud in Nigeria. The study showed that the battle for reduction, uncovering and retribution of fraud, offenders must be fought on two extensive fronts. First is to reduce the temptation to commit fraud and second is to increase the chances of detection.

Akindele (2011) found out that lack of adequate training, communication gap, and poor leadership skills were the greatest causes of fraud in banks. He advised that adequate internal control mechanism be put in place and that workers satisfaction and comfort be taken care of.

Adepoju&Alhassan (2010) showed that bank customers have come to depend on and trust the Automatic teller machine (ATM) to conveniently meet their banking needs, but that in recent times; there have been a proliferation of ATM frauds in the country. Managing the risks associated with ATM fraud as well as diminishing its impact is an important issue that face banks as fraud techniques have become more advanced with increased occurrences.

Idowu (2009) did a research aimed at finding means of minimizing the incidence of fraud in Nigerian banks Findings of this study revealed that, so many factors contributed to the incidence of frauds in banks amongst which are poor management of policies and procedures, inadequate working conditions, bank staff staying longer on a particular job and staff feeling frustrated as a result of poor remunerations.

Nwude (2006) did a study on bank frauds. The methodology he adopted involved an interaction with bank staff of various cadres with structured questionnaire to identify the fraud forms and characteristics in the banking industry. In a different study, Otusanya (2008) investigated the role

of Bank CEO"s in the perpetration of corporate executive frauds in the Nigerian Banking sector. The study posits that, recent banking crises in Nigeria have exposed the activities of bank executives in corruption and fraudulent practices. The paper locates the role of corporate executives within the institutional anomie theory called American dream theory, whereby the pursuit of monetary success has come to dominate society. Given the strong and relentless pressure for everyone to succeed, understood in terms of an inherently elusive monetary goal, people formulate wants, targets and desires that are difficult, if not impossible, to satisfy within the ambit of legally permissible behavior.

Akinfala (2005) carried out a research on job involvement/ experience factors and fraudulent behaviors amongst serving and convicted bankers. The level of job involvement was found to be a function of three factors: motivation, identification and a feeling of pride that people achieve in their jobs

2.6 Summary of Literature Review

A number of studies have been carried out in the area of fraud. Notable works include that of financial institutions training centre, Lagos (FITC: 2005). From the studies, it is evident that they have dwelt largely on perpetrators of frauds and their modus operandi. Many studies that examined fraud in banking are mostly qualitative in nature and focus on the details of types and causes of fraud without providing compelling empirical support. This is the gap in literature that this study is attempting to fill by empirically investigating the effects of financial fraud and liquidity on financial performance of commercial banks in Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the methodology that was used to conduct the study. It specifies the research design, what the target population was, how data was collected and the method of analysis.

3.2 Research Design

This research study adopted a descriptive research design. According to Cooper and Schindler (2003), a descriptive study is concerned with finding out what, where and how of a phenomenon. The main focus of this study was quantitative. However some qualitative approach was used in order to gain a better understanding and possibly enable a better and more insightful interpretation of the results from the quantitative study. Such a descriptive model was used by Etienne, B and Christopher (2010) to determine the impact of liquidity on bank of Canada's profitability.

3.3 Population

The population consisted of all the 43 licensed and operational commercial banks in Kenya from the years 2008 to 2012.

3.4 Data Collection

This study used secondary data for analysis. The secondary data included the annual liquidity ratios of the commercial banks in Kenya, the annual fraud loss and the annual Return on Assets as a measure of financial performance. The data on annual fraud loss was obtained from the BFID (annual reports on the statistics and trend of frauds). The data on liquidity ratios and ROA was collected from the NSE and the CBK websites. The study covered a period of five years from 2008 to 2012.

3.5 Data Analysis

This study used regression analysis model in which the dependent variable was the ROA. The independent variables were the annual liquidity ratios and the annual fraud loss. The multiple regression analysis was used to determine how each of the dependent variable relates to ROA.

The regression analysis took the form below:

$$\pi = \alpha + \beta_1(X_1) + \beta_2(X_2) + \epsilon$$

Whereby;

π = Financial performance of commercial banks as expressed by ROA- ratio of after tax profits to total assets

X_1 = Annual liquidity ratio of banks - The ratio of net liquid assets to the total short term liabilities of a bank (customer deposits)

X_2 = Annual fraud loss - Percentage of the actual amount of bank funds lost on fraud to the amount of bank funds involved in fraud.

α = The constant of regression

ϵ = The error term.

The ~~t - tests~~ at 95 % confidence level were used to determine the statistical significance of the constant term, α , and the coefficient terms, β_i . Other statistical tools such as t-test were used for the test of significance of individual coefficients, F-test for joint significance of all coefficients, and R-squared for the explanatory power of the model.

CHAPTER FOUR

DATA ANALYSIS AND DISCUSSION

4.1 Introduction

In this chapter, the focus is on the presentation of data and interpretation of the findings. It presents the analysis of the data ending with the regression analysis results. The presentation and the analysis of the data is done with comparison with other similar studies done on the subject matter of this study.

4.2 Analysis of Data and Presentation of Findings

4.2.1 Descriptive Statistics

In determining the effects of financial fraud and liquidity on financial performance of commercial banks in Kenya, the study first found it necessary to evaluate the performance of the bank's financial performance variables under consideration i.e. ROA as the dependent variable and annual liquidity ratios and annual fraud loss as independent variables influencing the financial performance. Their mean, standard deviation, minimum and maximum values were determined as indicated in Table 4.1

Table 4.1 Summary statistics of the effect of financial fraud and liquidity on financial performance of commercial banks (2008-2012)

Variables	N	Mean	Std deviation	Minimum	Maximum
Annual liquidity ratios	42	2.916	0.8003	0.001	9.183
Annual fraud loss	42	23.30	7.230	8.055	36.292
Return on Assets(ROA)	42	0.246	0.0193	-1.429	0.857

Source: Research Findings

The above table 4.1 shows the results of summary statistics of all the taken variables in the analysis. It provides the information about number of observation included and mean its dispersion and variability in the data. From the findings annual liquidity ratios recorded a mean of 2.916 and standard deviation of 0.8003. The minimum and maximum values are 0.001 and 9.183 respectively. Annual fraud loss had a mean percentage of 23.30 with a standard deviation of 7.230 with minimum and maximum values of 8.055 and 36.292 respectively. Further ROA recorded a mean of 0.246 and standard deviation of 0.0193. Over the period covered ROA recorded a minimum value of -1.429 and maximum value of 0.857 respectively. The positive values of the variables indicate that they are statistically significant in influencing financial performance of ROA.

4.3 Correlation Analysis between Financial Fraud and Liquidity and Financial Performance of Commercial Banks in Kenya

In this section, the study measured the degree of association between financial fraud and liquidity and the magnitude of the influence on financial performance of commercial banks (ROA). From the a priori stated in the previous chapter, a positive relationship is expected between the financial fraud and liquidity and financial performance of commercial banks in Kenya. Table 4.2 presents the correlation coefficients for all the variables considered in this study.

Table 4.2: Correlation Analysis between financial fraud and liquidity and financial performance of commercial banks in Kenya

Variables		Return on Assets
Financial fraud loss	Correlation	0.688**
	p- Value	(0.00)
Liquidity ratios	Correlation	0.705**
	p- Value	(0.00)

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

Source: Research Findings

Table 4.2 displays the correlation analysis among the banks' annual liquidity ratios, annual fraud loss and financial performance variables (ROA). The result shows that banks' financial performance variable Return on Assets (ROA) has significantly affected by liquidity ratios and fraud loss with positive correlation of 0.688 and 0.705 respectively. The strong and positive Pearson correlation coefficients imply that financial fraud loss and liquidity ratios had a strong

and significant influence of financial performance of commercial banks in Kenya for the period considered. The statistics were done at 95% confidence levels.

Table 4.3: T-test: two-sample assuming equal variances better financial performing commercial banks and poor financial performing commercial banks

	(Better financial performing commercial banks)	(Poor financial performing commercial banks)
Mean	0.07217	0.033454
Variance	0.0042	1.52485E-08
Observations	35	7
Hypothesized Mean Difference	0	
Df	40	
t Stat	3.956	
P(T<=t) one-tail	0.0045	
t Critical one-tail	2.770	
P(T<=t) two-tail	0.01108838	
t Critical two-tail	3.162	
Mean	0.0721	0.024

Source: Research Findings

From the t-test results, the better financial performing banks recorded a mean of 0.07217 while the poor financial performing banks recorded a mean of 0.033454. However, the variance for the better financial performing banks and poor financial performing banks are 0.0042 and 1.52485E-08 respectively. Furthermore, at two-tailed, the t-calculated of 3.162 is seen to be greater than the t-tabulated of 2.770.

Further the study carried out the hypothesis testing between annual liquidity ratios and annual fraud loss and commercial banks financial performance. The study findings are as shown below.

Table 4.4 Annual liquidity ratios and annual fraud loss Vs Banks financial performance

	Banks financial performance
Annual liquidity ratios Pearson Correlation	0.782
Sig. (2-tailed)	0.000
N	42
	Banks financial performance
Annual Fraud loss Pearson Correlation	0.694
Sig. (2-tailed)	0.000
N	42

Source: Research Findings

A Pearson coefficient of 0.782 and p-value of 0.000 shows a strong, significant, positive relationship between annual liquidity ratios and financial performance of commercial banks in Kenya. Furthermore a Pearson coefficient of 0.694 and p-value of 0.000 shows a strong, significant, positive relationship between annual fraud loss and financial performance of commercial banks in Kenya. Therefore basing on these findings the study rejects the null hypothesis that there is no relationship between financial fraud and liquidity and financial performance of commercial banks in Kenya and accepts the alternative hypothesis that there exists a relationship between financial fraud and liquidity and financial performance of commercial banks in Kenya.

4.4 Interpretation of the Findings

From the findings annual liquidity ratios recorded a mean of 2.916 and standard deviation of 0.8003. The minimum and maximum values are 0.001 and 9.183 respectively. Annual fraud loss had a mean percentage of 23.30 with a standard deviation of 7.230 with minimum and maximum values of 8.055 and 36.292 respectively. Further ROA recorded a mean of 0.246 and standard deviation of 0.0193. Over the period covered ROA recorded a minimum value of -1.429 and maximum value of 0.857 respectively. The positive values of the variables indicate that they are statistically significant in influencing financial performance of ROA.

The result shows that banks' financial performance variable Return on Assets (ROA) was significantly affected by liquidity ratios and fraud loss with positive correlation of 0.688 and 0.705 respectively. The strong and positive Pearson correlation coefficients imply that financial fraud loss and liquidity ratios had a strong and significant influence of financial performance of commercial banks in Kenya for the period considered.

A Pearson coefficient of 0.782 and p-value of 0.000 shows a strong, significant, positive relationship between annual liquidity ratios and financial performance of commercial banks in Kenya. Furthermore a Pearson coefficient of 0.694 and p-value of 0.000 shows a strong, significant, positive relationship between annual fraud loss and financial performance of commercial banks in Kenya. Therefore basing on these findings the study accepts the alternative hypothesis that there exists a relationship between financial fraud and liquidity and financial performance of commercial banks in Kenya.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary of the findings of this study. The first section provides a summary of the findings. The other sections provide the conclusions of the study, the limitations of the study, suggestions for further research and recommendations in that order.

5.2 Summary

In determining the effects of financial fraud and liquidity on financial performance of commercial banks in Kenya, the study first found it necessary to evaluate the performance of the bank's financial performance variables under consideration i.e. ROA as the dependent variable and annual liquidity ratios and annual fraud loss as independent variables influencing the financial performance. Their mean, standard deviation, minimum and maximum values were determined. From the findings the positive values of the variables indicate that they are statistically significant in influencing financial performance of ROA.

The study further measured the degree of association between financial fraud and liquidity and the magnitude of the influence on financial performance of commercial banks (ROA). The result showed that banks' financial performance variable Return on Assets (ROA) has significantly affected by liquidity ratios and fraud loss with positive correlation. The strong and positive Pearson correlation coefficients imply that financial fraud loss and liquidity ratios had a strong

and significant influence of financial performance of commercial banks in Kenya for the period considered. The statistics were done at 95% confidence levels.

From the Chi-square results, the better financial performing banks recorded a higher mean as compared to the poor financial performing banks. However, the variance for the better financial performing banks and poor financial performing banks showed statistical significance. Furthermore, at two-tailed, the t-calculated was seen to be greater than the t-tabulated.

In carrying out the hypothesis testing between annual liquidity ratios and annual fraud loss and commercial banks financial performance. The study showed a strong, significant, positive relationship between annual liquidity ratios and financial performance of commercial banks in Kenya and also a strong, significant, positive relationship between annual fraud loss and financial performance of commercial banks in Kenya. Therefore basing on these findings the study rejected the null hypothesis that there is no relationship between financial fraud and liquidity and financial performance of commercial banks in Kenya and accepted the alternative hypothesis that there exists a relationship between financial fraud and liquidity and financial performance of commercial banks in Kenya.

5.3 Conclusion

In descriptive statistics, the mean, standard deviation, minimum and maximum values of annual liquidity ratios and annual fraud loss were determined. From the findings the positive values of the variables indicated that they are statistically significant in influencing financial performance

of ROA. The result showed that banks' financial performance variable Return on Assets (ROA) has significantly affected by liquidity ratios and fraud loss with positive correlation.

From the Chi-square results, the better financial performing banks recorded a higher mean as compared to the poor financial performing banks. However, the variance for the better financial performing banks and poor financial performing banks showed statistical significance. Furthermore, at two-tailed, the t-calculated was seen to be greater than the t-tabulated.

In carrying out carried out the hypothesis testing between annual liquidity ratios and annual fraud loss and commercial banks financial performance. The study showed a strong, significant, positive relationship between annual liquidity ratios and financial performance of commercial banks in Kenya and also a strong, significant, positive relationship between annual fraud loss and financial performance of commercial banks in Kenya. Therefore basing on these findings the study rejected the null hypothesis that there is no relationship between financial fraud and liquidity and financial performance of commercial banks in Kenya and accepted the alternative hypothesis that there exists a relationship between financial fraud and liquidity and financial performance of commercial banks in Kenya.

5.4 Policy Recommendations

Basing on the results from the study, the study recommends that commercial banks in Kenya should put in place fraud detection mechanisms by setting up an efficient, reliable and working fraud detection department to oversee all the transactions that are considered prone to fraud to minimize the vice for them to maximize profits for better financial performance. Other mechanisms considered viable for minimizing banks financial fraud should be put in place.

The study further recommends that liquidity ratios of commercial banks should be taken in to consideration to make sure that the available net liquid assets meets the short term banks liabilities (customer deposits) to avoid short term financial distress. This can be done by converting long term assets in to liquid cash and through mobilizing more savings from the banks customers for long term to meet short term obligations. The financial department should continuously work with other departments to ensure that liquidity ratios remain manageable under the financial period to boost their gains for positive financial performance outcomes.

This study can be repeated with a wider population of study across all countries in East Africa. The formation of the East African Community is a current issue affecting the horn of Africa region. Such a study conducted for this region will provide handy and current input for decision making concerning effects of fraud on performance of commercial banks in the region. This paper recommends that such a study can be done to make the findings relevant to the East African region.

5.5 Limitations of the Study

Since the main purpose of this study is to identify the effects of financial fraud and liquidity on financial performance of commercial banks in Kenya, Some commercial banks considered some information sensitive and confidential and thus the researcher had to convince them that the purpose of information is for academic research only and may not be used for any other intentions.

The study focused on Kenya only and for a period of 5 years. It is not known how the results would have turned out if the study was extended to other countries, say, in East Africa, in the

whole of Africa or in the Sub-Saharan Africa. The study does not provide an explanation of what the situation might be like after 2012. The findings of this study may not also be generalized to all banks across the globe.

Financial fraud and liquidity ratios keep on changing from period to period depending on prevailing financial situations in Kenya commercial banks. The findings therefore may not reflect the true effect of financial fraud and liquidity ratios across the commercial banks in Kenya for a period considered.

5.6 Suggestions for Further Study

There is need for further studies to carry out similar study for a longer time period. This study only took into consideration of five years from 2008-2012. A study for longer period of 10 to 15 years would be recommended.

A similar study should also be carried out on the effects of financial fraud and liquidity on financial performance of commercial banks in Kenya incorporating more variables determining banks financial performance as opposed to the current study which took into consideration only two variables - financial frauds and liquidity.

The study can also be done using primary data instead of relying on data secondary only. The assumption is that the weaknesses associated with past records of secondary will be mitigated by the use of current primary data. Secondary data usually does not capture current issues. This study, therefore, recommends that this study be done bearing in mind the use of primary data.

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APPENDICES

Appendix 1: List of Commercial Banks registered in Kenya as at December 2012

1. ABC Bank (Kenya)
2. Bank of Africa
3. Bank of Baroda
4. Bank of India
5. Barclays Bank
6. CFC Stanbic Bank
7. Charter House Bank***
8. Chase Bank (Kenya)
9. Citibank
10. Commercial Bank of Africa
11. Consolidated Bank of Kenya
12. Cooperative Bank of Kenya
13. Credit Bank
14. Development Bank of Kenya
15. Diamond Trust Bank
16. Dubai Bank Kenya
17. Ecobank
18. Equatorial Commercial Bank
19. Equity Bank
20. Family Bank
21. Fidelity Commercial Bank Limited

22. Fina Bank
23. First Community Bank
24. Giro Commercial Bank
25. Guardian Bank
26. Gulf African Bank
27. Habib Bank
28. Habib Bank AG Zurich
29. I&M Bank
30. Imperial Bank Kenya
31. Jamii Bora Bank
32. Kenya Commercial Bank
33. K-Rep Bank
34. Middle East Bank Kenya
35. National Bank of Kenya
36. NIC Bank
37. Oriental Commercial Bank
38. Paramount Universal Bank
39. Prime Bank (Kenya)
40. Standard Chartered Kenya
41. Trans National Bank Kenya
42. United Bank for Africa Limited
43. Victoria Commercial Bank

Source: *Central Bank of Kenya*

Appendix 2: List of Commercial Banks in Kenya Classified as Per Peer Group

COMMERCIAL BANKS	PEER GROUP
1. Barclays Bank of Kenya Ltd	Large
2. CFC Stanbic Bank Ltd	Large
3. Co-operative Bank of Kenya Ltd	Large
4. Equity Bank Ltd	Large
5. Kenya Commercial Bank Ltd	Large
6. Standard Chartered Bank Kenya Ltd	Large
7. Bank of Africa Kenya Ltd.	Medium
8. Bank of Baroda (K) Ltd.	Medium
9. Bank of India	Medium
10. Chase Bank (K) Ltd	Medium
11. Citibank N.A Kenya	Medium
12. Commercial Bank of Africa Ltd	Medium
13. Diamond Trust Bank Kenya Ltd	Medium
14. Ecobank Kenya Ltd	Medium
15. Family Bank Limited	Medium
16. Guardian Bank Ltd	Medium
17. Imperial Bank Ltd	Medium
18. I & M Bank Ltd	Medium
19. National Bank of Kenya Ltd	Medium
20. NIC Bank Ltd	Medium
21. Prime Bank Ltd	Medium

22. African Banking Corporation Ltd.	Small
23. Charterhouse Bank Ltd	Small
24. Consolidated Bank of Kenya Ltd	Small
25. Credit Bank Ltd	Small
26. Development Bank of Kenya Ltd.	Small
27. Dubai Bank Kenya Ltd.	Small
28. Equatorial Commercial Bank Ltd	Small
29. Fidelity Commercial Bank Ltd	Small
30. Fina Bank Ltd	Small
31. First community Bank Limited	Small
32. Giro Commercial Bank Ltd	Small
33. Gulf African Bank Limited	Small
34. Habib Bank A.G Zurich	Small
35. Habib Bank Ltd.	Small
36. Jamii Bora Bank Limited	Small
37. K-Rep Bank Ltd	Small
38. Middle East Bank (K) Ltd	Small
39. Oriental Commercial Bank Ltd	Small
40. Paramount Universal Bank Ltd	Small
41. Trans-National Bank Ltd	Small
42. UBA Kenya Bank Limited	Small
43. Victoria Commercial Bank Ltd	Small

Source: *Central Bank of Kenya*

