

**IMPACT OF TREASURY RISK MANAGEMENT ON THE FINANCIAL  
PERFORMANCE OF COMMERCIAL BANKS IN KENYA**

**BY**

**MICHAEL NJOROGE MBURU**

**REG NO. 14/04475**

**A RESEARCH PROJECT SUBMITTED IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF  
SCIENCE IN COMMERCE FINANCE AND INVESTMENT**

**KCA UNIVERSITY**

**NOVEMBER 2017**

## DECLARATION

I, the undersigned, declare that this is my original work and has not been submitted to any other college, institution or university

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

Michael Njoroge

This project report has been presented for examination with my approval as the appointed supervisor.

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

Signed: \_\_\_\_\_ Date: \_\_\_\_\_

## **DEDICATION**

I would like to dedicate this project first and foremost to the Almighty God for giving me sound health throughout the period I was working on my project. To my family who gave me a shoulder to lean on when I felt weak and tired, relatives and fellow colleagues, students. Thank you for your concerted effort.

## **COPYRIGHT**

All rights reserved; no part of this work may be reproduced, stored in a retrieval system or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise without the express written authorization from the writer.

## **ACKNOWLEDGEMENT**

First and foremost my thanks go to Almighty God who gave me the time, the patience and the wisdom to complete my study. My appreciation and deepest gratitude goes to my supervisor for the support and guidance towards the completion of this study.

My thanks go to my colleagues and friends whom I consulted during the research which gave me different thoughts and perspectives in finishing this project.

I would like to thank the employees, of the banks in study, who completed and sent the questionnaires which were instrumental to the completion of this project.

Thanks again to all who helped me and May God Bless You Abundantly.

## TABLE OF CONTENTS

<b>DECLARATION.....</b>	<b>ii</b>
<b>DEDICATION.....</b>	<b>iii</b>
<b>COPYRIGHT .....</b>	<b>iv</b>
<b>ACKNOWLEDGEMENT.....</b>	<b>v</b>
<b>TABLE OF CONTENTS .....</b>	<b>vi</b>
<b>ABBREVIATIONS .....</b>	<b>xiv</b>
<b>ABSTRACT.....</b>	<b>xv</b>
<b>CHAPTER ONE .....</b>	<b>1</b>
<b>INTRODUCTION.....</b>	<b>1</b>
1.1 Background to the study .....	1
1.1.1 Treasury Risk Management .....	2
1.1.2 Commercial Banks in Kenya .....	3
1.2 Statement of the Problem.....	4
1.3 Objectives of the study.....	5
1.3.1 General Objective .....	5
1.3.2 Specific Objectives .....	5

1.4 Research Questions .....	6
1.5 Significance of the Study .....	6
1.5.1 Policy Makers .....	6
1.5.2 Bank Management (Risk Managers) .....	6
1.5.3 Researchers and Scholars.....	7
1.5.4 Investors .....	7
1.6 Justification of the Study .....	8
1.7 Scope of Study .....	8
1.7 Chapter Summary .....	8
<b>CHAPTER TWO .....</b>	<b>9</b>
<b>LITERATURE REVIEW .....</b>	<b>9</b>
2.1 Introduction.....	9
2.2.1 Stakeholder Theory.....	9
2.2.2 Financial Economic Theory.....	10
2.2.3 New Institutional Economics Theory .....	10
2.3 Empirical Review.....	11
2.3.1 Financial Performance .....	11

2.3.2 Operational Risk .....	13
2.3.3 Credit Risk Management .....	15
2.3.4 Currency Risk Management .....	17
2.4 Conceptual Framework.....	20
2.5 Operational Framework .....	21
2.6 Summary of Literature Review.....	22
<b>CHAPTER THREE .....</b>	<b>23</b>
<b>RESEARCH METHODOLOGY .....</b>	<b>23</b>
3.1 Introduction.....	23
3.2 Research Design.....	23
3.3 Target population and sample size.....	24
3.4 Sampling techniques .....	24
3.5 Data collection Instruments .....	25
3.5.1 Questionnaire .....	25
3.5.2 Secondary Sources .....	25
3.6 Validity and reliability .....	25
3.7 Data analysis technique.....	26

3.8 Ethical issues.....	27
<b>CHAPTER FOUR.....</b>	<b>28</b>
<b>DATA ANALYSIS PRESENTATION AND INTERPRETATION .....</b>	<b>28</b>
4.1 Introduction.....	28
4.1.1 Response Rate .....	28
4.1.2 Respondents Demographic Information .....	29
4.1.3 Gender of the respondents .....	30
4.1.4 Level of Education.....	31
4.1.5 Number of the years in banking.....	33
4.2 Financial Operational Risk Management and Financial Performance of Commercial Banks.....	34
4.2.1 Management and risk policy formulation .....	35
4.3 Credit Risk Management and Financial Performance of Commercial Banks .....	37
4.4 Currency Risk Management and Financial Performance of Commercial Banks ...	39
4.5 Financial Performance of Commercial Banks .....	40
4.6 Inferential Statistics .....	41
4.6.1 Coefficient of Determination .....	41

4.7 Analysis of Variance.....	42
4.8 Regression Analysis.....	43
4.9 Hypothesis Testing.....	44
<b>CHAPTER FIVE .....</b>	<b>45</b>
<b>SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS .....</b>	<b>45</b>
5.1 Introduction.....	45
5.2 Summary of the Findings.....	45
5.2.1 Operational Risk .....	45
5.2.2 Credit Risk Management .....	46
5.2.3 Currency Risk Management .....	46
5.3 Conclusion .....	47
5.4 Recommendations.....	47
5.5 Limitations of the Study.....	48
5.6 Recommendations for Further Study .....	48
References.....	49
Appendices.....	53
Appendix I: Questionnaire .....	53

Appendix 2: List of Commercial Banks ..... 58

Appendix III: Project Budget 2017..... 60

## LIST OF TABLES

Table 2.1 Operationalization.....	21
Table 4.2 Response Rate.....	28
Table 4.3 Respondents Occupational Rank .....	29
Table 4.4 Gender of the respondents .....	30
Table 4.5 Level of Education.....	31
Table 4.6 Number of the years in banking.....	33
Table 4.7 Formal Risk Management System in Banks.....	34
Table 4.8 Management and risk policy formulation.....	35
Table 4.9 Descriptive statistics .....	36
Table 4.10 Credit Risk Management .....	37
Table 4.11 Internal Controls .....	39
Table 4.12 Financial Performance of Commercial Banks .....	40
Table 4.13 Coefficient of Determination .....	41
Table 4.14 Analysis of Variance.....	42
Table 4.15 Regression Analysis.....	43

## **LIST OF FIGURES**

Figure 2.1 Conceptual Framework .....	20
Figure 4.2 Respondents Occupational Rank .....	29
Figure 4.3 Gender of the respondents .....	30
Figure 4.4 Level of Education .....	32
Figure 4.5 Number of the years in banking .....	33
Figure 4.6 Management and risk policy formulation.....	35

## **ABBREVIATIONS**

CBK	Central Bank of Kenya
ROA	Return on Assets
ROE	Return on Equity
NPL	Non-Performing Loans
SPSS	Statistical Package for Social Science

## ABSTRACT

The study sought to establish the influence of treasury risk management on the financial performance of commercial banks in Kenya, specific study objectives were aimed at assessing the extent to which operational risk analysis influence performance of banks, evaluating the role of credit risk management influence performance of banks and finding out to what extent does currency risk management influence performance of banks. Financial and non-financial risks are inherent in every commercial bank in Kenya and the government thus have sound treasury risk management to achieve its priority in sound fiscal management. Banks have the right to embed appropriate financial risk management strategies and business planning to achieve healthy financial performance. The study adopt a descriptive research design. The research tool consisted of questionnaires that administered to the selected commercial banks and multiple regression used for data analysis. A target population of 314 senior management staff selected from 157 commercial bank branches in Nairobi central Business District, a sample frame of 63 respondents selected, this represents 20% of the target population. The study establish the relationship between the independent sub variables of treasury risk management and financial performance of commercial banks. From the study finding, it was evident that credit risk management and currency risk management have a positive and significant impact on the financial performance of commercial banks at 0.968 and 0.131 respectively. The analysis showed that when all factors are constant, financial performance was -1.038

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background to the study

The concept of risk management started long way back after the world war two, Eichhorn (2004) pointed out that issues in risk management was not of concern to many institutions and no training on the preparedness of certain eventuality. The aspect of pure risk management become prominent when engineers developed operational and technological model of managing risks which later came to be adopted by commercial banks and financial institutions regulator in the market. Risk management is continuously an evolving as well as a valued practice. In the recent years where the universe has been faced by financial crisis, the significance of a well formulated risk management strategy and process have increased in the financial institutions. According to Saunders (2006), risk is defined as uncertainty of outcome, whether positive opportunity or negative threat of actions and events. The risk has robe assessed in respect of the combination of the likelihood of something happening and the impact which arises if it does actually happen. Risk is defined as something that can create or generate hindrances to the achievement of certain objectives Afshien (2010). From Emmett (1997) definition, it is clear that risk is a condition of the real world: it crafts from an undesirable event. Undesirable event in this context is described as an adverse deviation from a desired outcome that is expected and hoped for.

Risk management is considered as a separate managerial function aimed at mitigating any potential losses and enhance firm value. In 2005 the Central Bank of Kenya and the

treasury realized the importance of risk management to the commercial banks and offered a treasury circular meant to set enterprise risk management to all banks. This is to assure the members of their protection and promote management effectively deal with future uncertainties and associated risks (CBK, 2010).

### **1.1.1 Treasury Risk Management**

Treasury Risk is termed as the risk that is connected with organization of an enterprise's holdings including money market instruments all the way to equities trading (Van Greuning, & Brajovic-Bratanovic, (2009). With regards to financial arbitrage, treasury risks could lead to profit in the instance that arbitrage is correct and if it is incorrect then a loss is incurred. The risk management ought to be aimed at benefitting the organisation where it adds value at all the levels, otherwise it is not maximizing its value.

Risk Management has emanated to be a valued practice and from a simple, insurance based view to a holistic; all risk encompassing view commonly termed Enterprise Risk Management (Nocco and Stultz, 2006). In market based countries where capital market dominated by economic activities, banks have suffered a severe shock in their capital and liquidity status due to the unanticipated waves in the financial market and a credit crunch experience in the financial industry (Kargi, 2011). Experience has shown that treasury obligations fulfill an important part in an organization's operations. Notwithstanding at times it can be an area due to its nature and complexity that does not receive sufficient attention.

According to Bessis & O'Kelly (2015), the policy designed to achieve a major risks include passing on to another party, avoiding the risk, minimizing the negative effects of

the risk and absorb some or all of the consequences of a particular risk. Risk management should put value to your company at all levels. Financial risks are a significant part of every organization's financial operation large or small, public or private (Bessis, & O'Kelly, 2015).

Financial performance is a company's ability to generate or create resources from the daily operations, over a given period of time; performance is gauged by net income and cash from operations. A bank is a financial institution that provides financial services including issuing money, receiving deposits, lending money and processing transactions and providing credit (Campbell, 1993). Financial performance consists of methods to assess how good an organization is using its assets to generate income (Richard 2009). Common examples of financial performance are operating income, earnings before interest and taxes, and net assets value. It is of importance to note that no single measure of financial performance should be considered stand alone. The two most popular measures of profitability are ROE and ROA. ROE measures accounting earning for a period per dollar of Equity from shareholders while ROA measures return of cash that is invested in assets (Damodaran, 2007).

### **1.1.2 Commercial Banks in Kenya**

Commercial banks in Kenya are registered and governed by the Central bank of Kenya Act (Cap, 491) and with the prudential regulations issued by the Central bank of Kenya. Exchange controls were lifted and liberation occurred in the banking Industry. The Central bank of Kenya under the National Treasury docket is responsible for formulating and implementing monetary policies and promoting liquidity, solvency and proper

operations of all commercial banks in Kenya. Central bank formulation and implementing also includes financial risk management and the financial performance of banks in Kenya. As at December 2015 the number of banks had risen to 43 commercial banks. Banks are required to submit audited reports including credit risk, interest risk, foreign exchange risk, liquidity risks as well as capital management risk on yearly basis by 31<sup>st</sup> March each year. In 2013, the Kenyan banking industry registered an improved performance of 15.9 percent growth in total net assets from Ksh. 2.33 trillion in December 2012 to Ksh. 2.70 trillion in December 2013 (Central bank of Kenya, 2014).

## **1.2 Statement of the Problem**

Treasury risk Management has evolved over time and requires understanding of the banks business environment needs as well as exposures to the financial markets. The banking industry in Kenya is characterized by various dentition problems. The rapid growth in private sector, foreign investment plus economic growth makes risk management an important topic for commercial banks (Kiptui, & Kipyegon, 2008). The strategies used for hedging risk such as futures, swaps and options are either not available in the financial market or where available are used inefficient and illiquid markets, making the range of tools used in hedging risk extremely limited. According to Kiptui & Kipyegon, (2008), this has led to the limited scope of corporate treasures to be able to find adequate hedging tools to the exposures of risks in there day to day operations.

Locally, Njunge (2012) in his study found that there was need to employ risk management policies aimed at reducing bankruptcy and distress costs while Oduori (2012) did a study focusing on the strategies used by banks in combating emerging

operational, strategic and Credit risks. Mutua (2013) did a survey of foreign exchange risk management practices by foreign owned commercial banks in Kenya. These previous studies have projected on the practices adopted by microfinance institutions and selected banks in managing foreign exchange risk without relating these management practices to a bank's financial performance and concluded that risk management is part of the core function of the bank. According to the study of Aduda & Kingoo, (2012), with increased transactions using foreign currency, the fluctuations in exchange rates tend to pose significant foreign exchange risks. The trend in commercial banks where there are changes in the environment has led to a free and open market operation in the financial market in Kenya has led to most commercial banks looking at how best to adapt to currency risk management, position management and currency trading (Aduda, & Kingoo, 2012). As a result, there is a need to look at the treasury risk management effect on banks financial performance hence the need for this study to fill this gap.

### **1.3 Objectives of the study**

#### **1.3.1 General Objective**

The objective of the study was to establish the influence of treasury risk management on the financial performance of commercial banks in Kenya.

#### **1.3.2 Specific Objectives**

- i). To assess the extent to which operational risk analysis influence financial performance of banks.
- ii). To evaluate the role of credit risk management influence financial performance of

banks

- iii). To find out to what extent does currency risk management influence financial performance of banks

#### **1.4 Research Questions**

- i). In what ways does financial operational risk analysis influence financial performance of banks?
- ii). To what degree does credit risk management influence financial performance of banks?
- iii). To what extent does currency risk management influence financial performance of banks?

#### **1.5 Significance of the Study**

##### **1.5.1 Policy Makers**

The Study provides useful information to policy makers and regulators to design targeted policies and programs that actively stimulate the growth and sustainability of the commercial banks in the country. Regulatory bodies such as the central bank of Kenya can use the findings to improve on the framework for risk management.

##### **1.5.2 Bank Management (Risk Managers)**

The study findings to benefit the management and staff of banks who will gain insight into the importance of financial risk management adherence and its effect on risk mitigation in the operation of banks.

It also provided a guide for further studies on the risk management in the industry. In addition, this study add to the stock of knowledge available on the risk management which other researches had conducted in the past.

The recommendations in the study would also help risk managers mitigate risks associated with their operation hence improve profitability.

### **1.5.3 Researchers and Scholars**

The study is expected to add value to researchers and scholars as it contribute to the literature on the relationship between treasury risk management and performance of commercial banks in Kenya. It is hoped that the findings was benefit to the academicians, who may find useful research gaps that stimulate interest in further research in future.

### **1.5.4 Investors**

The study was also of value to any investors interested in setting up commercial banks or upgrading investment banks to commercial banks in the country wide pool of shareholders may emerge out of a good risk management resulting in the increment of the price of a firm's share as demand for the firm's share will rise and companies would be able to charge higher premium. In connection with the above, a company can attain a competitive advantage.

## **1.6 Justification of the Study**

The study helps in finding out the influence of treasury risk management on the financial performance of commercial banks in Kenya. Findings from the study are valuable to a large number of financial institutions to best understand the concept of treasury risk management. The study also provide clear cut findings that can be used for future studies by financial institutions and also provide other scholars with guidelines on how to implement the strategies derived in this study.

## **1.7 Scope of Study**

The study was carried out in the 43 banks in Kenya as the target population from August 2016 to September 2016. However, the research was specifically focus on 157 banks branches in Nairobi Central Business District sample 63 respondents who are the bank managers. Questionnaire was used to collect primary data and secondary information was drawn from CBK, World Bank and BIS on treasury risk management.

## **1.7 Chapter Summary**

This chapter gives an in depth analysis of the study title on establishing the influence of treasury risk management on the financial performance of commercial banks in Kenya. The introductory section explored on the treasury risk management and research gap. The chapter reviewed on the independent variables as key points to specific objectives on operational risk, credit risk and currency risk.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter reviews literature relating to the impact of treasury risk management on the performance of commercial banks. The literature review has been organized in the following sections. First section covers the theoretical framework on treasury risk management, and its impact on the banks financial performance. The second section covers the determinants of treasury performance including treasury risk management, bank deposits and bank size. The third section covers the empirical studies on the relationship between treasury risk management and performance of commercial banks in Kenya, then the summary of the literature review including research gaps of the chapter.

#### **2.2 Theoretical Review**

This study was based on the Stakeholder Theory, Financial Economic Theory and New Institutional Economics Theory as it seeks to determine the influence of treasury risk management on the financial performance of commercial banks in Kenya.

##### **2.2.1 Stakeholder Theory**

Stakeholder theory focuses explicitly on equilibrium of stakeholder interests as the main determinant of corporate policy (Laplume, Sonpar, & Litz, 2008). In certain industries, particularly high-tech and services, consumer trust in the company being able to continue offering its services in the future can substantially contribute to company value. However, the value of these implicit claims is highly sensitive to expected costs of financial distress

and bankruptcy. Since corporate risk management practices lead to a decrease in these expected costs, a company values raise (Klimczak, 2005). Therefore stakeholder theory provides a new insight into possible rationale for risk management. However, it has not yet been tested directly. Firms can reduce the likelihood of financial distress by hedging variability in earnings by managing financial risk.

### **2.2.2 Financial Economic Theory**

The theory of financial economic theory states that corporate risk management is appropriate to increase firm value in the presence of capital market imperfections such as bankruptcy costs, a convex tax schedule, or underinvestment problems. According to Carter, Rogers, & Simkins, (2006) risk management can increase shareholder value by harmonizing financing and investment policies. A credible risk management can mitigate underinvestment costs by reducing the volatility of firm value. As the underinvestment problem which includes financial risk management is likely to be more severe for firms with significant growth and investment opportunities; various measures such as the market-to-book ratio, research and development to sales ratio, capital expenditure to sales, net assets from acquisitions to size which are indicators of financial performance are used for testing the underinvestment hypothesis.

### **2.2.3 New Institutional Economics Theory**

According to Williamson (2000), this theory predicts that risk management practices may be determined by institutions or accepted practice within a market or industry. Further, the theory links security with specific assets purchase, which implies that risk management can be important in contracts which bind two sides without allowing

diversification, such as large financing contract or close cooperation within a supply chain. Firms in regulated industries provide top management with few opportunities for discretion in corporate investment and financing decisions. Allen, & Lueck (2008) showed that regulation is a key determinant of a firm's corporate financial policy. Therefore, if regulated firms face tighter scrutiny and face lower contracting costs, then they are less likely to hedge firm risk. In particular, firms can hedge cash flows to avoid a shortfall in funds that may require a costly visit to the capital markets and at the same time financial risk management is positively related to measures of the firm's investment opportunity set proxies.

## **2.3 Empirical Review**

Empirical literature review is a directed search of published works, including periodicals and books, that discusses theory and presents empirical results that are relevant to the topic at hand (Zikmund, 2010). Literature review is a comprehensive survey of previous inquiries related to a research question. It allows a researcher to place his or her research into an intellectual and historical context. The empirical review is based on the following objectives of the study.

### **2.3.1 Financial Performance**

Firm performance is a multidimensional construct that consists of four elements (Alam Raza, & Akram, 2011). Customer-focused performance, including customer satisfaction, and product or service performance; financial and market performance, including revenue, profits, market position, cash-to-cash cycle time, and earnings per share; human resource performance, including employee satisfaction; and organizational effectiveness,

including time to market, level of innovation, and production and supply chain flexibility. Consistent with the theoretical foundations in the capabilities and resource-based perspectives, it is argued that organizational capabilities are rent generating assets, and they enable firms to earn above-normal returns. For example, performance management capability influences various measures of firm performance by allowing business leaders to review and take corrective actions on any potential or actual slippages proactively and in a timely manner (Athanasoglou, Sophocles, & Matthaïos, 2008).

Likewise, prior studies in marketing and strategy argue that customer management capability (Alam et al, 2011) and process management capability (Ahmad, Raza, Amjad, & Akram, 2011) influence several dimensions of firm performance. Financial performance measures how well a firm is generating value for the owners. It can be measured through various financial measures such as profit after tax, return on assets (ROA), return on equity (ROE), earnings per share and any market value ration that is generally accepted. Generally, the financial performance of banks and other financial institutions has been measured using a combination of financial ratios analysis, benchmarking, measuring performance against budget or a mix of these methodologies (Ahmad et al, 2011). The financial statements of financial institutions commonly contain a variety of financial ratios designed to give an indication of the corporation's performance. Simply stated, much of the current bank performance literature describes the objective of financial organizations as that of earning acceptable returns and minimizing the risks taken to earn this return (Alam et al, 2011).

There is a generally accepted relationship between risk and return, that is, the higher the risk the higher the expected return. Therefore, traditional measures of bank performance have measured both risks and returns. The increasing competition in the national and international banking markets, the changeover towards monetary unions and the new technological innovations herald major changes in banking environment, and challenge all banks to make timely preparations in order to enter into new competitive financial environment. Aburime (2009) investigated the effectiveness of Nigerian banks based on their political affiliation. The study found that political factors were a major determinant of performance of Nigerian banks. Profit after tax has been widely used as measures of banks performance.

Regarding factors affecting bank performance, different factors have been used by researchers such as: shareholders equity; liquid assets to assets; total loans to total deposits; fixed assets to total assets; total borrowed funds to total assets; reserves for loans to total assets; market concentration; the market size; labor productivity; bank portfolio composition; capital productivity, bank capitalization; financial interrelation ratio; the level of capitalization; age of the bank; per capita Gross Domestic Product (GDP), the cost to-income ratio and customer satisfaction (Athanasoglou et al, 2008).

### **2.3.2 Operational Risk**

Chapelle, Crama, Hübner and Peters (2004) estimated the effects of operational risk management actions on bank profitability, through a measure of RAROC adapted to operational risk. The results suggested that substantial savings can be achieved through active management techniques, although the estimated effect of a reduction of the

number, frequency or severity of operational losses crucially depends on the calibration of the aggregate loss distributions. The study differed significantly from the present study in that it covered operational risks as opposed to financial risk management.

Jobst (2007) wrote a working paper titled ‘Operational Risk—The Sting is still in the Tail but the Poison Depends on the Dose’. This paper investigated the generalized parametric measurement methods of aggregate operational risk in compliance with the regulatory capital standards for operational risk in the New Basel Capital Accord (“Basel II”). Operational risk is commonly defined as the risk of loss resulting from inadequate or failed internal processes and information systems, from misconduct by people or from unforeseen external events. Jobst (2007) analysis informed an integrated assessment of the quantification of operational risk exposure and the consistency of current capital rules on operational risk based on generalized parametric estimation. However, the study by Jobst (2007) had is different from this study as it did not focus on financial risks but rather on operational risk.

Bostander (2007) conducted a study on operational risk events in banks and practices for collecting internal loss data. This research study had two distinct objectives. The first objective was to determine in which areas in South African banks the most severe operational risk losses are likely to occur (based on the Basel II seven loss event types and eight business lines). Severity was assessed based on single operational risk events that might have significant monetary values attached to them. The likely frequency of single operational risk events was also assessed.

Hansen (2009) conducted a study on the strategic foreign exchange risk management practice by Danish medium-sized non-financial, not-listed companies that are involved in international activities. The study showed that interaction between financial and operational hedges exists in the management of operating exposure and that operational and financial strategies are seen as complements to each other. The size of the company exhibited significance in explaining the importance and application of the financial hedging means. The study differs from the current study since it did not cover other aspects of financial risks other than foreign exchange risk which is a component of market risk.

### **2.3.3 Credit Risk Management**

Dam (2010) investigated the credit risk management framework and the effectiveness of the credit risk management practices at both the bank's and a transaction office's level. The research used both qualitative and quantitative research methods. Dam (2010) concluded that the bank tried to adopt a close-to-standard credit risk management framework with numerous published documents governing the day-to-day credit activities. The study had a research gap since it did not address the impact of treasury risk management on the financial performance of commercial banks.

Kithinji (2010) conducted a study on credit risk management and profitability of commercial banks in Kenya using the non-performing loan portfolio (the independent variable) as an indicator of the effectiveness of credit management practices. The intervening variable was the amount of credit as indicated by loans and advances normalized by the total assets. The dependent variable was the profitability measured by

the return on total assets. The author concluded that there was no significant relationship between credit risk management (nonperforming loan portfolio), amount of credit and profitability. The study by Kithinji (2010) differs from this study in that the study concentrated on credit risk only and failed to recognize the role of other financial risk such as market risk, capital management and liquidity risk.

Kombo, Wesonga, Murumba, & Makworo (2010) conducted a study on to assess the impact of risk management strategies on micro-finance institutions' financial sustainability, a case of selected micro finance institutions in Kisii Municipality, Kenya. A survey design was adopted for the study. The study covered only MFIs within Kisii Municipality selected using purposive sampling. Analysis of data was done using descriptive statistics such as percentages. Some of the findings were donor funding, revolving fund and government subsidies are the most preferred sources of funding by the sampled MFIs. Strategic risk, credit risk and liquidity risk are the most frequent risks; whereas reputation and subsidy dependence occur at a very low incidence.

Kamau (2010) conducted a study on the adoption of risk management by commercial banks in Kenya. This study sought to identify the risks encountered by commercial banks and the risk management practices adopted by commercial banks to mitigate against these risks. Further the study wanted to establish the challenges faced by commercial banks in successful implementation of risk management. A census survey was conducted for all the licensed banks operating in Kenya. Majority of the banks were found to use both qualitative and quantitative methods to measure risk. Scenario analysis was found to be the most common used technique to measure risk. Budget constraint, complexity of risk

management process and high training costs were identified as the main challenges facing implementation of risk management. Progress has been made in risk management by commercial banks in Kenya as revealed by the study as most of the banks have risk management structures in place.

#### **2.3.4 Currency Risk Management**

Njeri (2010) conducted a survey on strategic risk management practices by large commercial banks in Kenya. The research was a census survey on 13 large commercial banks in Kenya. The objectives of the study were to determine the strategic risk management practices adopted by large commercial banks and the challenges faced by these banks in their strategic risk management practices. The study found out that banks have adopted strategic risk management practices and though there was a slight variance in approach between the banks, the most commonly adopted practice centered on strategic risk assessment, evaluation, monitoring, and control and reporting.

Kargi (2011) conducted a study on credit risk and the performance of Nigerian banks. Kargi used non-performing loan portfolios and these significantly contributed to financial distress in the banking sector. Financial ratios as measures of bank performance and credit risk were the data collected from secondary sources mainly the annual reports and accounts of sampled banks from 2004 - 2008. The author concluded that credit risk management has a significant impact on the profitability of Nigeria banks. The study differs from this study since this study recognizes the role of other financial risk such as market risk, capital management and liquidity risk.

Ahmed, Akhtar & Usman (2011), conducted a study on risk management practices and Islamic Banks. The authors' aim was to determine the firm's level factors which have significantly influenced the risk management practices of Islamic banks in Pakistan. The study concluded that size of Islamic banks have a positive and statistically significant relationship with financial risks (credit and liquidity risk), whereas its relation with operational risk is found to be negative and insignificant. The asset management establishes a positive and significant relationship with liquidity and operational risk. The debt equity ratio and non-performing loans (NPLs) ratio have a negative and significant relationship with liquidity and operational risk. In addition, capital adequacy has negative and significant relationship with credit and operational risk, whereas it is found to be positive and with liquidity risk. The study differs from this study since this study focuses on all the banks and not Islamic banks.

Ojiako (2012) conducted a study that examined thematic elements in strategic business risk. The author sought to put forward propositions on how firms may best conceive business risks in an environment characterized by constant change and uncertainty. The paper brought out a propositional foundation for the empirical development of an appropriate framework for strategic risk management. The major contribution of the study was that it focused readers on not only strategic risk and competition, but on how lessons can be drawn from the military's experience of dealing with irregular forms of competition (Aumann and Dreze, 2004). However, the study differs from our study as it did not address the link between strategic risk management practices and financial performance.

Siba (2012) carried out a study on the relationship between financial risk management practices and financial performance of commercial banks in Kenya. The study involved the 40 commercial banks in Kenya. The study employed questionnaire method for primary data collection, whereas secondary data was obtained from CBK annual supervision reports. The conclusion was that banks had highly effective risk management practices and there was a strong relationship between the bank's performance and the efficiency of the banks risk management practices. The study differs from the current study in that the current study seeks to focus on the relationship between financial risks which include credit, market, capital management, and liquidity risks as opposed to focusing on the risk management practices of identifying, managing and controlling the financial risks.

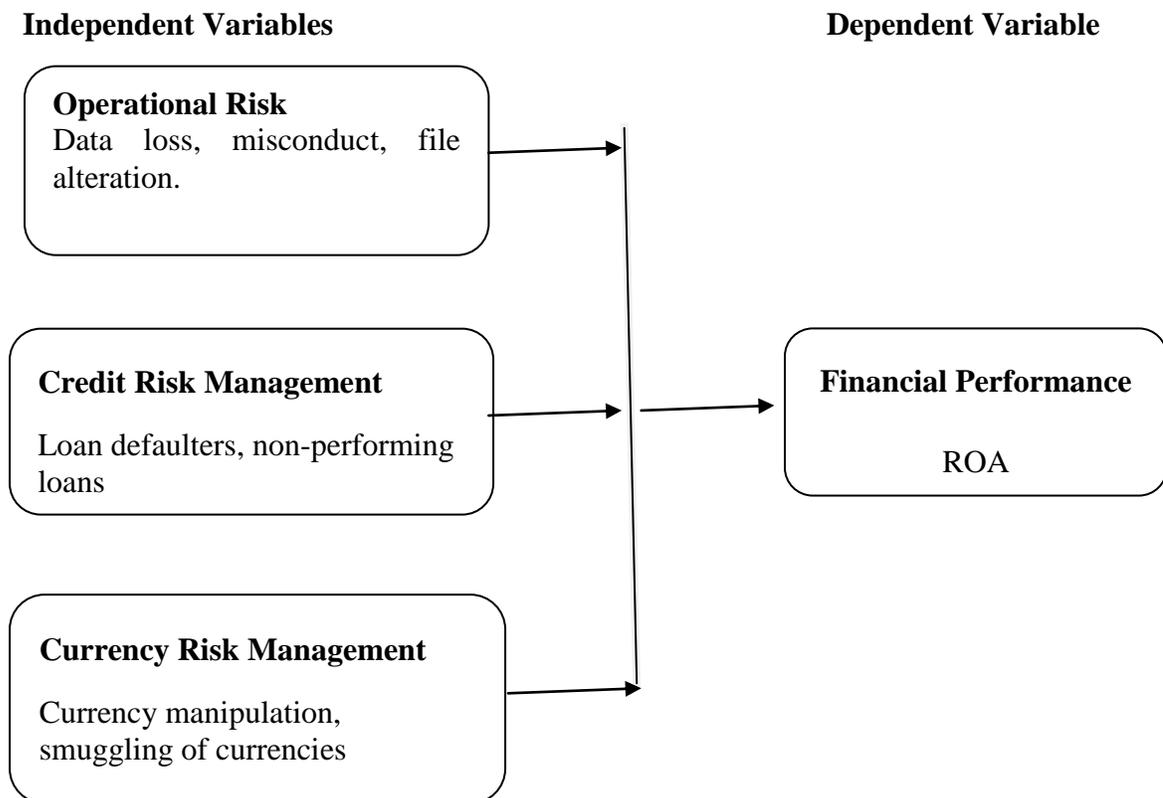
Mwangi (2012) did a study on the effect of risk management practices on the financial performance of commercial banks in Kenya. The objectives of this study were to analyze the risk management practices undertaken by Commercial Banks in Kenya and to determine and assess the effect of these risk management practices on their financial performance. Secondary data was also obtained on the financial performance of the banks from the annual reports and audited financial statements. From the research conducted it is evident that risk management and the related practices are considered significantly important to the operations and financial performance of these commercial banking institutions. This has been influenced to a large extent by guidelines put forward by the Central Bank of Kenya and also the nature of the banking industry. In most cases banks had adopted a proactive and enterprise wide approach to their risk management practices by have a risk department with a manager, and had a documented risk management

policy which was fairly well communicated throughout all levels of the organization from the Board to Staff. The study also found that some risk management practices do have significant effect on financial performance more than others i.e. the existence of a risk management policy and the integration of risk management in setting of organizational objectives were considered to be the key risk management practices that had a direct effect on financial performance.

## 2.4 Conceptual Framework

Conceptual framework is an infographic that shows the relationship between the independent and the dependent variables. The diagram constitutes an important milestone in helping to understand conceptualization process (Kothari, 2004)

**Figure 2.1 Conceptual Framework**



## 2.5 Operational Framework

**Table 2.1 Operationalization**

Specific Objectives	Variables	Indicators	Measurement	Measuring Scale	Data collection Method	Data Analysis
To assess the extent to which operational risk analysis influence performance of banks.	<b>Independent Variable</b> Operational risk	Internal fraud Damage of physical assets Loss of files	Number of detected fraud cases in the bank  Number of missing files in the banks system	Ordinal	Questionnaires	SPSS
To evaluate the role of credit risk management influence performance of banks	<b>Independent variable</b> Credit risk management	- Non performing loans Debt defaulters Credit rating score	Number of loan defaulters Number of loan recovery	Ordinal	Questionnaire	SPSS
To find out to what extent does currency risk management influence performance of banks	<b>Independent variable</b> Currency risk management	Fake currency Foreign exchange risk	Amount of foreign exchange Amount of fake currency detected	Ordinal	Questionnaire	SPSS

## **2.6 Summary of Literature Review**

Research gaps exist since none of the studies address in detail the relationship between financial risk management and financial performance of commercial banks in Kenya. In addition, majority of the studies were either done on credit risk management or on operational risk. Research gaps also exist as this research will provide more literature for examining the theories reviewed. In addition, the majority of the studies were done in developed economies hence leaving scarce literature in developing economies. This study sought to fill the existing research gap by answering the following research question, does there exist a relationship between financial risk management and financial performance of commercial banks in Kenya? The above chapter reviews the various theories that inform financial risk management and financial performance. In addition, an empirical review is conducted where past studies both global and local is reviewed in line with the following criteria, title, scope, methodology resulting into a critique. It is from these critiques that the research gap is identified.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This chapter describes the design and population of the study, the type of data and the procedures to be used in collecting that data. It further discusses the methods of presenting and analyzing the data that was collected.

#### **3.2 Research Design**

A research design is a master plan specifying the methods and procedures for collecting and analyzing the needed information. This study undertake descriptive design method which sought to answer the questions how, what, why, when and which. The design also describe systematically a situation or area of interest factually or accurately. It specify research methods to be used, sample size measurement and data analysis methods. Mugenda, & Mugenda, (2003), state that in descriptive research design the problem is structured and well understood, it portrays an accurate profile of persons, Events or situations. Moreover, the major purpose of descriptive research is to provide information characteristics of a population or phenomenon where accuracy is particularly important. Descriptive research involves gathering data that describe events and then organizes, tabulates, depicts, and describes the data collection which include analysis of 42 banks in Nairobi CBD to find out the effects of their programs to economic empowerment and to the living standards.

### **3.3 Target population and sample size**

In research, target population is the entire set of units for which the survey data is to be used to make inferences. It can also be defined as the eligible population that is included in research work (Mugenda & Mugenda, 2009). A population can be defined as including all people or items with the characteristic one wish to understand. Because there is rarely enough time or money to gather information from everyone or everything in a population, the goal becomes finding a representative sample (or subset) of that population. According to Mugenda & Mugenda (2012), any sample size in the limits of 10% and 30% presents a good picture of the target population. The Central Bank of Kenya supervision report of 2015 also outlines the grouped number of employees in the banking sector in the management position was 314 staff working in the selected branches from the 157 branches of the 42 commercial banks operating in Nairobi CBD 2015. The sample size for the study was 25% of the total targeted populations, this was equivalent to 63 management staffs.

### **3.4 Sampling techniques**

Stratified random sampling design was used in the study. Kombo and Tromps (2006) points out that it involves dividing ones' population into homogenous sub groups and then taking a simple random sample in each sub group. The stratified random sampling method was the best suited in this research because the population consist of different people who use the organization. This method was appropriate because it was able to represent not only the different management levels from the bank. The sample therefore be drawn from each stratum from where respondents was selected. In the banks, the

population have the departmental managers involved. Each bank have 3 department managers being stratified as the study population.

### **3.5 Data collection Instruments**

#### **3.5.1 Questionnaire**

The researcher prepare questionnaires prior to distribution; a pre-testing exercise was undertaken. This involve giving the questionnaires to the target group for comments and subsequent corrections. The questions was both open ended and close ended which sought to answer the research question and find out any other necessary information for the study.

#### **3.5.2 Secondary Sources**

Secondary data was obtained from business publications and brochures which provide information on business operations, terms and conditions for the loans types of loans available, products and services which they offer among others. Secondary data from various authors and books provide good information which create a good understanding of financial performance of banks.

### **3.6 Validity and reliability**

Reliability refers to the consistency of the instrument. For a research instrument to be reliable, it must be capable of yielding consistent results when used more than once to collect data from two samples drawn randomly from the same population (Mugenda & Mugenda, 2009). To establish the reliability of the research instruments, the researcher carry out a pilot test of the instruments using another similar group with the same

characteristics as the one targeted in the study. The pilot study was done to test whether the aim of the study was achieved, if there was ambiguity in any item, if the instrument elicit the type of data anticipated, whether the research objectives was appropriately addressed thus enhancing reliability and validity, and lastly indicate whether the type of data collected was meaningfully analyzed in relation to the stated research questions and objectives. The participants was encouraged to make comments and suggestions concerning the instructions in the questions, clarity of the questions and relevancy of the questions to ensure the reliability instruments.

The researcher also sought to establish the internal consistency reliability. In internal consistency reliability estimation a single measurement instrument administered to a group of people on one occasion to estimate reliability was used. In effect the reliability of the instrument was judged by estimating how well the items that reflect the same construct yield similar results. Cronbach's Alpha of 0.7 was used in the study and the findings showed that operational risk, credit risk management and ccurrency risk management had Cronbach's Alpha of 0.736, 0.802 and 0.714 respectively.

### **3.7 Data analysis technique**

The study used both qualitative and quantitative methods of data analysis. The researcher use SPSS and Microsoft Excel for conducting the data analysis. This helped to draw conclusions from the gathered data which was both verbative and quantitative. Data was presented by use of graphs, pie charts and percentages. In data editing the filled questionnaires was read through in order to spot any error and inconsistencies which have occurred during data collection. The study used a multilinear regression model in analysing

the influence of treasury risk management on the financial performance of commercial banks in Kenya.

The regression model was specified as follows:

The regression equation;  $y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$ :

Where by

Y = financial performance

$\beta_0$  = Constant term

$\beta_1, \beta_2$  and  $\beta_3$  = Beta of coefficients,

X1 = Operational risk

X2 = Credit risk management

X3 = Currency risk management

$\epsilon$  = Error term

### **3.8 Ethical issues**

To ensure that the study complies with all ethical issues pertaining research undertaking, a permission to conduct the study was sought from the company management. A full disclosure of all the activities concerning the study was explained to the management and this involves the study intention, which is only for academic purpose. A high level of privacy and confidentiality was observed and the findings of the study only submitted to the university and the company management. A letter of introduction was also obtained from the university to serve as evidence of the purpose of the study.

## CHAPTER FOUR

### DATA ANALYSIS PRESENTATION AND INTERPRETATION

#### 4.1 Introduction

This chapter presents the analysis of the study based on the impact of treasury risk management on the financial performance of commercial banks in Kenya. The study primary data was collected via the use of questionnaires, the data was analyzed using SPSS and presented in form of table charts, percentages and inferential.

##### 4.1.1 Response Rate

The study sample population was 63, out of this number the researcher obtained 45 respondents from the given financial institutions. This represented 71.4% of the total sample size. According to Mugenda and Mugenda (2003) states that a response rate of 50% is adequate for analysis, 60% response rate is a good representation while 70% and above response rate gives an excellent report.

**Table 4.2 Response Rate**

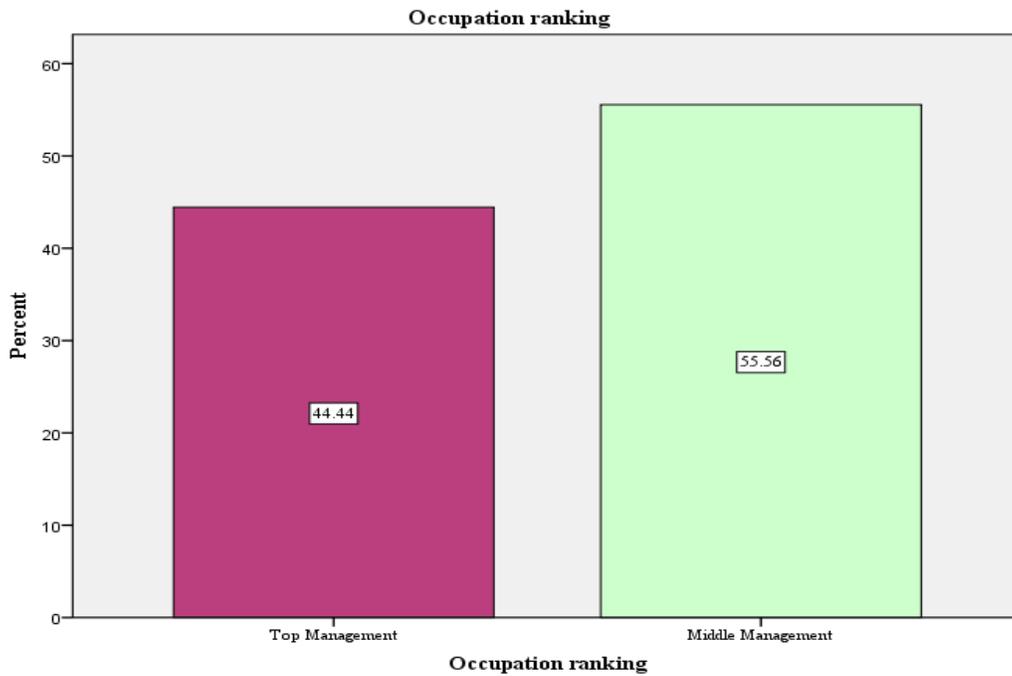
<b>Response</b>	<b>Frequency</b>	<b>Percentage</b>
Filled Questionnaires	45	71.4%
Unfilled Questionnaires	18	28.6%
Total	63	100%

### 4.1.2 Respondents Demographic Information

**Table 4.3 Respondents Occupational Rank**

	Frequency	Percent	Valid Percent	Cumulative Percent
Top Management	20	44.4	44.4	44.4
Middle Management	25	55.6	55.6	100.0
Total	45	100.0	100.0	

**Figure 4.2 Respondents Occupational Rank**



From the above figure, 44.4% of the total respondents were from the top management while 56.6% were from the middle management. This gave a good representation of the view of the respondents to help in analyzing the impact of impact of treasury risk

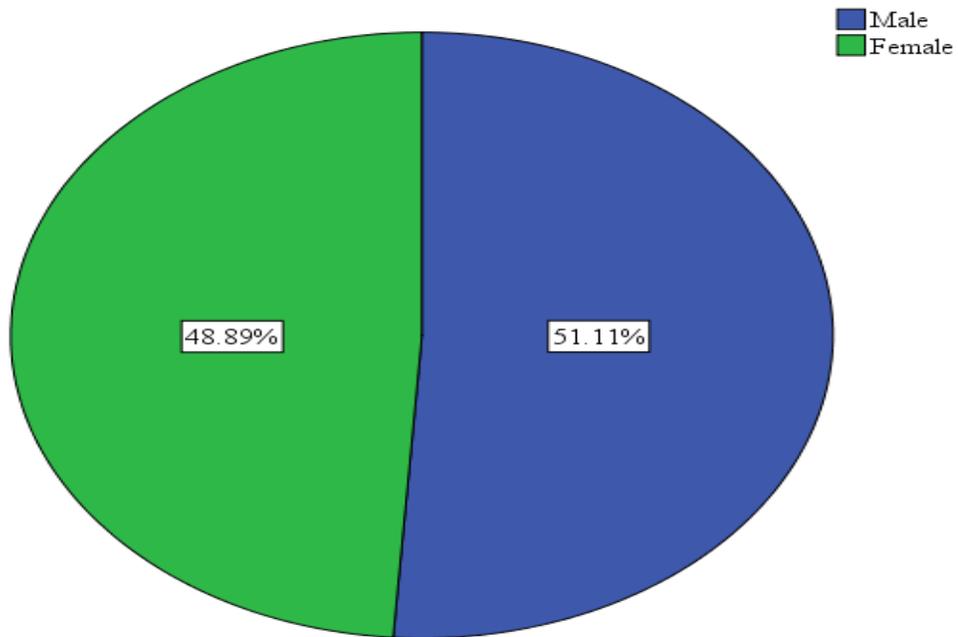
management on the financial performance of commercial banks in Kenya as it involved decision makers in the banks.

#### 4.1.3 Gender of the respondents

**Table 4.4 Gender of the respondents**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	23	51.1	51.1	51.1
Female	22	48.9	48.9	100.0
Total	45	100.0	100.0	

**Figure 4.3 Gender of the respondents**



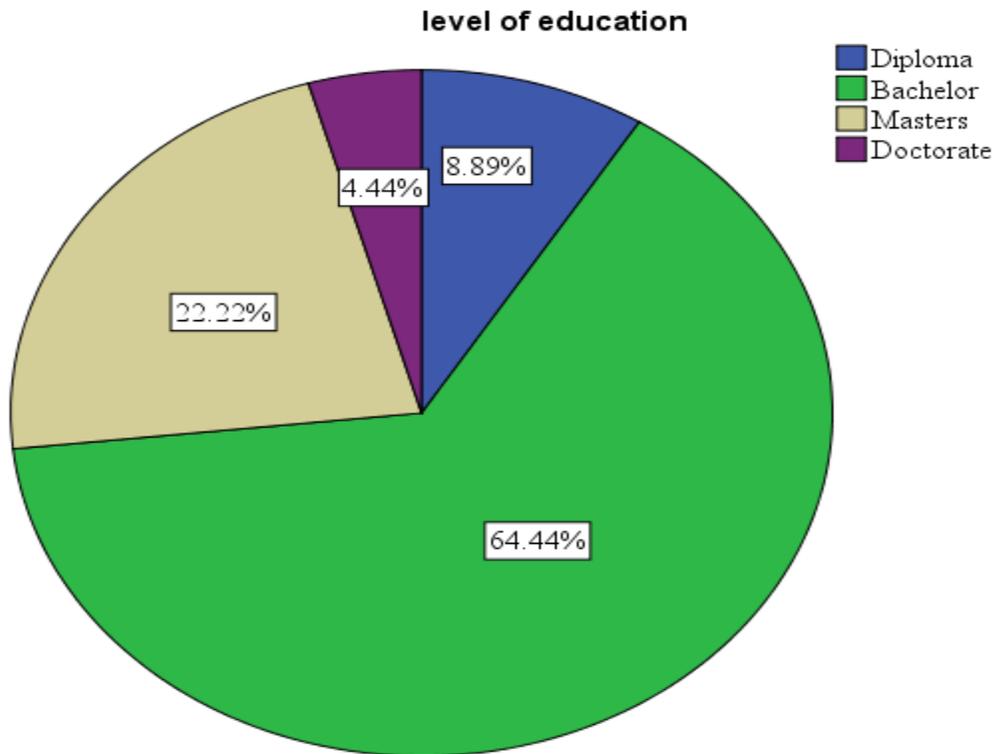
From the analysis of the above figure, 48.89% of the total respondents were female while 51.11% were males. This shows that the middle and top management is dominated by the males in the financial sector in Kenya.

#### 4.1.4 Level of Education

**Table 4.5 Level of Education**

	Frequency	Percent	Valid Percent	Cumulative Percent
Diploma	4	8.9	8.9	8.9
Bachelor	29	64.4	64.4	73.3
Valid Masters	10	22.2	22.2	95.6
Doctorate	2	4.4	4.4	100.0
Total	45	100.0	100.0	

**Figure 4.4 Level of Education**



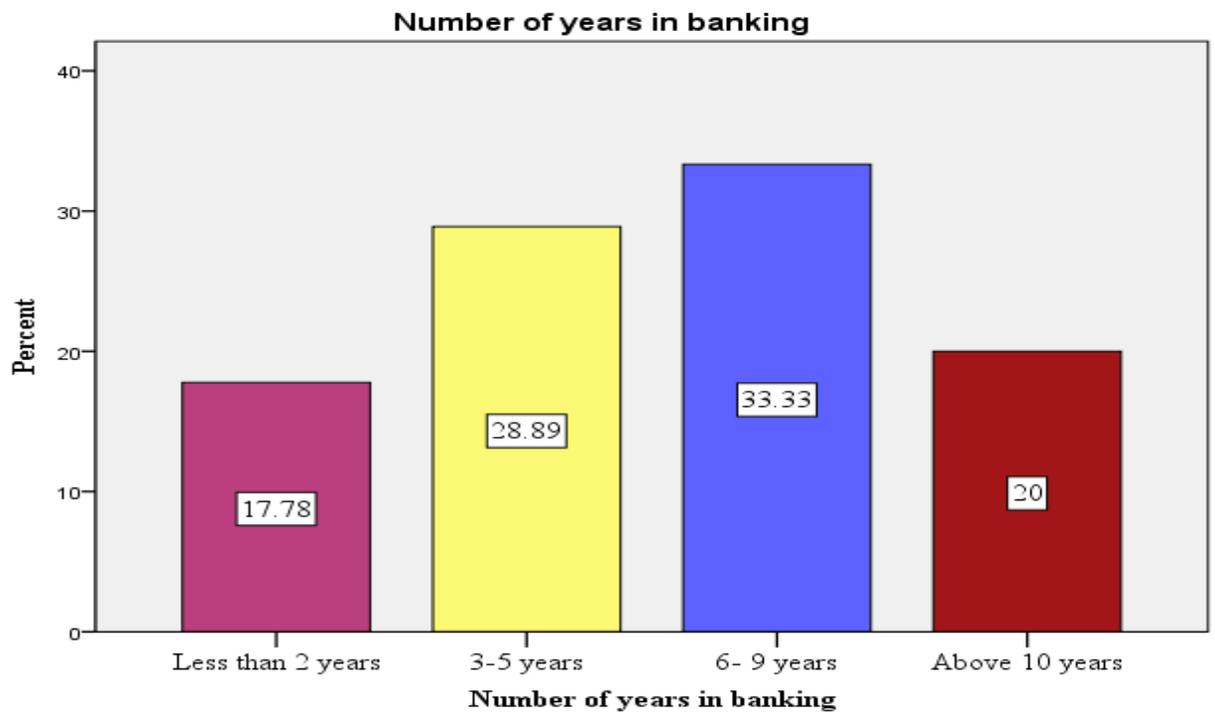
The above figure shows that majority of the respondents from the banks are degree holders with 64.44% having bachelors qualification, 22.22% had masters qualification, 8.9 had diploma while 4.44% had doctorate qualification. This shows that the respondents are well versed with facts relating to treasury risk management on the financial performance of commercial banks in Kenya.

#### 4.1.5 Number of the years in banking

**Table 4.6 Number of the years in banking**

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Less than 2 years	8	17.8	17.8	17.8
3-5 years	13	28.9	28.9	46.7
6- 9 years	15	33.3	33.3	80.0
Above 10 years	9	20.0	20.0	100.0
Total	45	100.0	100.0	

**Figure 4.5 Number of the years in banking**



The above figure shows that majority of the respondents have been in the banking sector for more than nine years, the highest number of the respondents have worked in the banking sector between 6-9 years representing 33.33% of the total population, this was followed by 3-5 years representing 28.89%, 20% had above 10 years while 17.78% had less than 2 years in the banking sector.

## **4.2 Financial Operational Risk Management and Financial Performance of Commercial Banks**

**Table 4.7 Formal Risk Management System in Banks**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	45	100.0	100.0	100.0

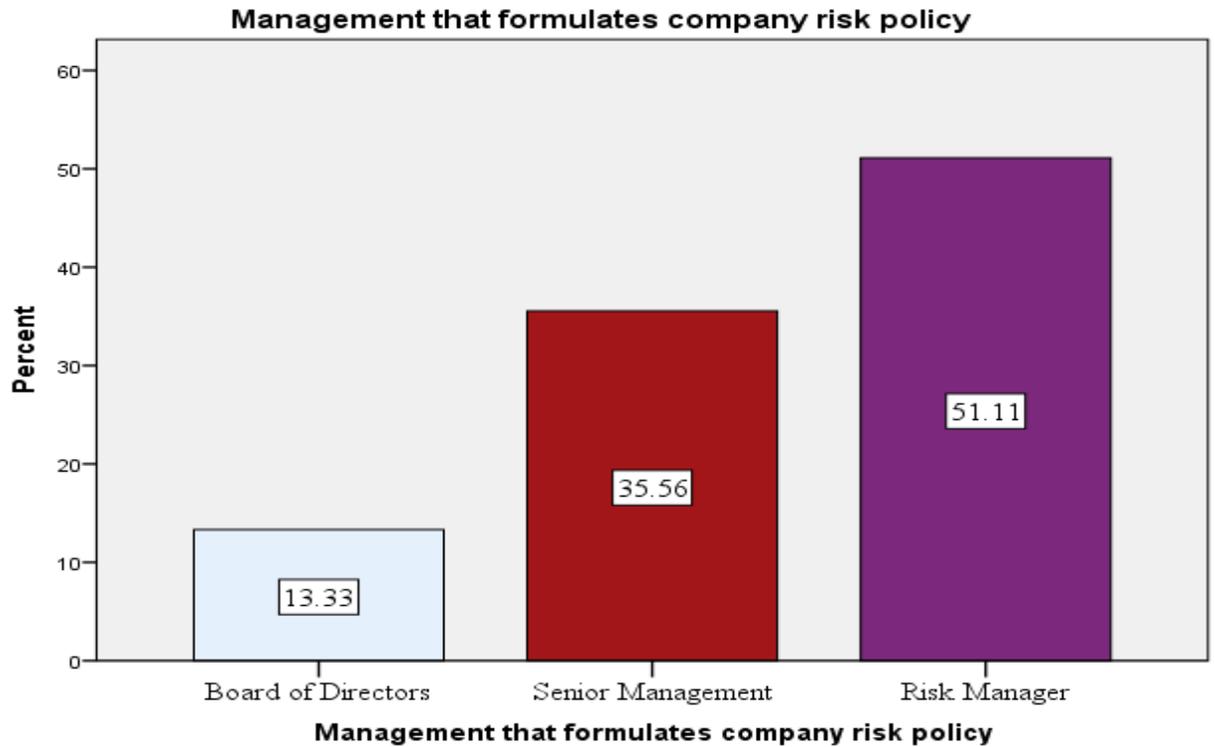
Referring to the statement on the formal risk management system in the bank, all respondents were in agreement to the statement and they unanimously responded yes to the fact. This shows that the banks have set program that analyzes on the risk related issues in the banks.

#### 4.2.1 Management and risk policy formulation

**Table 4.8 Management and risk policy formulation**

	Frequency	Percent	Valid Percent	Cumulative Percent
Board of Directors	6	13.3	13.3	13.3
Senior Management	16	35.6	35.6	48.9
Risk Manager	23	51.1	51.1	100.0
Total	45	100.0	100.0	

**Figure 4.6 Management and risk policy formulation**



The above table shows that the respondents were in support that mostly risk manager is representing 51.1%, this was closely followed by senior management at 35/56 while BOD came in distance third with 13.33%

**Table 4.9 Descriptive statistics**

	N	Mini mum	Maxi mum	Mean	Std. Deviation
Banks investment policy across different countries	45	1	5	4.27	.939
Banks diversifying policy across different countries	45	3	5	4.31	.596
Valid N (listwise)	45				

Referring to the above table, the respondents were asked to indicate their level of support to the statement relating to risk management environment, Policies and Procedures and its impact on the financial performance of commercial banks in Kenya.

From the finding, most of the agreed that banks have diversified policy across different countries. With a mean response of 4.31, they cited it very strongly as a factor in the determination of banks financial performance.

The respondents also agreed that the banks have investment policy across different countries have impacted on the financial performance of commercial banks positively with a mean response of 4.27.

### 4.3 Credit Risk Management and Financial Performance of Commercial Banks

**Table 4.10 Credit Risk Management**

	N	Mini mum	Maxi mum	Mean	Std. Deviation
Banks monitors individual credit limit weekly	45	1	5	2.09	.821
Banks monitor customer credit report service on business performance annually	45	1	5	3.62	1.419
Banks monitors individual credit limit monthly	45	3	5	4.13	.757
Banks makes report for senior officers in quarterly	45	1	5	4.36	.712
Banks monitor customer credit report service on business performance weekly	45	4	5	4.36	.484
Banks monitors individual credit limit quarterly	45	4	5	4.42	.499
Banks makes report for senior officers in monthly	45	2	5	4.67	.707
Banks makes report for senior officers in weekly	45	4	5	4.73	.447
Valid N (listwise)	45				

The researcher requested the respondents to indicate the extent to which they think credit risk management impact on the financial performance of commercial banks. From the analysis there was a strong agreement that banks makes report for senior officers in weekly times, this had a highest mean of 4.73 and a standard deviation of 0.447. The respondents also agreed with the statement that there is a positive gains of the relating to monthly report that banks avails to the senior officers, this had a mean response of 4.67 and standard deviation of 0.707. From the analysis, banks monitors individual credit limit quarterly had a mean of 4.42 and a standard deviation of 0.499.

Banks monitor customer credit report service on business performance weekly followed with a mean of 4.36 and a standard deviation of 0.484. Banks monitor customer credit report service on business performance annually had a mean of 3.62 and standard deviation of 1.419. Banks monitors individual credit limit monthly had a mean score of 4.13 and standard deviation of 0.757 and least, banks making report for senior officers in quarterly had a mean of 4.36 and standard deviation of 0.712.

Comparatively, statement relating to banks monitoring client credit in a weekly basis had the lowest level of support. Majority of the respondents disagreed to the statement with a mean response of 2.09 and a standard deviation of 0.821.

#### 4.4 Currency Risk Management and Financial Performance of Commercial Banks

**Table 4.11 Internal Controls**

	N	Mini mum	Maxi mum	Mean	Std. Deviation
Line manager are responsible for managing and controlling risk	45	1	5	2.69	1.362
Risk manager are responsible for managing and controlling risk	45	1	5	2.76	1.384
Branch manager are responsible for managing and controlling risk	45	1	5	2.87	1.342
Banks have an internal control system in place to recognize risk arising from changes in the environment	45	1	5	3.02	1.373
Clarks are responsible for managing and controlling risk	45	1	5	3.47	1.272
The bank back files in the system in real time basis	45	1	5	3.71	1.036
Valid N (listwise)	45				

The above table shows the mean responses of the statement relating to internal control practices and how it impact on the financial performance of commercial banks in Kenya. From the finding, it was evidenced that majority of the respondents were in agreement to the statement relating to banks filing information in their system in real-time, this had a mean response of 3.71 and a standard deviation of 1.036. From the findings, it can also be seen that most of the respondents were neutral in their responses. Finally, statement relating to banks line manager are responsible for managing and controlling risk had a mean of 2.69 and a standard deviation of 1.362.

## 4.5 Financial Performance of Commercial Banks

**Table 4.12 Financial Performance of Commercial Banks**

	N	Minimum	Maximum	Mean	Std. Deviation
The bank Return on Investment increased	45	1	5	2.67	1.414
The bank has recorded an increase in gross profit margin	45	1	5	2.84	1.224
The bank posted low debtors turnover	45	1	5	2.96	1.537
Valid N (listwise)	45				

Financial performance was a dependent variable in this research. The responses on the constructs about commercial banks and their financial performances. From the findings of the analysis, commercial banks posted low debtors turnover was fairly indecisive on respondent's feedback as it had a mean score of 2.96 and a standard deviation of 1.537. Banks recording an increase in gross profit margin had a mean of 2.84 and standard deviation of 1.224 while statement relating to the bank return on investment have increased had a least mean of 2.67 and a standard deviation of 1.414.

## 4.6 Inferential Statistics

To compute on the strength between the dependent variable and the independent variables, the researcher conducted several forms of inferential analysis to conduct ANOVA and multiple linear regressions.

### 4.6.1 Coefficient of Determination

The coefficient of determination was computed to measure how well the study data was suited for this statistical model in the analysis. From the table below, there was a coefficient of determination ( $R^2$ ) was 0.173. this suggest a relatively goodness of fit of the study to the OLS regression model of 17.3% of variability in the financial performance can be explained by variations in Currency Risk Management , Financial Operational Risk and Credit Risk Management. The remaining other factors can be explained by 82.7% of the variability can be attributed by other factors.

**Table 4.13 Coefficient of Determination**

<b>Model Summary<sup>b</sup></b>					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.415 <sup>a</sup>	.173	.112	.94614	1.593

a. Predictors: (Constant), Currency Risk Management , Financial Operational Risk , Credit Risk Management

b. Dependent Variable: Financial Performance

#### 4.7 Analysis of Variance

To test the significance of the overall model, the study used ANOVA F – Test. From the study finding, it was evidenced that the model is statistically significance at  $F = 2.850$  and p-value of 0.049 that is lower than 0.05. This implies that the model is significance in estimating the effect of currency risk management, financial operational risk and credit risk management on financial performance of commercial banks.

**Table 4.14 Analysis of Variance**

ANOVA <sup>a</sup>						
Model	Sum of Squares	Df	Mean Square	F	Sig.	
1	Regression	7.653	3	2.551	2.850	.049 <sup>b</sup>
	Residual	36.703	41	.895		
	Total	44.356	44			

a. Dependent Variable: Financial Performance

b. Predictors: (Constant), Currency Risk Management , Financial Operational Risk , Credit Risk Management

## 4.8 Regression Analysis

The study used multiple regression to determine on the relationship between financial performance of commercial banks and the three independent variables.

**Table 4.15 Regression Analysis**

Model	Coefficients <sup>a</sup>				
	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-1.038	1.865		-.556	.581
Financial Operational Risk	-.059	.256	-.034	-.231	.818
Credit Risk Management	.968	.455	.343	2.125	.004
Currency Risk Management	.131	.177	.121	.741	.008

a. Dependent Variable: Financial Performance

The regression coefficients table above established that taking all independent variables (Financial Operational Risk, Credit Risk Management and Currency Risk Management) to be constant, the level of absorption in financial performance of commercial banks will be a negative (-1.038). The findings show that a unit improvement in credit risk management will lead to 0.968 increase in financial performance of commercial banks; a unit improvement in currency risk management will lead to a 0.131 increase in financial performance of commercial banks and a unit improvement in operational risk will lead to a unit decrease in financial performance of commercial banks by -0.059.

The regression equation can be written as:

The regression equation;  $y = -1.038 + -0.059X_1 + 0.968X_2 + 0.131X_3 + \epsilon$ :

Where by

Y = financial performance

$\beta_0$  = Constant term

$\beta_1$ ,  $\beta_2$  and  $\beta_3$  = Beta of coefficients,

X1 = Financial Operational risk

X2 = Credit risk management

X3 = Currency risk management

$\epsilon$  = Error term

#### **4.9 Hypothesis Testing**

The hypothesis of this study were framed in the null as follows:

H01: Operational risk analysis has no significance influence on financial performance of banks.

H02: Credit risk management has no significant influence on the financial performance of banks

H03: Currency risk management has no significant influence on financial performance of banks.

## **CHAPTER FIVE**

### **SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

This chapter reviews on the discussion of the data findings and recommendations on the impact of treasury risk management on the financial performance of commercial banks in Kenya.

#### **5.2 Summary of the Findings**

From the analysis of the demographic information, a response rate of 71.4% was attained representing 45 respondents out of 63 respondents who were sampled. The study mostly involved the top and middle management with 52.1% were males while 48.9% were females. The info also showed that most of the respondents are educated and they understand the nature of their job responsibilities in matter relating to the research topics.

##### **5.2.1 Operational Risk**

Banks face increasing compliance expectations that are pushing compliance programs to the brink. The scope and nature of compliance have evolved and aren't any longer restricted to rules-based banking rules. Operational and compliance risks became additional advanced and entwined increasing the potential for unsuccessful processes that cause client confusion and compliance management breakdowns while not a brand new approach to compliance and operational risk management. Several banks can still face high prices and losses within the variety of escalating data loss, file damage and manipulation of information.

The inferential statistics also indicated on the significant relationship between the independent variables and dependent variable, on regression analysis. The study

established that taking all independent variables (Financial Operational Risk, Credit Risk Management and Currency Risk Management) to be constant, the level of absorption in financial performance of commercial banks will be a negative (-1.038).

### **5.2.2 Credit Risk Management**

The active management of credit risk has been receiving increasing regulator interest and strategic focus at many economic establishments. The regulators cite negative credit risk control on the portfolio stage, weak credit standards for borrowers and counterparties, and insufficient attention to adjustments in economic and different occasions affecting the capacity of debtors and counterparties as the best participants to inadequate credit danger control. The Kenyan banks have changed capital expenses to make monetary institutions extra aware of actual credit score publicity and have set new guidelines for a way a whole lot capital banks must set apart to cowl capacity losses. The study findings show that a unit improvement in credit risk management will lead to 0.968 increase in financial performance of commercial banks.

### **5.2.3 Currency Risk Management**

Banks asset or a liability or an expected future cash flow stream (whether certain or not) is said to be afflicted with currency risk when currency movement changes (for better or for worse) the home currency value. There is always a possibility of the exchange rate changing between the home and foreign currencies, interest rate differentials widening and inflationary effects amounting, to an adverse reaction for the expected cash flows. The concept of currency risk also emanates when an investor is planning to diversify his portfolio internationally to improve the risk- return trade off by taking advantage of the

relative correlation among risks on assets of different countries. This involves investing in a variety of currencies whose relative values may fluctuate , it involves taking currency risks. The foreign exchange market is psychological in nature. A large number of transactions are speculative in nature which depends upon expectations of a large number of participants. From the analysis, a unit improvement in currency risk management will lead to a 0.131 increase in financial performance of commercial banks and a unit improvement in operational risk will lead to a unit decrease in financial performance of commercial banks by -0.059.

### **5.3 Conclusion**

This study showed that there exist a direct relationship between the independent and dependent variables. Based on the fact that treasury risk management impacts on the financial performance of commercial banks in Kenya. Credit Risk Management and Currency Risk Management had a positive and significant relationship to financial performance of commercial banks at 0.968 and 0.131 respectively. Contrary, it was evident that Financial Operational Risk had a negative significant relationship to financial performance of commercial banks at -0.059.

### **5.4 Recommendations**

Based on the objectives of the study, the following recommendations were drawn:

The study recommends that banks should enforce proper of credit risk management to a greater extent as it improves on the financial performance of commercial banks.

The study recommends that there is need to have currency risk management strategies in place to help avoid fraud and currency manipulation, this will have a positive impact on the financial performance of the banks.

### **5.5 Limitations of the Study**

Despite the research study being successful, there were some challenges as a result of reluctances among the respondents, time constraint and financial constraint that limited the scope of the study to only commercial banks.

### **5.6 Recommendations for Further Study**

The study suggest that further research should be done on other treasury risk management and how they impact on the financial performance of commercial banks in Kenya, apart from the three objectives covered in this research.

## References

- Aburime, T. (2009). Impact of political affiliation on bank profitability in Nigeria. *African Journal of Accounting, Economics, Finance and Banking Research*, 4(4).
- Aduda, J., & Kingoo, N. (2012). The relationship between electronic banking and financial performance among commercial banks in Kenya. *Journal of Finance and Investment Analysis*, 1(3), 99-118.
- Ahmad, H. K., Raza, A., Amjad, W. & Akram, M. (2011). Financial Performance of Finance Companies in Pakistan. *Interdisciplinary Journal of Contemporary Research in Business* 23(1): 102-120
- Alam, H. M., Raza, A. & Akram, M. (2011). Financial Performance of Leasing Sector. The Case of China. *Interdisciplinary Journal of Contemporary Research in Business* 42(3): 124-127
- Allen, D. W., & Lueck, D. (2008). Agricultural contracts. In *Handbook of New Institutional Economics* (pp. 465-490). Springer Berlin Heidelberg.
- Anthony, J. & Ameyaw, K, (2010), Restarting Housing Finance in Mexico. *Housing Finance International*. 13, 23-30.
- Athanasoglou, P.P., Sophocles, N.B., Matthaios, D.D. (2005). *Bank-specific, Industry Specific and Macroeconomic Determinants of Bank Profitability*. Working Paper, Bank of Greece
- Bessis, J., & O'Kelly, B. (2015). *Risk management in banking*. John Wiley & Sons.
- Bostander, D. E. (2007). *Operational Risk Events in Banks and Practices for Collecting Internal Loss Data*. A Research Report Presented to the Graduate School of Business Leadership, University of South Africa
- Campbell, J. Y. (1993). *Understanding risk and return* (No. w4554). National Bureau of Economic Research.

- Carter, D. A., Rogers, D. A., & Simkins, B. J. (2006). Hedging and value in the US airline industry. *Journal of Applied Corporate Finance*, 18(4), 21-33.
- Chapelle, A., Crama, Y., Hübner, G. and Peters J. (2004). Basel II and Operational Risk: *Implications for risk measurement and management in the financial sector*. National Bank of Belgium. Working Papers - Research Series.
- Dam, D. L. (2010). Evaluation of credit risk management policies and practices in a Vietnamese joint-stock commercial bank's transaction office.
- Damodaran, A. (2007). Return on capital (ROC), return on invested capital (ROIC) and return on equity (ROE): Measurement and implications. *Return on Invested Capital (ROIC) and Return on Equity (ROE): Measurement and Implications (July 2007)*.
- Eichhorn, J. (2004). Managing Risk: Contingency Planning, *Southern Economic Journal*, 40, No.3, pp. 353-363.
- Hansen, M.A (2009). An Empirical Study of Strategic Approaches to Foreign Exchange Risk Management Used By Danish Medium-Sized Non-Financial Companies. Unpublished Master of Science Thesis. Aarhus School of Business, University of Aarhus
- Husni, B. (2011). House Prices and Mortgage Credit Availability: Is the Relationship Reinforcing. *Job Market Paper*.
- Immergluck, D. (2009). Re-forming mortgage markets: Sound and affordable home lending in a new era.
- Jobst, A.A (2007). *Operational Risk: The Sting is still in the Tail but the Poison Depends on the Dose*. IMF Working Paper. WP/07/239
- Kamau, P.M. (2010). Adoption of risk management by commercial banks in Kenya. Unpublished MBA Project. University of Nairobi.

- Kargi, H. S. (2011). Credit risk and the performance of Nigerian banks. *Ahmadu Bello University, Zaria*.
- Kiptui, M., & Kipyegon, L. (2008). External shocks and real exchange rate movements in Kenya. *Central Bank of Kenya*.
- Kithinji, A. M. (2010). Credit risk management and profitability of commercial banks in Kenya. *School of Business, University of Nairobi, Nairobi*.
- Klimczak, K. M. (2005). Rationales for corporate risk management from stakeholders' perspective.
- Kombo, A., Wesonga, J., Murumba, N., & Makworo, E. (2011). *An Evaluation of the Impact of Risk management Strategies on Micro-Finance Institutions' Financial Sustainability: A case of Selected Micro finance institutions in Kisii Municipality, Kenya*. *Educational Research*, 2(5) pp. 1149-1153
- Laplume, A. O., Sonpar, K., & Litz, R. A. (2008). Stakeholder theory: Reviewing a theory that moves us. *Journal of management*, 34(6), 1152-1189.
- Molyneux, K and Thornton, M, S. (1992), *Expanding Housing Lending in Africa, Urban Institute for OPIC Housing Africa Conference, Cape Town, May 2-4*
- Mutua, M. (2013). *Human rights: A political and cultural critique*. University of Pennsylvania Press.
- Mwangi, K. A. (2012). The effect of risk management practices on the Financial performance of commercial banks in Kenya. Unpublished MBA Project. University of Nairobi.
- Njeri, V. W. (2010). A survey on strategic risk management practices by large commercial banks in Kenya. Unpublished MBA Project. University of Nairobi.
- Njunge, G. T. (2012). A survey of the foreign exchange rate risk management practices adopted by microfinance institutions in Kenya. *MBA Thesis at the University of Nairobi*.

- Nocco, B. W., & Stultz, R. M. (2006). *Journal of Applied Corporate Finance*.
- Rasiah, D. (2010). Theoretical framework of profitability as applied to commercial banks in Malaysia. *European Journal of Economics, Finance and Administrative Sciences*, 19(19), 75-97.
- Van Deventer, D. R., Imai, K., & Mesler, M. (2013). *Advanced financial risk management: tools and techniques for integrated credit risk and interest rate risk management*. John Wiley & Sons.
- Van Greuning, H., & Brajovic-Bratanovic, S. (2009). *Analyzing banking risk: a framework for assessing corporate governance and risk management*. World Bank Publications.
- Vong, J. & F. Nourzad. (2009). Do Lower Mortgage Rates Mean Higher Housing Prices? *Applied Economics*, 36, 20-34.

## Appendices

### Appendix I: Questionnaire

#### SECTION 1: GENERAL INFORMATION

1. Name of the bank

.....

2. Occupation ranking

.....

3. Indicate your Gender:

Male ( )

Female ( )

4. Indicate your level of education

Diploma ( )

Bachelor ( )

Masters ( )

Doctorate ( )

5. How long have you been working in the banking industry?

Less than 2 year ( )

3 – 5 years ( )

6 – 9 years ( )

10 years and above ( )

## SECTION 2

Below is financial operational risk management practices of commercial banks, on a scale of 1-5, kindly indicate by ticking as appropriate the extent to which the practice is being used in your organization.

### (1) Financial Operational Risk

1. Does your bank have a formal risk management system in place?

Yes

No

2. Which level of management formulates the company's risk management programme/policy?

Board of directors

Senior management

Risk manager

iv. Other (specify) .....

3. Does your bank have a policy of investing across different Countries?

Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

4. Does your bank have a policy of diversifying across different sectors?

Strongly Agree  Agree  Neutral  Disagree  Strongly Disagree

## 2) Credit Risk Management

1. To what extent do you agree that your bank monitor individual credit limit?

---

SA A N D SD

Weekly

Monthly

Quarterly

---

2. To what extent do you agree that your bank does risk report for senior officers and management on the following basis?

---

SA A N D SD

Weekly

Monthly

Quarterly

---

3. To what extent do you agree that your bank monitors customer's business performance after extending credit facility to them?

---

SA A N D SD

Weekly

Monthly

Quarterly

Annually

---

### 3) Currency Risk Management

1. Does your bank have an internal control system in place which deals with newly recognized risk arising from changes in the environment?

---

SA A N D SD

Clerks

Line manager

Branch manager

Risk manager

---

2. To what extent do you agree that the following people are responsible for managing and controlling risk?

---

SA A N D SD

Clerks

Line manager

Branch manager

Risk manager

---

3. To what extent do you agree that your bank does back up of system and data files on the following basis?

---

SA A N D SD

Real time basis

Hourly basis

Daily basis

---

For the following questions you are requested to indicate whether you agree (A), Disagree (D), strongly agree (SA), Strongly Disagree (SD) or Neutral (N) about financial performance of your bank

---

Statement Response	SA	A	N	D	SD
1 The bank has recorded an increase in gross profit margin					
2 The bank posted low debtors turnover					
3 The bank Return on Investment increased					

---

**Thank you**

## **Appendix 2: List of Commercial Banks**

- 1-Equity Bank
- 2-Family Bank
- 3-Fidelity Commercial Bank Limited
- 4-First Community Bank
- 5-Giro Commercial Bank
- 6-Guaranty Trust Bank Kenya
- 7-Guardian Bank
- 8-ABC Bank (Kenya)
- 9-Bank of Africa
- 10-Bank of Baroda
- 11-Bank of India
- 12-Barclays Bank of Kenya
- 13-CfC Stanbic Holdings
- 14-Chase Bank Kenya (In receivership)
- 15-Citibank
- 16-Commercial Bank of Africa
- 17-Consolidated Bank of Kenya
- 18-Cooperative Bank of Kenya
- 19-Credit Bank
- 20-Development Bank of Kenya
- 21-Diamond Trust Bank
- 22-Ecobank Kenya

- 23-Gulf African Bank
- 24-Habib Bank
- 25-Habib Bank AG Zurich
- 26-Housing Finance Company of Kenya
- 27-I&M Bank
- 28-Imperial Bank Kenya (In receivership)
- 29-Jamii Bora Bank
- 30-Kenya Commercial Bank
- 31-Middle East Bank Kenya
- 32-National Bank of Kenya
- 33-NIC Bank
- 34-Oriental Commercial Bank
- 35-Paramount Universal Bank
- 36-Prime Bank (Kenya)
- 37-Sidian Bank
- 37-Spire Bank
- 39-Standard Chartered Kenya
- 40-Trans National Bank Kenya
- 41-United Bank for Africa
- 42-Victoria Commercial Bank

### Appendix III: Project Budget 2017

<b>NO</b>	<b>ACTIVITY</b>	<b>BUDGET (IN KSHS)</b>
1	Purchase of Stationery	6,000
2	Preparation of the proposal	15,000
2	Transport to hospitals in the county	8,000
3	Payment of five data collectors	15,000
4	Analysis of the Report	15,000
5	Printing of three copies of the report	7,000
6	Binding of the project copies	3,000
7	Miscellaneous/contingency	15,000
<b>TOTAL</b>		<b>84,000</b>

**Appendix IV: Time schedule 2017**

Activity	Time Frame						
	May	June	July	August	September	October	November
<b>Formulation of the Problem</b>	■	■					
<b>Writing Proposal</b>			■	■			
<b>Data Collection</b>					■	■	
<b>Data Analysis</b>					■	■	
<b>Presentation</b>							■

