

**EFFECT OF CREDIT RISK MANAGEMENT ON FINANCIAL PERFORMANCE OF
KENYAN COMMERCIAL BANKS**

BY

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MASTER OF BUSINESS ADMINISTRATION (CORPORATE MANAGEMENT)

KCA UNIVERSITY

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DECLARATION

This research project is my own original work and has not been presented for any academic award in any university or institution of higher learning.

Signature..... Date.....

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This research project has been presented for examination with my approval as the university supervisor.

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LIST OF ABBREVIATIONS AND ACRONYMS

ATM	Automated Teller Machine
BDD	Bad and Doubtful Debts
BOM	Board of Management
CBK	Central Bank of Kenya Limited
CR	Credit Risk
CRB	Credit Reference Bureau
CRM	Credit Risk Management
EDF	Expected Default Frequency
IMF	International Monetary Fund
NPL	Non-Performing Loans
PAR	Portfolio at Risk
ROA	Return on Assets
RMG	Risk Management Guidelines
ROE	Return on Equity
ROI	Return on Investment
SPSS	Statistical Package for Social Sciences
U.S.A	United States of America
TAT	Turnaround Time

DEFINITION OF TERMS

Credit Creation – is a situation in which commercial banks make more loans to customers and businesses, with the result that the amount of money in circulation increases. (*Real Estate Encyclopedia* by Denise L Evans et al, 2007).

Credit Rating – It is an assessment of a borrower in general terms or with respect to a particular debt or financial obligation. It is determinant of the likelihood that the borrower will repay back a loan within the confines of the loan agreement, without failure. (The Free Library, 2014, Normans Media Ltd).

Credit Risk – is the uncertainty associated with the losses incurred when the value of assets decline or become worthless due to changes in the fiscal status of those to whom credit is provided (Oldfield and Santomero, 2000).

Expected Default Frequency – the number of times failure to pay interest or principal when due (*IMF/ Farlex Financial Dictionary, 2012*).

Loan –An act of giving money, property or other material goods to another party in exchange for future repayment of the principal amount along with interest or other finance charges.(*IMF/ Farlex Financial Dictionary, 2012*).

Non-Performing Loan – A loan in which the sum of borrowed money upon which the debtor has not made his or her scheduled payments for at least 90 days. (*IMF/ Farlex Financial Dictionary, 2012*).

Performing Loan – A loan in which interest and principal payments are less than 90 days overdue and payment is anticipated. However, the specific definition is dependent upon the loans particular terms. (*Real Estate Encyclopedia* by Denise L Evans et al, 2007).

Portfolio at Risk – The value of the outstanding balance of all loans in arrears (principal). The loan portfolio at risk is generally expressed as a percentage of the total currently outstanding (The Free Library, 2014, Normans Media Ltd).

Risk – The danger that a certain unpredictable contingency can occur, which generates randomness in cash flow (Auronen, 2003).

ABSTRACT

The financial sector performs a key role in the development of a country and the world at large. Banks operate in an environment of considerable risks and uncertainty due to various challenges experienced over time. Most commercial banks have registered unsatisfactory financial performances largely related to ineffective credit risk management. Credit risk is most critical and expensive risk associated to the banking sector as it is a direct threat to solvency of the institution and its level of loss is severe compared to other risks and can easily cause failure of a financial institution. Performance of commercial banks positively influences economic growth by accelerating the economy whereas negative performance hampers the economic growth and enhances poverty in the country. Credit provision requires due attention as credit risk management is a critical component amongst challenges faced by banks. In response to this, commercial banks have almost universally embarked on upgrading their risk management and control systems. The objective of the study was to establish the relationship between credit risk management and financial performance of commercial banks in Kenya while internally focusing on the credit policy, credit administration unit, top management and credit risk management practices as the key dimensions of within commercial banks that determine their respective financial performances. For statistical evaluation, a descriptive research design was preferred since it allows for quantitative analysis of the primary data to be collected from a target population of managerial level and credit administration staff from the sampled commercial banks under survey by use of semi-structured questionnaires. Cluster sampling technique was used to select the respondents from a 50% sample size. Multiple regression analysis was used for empirical relationship evaluation of the study objectives while primary data was analyzed by employment of descriptive statistics. SPSS was used in analyzing correlations amongst the variables. The study found that credit policies, credit administration unit, top management and credit risk management practices have a positive and significant influence on financial performance of selected banks in Kenya. The study recommends that commercial banks should continue improving on their credit management practices such as regular policy reviews, knowledge advancement, securitization and standardized loan terms in accordance to CRM practices. In addition the commercial banks managements should oversee facilitation of credit risk management as a substantial degree of standardization of process and documentation.

CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Over the years there have been an increased number of significant bank problems in both matured and emerging economies. Commercial banks face various risks, operational risk, financial risk and strategic risk among others (Cornett &Saunders 2002). These risks have different impacts on the performance of commercial banks whose magnitude and the level of loss caused by credit risk compared to others is severe to cause bank failures (Chijoriga 2000).

In today's environment of intense competitive pressures, volatile economic conditions, rising default rates and increasing levels of consumer and commercial debt, an ability to effectively monitor and manage its credit risk could mean the difference between success and survival in both matured and emerging economies (Altman, 2002). Credit problems, especially weakness in credit risk management (CRM), have been identified to be part of the major reasons behind banking difficulties (Grasing 2002). Loans constitute a large proportion of a large proportion of credit risk as they normally account for 10-15 times the equity of a bank (Kitua, 2002).Kitua (2002) further argued that banking business is likely to face difficulties when there is a slight deterioration in the quality of assets, and that poor asset quality has its roots in the information processing mechanism. According to Kitua, the problem often begins right at the loan application stage and increases further at the loan approval, monitoring and controlling stages, especially when CRM guidelines in terms of policy and strategies/procedures for credit processing do not exist or incomplete. Credit risk management has gained focal importance because of big financial losses faced by big financial organizations (NikolaidouVogiazas, 2014). Since the financial crisis, financial organizations

particularly commercial banking sector have taken special measures to mitigate any forthcoming financial losses caused by mismanagement in loan allocations and credit recoveries. Credit risk management offers a viable solution to such challenges. Today credit risk management constitutes a critical component of a comprehensive approach to risk management in banking sector (Arora & Kumar, 2014).

To minimize the introduction to terrible obligation, over saving and liquidations, banks must have more prominent understanding into client budgetary quality, financial assessment history, and changing installment designs (Nkusu, 2011). Credit management for a loan deal does not stop until the full and last installment has been recovered (Moti et al, 2012). Hence as financial conditions change, the credit approach of the bank may likewise change.

1.1.1 Credit Risk Management

Credit risk is defined as the potential that a bank borrower or counterparty will fail to meet its obligations in accordance with agreed terms. Credit risk management is the maximization of a bank's risk adjusted rate of return by maintaining credit risk exposure within acceptable parameters (Oldfield & Santomero, 2000). According to Monetary Authority of Singapore Network credit risk is the risk arising from the uncertainty of an obligor's ability to perform its contractual obligations both on- and off- balance sheet transactions in accordance with agreed terms. Credit risk management is the practice of mitigating losses by understanding the adequacy of both a bank's capital and loan loss resources at any given time a process that has been a challenge for financial institutions (MASNET 2015). This study shall adopt the definition by Greuning and Bratanovic (2003) that credit risk is the chance that a debtor or a financial instrument issuer will not be able to pay interest or repay the principal according to the terms specified in a credit agreement. It

means that payment may be delayed or ultimately not paid at all, which may cause cash flow problems and affects banks liquidity. Credit risk is the most important area in risk management in the commercial banking industry. Risk management means, increasing the likelihood of success, reducing the possibility of failure and limiting the uncertainty of all the overall financial performance. Best (2001) argued that the purpose of risk management is to prevent an institution from suffering unacceptable loss.

The goal of credit risk management is to maximize a bank's risk-adjusted rate of return by maintaining credit risk exposure within acceptable parameters (Oldfield and Santomero, 2000).

According to Basel (2004), the management of credit risk in banking industry follows the process of risk identification, measurement, assessment, monitoring and control. It involves identification of potential risk factors, estimate their consequences, monitor activities exposed to the indentified risk factors and put in place control measures to prevent or reduce the undesirable effects. This process is applied within the strategic and operational framework of the bank.

Effective credit risk management involves implementation of credit risk management strategies by top management support that is ultimately responsible for approving and reviewing the credit risk strategy and credit risk policies of the bank are proper and clear guidelines in managing credit risk, that is, all guidelines are communicated throughout the organization and that everybody involved in credit risk management understand them. Secondly, policy and strategies that clearly outline the scope and allocation of a bank credit facilities and the manner in which a credit portfolio is managed, that is, how loans are originated, appraised, supervised and collected (Basel, 2004;Greuning and Bratanovic, 2003; PriceWaterhouse, 2001). This is vital in the management of

credit risk. Thirdly, maintaining of an appropriate credit administration unit that involves measuring and monitoring processes as well as adequate controls over CR to establish the overall exposure to credit risk under distinct differences in the nature and magnitude of credit risks faced by an institution and finally execution of best credit risk practices. All the four elements will be of interest in the study.

1.1.2 Performance of Commercial Banks

A commercial bank is a bank whose main functions are to accept demand deposits and to make loans, thereby facilitating the transfer of funds in the economy. Typically commercial banks make loans to business firms, private individuals, and government related entities. They also issue time and savings deposits and operate trust departments (Central Bank of The Bahamas, 2014). According to Collins English Dictionary - Complete & Unabridged 2012 Digital Edition a commercial bank is a bank primarily engaged in making short-term loans from funds deposited in current accounts. A commercial bank is a financial institution that provides services, such as accepting deposits, giving business loans and auto loans, mortgage lending, and basic investment products like savings accounts and certificates of deposit. The traditional commercial bank is a brick and mortar institution with tellers, safe deposit boxes, vaults and ATMs. However, some commercial banks do not have any physical branches and require consumers to complete all transactions by phone or Internet. In exchange, they generally pay higher interest rates on investments and deposits, and charge lower fees. Commercial Banks and Mortgage Finance Institutions are licensed and regulated pursuant to the provisions of the Banking Act and the Regulations and Prudential Guidelines issued there under. They are the dominant players in the Kenyan Banking system and closer attention is paid to them while conducting off-site and on-site

surveillance to ensure that they are in compliance with the laws and regulations. (Banking Act 2011, Cap 486). During the period ended December 2015, the Kenyan banking sector comprised 42 commercial banks, 1 mortgage finance company, 12 micro finance banks, and 8 representative offices of foreign banks, 14 money remittance providers, 86 foreign exchange bureaus and 3 credit reference bureaus. The banking sector registered improved performance in the period ended June 30, 2015 including; growth in assets, loans and advances, deposit base and profits. The banking sector balance sheet expanded by 20% from Kes 3 trillion in June 2014 to Kes 3.6 trillion in June 2015 (CBK Annual Report 2015).

The financial services landscape in Kenya has undergone significant transformation in the past decade. Financial services and products are now more diversified and offer a wider menu; and are much closer to majority of the population though some regional disparities still exist. Among key initiatives and milestones on the supply side of financial inclusion initiatives include; the introduction of mobile phone money transaction services in 2007 by Telecommunication companies which has contributed immensely to geographical access of financial services; licensing of mobile phone banking in 2010 and adoption of internet banking that followed; establishment of Credit Reference Bureaus (CRBs) to enhance consumer protection and fair pricing of credit risk; licensing of agency banking in 2010 that expanded outreach; and modernization of the payments infrastructure including the Automated Clearing House, Cheque truncation, adoption of Kenya Payments and Settlement System (KEPSS) and wider usage of Automated Teller Machines (ATMs) (CBK Newsletter, December 2014).

The data from Fin Access National Household Surveys 2006 and 2013 indicate that formal financial services expanded from 27.4 percent in 2006 to 66.7 percent in 2013. The survey also revealed that the population totally excluded from accessing formal financial services declined by 13.9 percent during the period 2006-2013, with only 25.4 percent of the adult population unbanked in 2013 compared with 39.3 percent in 2006 and 31.4 percent in 2009. However, the achievement has not been seamless but instead many hurdles to expanding financial inclusion have been experienced. Exclusion has been highest in the rural areas, where close to a third of the population were completely excluded, compared with 15.8 percent in urban areas. In addition, only 21.2 percent of Kenyans lived within 3km of a bank in 2013, while about 55 percent of the rural population spends more than 30 minutes to get to the nearest branch, compared with 46 percent of urban population who spend 10 minutes to get to the nearest branch. (CBK Newsletter, December 2014). The sector is expected to maintain its growth momentum mainly driven by the efforts to promote transparency and disclosure, entrenchment of full file credit information sharing, regional integration initiatives and as the devolved governance system takes root.

1.1.3 Credit Risk Management Techniques Employed by Banks in Kenya

In the 1980's and early 1990's, several countries in developed, developing and transition economies experienced several banking crisis requiring a major overhaul of their banking systems (IMF, 1998). As the banking sector continues to embrace innovations, the intensity and variety of risks that the players are exposed also continue to increase in tandem. To ensure that the growth in the banking sector does not jeopardize its stability, best risk management practices must be employed. According to Ofunya, (2014), commercial banks in Kenya make use of CRM practices that include; thorough loan appraisal, asking for collateral and checking the credit history of the

borrowers. Additionally the bankers use covenants, credit rationing, loan securitization and loan syndication as risk management defensives. He indentified Basel II criteria, bank profitability, return on assets, operational rations and output per staff as internal performance measures of bank lending used by commercial banks in Kenya.

Pursuant to its mandate of fostering liquidity, solvency and proper functioning of a stable market-based financial system, the CBK carried out a risk management survey on the Kenya banking sector in September 2004. The survey's objective was to determine the needs of the local banking sector with regard to risk management. The survey was necessitated by the drive to fully adopt Risk Based Supervision and to incorporate the international risk management best practices envisioned in the 25 Basel Core Principles for Effective Banking Supervision. The survey culminated in the issuance of the Prudential Guidelines, Risk Management Guidelines (RMGs) in 2005 and the adoption of Risk Based Supervision approach of supervising financial institutions in 2005. In response to this, commercial banks embarked upon an upgrading of the risk management and control systems (CBK, 2005). In order to assess the adequacy and impact of Risk Management Guidelines, 2005 on Kenyan banking institutions, CBK issued Risk Management Survey 2010. The goal of this survey was to determine whether the RMGs issued in 2005 have had any impact on the institutions and as whether the RMGs are adequate, as well as establishing the necessary amendments and/or additions that needed to be introduced to ensure that RMGs remained relevant, current and reflective of circumstances in the operating environment. The findings was that generally the institutions revealed that the RMGs issued in 2005 had, for the majority of them; enhanced risk awareness and risk management at the institutions, increased the efficiency and

effectiveness of risk management, helped reduce financial losses, led to the establishment of effective and better-resourced risk management functions, and enhanced the overall decision making process in their institutions (CBK, 2010).

However, due to developments in the national, regional and global arenas and the need to proactively strengthen the regulatory framework for banks and other institutions licensed pursuant to the Banking Act, the Central Bank of Kenya has conducted a comprehensive review of the Prudential Guidelines and Risk Management Guidelines currently in use (CBK, 2013).

1.2 Problem Statement

Failure by banks to strictly adhere to prescribed credit risk management practices has led to poor financial performance amongst many banks in both, matured as well as emerging economies (Brown bridge and Harvey, 1998; Basel 2004). According to Levin-Coburn report on the financial crisis of 2007-2008 in the United States of America better known as Wall Street and financial crisis. After conducting over 150 interviews and disposition consulting with dozens of government, academic and private experts, it was found that the crisis was not a natural disaster but the result of high risk, complex financial products, undisclosed conflict of interest and the failure of regulators, the credit rating agencies and the market itself to reign in the excesses of wall street. However the report was not unanimously adopted but instead was voted for by six members against four. The voters for and against the report left a big gap to be researched upon, be adopted and be implemented into the financial systems to avoid such future reoccurrences.

In September 2008, Lehman Brothers, the fourth-large U.S. investment bank with 25,000 employees worldwide filed for bankruptcy inducing the financial crisis that swept through global financial markets in 2008. (Wall Street and Financial crisis: Anatomy of a financial collapse

(3, Nov 2011). The economy of the Cyprus Island was hit by several huge blows in and around 2012 including, amongst other things, the 22 billion Euro exposure of Cypriot banks to the Greek e-Debt – Haircut, the downgrading of Cypriot banks into ‘junk’ status by international rating agencies and the inability of the government to refund its state expenses (Cypriot Financial Crisis, 2012/13). The final agreement was settled in March 2013, with a final decision to close the most troubled Laiki Bank and recapitalize the entire financial sector endorsed in full (Cypriot House of Representatives in April 2013).

In Kenya, during the period ended June 30, 2015, the Kenyan banking sector balance sheet registered improved performance by 20% from 3.0 trillion to 3.6 trillion. The main components of the balance sheet on the asset side were loans and advances, government securities and placements which accounted for 58 percent, 20.4 percent and 5.3 percent of total assets, respectively. Customer deposits were the main component on the liabilities side accounting for 71.5 percent of total liabilities. However, the value of non-performing loans (NPL’s) grew by 22.2 percent from Kes 97.9 billion in April 2014 to 119 billion in April 2015. The ratio of gross NPL’s to gross loans was unchanged at 5.7 percent in April 2014 and April 2015. On the other hand, the coverage ratio of gross NPL’s increased from 37.2 percent as at April 2014 to 41.3 percent as at April 2015. The sectors overall Return on Assets (ROA) decreased to 3.3 percent in the four months to April 2014. Nevertheless Return on Equity (ROE) decreased marginally to 27.4 percent in the four months to April 2015 from 28.5 percent in the corresponding period of the year 2015 (CBK, Monthly Economic Review, April 2015). In summary, growth in NPL by 22.2 percent in June 2015 and subsequent decrease in Return on Assets (ROA) and Return on Equity (ROE) expressly links the decrease to the poor performance of the loan book as caused by poor credit risk management at

different levels of credit creation. Within the same period two commercial banks i.e. Dubai and Imperial bank were closed and put under receivership respectively (CBK Annual Report 2015).

The development above shows that there is a gap on what affects a firm's financial performance from a credit risk management perspective. In view of this the study sought to determine the effect of credit risk management on the financial performance of commercial banks in Kenya. Available literature shows that some studies have been done on the determinants of banks financial performance in Kenya but little evidence exist on the root causes of the recent poor performance of banks in the country in regard to credit risk management leading to continued increase in non-performing credit facilities, eventual loss of shareholders equity, massive lay-offs and slower economic growth. This study contributed towards filling the gap by analyzing the effects of credit risk management on performance of all commercial banks in Kenya.

1.3 Research Objectives

To determine the effect of credit risk management on financial performance of Commercial banks in Kenya, the following are the specific objectives;

- i. To establish the effect of credit policies on the financial performance of commercial banks in Kenya.
- ii. To determine the effect of credit administration unit on the financial performance of commercial banks in Kenya.
- iii. To determine the effect of top management support on financial performance of commercial banks in Kenya.
- iv. To determine the effect of Credit Risk Management Practices on financial performance of commercial banks in Kenya.

1.4 Research Questions

- i. What is the effect of policies on financial performance of commercial banks in Kenya?
- ii. What is the effect of credit administration unit on financial performance of commercial banks in Kenya?
- iii. What is the effect of top management support on financial performance of commercial banks in Kenya?
- iv. What is the effect of credit risk management practices on financial performance of commercial banks in Kenya?

1.5 Significance of the Study

The study will be important to scholars since it will widen the availability of empirical information to future researchers, Bank managers will be encouraged to participate in policy formulation and they will employ the study findings in fine-tuning the existing risk management guidelines and policies to mitigate its effects, borrowers will knowledgeably benefit from the study findings and this will lead to reduction in the expected default frequency.

1.6 Scope of the Study

The study focused on the effect of credit risk management on commercial banks in Kenya.

1.7 Delimitations

The study focused on commercial banks in Kenya excluding subsidiaries and liaison offices of foreign banks not incorporated in Kenya. The study only focused on four internal factors of

CRM which include credit policy, credit administration unit, top management and credit risk management practices' impact on the banks' financial performance.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The chapter presented a review of the literature related to the purpose of the study from other scholars. The chapter was organized according to the specific objectives in order to ensure

relevance to the aspects of credit risk management practices and performance of banks in Kenya and beyond. The literature review was based on authoritative and original sources such as books, journals, thesis and dissertations. It specifically looked at both theoretical and empirical literature in credit risk management practices.

2.2 Theoretical Review

In this section, literature is reviewed guided by four theories; credit risk theory, self-efficacy theory, agency theory and information asymmetry theory.

2.2.1 Credit Risk Theory

One of the major risks that commercial banks face is from borrowers who default on their obligations to the bank. The financial crisis of 2008 – 2009 underscores the need to pay close attention to the level of credit that, at that time, drove a number of banks with household names such as countrywide Financial and Washington Mutual out of existence, largely due to excessive amounts of mortgage credit risk on their balance sheets. Borrowers can be individuals, corporations or even governments seeking credit. And while the drivers of default for each may differ, the underlying theory of default remains the same. Credit risk theory views default as an embedded put option available to the borrower when circumstances are economically attractive for the borrower to ‘exercise’ their option to default. (Longstaff and Schwartz 1995).

Early literature (before 1974) on credit used traditional actuarial methods of credit risk, whose major difficulty lay in their complete dependence on historical data. Up to now, there are three quantitative approaches of analyzing credit risk: Structural approach, reduced form appraisal and incomplete information approach (Crosbie et al., 2003). Melton 1974 introduced the credit risk

theory otherwise called structural theory which is said the default event derives from a firm's asset evolution modeled by a diffusion process with constant parameters. Such models are commonly defined as "structural model" and based on variables related to a specific issuer. An evolution of this category is represented by a setoff models where the loss conditional on default is exogenously specific. In these models the default can happen throughout all the life of a corporate bond and not only in maturity (Longstaff and Schwartz 1995). The theory emphasizes that any credit should be closely monitored up to the last repayment.

2.2.3 Agency Theory

Friedman's views on the role of business in society are an example of agency theory, which recognizes only one line of responsibility between the managers, as the agent of the shareholders, to the board of directors. This theory is based on the concept of the principal-agent relationship. In this relationship, principals represent individuals, or groups of individuals, who are in control of a set of economic functions or assets in some form of ownership or property rights (Nance, Smith, Smithson, 2003). Even though managers may have limited control over variations in the market place, there are other conscious decisions they make on behalf of the shareholders that could reduce the impact of bad debts on bank's financial performance. However, as agents of the shareholders, managers have the responsibility to adopt management decisions that are in the best interests of shareholders. Such decisions should ensure wealth maximization. This is in accordance with the agency theory (McColgan, 2001). Agency theory argues that agent risk decisions may be influenced by the level of oversight (Jensen, 1976) and this may have been a factor in the financial crisis since there are levels of oversight depending on how the bank is licensed to operate (International journal of Business and Applied Science Vol.2, No.3 March ,2016). The theory has

been utilized to study risk trade-off between principal and agent to determine the tolerance that corporations will accept with risk (Wiseman, 1997). Literature broadens the risk relationship description as principal and agents whom may have different objectives with respect for credit taking (Jensen, 1976). Kurkland (1991), the theorist describes the trade-offs necessary to reach the effective solution between the costs of monitoring agents behavior (to reverse adverse selection) and the optimal output (to resolve moral hazard). Additionally, agency theory also been used in finance to describe the cost impact that risk has on firms (Eisenhardt, 1989).

2.2.4 Information Asymmetry Theory

Banking industry worldwide today faces several issues and challenges which unless effectively addressed would impact the pace of adoption and implementation of Basel II. According to Ferri, et al (2001) these include good and reliable data and information. Banks must receive sufficient information to enable a comprehensive assessment of the true risk profile of the borrower or counterparty. Stiglitz (2001) defined information asymmetry as the fact that different people know different things: workers know more about their ability than does the firm; the person buying insurance knows more about his health, whether he smokes and drinks immoderately, than the insurance firm; the owner of a car knows more about the car than potential buyers; the owner of a firm knows more about the firm than a potential investor; the borrower knows more about his risk and risk taking than the lender. One way to characterize information asymmetry is the extent to which managers know more about the firm than investors as a group. A second characterization is the extent to which the amount of information regarding the firm varies from one group of investors to another (Watts and Zimmerman, 2005). Among borrowers in the financial markets, information

asymmetry is predicted on the existence of uninformed lender and informed borrower whose private information the lender depends on to make a lending decision.

In this context of asymmetric information between the bank and the borrower, banks design loan contracts in order to sort out types of borrowers: high risk borrowers choose high interest rates and no collateral, whereas low risk ones pledge collateral and get lower interest rates(Journal of banking and Finance 28, 2004). Even if there is symmetry ex ant between borrower and lender (i.e. the bank knows the credit quality of the borrower) , the collateral helps to alleviate moral hazard problems once the loan has been granted . In this sense, the collateral pledged helps align the interests of both lenders and borrowers, avoiding a situation in which the borrower makes less effort to ensure the success of the project for which finance was given. Collateral can therefore be seen as an instrument ensuring good behavior on the part of borrowers, given the existence of a credible threat (Aghion and Bolton, 1992; La Porta et al., 1998).

2.3 Empirical Review

In this section a review of literature on studies done by others was undertaken. The review is based on the research objectives. According to Aduda andGitonga, (2011) CRM in banks has become more important not only because of the series of financial crisis that the world experienced in the recent past, but also the introduction of Basel II Accord. The findings and analysis revealed that credit risk management has an effect on performance of commercial banks.

2.3.1 Credit Policy

Banking industry worldwide today faces several issues and challenges which unless effectively addressed would impact the pace of adoption and implementation of Basel II. According to Ferri, et al (2001) these include good and reliable data and information; development of sound risk-management system; asymmetry in supervision; operational costs and the problem of adverse selection. The factors that influence effectiveness of credit risk management systems used by commercial banks include establishment of credit policy and procedures that clearly outline the scope and allocation of bank credit facilities, maintenance of credit guidelines to every officer in the credit department and maintenance of credit administration system with adequate controls over credit. (OfunyaAfande, 2014). However, it should be noted that a firm's credit policy is greatly influenced by economic conditions since as economic conditions change the credit policy of a firm also changes (Pandey, 2008).

Establishment of sound and well defined policies and procedures is vital in the management of credit risk. These should be well documented, duly approved by the board and strictly implemented by management. Credit policies establish the framework for lending and guide the credit-granting activities of the institution. Any new product should be fully researched and prior board approval obtained before introduction to the customers. Credit exposure for all off-balance sheet commitments should be well documented. Policies relating to credit assessment and granting process must be sound, well defined and a thorough understanding of the borrower or counterparty, as well as the purpose and structure of the credit, and its source of repayment (Central Bank of Kenya Risk management guidelines, 2013). Modern early warning models for financial institutions

earned popularity when Sinkey (1975) utilized discriminant analysis for identifying and distinguishing problem banks from sound banks and Altman (1977) examined the savings and loan industry. The credit policy should establish the procedures for dealing with deteriorating and managing problem credits. Early recognition of weaknesses in the credit portfolio is important and allows alternative action and for an effective determination of loan loss potential. The policy should define a follow-up procedure for all loans and the various reports to be submitted both to management and board of directors. It should also include the internal rating for loan classification and provisioning. The success of lending out credit depends on the methodology applied to evaluate and award the credit and therefore the credit decision should be based on a thorough evaluation of the risk conditions of the lending and the characteristics of the borrower (Ditcher, 2003).

Policies on inter-bank transactions should be in place since these transactions also portend significant credit risk for they are essentially for facilitation of fund transfers, settlement of securities transactions or because certain services are more economically performed by other banks due to their size or geographical location. Provisioning policy must clearly outline the provisioning procedures for all credits and the capital charge to be held. This should comply at a minimum to the International Accounting Standards, regulatory requirements and provisioning guidelines already issued by the Central Bank of Kenya. An important tool in monitoring the quality of individual credits, as well as the total portfolio is the use of an internal risk rating system. A well-structured internal risk rating system is a good means that differentiates the degree of credit risk in the different credit exposures of a banking institution. This allows more accurate determination

of the overall characteristics of the credit portfolio, concentrations, problem credits and the adequacy of loan loss reserves. In determining loan loss reserves, banks should ensure that the Central Bank of Kenya classification criteria is the minimum (Central Bank of Kenya Risk management guidelines, 2013).

Wachira (2015) conducted a study on the effect of credit policy on the financial performance of deposit taking SACCOs in Kenya. The researcher used a census approach for the six deposit taking Sacco in Kenya to get the data required. The findings indicated a positive significant relationship implying that regulatory authority policies affects the financial performance of deposit taking SACCOs with a minimal effect since there are other more factors that affect financial performance with a greater effect. The result of the regression analysis indicates that the dependent variables are both individually and jointly significant and have an effect on financial performance. From the values of the coefficients we discern that the independent variables are correlated to the dependent variable. The results indicated that credit standard policy significantly affects financial performance. In conclusion, the study established that the three independent variables significantly affect financial performance. From the study, it is recommended that deposit taking SACCOs organizations should not concentrate so much on the regulatory authority policies but also other factors since even though the policies affect deposit taking Sacco's financial performance.

Agola(2014) conducted a study on credit policy and financial performance of microfinance institutions in Kenya. The study adopted a survey design, regression analysis to determine the relationship between variables of the study. Frequency distribution tables and percentages were

used to examine the institutions branch coverage, credit terms, financial performance, credit approach, organization membership and challenges faced in practicing credit policy. The findings revealed a positive relationship between financial performance, credit policy, credit risk controls, credit appraisal and collection policy. Credit policy was a significant predictor showing that when credit appraisal and credit policy procedures on risk management are competent, they can influence achievement of improved financial performance objective. The study recommends that microfinance institutions should adopt a more stringent policy to a lenient policy for effective debt recovery.

2.3.2 Credit Administration Unit and Financial Performance

It is the responsibility of management to set up a credit administration team to ensure that once credit is granted it is properly maintained and administered. An able team to implement procedures for measuring a firm's overall exposure to credit risk as well as stringent internal rating systems should be adequately provided for in terms of resources to execute the exercise (Josiah, James, 2011). An important aspect in credit risk management is credit assessment due to dire effects of credit risk, whereby if not well managed can lead to bank failure. It is important for a bank to have capacity to assess, administer, supervise, control, enforce and recover loans, advances, guarantees and other credit instruments (Joetta, 2007). The financial crisis of 2008 – 2009 was caused by a dozen of factors not limited to extreme greed by several stakeholders. Home owners wanted to get rich quick by flipping real estate. Mortgage originators went to great lengths, legal and otherwise, to maximize loan volumes. Home appraisers did the same. Bankers were paid absurd amounts of money to securitize toxic subprime mortgage and politicians sought to gain popularity by forcing

banks to lend money to their un-creditworthy constituents.(Wall Street and Financial Crisis: Anatomy of a Financial Collapse, 2011).

The credit Management team should ensure that once a credit is granted it is properly maintained and administered. This will include record keeping, preparations of the terms and conditions as well as perfection and safe custody of the securities. Credit files of institutions should contain the credit application, evidence of approval, latest financial information, record and date of all credit reviews, record of all guarantees and securities, record of terms and conditions of facility, evidence of securities validation function that should include legal validity, existence, valuation, registration of charge and safe keeping and internal ratings.(Basel, 2004; Greuning and Bratanov, 2003). Clearly established process for approving new credits and extending the existing credits has been observed to be very important as current and potential exposures change with both passage of time and the movements in the underlying variables(Donaldson, 2000; Mwisho;2001) and are also equally important in dealing with moral hazard problem(Derban et al, 2005). Monitoring involves among others frequent contact with borrowers, creating an environment that the bank can be seen as a solver of problems and trusted adviser; develop a culture of being supportive to borrowers whenever they are recognized to be in difficulties and are striving to deal with the situation; monitoring the flow of borrowers' business through the banks' accounts; regular review of the borrowers reports as well as an on-site; updating borrowers files and periodically reviewing the borrowers rating assigned at the time the credit was granted(Donaldson, 2000; Tummala and Burchett, 2000; Mwisho, 2001; Basel, 2004; Treacy and Carey, 2004).

Adequate segregation of duties between approval and administration process should be maintained. Ongoing administration of credit portfolio Process, the credit administration function basically a back office activity that supports and controls extension and maintenance of credits is an essential part of the credit risk management. A credit administration function performs documentation, credit disbursement, monitoring, loan repayment, maintenance of credit files, collate and security documentation. With a capable credit administration team, procedures should be established to track and review relevant insurance coverage for certain facilities/collateral. Physical checks on security documents should be conducted on regular basis. Credit information should be provided to the board and management with sufficient frequency, timelines and should be reliable. (Central Bank of Kenya Risk Management Guidelines, 2013). Measuring productivity of a credit administration officer is the key to improving commercial lending performance. The productivity measure can be monthly credit administered in terms of securitization, disbursements, records management, credit monitoring, control and collection (Boucher, 2000).

2.3.3 Top Management Support and Financial Performance

Management control is an important determinant of bank performance. Bank performance differs according to ownership. Privately owned banks generally do better than publicly owned banks. Nationalized banks grant riskier loans and have bad solvency ratios than the privately owned banks. (Bartha, Caprio & Levine, 2004). The board of directors carries the ultimate responsibility of approving and reviewing the credit risk strategy and credit risk policies and procedures of the bank. The role is part of the board's ultimate responsibility of offering overall strategic direction to the bank. The credit risk strategy should clearly set the acceptable risk appetite and tolerance the institution is willing to engage, and the level of profitability the bank expects to achieve for

incurring the various credit risks. It is the board's role to ensure that the credit strategy has a statement on the acceptable levels of exposure to the economic sectors, currencies and maturities. (CBK, Risk management guidelines, 2013). Internal factors have been identified as the most important causes of troubled banks commencing with Sinkey (1979) and Hanc (1998) that the internal factor causing bank failures are decisions over which managers and directors of the bank have direct control. Capital adequacy, asset quality, management efficiency, earnings and liquidity (CAMEL) have a strong relationship with the financial performance of commercial banks in Kenya (Ogilo Fredrick, 2012). Numerous prior studies have examined the efficacy of CAMEL ratings and concluded that publicly available data combined with regulatory CAMEL ratings can identify or /and predict problem or failed banks (Gasbarro et al 2002).

The senior management has the responsibility of implementing the credit strategy approved by the BOD and developing policies and procedures for effective management of the credit risk. It ensures that; the credit granting activities conform to the laid down strategy, written procedures have been developed, implemented and responsibilities of the various functions are clearly defined, compliance with internal exposure limits, prudential limits and regulatory requirements, the credit policies must be communicated throughout the institution, implemented, monitored and revised periodically to address any changes, internal audit reviews of the credit risk management system and credit portfolio are undertaken regularly and ensure that adequate research is undertaken for any new products or activities to ensure the risks are appropriately identified and managed. These products must receive prior board approval. (Central Bank of Kenya, Risk management guidelines, 2013). Basel II emphasizes that financial institutions' supervisors should

review and evaluate risk management methods which are adopted by individual financial institutions on their own initiative, and take appropriate supervisory actions as necessary.(Basel Committee on Banking Supervision, 2006).

Muchemi (2013) conducted a study on top management team diversity and performance of commercial banks in Kenya. The study adopted a descriptive research design. The study used primary data only. The study found that top management team diversity has both positive and negative effects on organizations performance. Thus diversity should be managed to enhance organization's performance. Bolo (2014) conducted a study on top management team, diversity management strategies and performance of commercial banks in Kenya. This study sought to find out the effect of Diversity Management Strategies on the relationship between TMT diversity and the performance of commercial banks in Kenya. All the Heads of Human Resources in the 43 commercial banks operating as at December 2010 were targeted and 33 responded. The main tool of data collection was the questionnaire while the data was analyzed using regression analyses. The study found that diversity management strategies had a significant effect on the relationship between TMT diversity and organization performance. Diversity Management strategies create and maintain an environment that naturally allows all individuals to reach their full potential in pursuit of organizational objectives for competitive advantage. that the interests of the minorities in commercial banks in Kenya are well taken care of.

2.3.4 Credit Risk Management Practices and Performance

Effective management of credit risk is a critical component of a comprehensive approach to risk management and essential to the long-term success of any banking organization (Wyman, 2002).

Although specific credit risk management practices may differ among banks depending upon the nature and complexity of their credit activities, a comprehensive credit risk management program will address four areas including assessment of capital adequacy, asset quality, adequacy of provisions and reserves, and disclosure of credit risk (Oldfield and Santomero, 2000). According to Ndwiga, J. M, 2010, credit risk practices for any bank should include, risk identification, risk evaluation, risk control and a good credit policy manual. Risk identification is the process of establishing the possible risks that that may arise to a commercial bank during the credit creation process. Risk identification procedures enable good decision making leading to good lending practice. Organizations should interrogate the observation areas, both internally and externally in the risk management process (Kromschroder and Luck, 1998). Upon identification, risk evaluation is carried out by gathering adequate information that will guide decision making on whether credit should be granted or not (Brown and Moles, 2014). The evaluation should major on and not limited to character of the borrower, ability to perform according to the contract, margins of the bank in terms of interests and commissions expected, amount as well as purpose of the lending proposition and collateral to secure the loan in case of default. Risk control systems should always be in place including monitoring, covenants, loss provisioning and collateralization. A credit manual enumerating procedures and processes should be accessible to all credit officers in order to give guidance on the best practice regarding to credit risk management and compliance (Rajan, 1994).

Munialo (2006) conducted a study on the relationship between credit risk management practices and financial performance of private hospitals in Kenya. The study used causal study design was used. The findings were that private hospital considers risk identification as a process in credit risk

management. Credit risk management procedures can be used to influence profitability of the private hospitals and recommends the management of the private hospitals to oversee facilitation of credit risk management as a substantial degree of standardization of process and documentation. In addition, the study concludes that director's report on risk monitoring enables the private hospital management to discover mistake at early stage and make sure that risk management practices are in line with proper risk monitoring. Ndwiga (2010) study on the relationship between credit risk management practices and financial performance of microfinance institutions in Kenya was conducted for the purposes of collecting relevant data in order to form a conclusion on the study objectives. Correlation analysis was used to determine the strength of the relationship between credit risk management practices and financial performance of the MFIs. ANOVA was also done to test the hypothesis that several group means are equal in the population by comparing the sample variance estimated from the group means to that estimated within the groups. The findings of the study indicated that there was a positive relationship between credit risk management practices and financial performance of MFIs. The study also established the CRM practices adopted by MFIs in Kenya which included loan securitization, credit limits and group lending. These finding were informed by results which indicated that MFIs have put in place effective CRM practices. The study recommended that MFIs continue improving on their CRM practices such as group lending, loan size limits, securitization and standardized loan term. The researcher suggests that a study be done on the correlation between microfinance and traditional bank strategies in light of microfinance institutions in Kenya.

2.4 Knowledge gap

Available literature shows that some studies have been conducted on the determinants of banks financial performance in Kenya but little evidence exist on the root causes of the recent poor performance of banks in the country in regard to credit risk management leading to continued increased non-performing credit facilities, eventual loss of shareholders equity, massive lay-offs and slower economic growth.

The development above shows that there is a gap on what affects a firm's financial performance from a credit risk management perspective. In view of this the study sought to determine the effect of credit risk management on the financial performance of commercial banks in Kenya. This study contributed towards filling the gap by analyzing the effects of credit risk management on performance of all commercial banks in Kenya.

2.5 Conceptual Framework

The figure 2.1 below demonstrates how different study objectives relate towards achieving the general objective of the study.

Independent Variable

Credit Policies, Procedures and Strategies

- Frequency of Credit policy update
- Ratio of credit policy manuals to credit officers.
- Latest risk rating score

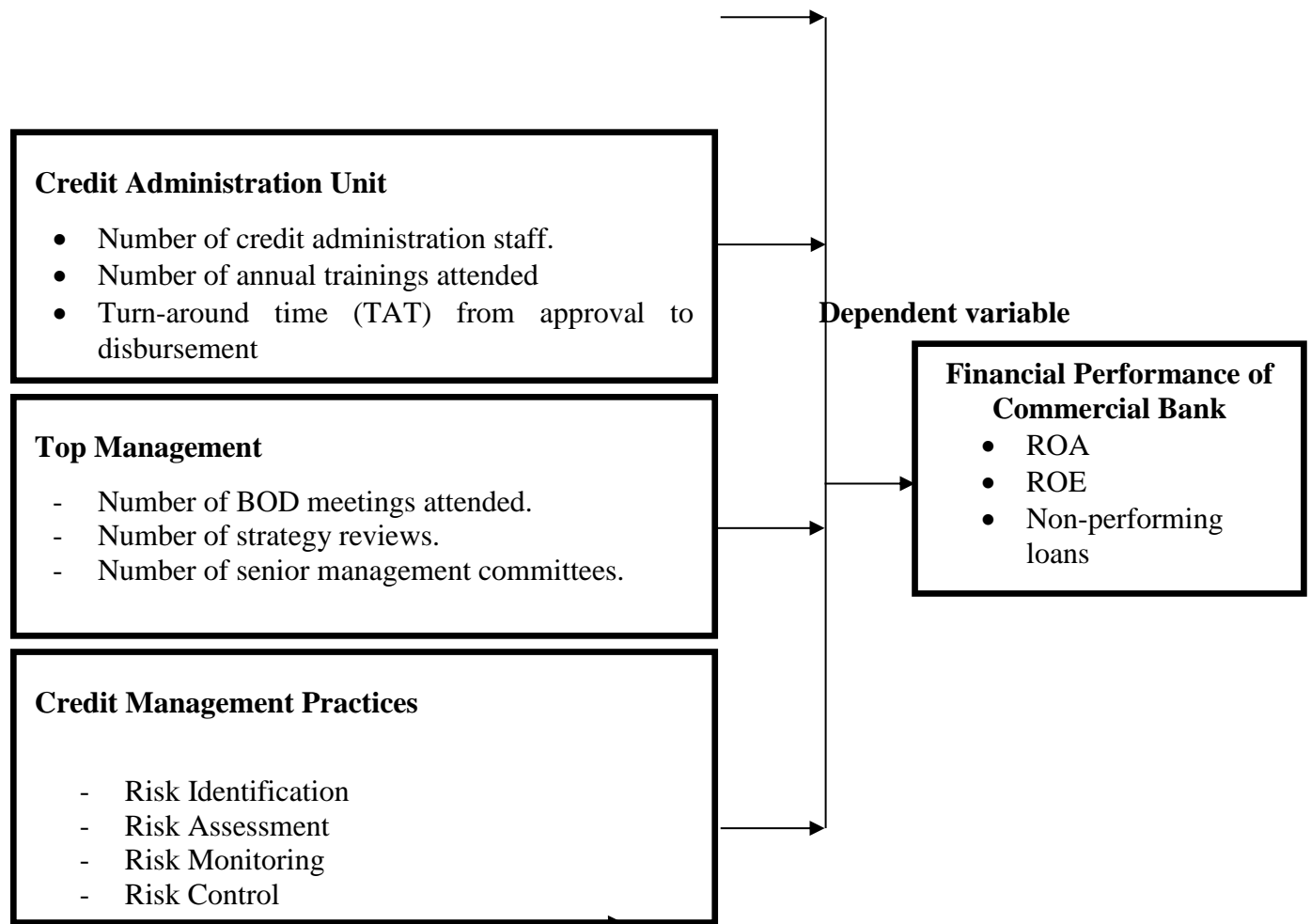


Figure 2.1: Conceptual Framework

2.6 Research Hypothesis

H01: Policies have no significant effect on performance of commercial banks in Kenya.

H02: Credit administration has no effect on performance of commercial banks in Kenya.

H01: Top management has no significant effect of performance of commercial banks in Kenya.

H04: CRM Practices have no significant effect of performance of commercial banks in Kenya.

2.7 Operationalization of Variables

The study will operationalize the effect of credit risk management on financial performance of commercial banks in Kenya. The independent variables are policies, credit administration unit, top management, and CRM practices while the dependent variable is financial performance. Table 2.1 gives the insight on how the variables will be measured, analyzed and concluded.

Objective	Variable	Indicators	Measurement	Questions
To determine the effect of policies on commercial banks' financial performance	Independent - Policies - Credit Policy - Prudential guidelines	- Frequency policy update within five years. - Ratio of policy manuals to credit officers. - Latest risk rating score.	Interval/ Ratio	Section B1
To determine the effect of credit administration unit on commercial banks' financial performance.	Credit administration Unit -Credit Administration staff -Staff Trainings & Results	- Number of credit administration staff. - Number of annual trainings attended. - Loan Application (TAT).	Interval/ Ratio	Section B2
To determine the effect of top management on commercial banks' financial performance	Top management - BOD - Senior Management	- Number of BOD policy review meetings. - Number of management committees. - Number of top management trainings annually	Interval/ Ratio	Section B3
To determine the effect of credit risk management practices on commercial banks' financial performance.	CRM practices Identification, measurement, Monitoring, Evaluation Control	- Risk identification Criteria - Risk Measurement Techniques - Risk assessment Techniques - Risk Mitigation Techniques	Interval/ Ratio	Section B3
	Dependent Financial Performance of Commercial banks'	ROA ROE NPL	Ratio	Section B3

Table 2.1 Operationalization of Study Variables

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter presented the methodology that was used to collecting data for the study. It covered the research design, population size and sample that were used. It also discussed how the data collected was analyzed giving details of the models to be used in examining the effect of credit risk management practices on the performance of commercial banks in Kenya.

3.2 Research Design

According to Brown, Askew, Baker, Denvir and Millicent (2003), research design provides the glue that holds the research together. A design is used to structure the research, to show how all of the major parts of the research – the samples or groups, measures, programmes and methods of assignment-work together to address the research objectives. To undertake the study, a descriptive research design was used. This is a scientific study done to describe a phenomena or an object (Brown Et al 2003). The method was preferred as it permitted gathering of data from the respondents in natural settings. In this case, it was possible for the researcher to administer the data collection tools to the respondents in their work stations, which was relatively easy, with high likelihood of increasing the response rate. The credit risk management practice as a phenomenon is a process whose understanding requires rich data in its respective context was collected.

The research was quantitative in nature. This design was preferred because it allowed for quantitative analysis of data. Quantitative research is a study whose findings are mainly the product

of statistical summary and analysis. A structured questionnaire was used to collect data from the representative sample so that the result can be applied to the entire population of the banking industry.

3.3 Target Population

Population refers to an aggregate of all that conforms to a given specification (Flowers, 2009). It is also described as the entire group of people or units of interest that the researcher wishes to investigate (Sekaran, 2010) and comprises of a selection of members from that particular population. Target population refers to a specific well defined or set of people, services, elements, group of things or households that are being investigated or whose information is desired (Kothari, 2004). The target population of this study will comprised all commercial banks in Kenya. According to the Central Bank of Kenya Bank Supervision Annual Report 2015, there were 43 commercial banks in Kenya. The specific respondent in each of the banks was the credit officers in order to obtain rich data.

3.4 Sampling Technique and Sample Size

Sampling refers to a process of selecting a number of individuals in a manner that the selected individuals represent the larger group from which the sample has been selected (Chandaran, 2004). The sampling frame is the list of ultimate sampling entities, which may be people, households, organizations or other units of analysis (Yin 2004).

For the purposes of this study, the sampling frame was all the credit officers in commercial banks in Kenya. Cluster sampling technique was used to select the respondent commercial banks based on peer classification as per the banking survey Kenya 2008 publication which classified the

commercial banks into three categories – Tier I, Tier II and Tier III. According to Coleman and Briggs (2004) cluster sampling just like stratified sampling is used where there might be a reason to judge that some particular characteristic of the sample members is of such importance that it is necessary to impose further control over how it is distributed or represented in the sample where the researcher divides the population in different groups, called clusters, then a random sample of clusters is selected from the population. If well selected a sample of between 10-30 percent of the population is adequate for generalization of study findings to the entire population (MugendaMugenda, 2003).For the purposes of this study the researcher used a sample size of 50 percent. In each category, each bank was assigned a random number and 50% of them were picked at random. Three credit officers from each selected bank were selected as respondents.

Table 3.1: Sample Size

Tier	Population of Banks	Sample size (50%)	Actual Rep.(×3)
I	12	6	18
II	14	7	21
III	17	8	24
Size	43	21	63

Source: CBK, Bank Supervision Annual Report, 2015

3.5Instrumentation and Data Collection

The study adopted the use of questionnaires in primary data collection the questionnaires will contain both open and closed-ended questions. Closed-ended made use of a five point likert scale to standardize the processes. The open-ended or unstructured questions were used to prompt the respondents to give in-depth responses where close-ended questions were limiting.

The questionnaire was divided into four sections; A, B, C and D. Section A addressed the general information about the respondents, Sections B to D each addressed the specific research objectives respectively.

Primary data was used whereby survey method was used to collect it. Semi-structured questionnaires consisting of two sections, section I and section II. Section one consisted of items pertaining to profile of the respondents while section II consisted of items pertaining to the area of study. Questionnaires were easy to administer and interpret. Saunders and Schumacher (2000), argue that well standardized and tested questionnaires are most effective elements of a structured survey. The questionnaires were derived from various research objectives together with the CRM guidelines as well as the Basel II Accord. The procedure that was used in collecting data was through distribution of the questionnaires i.e. dropping and picking them from respondents at their most convenient time agreeable to both parties. A letter of introduction, stating the purpose of study was attached to each questionnaire. In addition, the researcher made telephone calls to the respective respondents to make follow-up on the questionnaires. Once completed, the researcher personally collected the questionnaires in order to get an opportunity of clarifying issues arising from various responses.

3.6 Validity and Reliability

Validity determines whether the research truly measures that which it was intended to measure or how factual the results are (Joppe, 2000). Validity is high if the study contains the intended results and nothing else. Mugenda and Mugenda (1999) contend that the usual procedure in assessing the content validity of a measure is to use a professional expert in a particular field. The researcher also sought expert opinion in the field of study especially the researcher's supervisor and lecturers

in the school of business, this shall enhanced the face validity of the study. The questionnaires were pilot tested on ten randomly selected respondents before they are administered for the purpose of ensuring that they are understood in their correct perspective, in order to meet the research objectives.

Reliability refers to the consistency of measurement and it were enhanced through a pilot study before the actual study takes place. Reliability demonstrates that the study can be repeated with the same outcome since it is the extent to which results are consistent over time and an accurate representation of the total population is achieved (Joppe, 2000). The researcher used clear and well defined questionnaire as a method of data collection as well as clarified questions to respondents. A pilot study can comprise of between 4-10 members of the target population responses were used to improve the data collection instrument (Kothari, 2004). The researcher conducted a pilot study comprising of 5 member banks but to ensure that the study findings are not compromised, the respondents who participated in the pilot study were not included in the final study.

3.7 Data Analysis and Presentation

The collected data from the secondary and primary sources were systematically organized in a manner to facilitate analysis. For the purpose of this study, the open ended questions data and data pertaining to the profile of respondents were analyzed. Data pertaining to the objectives of the study received were checked for constituency, coded and analyzed by employing descriptive statistics. Correlations, the statistical technique that can show whether and how strongly pairs of variables are related, were used to ascertain such relationships. Statistical Package of Social Sciences (SPSS) was used as an aid in the analysis. The tool was used to generate percentages,

frequencies, and standard deviations and mean scores. Measures of central tendency were applied in computation of frequencies in tables, charts, and bar graphs were used in data presentation. In addition, the researcher used mean scores to present information pertaining to the study objectives. The information were presented and discussed as per the objectives and research questions of the study. Pearson's correlation analysis will be conducted at 95% confidence level and 5% confidence level to determine the extent to which the CRM affect performance of commercial banks in Kenya. If the relationship established is positive, then this would indicate that there is a correlation between the CRM and financial performance of commercial banks in Kenya.

A linear regression analysis was conducted on the data set. The Pearson Product Moment was used to analyze the data in which correlation coefficient (R) and the coefficient of determination (R^2) of the variables was established. The findings from the analysis was organized, summarized and presented using tables and pie charts. The empirical regression model that was adopted for this study was as shown below.

$$Y_1 = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \epsilon$$

Where Y = Bank Performance = Dependent Variable

Independent Variables (X)

X_1 = Policies and Procedures

X_2 = Top management support

X_3 = Credit administration Unit

X_4 = Credit management Practices

ϵ = Error term, showing bank performance in the absence of credit risk management practices.

β_0 = Constant in the regression model that shows the value of bank performance in the absence of the independent variables.

$\beta_1, \beta_2, \beta_3, \beta_4$, = Regression coefficients or Change included in Y by each X value

The hypothesis would be considered statistically significant if a P-value would be less than or equal to (0.05) (Bagozzi, 1988).

3.9 Ethical Considerations

Ethics involves making a judgment about right and wrong behavior during the research period. It is about norms governing human conduct which have a significant impact on human welfare (Minja&Kirimi, 2009). The researcher obtained permission from the respective banks to collect data from them. The researcher also obtained an introduction letter from KCA University to confirm to the respondents that the data sought is used for academic purposes only.

CHAPTER FOUR

DATA PRESENTATION, ANALYSIS AND RESULTS

4.1 Introduction

This chapter comprised of data analysis, findings and interpretation. Results were presented in tables and diagrams. The analyzed data was arranged under themes that reflected the research objectives.

4.2 Response Rate

A number of 63 questionnaires were administered to credit officers in the selected commercial banks. A total of 57 questionnaires were properly filled and returned. This represented an overall successful response rate of 90.47% as shown on Table 4.1. According to Mugenda and Mugenda (2003) and also Kothari (2004) a response rate of above 50% is adequate for a descriptive study. Babbie (2004) also asserted that return rates of above 50% are acceptable to analyze and publish, 60% is good and 70% is very good.

Based on these assertions from renowned scholars, 90.47% response rate was very good for the study. Thus the response rate of 90.47% under this study was very good for study.

Table 4.1: Response rate

Response	Frequency	Percent
Returned	57	90.47%
Unreturned	6	9.53%
Total	63	100%

Source Author (2017)

4.3 Reliability and Validity

4.3.1 Reliability

The cronbach alpha has been computed for the purpose of measuring the reliability of the administered questionnaire. This was achieved through the subjection of five questionnaires to randomly selected employees in the commercial banks in Kenya. The conclusion reached is that all the variables could be relied upon as the cronbach alpha achieved was above 0.7 which is what

has been used as the hurdle rate of reliability for the study. Table 4.2 summarises the reliability results.

Table 4.2: Reliability Results

Variable	α=Alpha	Comment
Credit Policies, Procedures and Strategies	0.7543	Reliable
Credit Administration Unit	0.7987	Reliable
Top Management	0.7112	Reliable
Credit Management Practices	0.8211	Reliable
Financial Performance	0.7342	Reliable

Source Author (2016)

4.3.2 Validity Results

Kaiser-Meyer-Olkin (KMO) test was performed to test for validity.

Table 4.3: Kaiser-Meyer-Olkin Measure of Sampling Adequacy

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.771
Bartlett's Test of Sphericity	Approx. Chi-Square	21.93
	df	6.0
	Sig.	0.001

Interpretive adjectives for the KMO Measure of Sampling Adequacy are: in the 0.90 as marvelous, in the 0.80's as meritorious, in the 0.70's as middling, in the 0.60's as mediocre, in the 0.50's as miserable, and below 0.50 as unacceptable. The value of the KMO Measure of Sampling Adequacy for this set of variables was 0.771, which would be labeled as 'middling'. Since the KMO Measure of Sampling Adequacy met the minimum criteria, and therefore I did not have a problem that requires the study to examine the Anti-Image Correlation Matrix.

4.4 Demographic Characteristics

This section consists of information that describes basic characteristics such as duration the bank has been in operation, level of employment, duration the respondents has worked in the bank and tier of the bank.

4.4.1 Duration the Bank has been in Operation

The respondents were asked to indicate the duration the bank has been in operation. Majority of the respondents who were 44% indicated that their bank has been in operation for more than 16 years, 40% indicated that their bank has been in operation for 11- 15 years, 12% indicated that their bank has been in operation for 6 - 10years while only 4% who indicated that their bank has been in operational for 1 – 5 years. This illustrates that most banks had existed for over ten years and therefore their credit policy manuals had been severally tested and reviewed to match with the ever changing global financial environment.

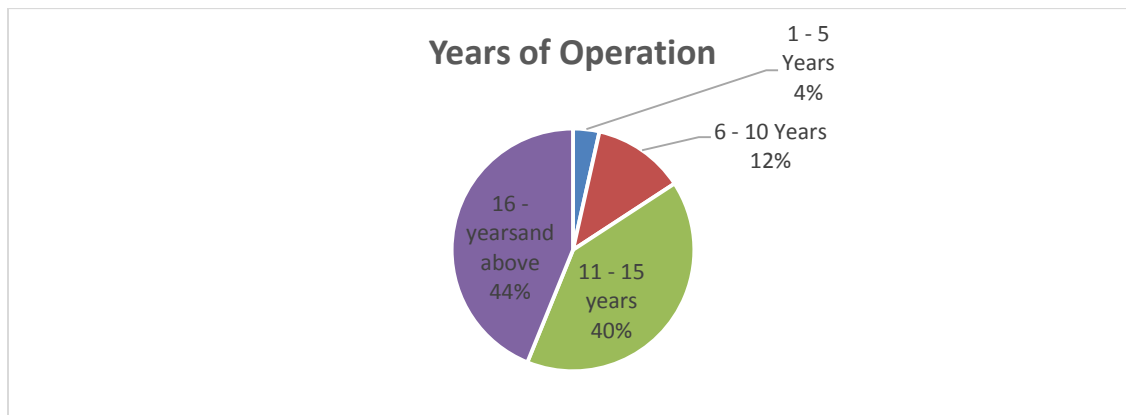


Figure 4.1: Duration the Bank has been in Operation

4.4.2 Level of Employment

The respondents were asked to indicate their level of employment. The results revealed that majority of the respondents who were 61% indicated that their level of employment was management level, 18% indicated senior level management, 14% indicated entry level while only 7% of the respondents who indicated that their level was BOD level. The results indicate that majority of the respondents were over five years experienced and well versed with credit risk management. Only 14% were in the entry level a meaning that they had adequate experienced officers to offer them guidance.

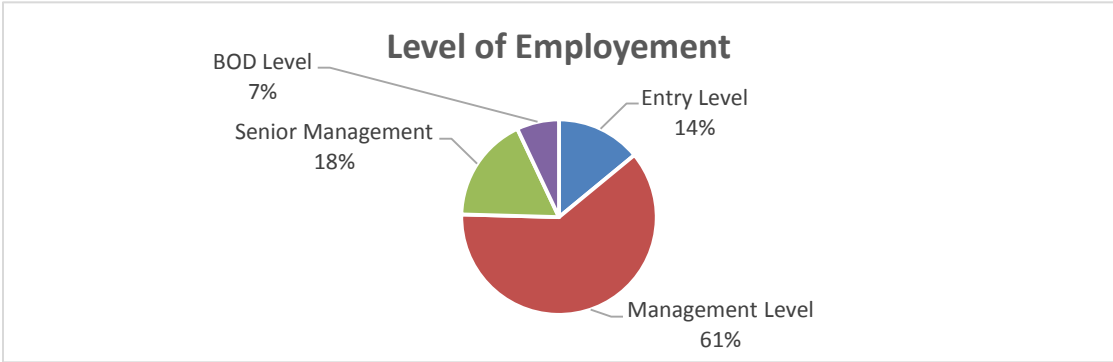


Figure 4.2: Level of Employment

4.4.3Duration Worked in the Organization

The respondents were asked to indicate the duration they had worked in the organization. Majority of the respondents who were 40% indicated that they had worked for 6 – 10 years, 37% indicated that they had worked in the organization for 11 – 15 years,18% indicated that they had worked in

the organization for 1 – 5 years while only 5% who indicated that they had worked in the organization for 16 years and above.

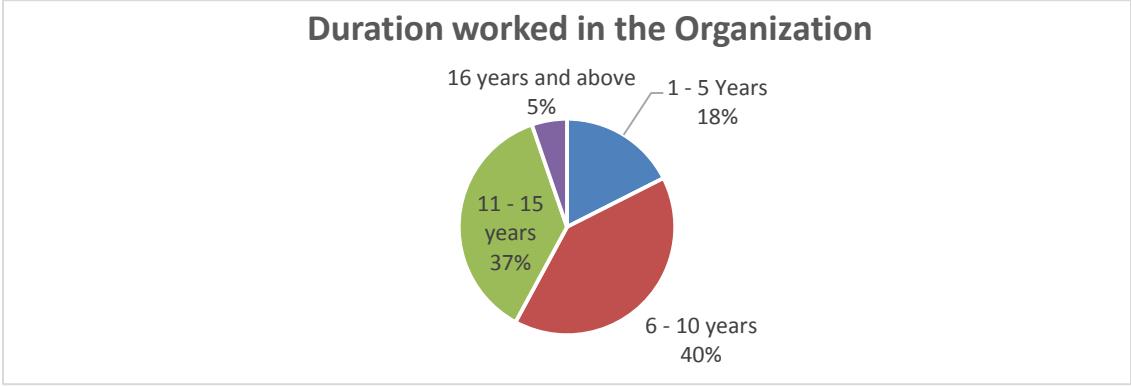
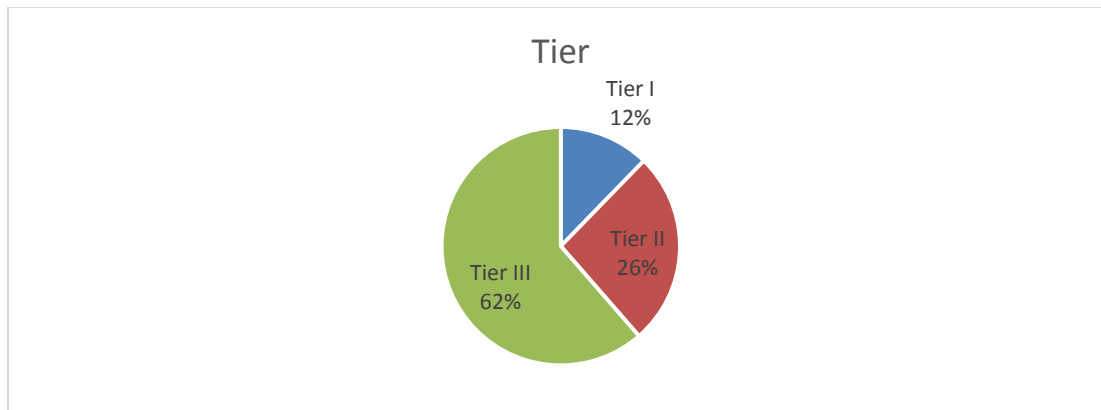


Figure 4.3: Duration Worked in the Organization

4.4.4 Tier of the Bank

The respondents were asked to indicate the tier of the bank. Majority of the respondents who were 62% indicated that their bank was tier III hence adequately representing the small banks, 26% of the respondents indicated that their bank was tier II and 12% of the respondents indicated that their bank was tier I. The resulted to achievement of rich data in terms of diversity amongst all the selected banks.

Figure 4.4: Tier of Bank



4.5 Descriptive Statistics

This section presents the descriptive results on financial performance, credit policies, credit administration, top management and credit management.

4.5.1 Credit Policy

The results in table 4.3 revealed that majority of the respondents who were 40.9% agreed and 38.6% strongly agreed with the statement that their bank has clear credit policy assessed against risk by an independent internal system. The results also revealed that majority of the respondents who were 47.4% agreed and 28.1% strongly agreed with the statement that credit policies in their bank are always communicated throughout the organization and periodically revised. The results further revealed that majority of the respondents who were 45.6% agreed and 24.6% strongly agreed with the statement that their bank policy clearly defines the credit concentrations, limits and exposures the bank is willing to assume.

In addition the results showed that majority of the respondents who were 45.6% agreed and 29.8% strongly agreed with the statement that loans to related or connected parties are based on market

terms and are not more favorable with regards to amount, maturity, rate and collate than those provided to other. In addition the results revealed that majority of the respondents who were 36.8% agreed and 36.8% strongly agreed with the statement that credit policy formulation, credit limit setting, monitoring of credit exposures and review and monitoring of documentation functions are performed independent of the loan origination function in their bank. The results also showed that majority of the respondents who were 40.4% agreed with the statement that policy in their bank stipulates the credit risk analysis procedures and the administration of all credit instruments. In addition the results showed that majority of the respondents who were 67.6% agreed with the statement that policies relating to credit assessment and granting process in their bank are documented with adequate checks and balances in place to ensure credit is granted on arms-length basis. The results showed that majority of the respondents who were 57.9% agreed and 22.8% strongly with the statement that their bank has a well-structured internal risk rating system and the previous score was excellent. The results showed that majority of the respondents who were 61.4% agreed and 26.35 strongly agreed with the statement that their bank credit policy has established procedures for dealing with deteriorating and managing problem credits.

The results showed that majority of the respondents who were 49.1% agreed and 19.3% strongly agreed with the statement that credit policy has established procedures for dealing with inter-bank transactions. The results further revealed that majority of the respondents who were 40.4% agreed and 22.8% strongly agreed with the statement that the credit policy in their bank has a clearly outlined provisioning procedure for all credits and respective capital charges to be held. The results further revealed that majority of the respondents who were 56.1% agreed and 22.8% strongly

agreed with the statement that their bank has a system for monitoring the condition of individual credits.

On a five point scale, the average mean of the responses was 3.75 which means that majority of the respondents were agreeing with most of the statements; however the answers were varied as shown by a standard deviation of 1.17. The results indicate majority of the respondents concur that credit policy affects performance of commercial banks in Kenya.

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Dev.
The bank's credit policy is assessed against risk by an independent internal system.	7.00%	12.30%	1.80%	40.40%	38.60%	3.91	1.24
The credit policies are communicated throughout the organization and periodically revised.	3.50%	14.00%	7.00%	47.40%	28.10%	3.82	1.10
The policy clearly defines the credit concentrations, limits and exposures the bank is willing to assume.	5.30%	12.30%	12.30%	45.60%	24.60%	3.72	1.13
Loans to related or connected parties are based on market terms	12.30%	8.80%	3.50%	45.60%	29.80%	3.72	1.32
Credit policy formulation, credit limit setting, monitoring of credit exposures are performed independent of the loan origination function.	7.00%	17.50%	1.80%	36.80%	36.80%	3.79	1.31
The policy stipulates the credit risk analysis procedures and the administration of all credit instruments.	12.30%	5.30%	7.00%	40.40%	35.10%	3.81	1.32
Policies relating to credit assessment and granting process are documented with adequate checks and balances in place to ensure credit is granted on arms-length basis.	8.80%	8.80%	12.30%	66.70%	3.50%	3.47	1.02
The bank has a well-structured internal risk rating system.	5.30%	3.50%	10.50%	57.90%	22.80%	3.89	0.98
The credit policy has established procedures for dealing with deteriorating and managing problem credits	3.50%	3.50%	5.30%	61.40%	26.30%	4.04	0.89
The credit policy has established procedures for dealing with inter-bank transactions	5.30%	15.80%	10.50%	49.10%	19.30%	3.61	1.13
The credit policy has a clearly outlined provisioning procedure for all credits	12.30%	15.80%	8.80%	40.40%	22.80%	3.46	1.34
The bank has a system for monitoring the condition of individual credits.	12.30%	7.00%	1.80%	56.10%	22.80%	3.70	1.25
Average						3.75	1.17

Table 4.4: Credit Policies and Financial Performance

4.5.2 Credit Administration Unit and Performance

The results in table 4.4 revealed that majority of the respondents who were 45.6% agreed and 31.6% strongly agreed with the statement that credit administration process in place complies with Risk Management Guidelines 2013 and the internal policy. The results also revealed that majority of the respondents who were 24.6% agreed and 38.6% strongly agreed with the statement that adequate and regular training of credit administration unit is achieved with at least two trainings per annum. The results revealed that majority of the respondents who were 61.4% agreed with the statement that the individuals perform sensitive functions such as custody of key documents, wiring out funds entering limits into system report to managers independent of business origination and credit approval process. The results showed that majority of the respondents who were 47.4% agreed and 33.3% strongly agreed with the statement that credit exposure and risk reporting is provided to the board and management with sufficient frequency and reliability. The results further revealed that majority of the respondents who were 40.4% agreed and 28.1% strongly agreed with the statement that it's the responsibility of credit administration to ensure completeness of documentation in accordance with approved terms and conditions.

In addition the results showed that majority of the respondents who were 35.1% agreed and 31.6% strongly agreed with the statement that disbursements are affected only after completion of covenants, and receipt of collate holdings. The results further showed that majority of the respondents who were 33.3% agreed and 35.1% strongly agreed with the statement that disbursements are affected only after completion of covenants and receipts of collate holdings but with SLA. The results further showed that majority of the respondents who were 57.9% agreed

and 29.8% strongly agreed with the statement that the institution has in place standard procedural guidelines and controlled data repository for maintenance of credit files with sufficient information necessary to assess the financial health of the borrower with ease and accuracy. The results further showed that majority of the respondents who were 57.9% agreed and 28.1% strongly agreed with the statement that all security documents are kept in a fire proof safe under dual control and respective registers are maintained to keep track of their movement. The results further showed that majority of the respondents who were 45.6% agreed and 28.1% strongly agreed with the statement that physical checks on security documents are conducted on regular basis.

On a five point scale, the average mean of the responses was 3.80 which means that majority of the respondents were agreeing with most of the statements; however the answers were varied as shown by a standard deviation of 1.15. The results indicated that the majority of the respondents uphold that the credit administration unit affects performance of commercial banks in Kenya.

Table 4.5: Credit Administration Unit and Financial Performance

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Dev
The credit administration process in place complies with Risk Management Guidelines	7.00%	7.00%	8.80%	45.60%	31.60%	3.88	1.15
Adequate segregation of duties is maintained	10.50%	10.50%	15.80%	24.60%	38.60%	3.70	1.36
Individuals performing sensitive functions report to managers independent of business origination and credit approval process.	12.30%	3.50%	14.00%	61.40%	8.80%	3.51	1.12
Credit exposure and risk reporting is provided to the board and management	5.30%	10.50%	3.50%	47.40%	33.30%	3.93	1.13
It's the responsibility of credit administration to ensure completeness of documentation in accordance with approved terms and conditions.	15.80%	1.80%	14.00%	40.40%	28.10%	3.63	1.34
Disbursements are effected only after completion of covenants, and receipt of collate holdings.	3.50%	8.80%	21.10%	35.10%	31.60%	3.82	1.09
It is the responsibility of credit administration to continuously keep track of borrowers' compliance with credit terms.	14.00%	3.50%	14.00%	33.30%	35.10%	3.72	1.36
The institution has in place procedural guidelines for maintenance of credit files	3.50%	1.80%	7.00%	57.90%	29.80%	4.09	0.87
All security documents are kept in a fire proof safe under dual control	5.30%	1.80%	7.00%	57.90%	28.10%	4.02	0.95
Physical checks on security documents is conducted on regular basis	1.80%	19.30%	5.30%	45.60%	28.10%	3.79	1.11
Average						3.80	1.15

4.5.3 Top Management and Financial Performance

The results in table 4.6 revealed that majority of the respondents who were 47.4% agreed and 22.8% strongly agreed with the statement that credit strategy is regularly reviewed to take into

account changing internal and external circumstances. The results also revealed that majority of the respondents who were 43.9% agreed and 21.1% strongly agreed with the statement that BOD and senior management has good understanding of all the products on offer and they access to tailored programmes for both induction and continuous professional development. The results showed that majority of the respondents who were 54.4% agreed with the statement that products have a maturity profile and careful review of the existing and potential risks is regularly undertaken. The results showed that majority of the respondents who were 42.1% agreed and 29.8% strongly agreed with the statement that BOD meetings are regularly held with a quorum attendance (75%).

In addition the results showed that majority of the respondents who were 38.8% chose to be neutral, 47.4% agreed and 3.5% strongly agreed with the statement that the top management conforms to the laid down strategy in all credit granting activities in their bank, these results arise doubts on the commitment of top management in adhering to the credit guidelines in place. The results showed that majority of the respondents who were 49.1% agreed and 21.1% strongly agreed with the statement that issues raised on credit risk during internal audits reviews are promptly responded to by the BOD committees. The results revealed that majority of the respondents who were 50.9% agreed and 26.3% strongly agreed with the statement that adequate research for any new products is undertaken to ensure risks are appropriately identified and managed. The results also showed that majority of the respondents who were 59.6% agreed with the statement that management in their bank provides accurate periodic reports on the insiders, provisioning and write-off on credit loan losses and audit findings. The results also revealed that majority of the respondents who were 49.1% agreed and 12.3% strongly agreed with the statement that top

management conforms to the independence associated with segregation by not influencing credit decisions at the credit originating and credit administration levels for personal interest. In addition the results also showed that majority of the respondents who were 59.6% agreed and 19.3% strongly agreed with the statement bank has all the mandatory committees: BAC (Board Audit Committee), Board Risk Management Committee (BRMC) and Board Credit Committee (BCC). On a five point scale, the average mean of the responses was 3.58 which means that majority of the respondents were agreeing with most of the statements; however the answers were varied as shown by a standard deviation of 1.14. In view of the results, majority of the respondents indicated that top management affects performance of commercial banks in Kenya. However, the study shown silent dissatisfaction with the manner in which top management may have failed to observe the set guidelines in the credit policy while performing their CRM duties.

Table 4.6 Top Management and Financial Performance

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Dev
The credit strategy is regularly reviewed to take into account changing circumstances.	7.00%	15.80%	7.00%	47.40%	22.80%	3.63	1.20
The BOD and senior management has good understanding of all the products on offer	8.80%	14.00%	12.30%	43.90%	21.10%	3.54	1.23
Products have a maturity profile and careful review of the existing potential risks is regularly undertaken.	10.50%	1.80%	21.10%	54.40%	12.30%	3.56	1.09
BOD meetings are regularly held with a quorum attendance (75%).	12.30%	7.00%	8.80%	42.10%	29.80%	3.70	1.31
The top management conforms to the laid down strategy in all credit granting activities.	3.50%	8.80%	36.80%	47.40%	3.50%	3.39	0.84
Issues raised on credit risk during internal audits reviews are promptly responded to by the BOD committees	14.00%	12.30%	3.50%	49.10%	21.10%	3.51	1.34
Adequate research for any new products is undertaken to ensure risks are appropriately identified and managed.	10.50%	8.80%	3.50%	50.90%	26.30%	3.74	1.25
The management provides accurate periodic reports on the insiders, provisioning and write-off on credit loan losses and audit findings.	8.80%	5.30%	24.60%	59.60%	1.80%	3.40	0.96
The top management conforms to the independence associated with segregation by not influencing credit decisions at any credit creation level for personal interests.	8.80%	8.80%	21.10%	49.10%	12.30%	3.47	1.10
The bank has all the mandatory committees: BAC (Board Audit Committee), Board Risk Management Committee (BRMC) and Board Credit Committee (BCC).	7.00%	3.50%	10.50%	59.60%	19.30%	3.81	1.03
Average						3.58	1.14

4.5.4 Credit Management Practices and Performance

The results in table 4.7 revealed that majority of the respondents who were 57.9% agreed with the statement that their bank employs credit risk management steps of identification, measurement, assessment, monitoring and control. The results also revealed that majority of the respondents who were 54.4% agreed with the statement that their bank has put in place efficient credit risk

identification and analysis mechanism and identify potential risks. The results also revealed that majority of the respondents who were 38.6% agreed and 22.8% strongly agreed with the statement that risk inherent in new products are subjected to adequate analysis before being introduced to the market. The results also revealed that majority of the respondents who were 15.8% agreed and 31.6% strongly agreed with the statement that their bank has adequate procedures and controls are in control and are employed in the credit risk management procedures. In addition the results showed that majority of the respondents who were 52.6% agreed with the statement that their bank reviews and enhancements of procedures and controls of credit risk are periodically conducted by management.

The results also revealed that majority of the respondents who were 38.6% agreed and 42.1% strongly agreed with the statement that their bank financial conditions change, the credit risk approaches employed by the bank may likewise change. The results also revealed that majority of the respondents who were 45.6% agreed and 35.1% strongly agreed with the statement

that instances occur where credit risk practices are violated by the credit administration unit and or top management resulting to non-performing loans in the bank. On a five point scale, the average mean of the responses was 3.70 which means that majority of the respondents were agreeing with most of the statements; however the answers were varied as shown by a standard deviation of 1.21. The results indicated that majority of the respondents concurred that CRM practices affect financial performance of commercial banks in Kenya. However, they also pointed out that instances occur where credit risk practices are violated by the credit administration unit and or top management resulting to non-performing loans in the bank.

Table 4.7 Credit Management practices and Financial Performance

4.5.5 Financial Performance of Commercial Banks

The results in table 4.7 revealed that majority of the respondents who were 29.8% agreed and 47.4% strongly agreed with the statement that there has been an overall decrease in banks financial risks and scandals. The results showed that majority of the respondents who were 56.1% strongly agreed with the statement that banks ROA value has risen up with respect to overall profits.

The results also showed that majority of the respondents who were 24.6% agreed and 42.1% strongly agreed with the statement that credit risk management practices affect the banks financial performance. The results revealed that majority of the respondents who were 43.9% agreed and 21.1% strongly agreed with the statement that credit administration unit affects the banks financial performance. The results revealed that majority of the respondents who were 47.3% agreed with the statement that top management support affects the banks financial performance. The results also

revealed that majority of the respondents who were 78.9% agreed with the statement that credit policies affect the banks financial performance. The results further revealed that majority of the respondents who were 45.6% agreed and 15.8% strongly agreed with the statement that market share in their bank has been increasing over the past five years. In addition the results showed that majority of the respondents who were 45.6% agreed and 15.8% strongly agreed with the statement that non-performing loans have been increasing in the bank.

The results indicated that actually all the variables in the study significantly affect financial performance of the selected commercial banks in Kenya.

Table 4.8: Financial Performance

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Std. Dev
There has been an overall decrease in banks financial risks and scandals	7.00%	7.00%	8.80%	29.80%	47.40%	4.04	1.22
Banks ROA value has risen up with respect to overall profits	5.30%	5.30%	10.50%	22.80%	56.10%	4.19	1.16
The credit risk management practices affects the banks performance	7.00%	14.00%	12.30%	24.60%	42.10%	3.81	1.32
The credit management policies affects the bank performance	8.80%	7.00%	19.30%	43.90%	21.10%	3.61	1.16
The top management support affects the banks performance.	5.30%	14.00%	33.30%	33.30%	14.00%	3.37	1.06
The credit policies and procedure affects the bank performance	10.50%	3.50%	1.80%	78.90%	5.30%	3.65	1.03
The market share has been increasing over the past five years in the bank	21.10%	10.50%	7.00%	45.60%	15.80%	3.25	1.42

Non-performing loans have been increasing in the bank	12.30%	10.50%	15.80%	45.60%	15.80%	3.42	1.24
Average						3.67	1.20

4.6 Inferential Statistics

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

4.6.1 Correlation Analysis

Results are said to be significant if the P – value is above 0.05 (Bland & Altman, 1995). Table 4.8 below presents the results of the correlation analysis. The results revealed that credit policies and financial performance are significantly related and have weak positive correlation ($r=0.343$, $p=0.009$). These findings agreed with that of Agola(2014) found a positive relationship between financial performance, credit policy, credit risk controls, credit appraisal and collection policy. The findings also agreed with that of Wachira (2015) who found that credit policy have a positive effect on financial performance of deposit taking SACCOs in Kenya.

Table 4.8 indicates that credit administration unitand financial performance are significantly related and have moderately strong positive correlation ($r=0.501$, $p=0.000$).These findings agreed with that of Joetta (2007) who argued that credit administration units has a significant effect on financial performance. It was established that top management and financial performance were significantly related and have weak positive correlation. ($r=0.376$, $p=0.006$). These findings agreed with that of Muchemi (2013) who found that top management team diversity has both positive and negative effects on organizations performance. Similarly, results showed that credit management practicesandperformance were significantly related and have moderately strong positive

correlation ($r=0.501$, $p=0.000$). These findings agreed with that of Munialo (2006) who conducted a study on the relationship between credit risk management practices and financial performance of private hospitals in Kenya and found that credit risk management practices had a positive and significant effect with financial performance. This implies that an increase in any unit of the variables leads to an improvement in performance of the commercial banks in Kenya.

Table 4.9: Correlation Matrix

		Financial performanc e	Credit policies	Credit administration unit	Top managem ent	Credit management practices
Financial performance	Pearson Correlatio n	1.000				
credit policies procedures strategies	Sig. (2-tailed) Pearson Correlatio n	.343**	1.000			
	Sig. (2- tailed)	0.009				
credit administration unit	Pearson Correlatio n	.501**	.274*	1.000		
	Sig. (2- tailed)	0.000	0.039			
top management	Pearson Correlatio n	.376**	-0.028	0.013	1	
	Sig. (2- tailed)	0.004	0.836	0.922		
credit management	Pearson Correlatio n	.501**	-0.055	.310*	-0.18	1.000
	Sig. (2- tailed)	0.00	0.682	0.019	0.181	
** Correlation is significant at the 0.01 level.						
* Correlation is significant at the 0.05 level.						

4.6.2 Regression Analysis

In statistical modeling, regression analysis is a statistical process for estimating the relationships among variables. It includes many techniques for modeling and analyzing several variables, when the focus is on the relationship between a dependent variable and one or more independent variables (or 'predictors'). There are various assumptions for multiple linear regressions. First it needs the relationship between the independent and dependent variables to be linear. Secondly, the multiple linear regression analysis requires all variables to be normal. Thirdly, multiple linear regressions assume that there is little or no multicollinearity in the data.

The results presented in Table 4.10 present the fitness of model used in the regression model to explain the study phenomena. Credit policies, credit administration unit, top management and credit risk management practices provides a moderately good fit in predicting changes in financial performance of commercial banks. This is supported by coefficient of determination also known as the R square of 50.9%. This means that credit policies procedures and strategies, credit administration unit, top management and credit management practices explain 50.9% of the variations in the dependent variable which is financial performance of commercial banks. This results further means that the model applied to link the relationship of the variables provided a relatively good fit.

Table 4.10: Model Fitness

Indicator	Coefficient
R	0.714

R Square	0.509
Adjusted R Squared	0.571
Std. Error of the Estimate	0.294267

In statistics significance testing the p-value indicates the level of relation of the independent variable to the dependent variable. If the significance number found is less than the critical value also known as the probability value (p) which is statistically set at 0.05, then the conclusion would be that the model is significant in explaining the relationship; else the model would be regarded as non-significant (Bagozzi, 1988).

Table 4.11 provides the results on the analysis of the variance (ANOVA). The results indicate that the overall model provided a relatively good fit. Further, the results imply that the independent variables (Credit policies procedures and strategies, credit administration unit, top management and credit management practices) are good predictors of financial performance of commercial banks. This was supported by an F statistic of 13.482 and the reported p value (0.000) which was less than the conventional probability of 0.05significance level.

Table 4.11: Analysis of Variance

	Sum of Squares	df	Mean Square	F	Sig.
Regression	4.67	4	1.167	13.482	0.000
Residual	4.503	52	0.087		
Total	9.173	56			

Regression of coefficients results in table 4.10 shows that Credit policies procedures and strategies and performance are positively and significant related ($r=0.306$, $p=0.009$). These findings agreed with that of Agola(2014) found a positive relationship between financial performance, credit policy, credit risk controls, credit appraisal and collection policy. The findings also agreed with

that of Wachira (2015) who found that credit policy have a positive effect on financial performance of deposit taking SACCOs' in Kenya. The table further indicates that credit administration unit and performance are positively and significant related ($r=0.346$, $p=0.004$). These findings agreed with that of Joetta (2007) who argued that credit administration units has a significant effect on financial performance. It was further established that top management and performance were positively and significantly related ($r=0.232$, $p=0.023$). These findings agreed with that of Muchemi (2013) who found that top management team diversity has both positive and negative effects on organizations performance. In addition credit management practices and performance were also positively and significantly related ($r=0.348$, $p=0.009$). These findings agreed with that of Ndwiga (2010) whose findings of the study indicated that there was a positive relationship between credit risk management practices and financial performance of MFIs.

Table 4.12: Regression of Coefficients

	B	Std. Error	t	Sig.
(Constant)	-0.703	0.625	-1.124	0.266
credit policies procedures strategies	0.306	0.112	2.722	0.009
credit administration unit	0.346	0.116	2.992	0.004
top management	0.232	0.099	2.336	0.023
credit management Practices	0.348	0.128	2.728	0.009

Thus, the optimal model for the study is;

$$\text{Performance of commercial banks} = -0.703 + 0.306 \text{ credit policies} + 0.346 \text{ credit administration unit} + 0.232 \text{ Top Management} + 0.348 \text{ Credit Management Practices}$$

The results indicate that Credit Management Practices have the highest impact on the financial performance of commercial banks with a change of one unit leading to an improvement of 34.8 % in financial performance. A change in a unit of credit administration unit will lead to an

improvement of 34.6 % of the financial performance, with a one unit change in credit policies to an improvement of 30.6% on the financial performance of commercial banks. A unit change in top management would result in a 23.2% in financial performance of commercial banks in Kenya.

4.7 Hypothesis Testing

The hypothesis was tested by using multiple linear regression (table 4.11, above).

4.7.1 Credit policies on Financial Performance

The first objective of the study was to determine the effect of Credit policies on performance of commercial banks in Kenya. The null hypothesis was; Credit policies have no significant effect of performance of commercial banks in Kenya. Results are shown in Table 4.10 shows that, the calculated p value of 0.000 was less than the critical p value (0.05). This indicated that the null hypothesis was rejected hence Credit policies had a significant effect of performance of commercial banks in Kenya.

4.7.2 Credit administration unit on Financial Performance

The second objective of the study was to determine the effect of Credit administration unit on performance of commercial banks in Kenya. The null hypothesis was; Credit administration unit has no significant effect of performance of commercial banks in Kenya. Results are shown in Table 4.10 shows that, the calculated p value of 0.000 was less than the critical p value (0.05). This indicated that the null hypothesis was rejected hence Credit administration unit had a significant effect of performance of commercial banks in Kenya.

4.7.3 Top management on Financial Performance

The third objective of the study was to determine the effect of Top management on performance of commercial banks in Kenya. The null hypothesis was; Top management has no significant effect on performance of commercial banks in Kenya. Results are shown in Table 4.10 shows that, the calculated p value of 0.000 was less than the critical p value (0.05). This indicated that the null hypothesis was rejected hence top management had a significant effect on performance of commercial banks in Kenya.

4.7.4 Credit Management practices on Financial Performance

The fourth objective of the study was to determine the effect of credit management practices on financial performance of commercial banks in Kenya. The null hypothesis was; credit management practices have no significant effect on financial performance of commercial banks in Kenya. Results are shown in Table 4.10 shows that, the calculated p value of 0.000 was less than the critical p value (0.05). This indicated that the null hypothesis was rejected hence credit management practices had a significant effect on performance of commercial banks in Kenya.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter addresses the summary of the findings, the conclusions and the recommendations.

This is done in line with the objectives of the study.

5.2 Summary of Findings

5.2.1 Credit Policy

The first objective of the study was to determine the effect of Credit policies, procedures and strategies on performance of commercial banks in Kenya. The findings revealed that there was a positive and significant association between credit policies on performance of commercial banks. The findings were also supported by the statements in the questionnaire which majority of the respondents agreed. This was also supported by the regression results which revealed that Credit policies, procedures and strategies had a positive and significant effect on performance of commercial banks.

These findings agreed with that of Agola (2014) found a positive relationship between financial performance, credit policy, credit risk controls, credit appraisal and collection policy. The findings also agreed with that of Wachira (2015) who found that credit policy have a positive effect on

financial performance of deposit taking SACCOs in Kenya. The findings further agree with Kitua(2002) that the problem often begins right at the loan application stage and increases further at the loan approval, monitoring and controlling stages, especially when CRM guidelines in terms of policy and strategies/procedures for credit processing do not exist or incomplete. The findings are also in congruence with Ferri, et al (2001) that good and reliable data and information; development of sound risk-management system; asymmetry in supervision; operational costs and the problem of adverse selection would better address challenges the banking industry worldwide today faces which unless effectively addressed would impact the pace of adoption and implementation of Basel II. Further the findings agree with (Ofunya Afande, 2014) that factors that influence effectiveness of credit risk management systems used by commercial banks include establishment of credit policy and procedures that clearly outline the scope and allocation of bank credit facilities, maintenance of credit guidelines to every officer in the credit department and maintenance of credit administration system with adequate controls over credit. The study confirmed the CBK, Risk management guidelines, 2013 that policies relating to credit assessment and granting process must be sound, well defined and a thorough understanding of the borrower or counterparty, as well as the purpose and structure of the credit, and its source of repayment.

5.2.2 Credit Management Unit and Financial Performance

The second objective of the study was to determine the effect of Credit administration unit on performance of commercial banks in Kenya. The findings revealed that there was a positive and significant association between Credit administration unit and performance of commercial banks. The findings were also supported by the statements in the questionnaire which majority of the

respondents agreed. This was also supported by the regression results which revealed that Credit management unit had a positive and significant effect on performance of commercial banks.

The findings are in agreement with Boucher, 2000 that measuring productivity of a credit administration officer is the key to improving commercial lending performance. The productivity measure can be monthly credit administered in terms of securitization, disbursements, records management, credit monitoring, control and collection.

These findings agreed with that of Joetta (2007) who argued that an important aspect in credit risk management is credit assessment due to dire effects of credit risk, whereby if not well managed can lead to bank failure, consequently it is important for a bank to have capacity to assess, administer, supervise, control, enforce and recover loans, advances, guarantees and other credit instruments. Credit administration unit has a significant effect on financial performance. The study findings also agree with Nkusu(2011)that to minimize the introduction to terrible obligation, over saving and liquidations, banks must have more prominent understanding into client budgetary quality, financial assessment history, and changing installment designs (Nkusu, 2011). The study confirmed the Central Bank of Kenya Risk Management Guidelines, 2013 that credit administration function performs documentation, credit disbursement, monitoring, loan repayment, maintenance of credit files, collate and security documentation and that with a capable credit administration team, procedures should be established to track and review relevant insurance coverage for certain facilities/collateral, Physical checks on security documents should be conducted on regular basis and credit information should be provided to the board and management with sufficient frequency, timelines and should be reliable.

5.2.3 Top Management Support and Performance

The third objective of the study was to determine the effect of Top management support on performance of commercial banks in Kenya. The findings revealed that there was a positive and significant association between top management support and performance of commercial banks. The findings were also supported by the statements in the questionnaire which majority of the respondents agreed. This was also supported by the regression results which revealed that top management support had a positive and significant effect on performance of commercial banks. These findings agreed with that of Muchemi (2013) who found that top management team diversity has both positive and negative effects on organizations performance. Thus diversity should be managed to enhance organization's performance. The findings also confirmed adherence to the Central Bank of Kenya Risk management guidelines, 2013 that the board of directors carries the ultimate responsibility of approving and reviewing the credit risk strategy and credit risk policies and procedures of the bank including offering overall strategic direction to the bank whereby the credit risk strategy should clearly set the acceptable risk appetite and tolerance the institution is willing to engage, and the level of profitability the bank expects to achieve for incurring the various credit risks. It is the board's role to ensure that the credit strategy has a statement on the acceptable levels of exposure to the economic sectors, currencies and maturities. The study findings are in congruence with Sinkey (1979) and Hanc (1998) that internal factors have been identified as the most important causes of troubled banks commencing with that the internal factor causing poor financial performance are decisions over which managers and directors of the bank have direct control.

5.2.4 Credit Risk Management Practices and Performance

The third objective of the study was to determine the effect of credit management practice on performance of commercial banks in Kenya. The findings revealed that there was a positive and significant association between credit management practice and performance of commercial banks. The findings were also supported by the statements in the questionnaire which majority of the respondents agreed. This was also supported by the regression results which revealed that credit management practice had a positive and significant effect on performance of commercial banks.

These findings agreed with that of Munialo (2006) who conducted a study on the relationship between credit risk management practices and financial performance of private hospitals in Kenya and found that credit risk management practices had a positive and significant effect with financial performance. These findings also agreed with that of Ndwiga (2010) whose findings of the study indicated that there was a positive relationship between credit risk management practices and financial performance of commercial banks in Kenya. The findings concur with Donaldson, 2000; Tummala and Burchett, 2000; Mwisho, 2001; Basel, 2004; Treacy and Carey, 2004 that monitoring involves among others frequent contact with borrowers, creating an environment that the bank can be seen as a solver of problems and trusted adviser; develop a culture of being supportive to borrowers whenever they are recognized to be in difficulties and are striving to deal with the situation; monitoring the flow of borrowers' business through the banks' accounts; regular review of the borrowers reports as well as an on-site; updating borrowers files and periodically reviewing the borrowers rating assigned at the time the credit was granted.

The study also established the CRM practices adopted by commercial banks in Kenya included loan securitization, credit limits and knowledge advancement. These finding were informed by

results which indicated that commercial banks have put in place effective CRM practices. The findings further agree with Aduda and Gitonga, (2011) that CRM in banks has become more important not only because of the series of financial crisis that the world experienced in the recent past, but also the introduction of Basel II Accord. The findings and analysis consented that credit risk management has an effect on performance of commercial banks.

5.3 Conclusions

In relation to the study findings the study concluded that credit policies, credit administration unit, top management and credit management practices influences financial performance of selected banks in Kenya. The findings revealed a strong positive relationship between the independent variables and the dependent variable.

5.4 Recommendations

The study found that credit management practices have a positive and significant effect on performance of commercial banks. The study therefore recommends that commercial banks should continue improving on their credit risk management practices such as regular credit policy reviews, knowledge advancement, securitization and standardized loan terms in accordance with set guidelines. In addition the commercial banks management should oversee facilitation of credit risk management as a substantial degree of standardization of process and documentation.

In addition the study found that top management's team diversity has a positive and significant effect on financial performance of commercial banks and therefore recommended that it should be adequately managed to enhance organization's performance.

The study also found that credit policies have a positive and significant effect on financial performance of commercial banks. Therefore the study recommended that financial institutions should adopt a more stringent credit policy to a lenient policy for effective CRM and by doing so they will improve their financial performance.

These findings are in congruence with the earlier findings as discussed in the literature reviewed. The study has contributed towards an enriched literature on effect of credit risk management which is a critical component of a comprehensive approach to risk management and essential to the long term success of any banking organization. The study findings could also be used by policy makers as additional literature to review or make new policies to promote financial literacy and consumer protection. The Central bank could also refer to the study findings as a source of available information to scrutinize and issue guidelines to be adhered to by institutions in order to maintain a stable and efficient banking and financial system adequately transparent to its shareholders, depositors, other relevant stake holders and market participants.

The results of the study could also be helpful for the management to focus on the variables used in the study so that the financial performance of banks may be enhanced. Furthermore the study may be replicated by adding more dimensions of credit management, increasing the sample size and by taking more financial sector players on board to investigate and test the impact of studied variables on the financial performance of the players to add generalizability to current findings. The study results could also be used as a key ingredient to the successful exploitation of economic opportunities through initiatives and reforms to enhance financial inclusion, credit availability and better overall financial performance which is a precursor for propelling economic growth and

development. It is further suggested that secondary data may be incorporated in such studies to better explore the influence of credit risk management on financial performance in that specific dimension.

5.5 Limitation of the Study

Kenya has 43 commercial banks therefore conducting a study on all the commercial was a major limitation for this study. The study overcame this limitation by selecting a representative sample. The study also was limited by the large distance to be travelled while conducting the research. The study overcame this limitation by using Research Assistants in data collection.

The Researcher also encountered difficulties in getting information on performance of commercial banks as the respondents were unwilling to review confidential details on the same. To overcome this, the Researcher wrote a transmittal letter accompanying the questionnaire and guaranteeing the respondents that the information would be treated with confidentiality and purely for the purpose of the study.

5.6 Areas for Further Studies

The study sought to determine the effect of credit risk management on the performance of commercial banks in Kenya. This called for the analysis of commercial banks in Kenya only, thus area for further studies could consider other financial institutions like SACCOs in Kenya for the purpose of making a comparison of the findings with those of the current study.

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APPENDICES

Appendix 1: List of Commercial Banks in Kenya

1. African Banking Corporation Ltd
2. Bank of Africa Kenya Ltd
3. Bank of Baroda Ltd

4. Bank of India
5. Barclays Bank of Kenya Ltd
6. CFC Stanbic Bank Ltd
7. Charterhouse Bank Ltd
8. Chase Bank Ltd
9. Citibank N.A.
10. Commercial Bank of Africa Ltd
11. Consolidated Bank of Kenya Ltd
12. Co-operative Bank of Kenya Ltd
13. Credit Bank Ltd
14. Development Bank of Kenya Ltd
15. Diamond Trust Bank Kenya Ltd
16. Dubai Bank Ltd
17. Ecobank Ltd
18. Equatorial Bank Ltd
19. Equity Bank Ltd
20. Family Bank Ltd
21. Fidelity Commercial Bank Ltd
22. First Community Bank Ltd
23. Giro Commercial Bank Ltd
24. Guaranty Trust Bank Ltd

25. Guardian Bank Ltd
26. Gulf African Bank Ltd
27. Habib A.G. Zurich
28. Habib Bank Ltd
29. I&M Bank Ltd
30. Imperial Bank Ltd
31. Jamii Bora Bank Ltd
32. Kenya Commercial Bank Ltd
33. K-Rep Bank Ltd
34. Middle East Bank Ltd
35. National Bank of Kenya Ltd
36. NIC Bank Ltd
37. Oriental Commercial Bank Ltd
38. Paramount Universal Bank Ltd
39. Prime Bank Ltd
40. Standard Chartered Bank Ltd
41. Trans - National Bank Ltd
42. UBA Bank Ltd
43. Victoria Commercial Bank Ltd

Source: CBK, Bank Annual Supervision Report, (2015)

Appendix II: Introduction Letter

Date.....

Dear Sir/Madam,

RE: VOLUNTARY PARTICIPATION IN DATA COLLECTION

I am a master's student at KCA University undertaking a research project on, "**Effect of credit risk management on financial performance of Commercial banks in Kenya**" You have been

selected for this study to fill the questionnaire. Kindly respond to the questions in the attached questionnaire. The information provided will exclusively and solely be used for academic purposes and will be treated with the confidence it deserves. Upon request, you will be furnished with a copy of the final report.

Your cooperation will be highly appreciated.

Yours Faithfully,

Gideon Muriki

Appendix III: Questionnaire

SECTION A: General Information

1. Name of the Commercial Bank (Optional).....
2. For how long has this bank been operational in Kenya?(Tick as appropriate)
 - a. 1 – 5 Years []
 - b. 6 – 10 Years []
 - c. 11 – 15 Years []
 - d. 16 Years and Above []

3. The level of employment of the respondent(Tick as appropriate)
 - a. Entry Level []
 - b. Management Level []
 - c. Senior Management Level []
 - d. BOD Level []
4. For how long have you worked in the organization
 - a. 1 – 5 Years []
 - b. 6 – 10 Years []
 - c. 11 – 15 Years []
 - d. 16 and Above []
5. Which Tier is your bank in Kenya
 - a. Tier I []
 - b. Tier II []
 - c. Tier III []

SECTION B: Credit Risk Management and Financial Performance of Commercial Banks

1. Credit Policy

Establishment of sound and well defined policies, procedures and strategies is vital in the management of credit risk. These should be duly approved by the board and strictly implemented by management since they establish the framework for lending and guide the credit-granting activities of the institution. Indicate the extent in which your organization applies the practices.

Use the likert scale. The response scale for the questions is as below

5= Strongly Agree, 4= Agree, 3= Neutral, 2= Disagree, 1= Strongly Disagree

Statements	1	2	3	4	5
The bank has clear credit policy assessed against risk by an independent internal system.					
The credit policies are communicated throughout the organization and periodically revised.					

The policy clearly defines the credit concentrations, limits and exposures the bank is willing to assume.					
Loans to related or connected parties are based on market terms and are not more favorable with regards to amount, maturity, rate and collate than those provided to other customers.					
Credit policy formulation, credit limit setting, monitoring of credit exposures and review and monitoring of documentation functions are performed independent of the loan origination function.					
The policy stipulates the credit risk analysis procedures and the administration of all credit instruments.					
Policies relating to credit assessment and granting process are documented with adequate checks and balances in place to ensure credit is granted on arms-length basis.					
The bank has a well-structured internal risk rating system.					
The credit policy has established procedures for dealing with deteriorating and managing problem credits					
The credit policy has established procedures for dealing with inter-bank transactions					
The credit policy has a clearly outlined provisioning procedure for all credits and respective capital charges to be held.					
The bank has a system for monitoring the condition of individual credits.					

2. Credit Administration

Credit administration is critical in ensuring soundness of the credit portfolios. It is the responsibility of management to set up a credit administration team to ensure that once a credit is granted it is properly maintained and administered.

Use the likert scale. The response scale for the questions is as below

5= Strongly Agree, 4= Agree, 3= Neutral, 2= Disagree, 1= Strongly Disagree

	1	2	3	4	5
The credit administration process in place complies with Risk Management Guidelines 2013 and the internal policy					
Adequate segregation of duties between approval and administration process is maintained					
Individuals performing sensitive functions such as custody of key documents, wiring out funds entering limits into system report to managers independent of business origination and credit approval process.					
Credit exposure and risk reporting is provided to the board and management with sufficient frequency and reliability.					
It's the responsibility of credit administration to ensure completeness of documentation in accordance with approved terms and conditions.					
Disbursements are effected only after completion of covenants, and receipt of collate holdings.					
It is the responsibility of credit administration to continuously keep track of borrowers' compliance with credit terms.					
The credit administration team communicates to the obligors ahead of time as and when the principal/markup installment becomes due and proper records and updates are made after receipt.					
The institution has in place procedural guidelines and standards for maintenance of credit files with sufficient information necessary to assess the financial health of the borrower.					
All security documents are kept in a fire proof safe under dual control and respective registers are maintained to keep track of their movement.					
Physical checks on security documents is conducted on regular basis					

3. Top Management

The board of directors carries the ultimate responsibility of reviewing the credit risk strategy and policies in line with offering overall strategic direction to the bank. The senior management has the responsibility of implementing the credit strategy approved by the board of directors and developing policies and procedures for effective management of credit risk

Use the likert scale. The response scale for the questions is as below

5= Strongly Agree, 4= Agree, 3= Neutral, 2= Disagree, 1= Strongly Disagree

Tick appropriately, where 1 is totally disagreed and 5 is totally agreed	1	2	3	4	5
The credit strategy is regularly reviewed to take into account changing internal and external circumstances.					
The BOD and senior management has good understanding of all the products on offer and they access to tailored programmes for both induction and continuous professional development.					
Products have a maturity profile and careful review of the existing and potential risks is regularly undertaken.					
BOD meetings are regularly held with a quorum attendance (75%).					
The top management conforms to the laid down strategy in all credit granting activities.					
Issues raised on credit risk during internal audits reviews are promptly responded to by the BOD committees					
Adequate research for any new products is undertaken to ensure risks are appropriately indentified and managed.					
The management provides accurate periodic reports on the insiders, provisioning and write-off on credit loan losses and audit findings.					
The top management conforms to the independence associated with segregation by not influencing credit decisions at the credit originating and credit administration levels for personal interests.					
The bank has all the mandatory committees: BAC (Board Audit Committee), Board Risk Management Committee (BRMC) and Board Credit Committee (BCC).					

4. Credit Management Practices

The board of directors carries the ultimate responsibility of reviewing the credit risk strategy and policies in line with offering overall strategic direction to the bank. The senior management has the responsibility of implementing the credit strategy approved by the board of directors and developing policies and procedures for effective management of credit risk

Use the likert scale. The response scale for the questions is as below

5= Strongly Agree, 4= Agree, 3= Neutral, 2= Disagree, 1= Strongly Disagree

Statement	1	2	3	4	5
The bank employs credit risk management steps of identification, measurement, assessment, monitoring and control					
The bank has got in place an efficient credit risk identification and analysis mechanism and identify potential risks					
Risk inherent in new products are subjected to adequate analysis before being introduced to the market					
Adequate procedures and controls are in control and are employed in the credit risk management procedures					
Reviews and enhancements of procedures and controls of credit risk are periodically conducted by management					
As financial conditions change, the credit risk approaches employed by the bank may likewise change					
Instances occur where credit risk practices are violated by the credit administration unit and or top management resulting to non-performing loans in the bank					

4. Financial Performance

This section contains questions on financial performance of commercial banks

Use the likert scale. The response scale for the questions is as below

5= Strongly Agree, 4= Agree, 3= Neutral, 2= Disagree, 1= Strongly Disagree

Tick appropriately, where 1 is totally disagreed and 5 is totally agreed	1	2	3	4	5
There has been an overall decrease in banks financial risks and scandals					
Banks ROA value has risen up with respect to overall profits					
The credit risk management practices affects the banks performance					
The top management support affects the banks performance					
The credit policies and procedures affects the banks performance					
Non-performing loans have been decreasing in the bank					
The market share has been increasing over the past five years in the bank					
Non-performing loans have been decreasing in the bank					