THE EFFECT OF CREDIT RISK MANAGEMENT POLICY ON FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA

CYNTHIA IRUSA

D61/77734/2015

A RESEARCH PROJECT SUBMITTED IN THE PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF DEGREE OF MASTER OF BUSINESS ADMINISTRATION OF THE UNIVERSITY OF NAIROBI

DECLARATION

I declare that this research project is my original work and has not been submitted to any University for an award of a degree

Signed......Date.....

Irusa Cynthia

D61/77734/2015

This research project has been submitted for examination with my approval as the university supervisor for the purpose of examination

Signed......Date.....

Dr. Joshua Wanjare

Senior lecturer

Department of Finance & Accounting, school of Business, University of Nairobi

ACKNOWLEDGEMENTS

All gratitude goes to the highest God for enabling me to undertake and finish this work. Sincerely appreciate goes to Dr Wanjare my supervisor for his tireless and valued comments and criticism in supervising this research project. I am particularly grateful to colleagues whose competitive spirit inspired me soar higher. To the entire department of business administration, the support rendered throughout the study am entirely grateful.

DEDICATION

Dedication goes to Annaben my mother, Dumelang, Bibo, Ivy Lerato, family, friends, lecturers and commercial banks fraternity. Thank you all for the support.

TABLE OF CONTENTS

DECLARATIONi
ACKNOWLEDGEMENTS
DEDICATIONiv
TABLE OF CONTENTSvv
LIST OF FIGURES AND TABLES vii
LIST OF ABBREVIATION AND ACRONYMS viii
ABSTRACTix
CHAPTER ONE: INTRODUCTION
1.1. Background of the study1
1.1.1. Credit Risk Management Policy2
1.1.2. Financial Performance
1.1.3. Credit Risk Management Policy and Financial Performance
1.1.4. Commercial Banks in Kenya6
1.2. Research Problem
1.3. Research Objectives
1.3.1. Specific Objective
1.4. Value of the study10
CHAPTER TWO
LITERATURE REVIEW
2.1 Introduction
2.2 Theoretical literature
2.2.1 Credit Management theory
2.2.2 Theory of Information Asymmetry
2.2.3. Adverse selection Theory
2.3 Determinants of financial performance14
2.3.1 Credit risk management policy15
2.3.2 Interest Rate
2.4 Empirical Literature review
2.5 Conceptual Framework
2.6 Summary of Literature and Knowledge Gap

CHAPTER THREE	22
RESEARCH METHODOLOGY	22
3.1. Introduction	22
3.2 Research Design	22
3.3 Population	22
3.4. Data Collection	23
3.5 Data analysis	23
3.5.1. Analytical Model	23
3.6 Operationalization	24
CHAPTER FOUR	25
DATA ANALYSIS, RESULTS AND INTERPRETATION	25
4.1 Introduction	25
4.2 Response Rate	25
4.3 Descriptive Statistics	25
4.4 Diagnostic Tests	26
4.4.1 Tests of Normality	27
4.4.2 Test for Multi-collinearity	
4.4.3 Serial Correlation	
4.4.4 Heteroscedasticity	29
4.5 Correlation analysis	30
4.6 Regression Analysis	31
4.7 Interpretation of Findings	34
CHAPTER FIVE	36
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	36
5.1 Introduction	36
5.2 Summary	36
5.3 Conclusions	37
5.4 Recommendations	39
5.5 Limitations of the Study	40
5.6 Suggestion for Further study	40
REFERENCES	42
APPENDICES	48
APPENDIX I: DATA CAPTURE SHEET	48
APPENDIX II: COMMERCIAL BANKS LICENSED BY CBK	49

LIST OF FIGURES AND TABLES

Figure 1.1: Conceptual framework	20
Table 4.1: Descriptive Statistics	26
Table 4.2 Tests of Normality	27
Table 4.3: Coefficients	28
Table 4.4: Serial Correlation	29
Table 4.5 Test for Heteroscedasticity	29
Table 4.6: Correlation Table	30
Table 4.7: Model Summary	31
Table 4.8: ANOVA of the Regression	32
Table 4.9: Correlation Coefficients of Liquidity and Capital Adequacy	33

LIST OF ABBREVIATION AND ACRONYMS

- **AST** Adverse selection theory
- **CBK** Central bank of Kenya
- **CRM** Credit risk management
- GCC- Gulf Cooperation Council
- **KBA-** Kenya Bankers Association
- NPL Non-Performing Loans
- **NPAIT-** Net Profit after Interest and Tax
- **ROE** Return on Asset
- **ROA** Return on Equity
- TRWA- Total Risk Weighted Asset
- **TBTF-** Too-Big-To-Fail
- SPSS- Statistical Package for Social Sciences
- TC- Total Capital

ABSTRACT

Credit Risk Management policy has increased concerns in financial institutions industry due to high level of risks. However, the recent events witnessed in collapse of a number of banks discredits most failure in banking and financial service industry has abetted as the most catalyst for concern about risk. The main goal of the research being to determine the effect of Credit Risk Management policy on financial performance of commercial banks in Kenya. Specific goals being to determine in what way does capital adequacy and liquidity affect Commercial banks in financial perspective in Kenya. Descriptive investigation design was used to gain important data to the above study. The study focused on the entire commercial Banks listed by Central Bank that operate in Kenya. Secondary data used were the financial statements of respective commercial banks and Central Bank of Kenya report Publications. Descriptive statistics and Statistical Package for Social Sciences (SPSS) used in analyzing the data. The study indicated that a unit increase in liquidity, while holding other factors constant, leads to reduction in financial performance by 0.782 (p=0.003); a unit increase in capital adequacy, while holding liquidity constant, leads to an increase in financial performance by 0.463 (p=0.001). The study concluded that a unit increase in liquidity, while holding other factors constant, leads to decrease in financial performance. Further, unit increase in capital adequacy, while holding other factors constant, will result into an increase in the performance in the financial sector. The study recommended that policymaking entities and regulatory authorities in Kenya should develop effective prudential guidelines and polices to strengthen the management of credit risk.

CHAPTER ONE: INTRODUCTION

1.1. Background of the study

Management of Credit risk has consequences on Financial Performance. The bank segment has been troubled consistently and eventually resulting bad performance in banks, which raise the tendency and causing unfavorable performance and thus have a negative practical difficulty on economic progress (Almekhlafi, Khalil, Kargbo and Hu, 2016). Credit risk is among the important hazards which commercial organizations go through, especially now in that giving out loans to bank borrowers is commercial bank's main sources of income (Li & Zou, 2014). Financial performance in financial Institutions are greatly influenced by its credit risk since its gross revenue is generated from issue of loans to customers and earning interest. Therefore, credit risk should be properly managed (Bhattarai, 2016). Non-performing loans (NPLs) is a pointer of poor financial performance has possibility of threatening the commercial bank's overall credit system and lessen its value (Afriyie & Akotey, 2012).

A weakening Credit Risk Management Policy in Kenya has been one of the main causes of poor and low firm's financial performance, hence a well-developed credit risk management policy that is dynamic leads Financial Institutions to advance profitability hence guaranteed to long-term survival (Bhattarai, 2016), efficient Credit Risk Management is vital aim at continuing existence and victory of a banking institution (Kwaku, 2015). Effective management of credit risk usually involves creation of ample Credit Risk atmosphere that is working with a good loan issue procedure, having a credit management policy that can monitor all the firm's processes and which can effectively control credit risk (Kimoi, Ayuma & Kirui, 2016). Effective credit risk management is vital to survival as well as the growth of any financial institution (Afriyie & Akotey, 2012). With inadequate regulations within banking industry in Kenya and more so the recent interest rate capping, has really affected financial institutions in Kenya thus the study would address concerns through significant prudent policies that could end the problem to totality.

This study was guided by the theory of credit management, which deals with evaluation of credit worthiness of an entity over a period. Credit Management theory was supported by the Theory of information Asymmetry which is concerned with how information reaches all the stakeholders on lending industry, that is institution plus its customers together and lastly the AST theory that describes institution ways to distinguish the risk-free customers from risk averse ones. AST theory proposes that banks, which give out loans, has inadequate information about the loan to customers.

1.1.1. Credit Risk Management Policy

A policy is a thoughtful strategy guiding judgments in achieving rational conclusion(s) Stafford (2001). Brown (2012) defined credit risk as doubt arising from loss due to loan in totality or partially repaid. Under the credit management policy, my study will major mainly on the capital adequacy and the liquidity as the main independent variables.

Capital adequacy is referred to the measurement of commercial bank's capability or strength in monetary terms. It demonstrates the bank's readiness and capacity in accepting abnormal and operational loss. Thus, indicating firms capability in undertaking extra work that weighs banks' capability in effectively absorbing risk and solvency. Capital Adequacy percentage refers to the proportion of Total Capital (TC) to Total Risk Weighted Assets (TRWA) and used as a substitute for credit risk (Bhattacharya & Sinha, 2008). Capital Adequacy ratio is used to shield investors fund

with the bank, promoting effectiveness and steadiness of financial systems (Bizuayehu. 2015). Capital adequacy refers to ability of commercial bank to fulfill its financial responsibilities (Ngwa, 2010). Capital adequacy involves different kinds of financial capital that are well thought out as liquid and reliable. Commercial banks with a better ratio of capital adequacy are more profitable (Afriyie & Akotey, 2012).

Under the variable of Liquidity that deals with available resources to be easily used for an investment and or expenditure. It is also an indicator of the capability of an institution to meet its obligations in due time (Alkhatib, 2012). Liquidity is a firm's ability to fulfill both expected and unexpected demands of cash on an ongoing basis. In order for a firm to sustain its activities and remain in existence for a long time, it must be liquid and able to meet its obligations at any time (Kumar and Agarwal, 2012).

Liquidity of Commercial Bank includes the working capital management, which is dynamic to its operations, Nevertheless Poor working Capital management may lead to a banks loss of assets, which are idle. This may decrease the firm's liquidness and the bank will not be able to venture in more profitable developments that come up (Bashar & Islam, 2014). Liquid assets comprise of an important percentage of organization's Total Asset. Managers of Finance are usually keen on measuring and managing of organizations liquidness to which any failure leads to enormous deficiency of liquidness thus leads in incapacity meeting both short and long term commitments when they fall due leading to financial bankruptcy (Harvey & Roper, 2004). The study used Non-performing Loan ratio as a measuring tool since the context of the study is profit venture that is Net Profit after Interest and Tax (NPAIT).

1.1.2. Financial Performance

Financial performance is the determining tool that guide banks on how they utilize their assets to generate revenues (Avkiran 1995). Financial performance measures how well an entity is being run and the revenues generated at a specified time. Under this study, Financial Performance is measured using rate of Non-Performing Loans. Net income is the Profit after tax before paying dividends to the shareholders. The bond in relation to the commercial banks' financial performance in the management of risks is shown in the financial statements of the institution (Achou & Tenguh, 2008). Sound financial performance, well-organized and effective banking sector is an important measurement tool for every financial stability.

Following interest rate caps, small banks witnessed significant declines in capital. According to CBK (2017), Profitability of the banking sector has declined since the inception of interest rate caps resulting to poor financial performance. Reduction in returns over a long period poses hazards to financial steadiness over enlarged statement of financial position, hazards and falling volume to figure principal buffers to mitigate in eventualities.

This study is measured using Non-Performing Loan NPL proportion since context includes profit ventured business, thus the measure is more appropriate in ascertaining the effect of Credit Risk Management Policy on Financial Performance of Commercial Banks in Kenya.

1.1.3. Credit Risk Management Policy and Financial Performance

Mutua (2014) on his research studied influences of management credit risk on the financial performance of commercial banks in Kenya. The study found out, 64% respondents had a feeling that NPL contributed to the overall performance of the

institution while the variance of 36% may have been that of financial performance. Musyoki & Kadubo (2012) in assessing different factors relevant to Credit Risk Management affecting financial performance of banks. It concluded, the factors had contrary influence on financial performance of financial organization. However, rate of default predicts the bank overall financial perspective.

Mutua (2015) surveyed influence of credit risk mitigation to commercial bank's performance and established a substantial correlation amid the bank's performance and the management of credit risk in relation to identification of risk, monitoring and sanctions of credit. It concluded that improved Credit Risk Management leads in a well commercial bank performance. Aduda and Gitonga (2011) explored a relation between the management of credit risk and the banks' lending profitability and concluded that management of Credit Risk have a great influence on commercial banks profitability. Makori (2015) examined effects of management of credit risk practices on productivity of SACCOs that are allowed to take deposits. The study established appraisal of credit risk systems has a notable and positive outcome of financial productivity of Savings and Credit cooperative society.

Kolapo, Ayeni, & Oke (2012) stated that banks provide financial services and intermediary roles in promoting economic development. Acceleration of economy growth and sustainability of long-term economy is through the advancement of credit facility by lenders. Credit risk plays a major part on banks' financial performance due to an inverse relationship between the two variables. Consequently, these risks possess greater influence on the financial perspective of financial institutions and which necessitated prudent credit risk management Policy (Kolapo, Ayeni, & Oke, 2012). An examination on influence of Credit Risk policies by financial presentation

of commercial banks in Nigeria noted that credit risk did not influence banks performance as measured by Returns on Assets of the bank (Kolapo, Ayeni, & Oke 2012). Poudel (2012) explored parameters interrelated in management of Credit Risk through the financial organizations performance in financial perspective. The study used correlation and regression analysis in ascertaining cost per loan assets, default rate and the ratio of capital adequacy. Other factors that were not studied contributed 77.4% significant to bank performance based on the findings, 22.6% represent contribution of financial performance.

Aruwa and Musa (2012) explored impacts of credit risk, visa vis additional constituents' banks' financial perspective. Their findings revealed a strong connection concerning constituents of risk banks face financially Results indicated a progressive relationship existed concerning, NPL to Total Asset, Total Capital: Weighted Risk Assets, Advances and Loans to Deposits in total. Nevertheless, existence of adverse but important link amongst rate of interest and ROA, connection amid frauds in Nigerian banks and Productivity is negative. Internal risks do not distort the performance, but external risks have adverse influence on the financial performance of the banks.

1.1.4. Commercial Banks in Kenya

These composes of business enterprises licensed by CBK to accept deposits and give out loans. According to CBK, 2017, there are 43 licensed banks and the government owns out of these three (3), 25 of them are privately owned and 15 are foreign-based banks. One of the institutions was under statutory management (Charter House Bank) and two were under receivership (Chase Bank & imperial Bank).

The Central Banks of Kenya is in the docket of treasury ministry and it is accountable

for the formulation and execution of monetary policy, fostering of liquidity and proper operations of Kenyan commercial banks. Policy formulation and implementation include commercial banks financial threat supervision & monetary outcome (Central bank Kenya, 2017). Financial organizations are main players in Kenya's economy and close attention is paid to ensure they comply with laws and regulations, therefore the concepts of ''Too-Big-To-Fail' (TBTF) is applicable to banking institutions in Kenya and hence seeks intervention from the government with regard in policy formulation and enforcement. Commercial banks in Kenya perform the following function: creation of money, community savings, ensure smooth support of payment mechanisms, ensure smooth flow of international transactions (Forex Exchange), storage of valuable goods and provision of credit services to both retail and corporate customers.

The need for credit development grows proportionately to population growth. The CBK is involved in interest rate setting, therefore, banks have to be prudent in decision making of credit developments. The base lending rate decreased to 9.8% as announced by the CBK governor in July 2014 hence advising banks to reduce their interest rate to reasonable rates. Customers deposit their funds on Financial Institutions, which are growing consistently, hence good credit management policy. Financial performance acts as a guide on decision to individuals whether or not to save with the commercial banks hence credit management is observed.

The changes in banking industry-increased attraction of several actors not only by Kenyan citizens but also by foreign citizens, the attraction was due to various restructurings in the industry (Irungu, 2013). Banking is governed by the Banking Act and among other including prudential guidelines. Commercial banks in Kenya are required by CBK to submit audited annual reports, which include their financial performance, and in addition disclosure of various financial risks in the reports, that includes liquidity, credit risk and management of credit risk respectively.

Effective managing of Credit Risk Policy involves reporting, reviewing to ensure credit risks are well recognized, assessment, controlling and informed decisions are well in place by commercial banks. After loan approval and subsequent disbursement by the bank's officials, monitoring is critical on a continuous basis to keep track on all the compliance issues/terms of credit by the borrower (CBK, 2017). It is as a result, the study of pertinent issues surrounding credit risk Management policies and financial performance as context is concern. The study focused on the effect of credit risk Management policy on financial performance of commercial banks in Kenya.

1.2. Research Problem

Credit risk management and related consequences in financial organizations has been the subject of discussion by Banks' management and Academicians for decades. Risk management under credit has increased concerns in the industry due to the development of technology for instance installation of financial software's that updates loan profiles for all clients and any related information unlike the past. However, the recent events witnessed in collapse of a number of banks discredits collapse in the banking and monetary service area industry has assisted as a catalyst for concern about risk (Kimotho & Gekara, 2016). Like many financial organizations, commercial banks experience default risks, adverse selection (Kibor, Ngahu & Kwasira, 2015). Credit risk is one of expensive risks for financial organizations since it has a potential of a direct solvency threat to any financial institution (Warsame, 2016). But majorly loans to customers forms the main credit risk source many commercial banks face today. The banking industry in Kenya is among the fast-growing sectors worldwide. Recently complete financial perspective of Kenyan banking sector has extremely enhanced immensely. Nevertheless, crucial review showed that all commercial banks are not profitable (Irungu, 2013) The banking sector has tremendously witnessed the growth of Non-performing Loan with most commercial banks recording a enormous rise of proportion of Non-performing Loans. The high NPL level is one of many challenges to Kenyan commercial banks, with some of commercial banks like Chase and Imperial bank being put under statutory management by CBK. This is enough evidence that shows credit risk as the main risk that affect the financial performance (Kibor, Ngahu & Kwasira, 2015).

According to Korir (2012) on effects of management of credit risk on the financial perspective of Kenyan Microfinance institutions that take deposit in Baringo County revealed a positively correlation among Credit Risk Management and Performance in financial perspective of the microfinance accepting deposit institution though the context was on Microfinance's. In addition, Kurui & Kalio (2014) examined impact of Management of Credit Risk on loan performance of MFIs. It found out that Management of Credit Risk Practices has the effect on loan performance of MFIs however; the study was on loan performance and not on financial performance.

Further, a research done by Sabeza, Shukla and Bajpai (2015) evaluated Management of Credit Risk and banks' productivity, it established existence of a direct correlation among management of Credit Risk and the bank's productivity in Rwanda. A study by Sujeewa (2015), assessed impact of management of credit risk on banks' performance and established that the NPLs and the provisions for the same has an adverse effect on commercial banks profitability in Sri Lanka but studies dealt with Management of Credit Risk and not management of Credit Risk practices. Mutua (2014) on a research studied effects of management of credit risk management on financial performance of commercial banks in Kenya. Study used NPLs and default risks as the independent variable. Musyoki and Kadubo (2012) in assessing various factors important to management of credit risk affecting Financial Performance of Financial organizations. The study majorly used the rate of defaulting to predict the bank financial performance. This backdrop necessitated the researcher to evaluate on the effects of Credit Risk Management Policy on Financial Performance of Commercial Banks in Kenya.

1.3. Research Objectives

The main objective of the study was to determine the effect of credit risk Management policy on financial performance of commercial banks in Kenya.

1.3.1. Specific Objective

- To determine how capital adequacy, affect financial performance of Commercial banks in Kenya.
- To determine the effect of liquidity on financial performance of commercial banks in Kenya.

1.4. Value of the study

Shareholders and employees in the banking institutions in Kenya will use findings to learn the importance of credit management policy and how it affects financial performance. Shareholders are always on the lookout for the stability of their earning. When a firm is performing well there was high returns accruing to the shareholders. It will also help the management and employees understand how to apply the credit policy in executing their roles. Management was able to predict the credit risk issues of the banks in time and to take preventive actions towards poor financial performance, appropriate policy strategies and capital restructuring if need be. Academicians will use the study's findings to establish what suggested areas to be researched on or make a comparative study. Therefore, they will use the findings to find out the gaps left out by other scholars/researchers and carry out another study to supplement or compliment the study.

Policy makers (CBK & KBA) was in position to use the research findings in formulating relevant policy necessary to curb and regulate loan defaults and ensuring that the banking industry remains financially stable.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter evaluated studies conducted by other researchers on the topic. Review of literature lead to identified gaps in the field of banking and management of risk. Different theories of Credit Risk Management Policy were critically reviewed.

2.2 Theoretical literature

Various theories reviewed regarding connection among management of Credit risk policies and the financial perspective of commercial banks. The relevance of theories to the topic have also been reviewed.

2.2.1 Credit Management theory

Woolcock (2000) proposed the Credit management theory that states loans and credit markets are highly shaped by bank's Policy for potential debtors' evaluations through addressing resourceful behavior that was encouraged loan nature contracts. Accordingly, banks usually increase credit policy in anticipation of higher returns. This policy normally scares risk averse investors. The uptake of credit usually is inversely correlated to rate of interest and required collateral. Financial organizations tend to use management of credit theory taking advantage of resourceful behavior presented by probable debtors. Credit award is collated to requirements of collateral thus a variable interest proportion rating strategy forces to be utilized by specific banks (Tanui, Wanyoike & Ngahu, 2015).

2.2.2 Theory of Information Asymmetry

Akerlof proposed theory of Information asymmetry in 1970. Akerlof's (1970) argued that in markets, buyer usually use market statistic to determine the goods value. Hence, client's individual sees a regular entire market place whereas the vendor uses detailed information of a particular item. The argument put across by Akerlof (1970) is Information Asymmetry gives lenders opportunity to sell their products or amenities for less than the regular marketplace class (Parrenas, 2005). Averagely, product or facility in a market decreases and so the size of the organization hence there was available information for each agent. However, there is a robust Information Asymmetry among the management and the shareholders of the organization (Akkizidis & Khandelwal, 2008).

It defines a state that not all stakeholders in a market know available important data (Eppy, 2005). Stiglitz (2001) indicates modest behavior in markets involves connections. It points out two situations associated with the supposed information asymmetry in the financial institution. Hence adverse selection and moral hazard. The theory affirms if financial institutions exchange client's information particularly on the clients' creditworthiness, which can lower loan repayment rate (Weinberg, 2006). Reduction through information asymmetry between clients and financiers, Credit Reference Bureaus (CRB) develops credit risk management Policy for example credit evaluation and thus financial institutions extend credits to creditworthy borrowers resulting in higher aggregate advancing and reduce non-payment rates.

2.2.3. Adverse selection Theory

Stiglitz & Weiss (1981) proposed it. Karlan and Zinman, (2004) noted that the Adverse Selection occurs once a customer of an institution has features not observable by institutions once advancing and the unobservable characteristics take potential of

the leading loan payment avoidance hence affecting the bank's financial performance negatively. The theory assumes that: lenders was unable to distinguish between banks different loan client risks degrees and banks contracts offered to customers are subject to a legal responsibility (Berhanu, 2005).

Theory of adverse selection describes a state in financial institution that it cannot distinguish the good debtors to the defaulters. The theory explains how commercial institutions has insufficient data concerning the loan to customers. Riskier loan clients ought to be charged a higher rate of interest to act as a compensation for an increased default risk than the safer loan clients whose changes of defaulting are very low. Accordingly, safer loan clients ought to be charged a little bit less provided they could be identified accurately from the rest of loan clients or borrowers. The lender (Bank) doesn't have comprehensive borrowers' profile of risk data as such, when the interest rates are high averagely, normally its passed on to loan clients lacking considering from profile of their risk (Armendariz & Morduch, 2010). To mitigate theory of Adverse Selection difficulties, credit providers takes borrowers through an elaborate evaluation procedure prior to granting a loan however, this has been able to reduce loan default in commercial banks.

The theory is applicable to this study because uptake of credit by customers affects the general operations of commercial banks and ultimately to general financial performance.

2.3 Determinants of financial performance

This segment assessed Credit Risk Management Policy, capital adequacy and liquidity as the main determinants that influence the Kenyan banks' financial performance.

2.3.1 Credit risk management policy

An effective design of management of credit risk policy requires an efficient credit risk atmosphere; functioning under a comprehensive credit granting procedure, preserving a suitable credit management, which encompasses monitoring, processing and controls of credit risk. Financial institutions should have in place develop policy that won't bother the banking exposure to risk of credit rather developing presentation and attractiveness the institutions and banks establishing a suitable credit risk management policy by steering thorough credit assessment prior to giving borrowers credits.

2.3.2 Interest Rate

Interest rate is a challenge facing financial performance other than credit risk policy. The actions of the Central Bank influence the base of interest rate of all the banks in Kenya. In avoiding booms and recession in the economy, CBK adjusts short to middle term rate of interest and raises interest rate to lower an actively increasing the rates. To avoid booms and recession in business sequence, the Central Bank of Kenya adjusts temporary rates of interest. Interest is raised to slow down an economy that is expanding rapidly and lowers when the economy is in recession (Holton, 2004). The increasing and falling interest rates directly influences the consumers and individual financial choices. Savings are made relatively attractive thus, rising interest rate is good

2.4 Empirical Literature review

Different researches on management of credit risk in different context at a time have been conducted. Credit risk management and related consequences in Banks has been the subject of discussion by Banks' management and Academicians for decades. It is through identification of Management of Credit Risk policies and Financial Perspective pointers this study aspires in achieving. In addition, empirical review reveals extent that management of Credit Risk policy influences commercial banks and how they can enhance their operations in in financial perspective.

Kithinji (2010) evaluated effects of Management of Credit Risk on commercial banks profitability in Kenya. Statistics on the credit limit, NPL limits and Proceeds were analyzed for duration of five years that is 2004 - 2008. The findings discovered majority of revenues generated by financial institutions not have been compromised through the level of Credit and NPL) and further suggested other pointers greatly influences revenues.

Al-Khouri, (2011) evaluated impacts that risk features, and general banking atmosphere presentation in 43 financial institution in operation at six of GCC nations between years 1998 - 2008. Fixed effect analysis through regression method was applied; results revealed credit, liquidity and capital risks respectively were the main indicators, which influenced the overall performance of the institution. Ben-Naceur and Omran (2008) attempted to evaluate influence of guidelines on banks, concentration, monetary through established progress on Commercial Banks' margin and productivity in (MENA) countries for the period of 17 years and established that bank capitalization and management of credit risk was positively correlated thus leading to important influence on net interest margins of the institutions, effectiveness profitability.

Alshatti (2015) assessed the impact of management of credit risk on commercial banks in Jordan in financial terms. In the study, thirteen institutions of banking were sampled for the years two thousand and five to two thousand and thirteen and

16

established that management of credit risk affects the banks' financial performance. From this study, it was resolved that management of Credit Risk pointers had substantial outcome on banks' final revenue outcome. The study recommended that financial institutions should develop or adopt a credit risk framework to help them to improve or enhance their profits. The study focused on credit risk indicators including non-performing loans, advantage and loss provision on facilities and not on the risk management practices like credit risk identification, appraisal, control and monitoring.

Kolapo, Ayeni, & Oke (2012) examined effects of management of Credit Risk Policies in financial perspective of financial institution's in Nigeria thus noted, credit risk did not influence banks overall revenue outcome being measured by Returns on assets of bank. However only one measure of Financial Performance was adopted and ignored Capital Adequacy Ratios, which are the key measuring tool recommended by the regulatory authorities over the world. The study found out that measurement of financial performance by ROA cuts across all banks. The nature and supervisory design of specific organization does not govern results. It exposed restricting F – test on fixed effect analysis. Advances and Loan ratio (LA) factors used more substantial more positive by profitability across all banking firms. The study recommended that financial institutions enhances their volume in analyzing credit and credit management on the other hand regulating authority pay additional consideration to banks' complying to various important guidelines in Financial Institution and banks by the prudential procedures.

Aruwa and Musa (2012) studied impact of management of credit risk, and various risk mechanisms in banks financial perspective. It study found existence of a positively relationship among risk elements and the banks' financial performance. The study evaluated several risk mechanisms and the impacts of financial performance of banks taking deposit in Nigeria. The results showed a positively connected relationship existing amid NPL to Total Asset, Advances and Loan to total deposit and total capital to weighted risk assets (TWRA). However, there is important negatively connection between risk in interest rate and return on asset (ROA), . Similarly an adverse connection amid scams in Nigerian financial institutions and Overall presentation. It concluded that risks under the regulator of banks doesn't distort the overall revenue outcome nevertheless the outliners controls negatively on influence of financial performance of banks, the conclusion is consistent to the results of Hosna, Manzura &Juanjuan (2009) in contrast to the outcomes of Boahene, Dasah & Agyei (2012) that established that NPL and additional pointers is positively related to bank's overall revenues .

Ogboi & Unuafe (2013) investigated influence of management of credit risk policy of Bank's on Financial Performance. It found out thorough management of credit risk and Capital Adequacy had affected the group's revenue performance. Empirically, the results showed that a positive association existed amid credit risk pointers and level of NPL on financial performance, and inverse relationship on Providing Net services share in financial perspective while Capital adequacy ratio had no effect on Credit Interest Ratio of financial institutions revenue outcome measured by Return on Asset. The findings agreed with Li & Zou (2014) who established the level of NPL was positively correlated in financial perspective of Institutions measured by Return on Asset and Return on Equity, Abdulrahim (2013) and Li & Zou (2014) in their different studies, concluded that capital adequacy ratio had no influence on management of credit risk. Boahene, Dasah & Agyei (2012) established a number of credit risk pointers, which had positive influence on institutions final revenue. On the Contrary, Aruwa & Musa (2012) established, rate of Total Capital to TRWA had a positive result while rate of interest risk affected negatively the banks' overall Financial Performance.

Poudel (2012) explored parameters related to the management of Credit Risk and how it influences the Institutions outcome in financial perspective. Correlation and regression analysis model was used in ascertaining cost per loan assets, default rate and the ratio of Capital Adequacy. In relation to the above research, other variables not included in the research had a very important influence of seventy-seven-point four percent to financial institutions revenue outcome hence need to conduct more investigation to effectively and efficiently manage the Credit Risk to boost Financial Institution's revenue. The overall purpose was to find out the influence of management of credit risk on overall financial institutions performance and specifically establish influence of defaulting rate, Cost per Loan Assets on Financial institutions overall revenue. However, credit risk indicators were not among the parameters that were assessed. Credit risk management indicators like risk identification, appraisal, and control and monitoring are vital to commercial banks.

Mutua (2014) on a research studied the influence of CRM on the Financial Performance of financial Institution's in Kenya. It was established out of all respondents 64% of them had a feeling that NPL contributed to the overall performance of the institution. However, the study failed to identify the specific percentage for financial performance and an examination of only one variable affecting financial performance (NPL).

Musyoki & Kadubo (2012) sought to examine several factors relevant in CRM that influences Financial Institutions monetary results. The study concluded that, the factors had a negative influence in Institutions monetary results; nevertheless, level of

19

default was mostly interpreter of Institutions monetary result, as opposed to other factors of management of risk. Thus, the study sought to find out does credit risk management policy affect financial performance in Kenya.

2.5 Conceptual Framework

It will focus conceptually on management of credit risk policy being independent variable and financial performance as dependent variable.

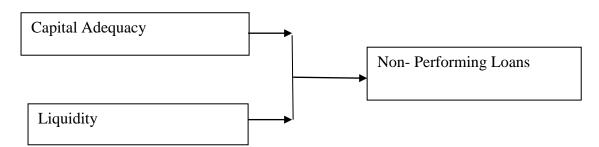
Figure 1.1: Conceptual framework

Independent Variable

Dependent Variable

FINANCIAL PERFORMANCE

CREDIT RISK MANAGEMENT POLICY



Source: Researcher (2018)

2.6 Summary of Literature and Knowledge Gap

The chapter encompasses various theoretical and empirical studies on credit risk policy. Various banks in Kenya and internationally have been having problems of credit risk management policy that has caused some of them to have poor financial. Credit management theory centered in a way in which the management of credit influences the lending process overlay. The information Asymmetry theory according to Akerlof, determines the level of information that ultimately reaches the different stakeholders. The adverse selection theory is a key element of customer valuation. According to Stiglitz & Weiss (1981), the adverse selection theory describes the situation of a bank that cannot distinguish the safe borrowers from risky ones.

Kolapo, Ayeni, & Oke (2012) examined effects of Credit Risk policies on financial Performance of Commercial Banks in Nigeria they noted, credit risk did not influence banks Performance measured by Returns on Assets of banks. However, the study utilized one variable financial performance ignoring Capital Adequacy Ratios, which are the key measuring tool recommended by the regulatory authorities over the world. In addition, Mutua (2014) examined the how CRM affected Financial Performance of Banks in Kenyan context. It established, 64% of respondents had a feeling that NPL contributed to the overall performance of the institution. However, the study failed to identify the remaining percentage.

According to the reviewed literature above most studies have dealt with management of credit risk evaluated using return on asset and return on equity and not Management of Credit Risk Policy of the banks in terms of Non-Performing Loans (NPLs) in measuring the Monetary outcome while Capital Adequacy plus liquidity being the policy in Credit Risk management. None of the studies also had prudent management of credit risk policy that would help in curbing loan default caused by poor credit policy that disturbed the banking industry occasionally which eventually forms a research gap, thus the research seeks investigate the effect of Credit Risk Management Policy and the Financial Performance of Commercial Banks in Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Introduction

This section encompasses research design, the target population, methods applied in gathering of information, instruments used in analyzing the information and the scrutiny of the data.

3.2 Research Design

Design for research is a practical roadmap to be employed by the researcher to establish its validity, accuracy, economically and objectivity (Knupfer & McLellan,1996). Descriptive investigation design was used to gain important information to the above study. Descriptive research design is the examination of quantifiable data gathered & scrutinized to be able to define detailed contemporary tendencies, occurrences and relationships between various aspects at a specific period (Mugenda and Mugenda 2003). Descriptive research design is important for this study because it describes a set of observations and generalizes it to a large population retrieved data from secondary sources (Cooper & Schindler, 2008). Quantitative research methods were adopted in the study.

3.3 Population

It is a group of items, objects or individuals with homogeneous features in a specific locality (Zikmund et al., 2011). The study focused on the entire commercial Banks listed by Central Bank that operate in Kenya. According to the directory of CBK, there are total of forty-three licensed Banks regulated under the Banking Act, Cap 488 as at June 2017. (Central bank of Kenya, 2017). The study therefore did not have a sample design; hence, the entire population was desirable. The three commercial

banks that are under statutory management and receivership for the period of year 2017 was not part of the study.

3.4. Data Collection

Secondary data is defined as data collected from other sources other than the researcher that include published reports. The Secondary data to be used was the financial statement and Central Bank of Kenya publications which the researcher had data capture form (Appendix I). The specific items to look for was Capital Adequacy, Liquidity and Level of NPL in the institutions for duration of between 2013 to 2017.

3.5 Data analysis

Descriptive statistics and Statistical Package for Social Sciences (SPSS) was used in analyzing the data. Data collected was analyzed using quantitative techniques where correlation and regression statistical models was used. Measures of dispersion was included that is standard deviation, variance and linear regression. The study was both Cross-sectional and longitudinal thus the financial statements for years 2013 to 2017 was reviewed determining the Financial Performance of Commercial Banks.

3.5.1. Analytical Model

The study adopted a multiple regression models to evaluate outcomes of the study by establishing relationship between the variables of the study. The main dependent variable, financial performance indicator that was used was Non-Performing Loans. Using trend analysis of the financial performance of the institutions helped in comparing the trends.

 $Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$

Where:

Y = Financial Performance (Dependent Variable)

 α - a constant; it explains the concept Commercial Banks performance given Y value when

 $X_1, X_2, = 0$

 β_1 , β_2 , – These are regression coefficients constants representative of parameters independent

and dependent variables.

X₁ – Capital Adequacy

X₂ – Liquidity

E - (Extraneous) Error term it explains Financial Performance discrepancy of because of other factors not included in the conceptual framework.

e – Error Term

3.6 Operationalization

The dependent variable was financial performance which was measured by Level of Non-performing Loans and the independent variables Capital Adequacy measured by ratio Total Capital: Total risk weighted Assets and liquidity was measured by the cash deposits with other banks and CBK to total assets.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND INTERPRETATION

4.1 Introduction

This section makes a presentation of statistics analyzed and interpreted. Main goal of this research work was to evaluate how commercial banks in Kenya have been affected by the credit risk management policy. Collection of data was done from commercial banks. The data sources included financial reports, annual statements for a period of 5 years (2013-2017) as well as other publications. Collected data was based on the research variables, financial performance dependent variable and credit risk management policy (capital adequacy and liquidity) independent variable. Study results were as presented.

4.2 Response Rate

The researcher collected data from Forty-three Banking Institutions in Kenya but obtained full data from only 37 commercial banks. This shows 86.02% response rate, which was appropriate for the study. This is acceptable according to Mugenda and Mugenda (2004).

4.3 Descriptive Statistics

Descriptive statistics are events defining the overall outlay of the data in the scope of the study. It describes the nature of answer from both primary and secondary data. For this study descriptive statistics were the standard deviation, mean, minimum and maximum. Descriptive data analysis was performed on capital adequacy, Liquidity and Non-performing loans. The descriptive statistics results are tabulated below. Table 4.1 below summarizes variables encompassed in the regression models as presented. It denotes the variables of commercial banks licensed and in operational in Kenya whose financial outcomes were accessible between year 2013-2017.

	Mean	Std. Dev	Minimum	Maximum
Liquidity	0.804	0.11149	0.3	1.1
Capital Adequacy	0.15455	0.044062	0.094	0.294
Non-Performing Loans	9.649	1.42596	1.54	13.1

Table 4.1: Descriptive Statistics

The highest performance was 13.1 while the least performance 0.294 for the five-year period. This finding shows that some commercial banks in Kenya not being able to hold their performance financially because of diverse Credit Risk Management Policy and that NPL having a mean of 9.649 and a standard deviation of 1.42596.

4.4 Diagnostic Tests

Parametric statistics involved three continuous predictors (ANOVA, repetitive measures ANOVA, linear regression, and canonical correlation) linearity between sets of continuous variables is presumed (Warner, 2008). Linearity assumes a straight-line correlation between two predictors. Linearity is significant in a practical sense since Pearson's r, that is essential to the massive majority of parametric statistical processes (Graham, 2008). Except there being tough theory stipulating non-linear relations, academicians might adopt linear relations in their data (Cohen *et al.*, 2003). The research paper was able to make an establishment of how suitable the data was by examining on the multicollinearity for the different kind of variables and the outcome are going to be discussed in the following section.

4.4.1 Tests of Normality

The proper application of the parameters of inferential statistics the assumption of normality is tested. This is to ensure that the kurtosis and skewness of the data is tested. This is just to make a confirmation on whether the data under study is normally distributed. The data normality was then tested by use of Kolmogorov-Smirnov Test and the Shapiro-Wilk Test. The second method is best used when the sample of the data is small i.e. less than fifty. The method is much more reliable especially when deciding on kurtosis and skewness of the data. When the result is below 0.05, then it is slowly deviating from the distribution of the data that is normal.

Variables	Kolmogorov- Smirnov Statistic	df	Sig.	Shapiro- Wilk Statistic	df	Sig.
Liquidity	0.072	35	0.2	0.979	35	0.435
Capital adequacy	0.093	35	0.2	0.972	35	0.219
Non-performing loans	0.085	35	0.2	0.976	35	0.322

Table 4.2 Tests	of Normality
-----------------	--------------

In accordance to the results, the Shapiro-Walk values were 0.435 for Liquidity, 0.219 for Capital adequacy, 0.322 for Non-performing loans. Kolmogorov-Smirnov tested significant values were at 0.200 for Capital adequacy, Liquidity and Non-performing loans respectively. This brings an implication that per-value is far much greater than level 0.05 then the prediction that the data was evenly distributed cannot be denied. The tested results are therefore of the population emanating from the normal distribution.

4.4.2 Test for Multi-collinearity

Multi-collinearity is the type of the test that makes an evaluation of whether the independent variable under the study is correlated or not. It occurs when more than two variables in an equation are strongly interrelated thus leads to unreliable and unbalanced approximates of regression coefficients hence resulting to odd outcomes when trying to analyze how strong individual independent variables constitute to an understanding of the dependent variable. The results of Multicollinearity are enlarged standard error of approximates of the Betas, meaning reduced capital adequacy and often confusing and misleading outcomes. The multicollinearity test was done to check if the data has high correlation or are independent variable. The outcome of multicollinearity test was as in the table below.

Variables	Collinearity Statistic		
Liquidity	0.500		
Capital adequacy	0.093		
Gross Non-performing loans	0.633		

Table 4.3: Coefficients

In the results above, all the results are very low because they are well below 1. These values suggest that the coefficients are well estimated.

4.4.3 Serial Correlation

Wooldridge F-statistic serial correlation analysis was conducted to test if independent and dependent variables were correlated. Serial correlation test was done and as per the results, there is no correlation. This ensures the OLS estimates are not biased. The diagnostic results are found on Table 4.4 below;

Table 4.4: Serial Correlation

R-squared Adjusted R-squared	0.137635 -0.013358	Mean dependent var S.D. dependent var	4.706042 2.726897
S.E. of regression	2.744954	Akaike info criterion	5.008417
Sum squared residual	301.3709	Schwarz criterion	5.320354
Log likelihood F-statistic	-112.2020 0.911953	Hannan-Quinn criteria. Durbin-Watson stat	5.126272 2.482132
Prob (F-statistic)	0.507259		

The Durbin Watson serial correlation test results as per Table 4.4 indicated the value to be 2.482, which is more than 2 implying that there is no serial correlation.

4.4.4 Heteroscedasticity

This takes place when the error term of the variance is different across the observed data. The heteroscedasticity is very essential in examination of the difference that exist in the variance of the observation to the other (Godfrey, 1996). The research work maximized on the conduct of regression analysis of the independent variables. In accordance to this case, the assumption made is that if the value>0.05, then there should be very minimal problem of the herescedasticity. The results for tests of Heteroscedasticity were presented as below .

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	В	Std. Error	Beta		
(Constant)	1.125	0.012		3.856	0.000
Liquidity	0.198	0.045	0.186	0.156	0.269
Capital adequacy	0.096	0.056	.112	0.258	0.148
Non-performing loans	0.256	0.089	0.349	0.481	0.86

Table 4.5 Test for Heteroscedasticity

Basing on the level of output, the values obtained >0.05, hence there is no big difference existing in the variation of dependent to independent variables that were tested.

4.5 Correlation analysis

The relationship summary depicted in Table 4.6 demonstrates that the relationship between capital adequacy and liquidity were significant at 95% confidence level and had strong relationships with the dependent variable. The outcomes are therefore as depicted through the table 4.6 as follows.

		Liquidity	Capital adequacy	NPL
Liquidity	Pearson	1		
	Sig. Level	1		
Capital adequacy	Pearson	0.463	1	
adequacy	Sig. Level	0.018	1	
NPL	Pearson	-0.618	-0.216	1
	Sig. Level	0.025	0.047	1
Ν		37	37	37

Table 4.6: Correlation Table

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

Relationship table depicts that, independent parameters are certainly linked with the dependent parameters an indication that, Credit Risk Management Policy of the commercial banks have a positive relationship with financial performance.

Correlation is measured using the Pearson's correlation scale where values in intervals of 0.0 to 0.3 means no relationship, 0.3 to .5 meaning weak relationship, 0.5 to .7 is a fair relationship and a strong correlation is indicated by interval 0.7 - 1. One shows perfect correlation between variables. The variables can be positively or

negatively correlated.

Liquidity and financial performance have a correlation coefficient of 0.025. It's an indication of a moderate and positive correlation between liquidity and financial performance. In addition, the capital adequacy and the financial performance of commercial banks have weak positive correlation. According to the obtained coefficient of 0.047, it's an indication of the variables being strongly related. At 5% significance level using a two-tailed test, capital adequacy, liquidity and NPL have statistically significant association as posted by the significance sign (*) in the correlation values.

4.6 Regression Analysis

Coefficient of determination makes an explanation the level of extent at which the dependent variable can explain the variable of the independent variable.

Table 4.7: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of Estimate
1	0.804053	0.646501	0.616543	1.035581

Dependent Variable: Financial Performance

Predictors: (Constant) Liquidity, Capital Adequacy.

Table 4.7 shows the strength of association between commercial banks financial performance, liquidity and capital adequacy. The determinants coefficients, noted a robust correlation between dependent and independent variables given an R2 values of 0.646501 and adjusted to 0.616543. This shows that the independent parameters (Liquidity, Capital adequacy) accounts for 61.6% of the variations in commercial banks at the financial performance.

	Sum of	Df	Mean		
	Squares		Square	F	Sig.
Regression	123.5632	5	24.71264	21.58054	0.000 ^b
Residual	26.3381	23	1.145136		
Total	149.9013	35			

Table 4.8: ANOVA of the Regression

Dependent Variable: Financial performance

Predictors: (Constant), Liquidity, Capital adequacy)

Mugenda and Mugenda (2004) Analysis of Variance is data scrutiny process used in determining existence of substantial variations amongst groups or samples of two or more at a particular level of probability. The Independent variable is important forecaster of dependent variable when the total t-value of regression equation related with the independent variable is larger than the total critical t-value. It also yields the F-statistic where calculated F-value is more than critical F-value, and then the prediction is rejected. The research found a significant value of .0001 that is less than .05 therefore the regression model is statistically important in prediction of Capital Adequacy and liquidity. At 5% level of significance F critical was 21.58054.

Calculated F statistics was more than the F critical; it showed an indication of the entire model being substantial. The model summary also makes an indication that the model of the regression analysis significantly predicts the dependent variable the F test shows an indication that the significant model of regression model. The p=0.000, that is less than 0.05 makes an indication that, the model can make a prediction of the outcome.

	Un-standardized Coefficients		Standardized		
	В	Std.	Beta	Т	Sig.
(Constant)	3.77	0.452		8.359201	0.005
Liquidity	-0.782	0.120	0.145	-6.46351	0.004
Capital adequacy	0.463	0.078	0.125	5.860758	0.002

 Table 4.9: Correlation Coefficients of Liquidity and Capital

Adequacy

a. Dependent Variable: financial performance

Financial performance = 3 . 77- 0.782*Liquidity + 0.463*Capital adequacy. The researcher conducted a multiple regression analysis so as to establish the correlation relationship between financial performance implementation and the two variables. As per the SPSS generated table 4.9 above, the equation $(Y = \beta 0 + \beta 1X_1 + \beta 2X_2 + \varepsilon)$ becomes:

$$Y = 3.77 + -0.782 X_1 + 0.463 X_2 + \varepsilon$$

Where:

Y = Financial Performance of Commercial Banks

 $X_1 = Capital Adequacy$

 $X_2 = Liquidity$

 ε = the error

The regression equation computed, including the two factors in account (Capital Adequacy and Liquidity) with a zero constant, financial performance on commercial banks will be 3.77. The analyzed data findings showed that holding independent variables at zero, a unit increase in capital adequacy will lead to a 0.463 increase in financial performance; a unit increase in liquidity will lead to a -0.782 decrease in Financial performance on commercial banks in Kenya. This infers that liquidity contributed more to the financial performance on commercial banks performance followed by the capital adequacy.

From the finding in Table 4.9, the study found that holding Liquidity and Capital adequacy of commercial banks financial performance would be 3.77. It was established that a unit increase in liquidity, while holding other factors constant, will lead to decrease in financial performance by 0.782 (p = 0.003). Further, unit increase in capital adequacy, while holding other factors constant, will lead to an increase financial performance by 0.463 (p = 0.001). A unit increase in non-performing loans, while holding other factors (liquidity, capital adequacy) constant, will lead to a decrease in financial performance by 0.473 (p=0.005). At 5% and 95% significance and confidence levels respectively, liquidity and capital adequacy are significant in financial performance.

4.7 Interpretation of Findings

It was established that a unit increase in liquidity, while other factors remaining constant, leads to decreased financial performance by 0.782 (p = 0.003). In tandem with the study findings, Dang (2014) observed that a high bank capital reduces the chance of credit risk because the adequacy of capital is judged based on Total Risk Weighted Ratio (TRWR). This reflects the inner capability of financial institution to bear losses over difficulty. It also has a direct consequence on banks' profits by evaluating its enlargement to hazardous but then again lucrative undertakings or zones. Not forgetting that it also boosts depositors' confidence by protecting them and promoting the stability and efficiency of financial system (Sangmi & Nazir, 2010).

Further, unit increase in capital adequacy, while holding other factors constant, leads to a rise in performance financially by 0.463 (p=0.001). In line with the study findings, Capital provides cushion against loss thus ensuring safety and dependability of the banking institutions (Wachiuri, 2012). Overall, banking

institutions should maintain minimum capital of 1billion to prevent bank failure as stipulated by CBK.

The above findings agree with the finding of Kibor, Ngahu and Kwasira (2015) who established a moderate valuable and positively association between Credit Risk Management Practices and loan performance.

The conclusions are also equivalent to those of Sufi and Qaisar (2015) who found a substantial positive outcome on performance of the loan, while Credit Risk Policy and its control were inconsequential nevertheless positively affecting loan performance. Mutua (2015) on the other hand, established a substantial correlation among performance of banks and credit risk management in relation to identification, monitoring and sanctions of credit risk respectively. The findings were good credit risk management results to good performance.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The segment gives a summary of findings this research found, conclusions, commendations, research delimitations and suggestion of areas, which may require further consideration as far as future research, is concerned.

5.2 Summary

The principal goal of the research paper was to explore effect of Credit Risk Management Policy on the performance financially by commercial banks. It considered financial performance of bank proxied using NPL as a variable that is dependent while liquidity and capital adequacy as the independent variables. Complete data was obtained from 37 banks operating commercially; data was gathered and analyzed by use of correlation and regression analysis.

It found that holding liquidity and capital adequacy at zero commercial banks financial performance was 3.77. It was established, one unit rise in liquidity, whereas supplementary factors are held constant, results in financial performance increase by 0.782 (p = 0.003). Further, unit increase in capital adequacy, while holding other factors constant, leads to increased financial performance by 0.463 (p=0.001). A unit increase in Non-performing loans, while holding other factors constant, will lead to a financial performance decrease by 0.473 (p=0.005). A unit increase in Capital Adequacy, other factors remaining constant, leads to an increased financial performance in commercial banks by 0.532 (p = 0.004). Moreover, unit increase in liquidity, while holding other factors (NPL, capital adequacy) constant, leads to increased financial performance by 0.212 (p = 0.0009). This shows that Capital Adequacy make a great contribution to the commercial banks financial performance followed by liquidity. At 95% and 5% confidence and significance levels respectively. Liquidity and capital adequacy are significant in financial performance. Correlation results established a positive correlation between capital adequacy and financial performance while liquidity had a negative correlation with the commercial banks financial performance.

5.3 Conclusions

The research concludes the existence of inverse relationship existing between financial performance and liquidity. Therefore, it can be implied increased liquidity is related with decreased financial performance. Further, the research work makes a conclusion that a favorable association exists amongst capital adequacy and financial performance. Shareholders and employees in institutions of banking have the ability to learn the significance of credit management policy and how it affects financial performance. Shareholders are always on the lookout for the stability of their earning. When a firm is performing well there was high returns accruing to the shareholders. The management and employees understand how to apply the credit policy in executing their roles.

Further, this scholarly work makes a conclusion of a strong negative significant relationship existing between the financial performance and loans that are underperforming. Academicians use the study findings to establish what suggested areas to be researched on or make a comparative study.

This research work concludes that one unit rise in liquidity, holding other factors

constant, leads to decrease in financial performance. Further, unit increase in capital adequacy, while holding other factors constant, will result into increased performance in banking sector. At 95% significance level and 5% confidence level respectively, Liquidity and Capital adequacy are significant in banking sector financial performance.

Risky liquid assets include investment in medium- and long-term securities and other financial products presented on the bank's balance sheet, which are relatively difficult to sell or collateralize when the need arises. With respect to the relationship with liquidity risk, it is expected that risky liquid assets have a positive relationship while less risky liquid assets have a negative effect on the liquidity risk of each bank. The higher the percentage of less risky liquid assets to the bank's total assets, the better the bank is positioned to finance its obligations as they fall due while the opposite is expected to be true for risky liquid assets.

Capital adequacy shows an indication that the bank has ability of undertaking additional business. Capital size offers financial flexibility for banking and financial institution. Banks with high capital ratio tend to experience lesser probability of liquidity risk. Capital adequacy ratio shows the inside ability of financial institution to endure financial decrease in terms of difficulty. The fraction has a direct proportion to the elasticity of the bank to difficult circumstances.

Adequate capital provides ultimate shield against bankruptcy and liquidation ability of that arise from risk in banking business. A bank with insufficient capital is faced with unseen restraints. The management spends time on the self-protective, working out on how to raise capital or how to protect against takeovers. Due to the nature of debts liabilities in banks, they have an enticement to participate shifting or substituting risk. This means they will indulge in high risk activities to shift the downside-risk to creditors. To avoid this, regulators require them to hold capital minimum ratio to assets to reduce their sensitivity to risk.

In conclusion, Credit Risk Management Policy has a positively substantial impact on financial performance of commercial banks. The study therefore suggests that Credit Risk Management Policy is a crucial component that commercial banks and other institutions should embrace as its related to general outcome of the institutions, particularly this study it is established positively related to Financial performance.

5.4 Recommendations

Management of commercial banks in Kenya ought to strive to minimize as much as possible the Non-performing loans since they negatively affect on the financial performance. The researcher further commends capital adequacy and liquidity effects to be managed aptly as these affect the financial performance positively. This study therefore encourages the policymaking entities and regulatory authorities in Kenya should develop effective prudential guidelines and polices to strengthen the management of credit risk.

Banks ought to ensure that their credit policy goals includes the governing atmosphere, funds availability, risk selection, and credit portfolio balance and structure of accountabilities. Diversification of loan portfolio by banks should be conducted in order to spread risks, as portfolio have less risks than individual loans.

Credit policy and practices by commercial banks should be checked properly. Through this their would-be reduction in loss on Non- Performing Loans that increases their expenditure and subsequent reducing financial performance. Each and every bank should have in place established Credit Policies ("Lending Guidelines") that stipulates clearly top administrator's business growth significances and loans guidelines that should be adhered for loans approval. The guidelines on lending should be updated once in a year in order to reflect variations in the economy and banks loan portfolio evolution and be spread to all credit officers.

5.5 Limitations of the Study

The main goal of this was to make an exploration on the impact of the credit risk management policy on financial performance of Kenyan commercial banks. Therefore, the findings of this study are limited to commercial banks in Kenya. The investigation was conducted within a period of five years. It made use of the secondary data that actively involved the accounting ratios. The problem of using accounting ratios is that they are historical in nature hence they do not reflect the current situation in the financial market.

The process of data collection from published financial statements was very time consuming and data was incomplete hence impossible to include all 43 commercial banks. The assumption was that the auditor's report gave a true and fair view, but it could have been prone to errors and misstatements. The study was also limited to Credit Risk Management Policy effects on the performance financially, which is only one of the many features affecting financial performance of commercial banks.

5.6 Suggestion for Further study

This research examined the effect of credit risk management policy on financial performance of commercial banks in Kenya. A further study should be conducted on Large and medium banks alone to establish the reason for Non- Performing Loans effect on credit risk management in Kenyan commercial banks. Ethical threat in credit mostly rises due to information asymmetry. Information asymmetry should be

properly managed, this will lead to insignificant inappropriate information reaching stakeholders thus avoiding incorrect credit choices.

Advancement of the study can be done by adding additional factors to the regression equation and narrowing down to Large and Medium size banks alone that have proved to have high number of Nonperforming loans. The variables would assist in improved results of the study since it would encompass all factors that affect financial performance.

Commercial Banks should work with Credit Reference Bureau (CRB) in curbing default risk posed by lending thus a study is required to explore reduction of insurance costs on credits and general performance of the institutions.

Further study should be conducted including more independent parameters to the regression model to explore all possible results. The parameters would enhance findings in the project the since it would explore additional parameters affecting performance of banks. The study could further be stretched to cover longer periods to study trend over time. The study further recommends a study be done covering other factors affecting the financial performance of commercial banks other than credit risk. A study should also be conducted covering effects of introduction of Credit Reference Bureaus on volume of NPL in banks.

REFERENCES

- Abdelrahim, K. E. (2013). Effectiveness of credit risk management of Saudi banks in the light of global financial crisis: A qualitative study. Asian Transactions on Basic and Applied Sciences, 3(2), 73-90.
- Achou, T. F., & Tenguh, N. C. (2008). Bank performance and credit risk management. Master. Degree Project, *Finance University of Skodve School of Technology and Society*
- Aduda, J. & Gitonga, J. (2011). The Relationship between Credit Risk Management and Profitability among the Commercial Banks in Kenya. Journal of Modern Accounting and Auditing, 7(9), 934-946
- Afriyie, H. O., & Akotey, J. O. (2012). Credit risk management and profitability of selected rural banks in Ghana. Ghana: Catholic University College of Ghana.
- Ahmed, S. F., & Malik, Q. A. (2015). Credit Risk Management and Loan Performance: Empirical Investigation of Micro Finance Banks of Pakistan. International Journal of Economics and Financial Issues.
- Alkhatib, A., & Harasheh, M. (2012). Financial performance of Palestinian commercial banks.
- Almekhlafi, E., Almekhlafi, K., Kargbo, M., & Hu, X. (2016). A Study of Credit Risk and Commercial Banks' Performance in Yemen: Panel Evidence. *Journal of Management*
- Alshatti, A. S. (2015). The effect of credit risk management on financial performance of the Jordanian commercial banks. *Investment Management and Financial Innovations*, 12(1), 338-345.
- Armendáriz, B., & Morduch, J. (2010). The economics of microfinance. MIT press.
- Aruwa, S. A., & Musa, A. O. (2014). Risk components and the financial performance of deposit money banks in Nigeria. *International Journal of Social Sciences and Entrepreneurship*, 1(11), 514-522.

- Aruwa, S.A. and Musa, O.A. (2014). Risk components and the financial performance of deposit money in Nigeria, *International Journal of Social Sciences and Entrepreneurship*, 1 (11),
- Avkiran, N.K. (1995). Developing an instrument to measure customer service quality in branch Banking, International Journal of Banks Marketing, 12 (6), 10-18.
- Ben Naceur, S., & Omran, M. (2008). The effects of bank regulations, competition and financial reforms on MENA banks' profitability. Economic Research Forum.
- Bhattacharya, B., & Roy, T. N. S. (2008). Macroeconomic determinants of capital adequacy of Indian Public Sector Banks: A recursive VAR approach. *The IUP Journal of Bank Management*
- Bhattarai, Y. R. (2016). Effect of Credit Risk on the Performance of Nepalese Commercial Banks.*NRB Economic Review*.
- Bizuayehu, M. (2015). The Impact of Credit Risk on Financial Performance of Banks in Ethiopia. *MBA Graduation paper, Addis Ababa University*.
- Boahene, S. H., Dasah, J., & Agyei, S. K. (2012). Credit risk and profitability of selected banks in Ghana. *Research Journal of finance and accounting*, 3(7), 6-14.
- Brownbridge, M. (1998). The causes of financial distress in local banks in Africa and implications for prudential policy. Geneva: United Nations Conference on Trade and Development.
- Central Bank of Kenya (2017). Prudential Guideline for Institutions Licensed under Banking Act, CBK/PG/03, 82-124.
- Cooper, D. R., & Schindler, P. S. (2003). Business Research Methods McGraw-Hill: New York.
- Dang, T. V. (2014). Chinese shadow banking: Bank-centric misperceptions.
- Eppy, I. (2005). Perceived Information Asymmetry, Bank lending Approaches and

Bank Credit Accessibility by SMEs in Uganda Unpublished PHD Thesis, Makerere University

Godffrey, J. A. (1996). Testing vector error autocorrelation and heteroscedasticity.

- Greenwald, B. C., & Stiglitz, J. E. (1981). Asymmetric information and the new theory of the firm: Financial constraints and risk behavior (No. w3359). National Bureau of Economic Research.
- Harvey, C. R., Lins, K. V., & Roper, A. H. (2004). The effect of capital structure when expected agency costs are extreme. *Journal of Financial Economics*, 74(1), 3-30.
- Hosna, A., Manzura, B., & Juanjuan, S. (2009). Credit risk management and profitability in commercial banks in Sweden. *rapport nr.: Master Degree Project 2009: 36.*
- Irungu, P. N. (2013). The effect of interest rate spread on financial performance of commercial banks in Kenya. Unpublished Master's Thesis, University of Nairobi.
- Kairu, P. K (2009). Credit Management, Second Edition, Focus Publishers Limited, Nairobi.
- Karugu, B. M., & Ntoiti, J. (2015). Effect of credit risk management practices on profitability of listed commercial banks at Nairobi securities exchange in Kenya. Journal of Economics and Finance, 6(5), 92-96.
- Kibor, A. M., Ngahu, S. T., & Kwasira, J. (2015). Influence of Credit Risk Management on Loan Performance in Commercial Banks in Nakuru Town, Kenya. *International Journal of Economics, Commerce and Management*, 3(10), 884-902.
- Kimoi, A., Ayuma, C., & Kirui, K. (2016). Assessment of Credit Risk Management Practices on Organizational Performance: A survey of SACCOs in Eldoret Town Kenya. International Journal of Scientific & Engineering Research, 7(5), 416-425.

- Kimotho, D. N. & Gekara, M. (2016). Effects of Credit Risk Management Practices on Financial Performance of Commercial: International Journal of Economics & Finance, 2 (3), 161-189
- Kithinji, A.M. (2010). Credit Risk Management and Profitability of Commercial Banks in Kenya, Unpublished MBA Research project, University of Nairobi.
- Knupfer, N. N., & McLellan, H. (1996). Descriptive research methodologies. Handbook of research for educational communications and technology, 1196-1212.
- Kolapo, T. F., Ayeni, R. K., & Oke, M. O. (2012). Credit risk and commercial banks performance Nigeria a Panel model approach. Australian journal of business and management research, 2(2), 31.
- Kurawa, J. M., & Garba, S. (2014). An evaluation of the effect of credit risk management (CRM) on the profitability of Nigerian banks. *Journal of Modern Accounting and Auditing*, 10(1), 104.
- Kurui, S. K. & Kalio, A. M. (2014). Influence of Credit Risk Management Practices on Loan Performance of Microfinance Institutions in Baringo County, Kenya. International Journal of Science and Research, 3(10), 2260-2267
- Kurui, S. K., & AQUILARS, M. (2012). Influence of credit risk management practices on loan performance of microfinance institutions in Baringo County. *International journal of science and research*, (3), 2319-7064.
- Kwaku, D. K. (2015). Assessing Credit Risk Management Practices in the Banking Industry of Ghana: Processes and Challenges. Global Journal of Management and Business Research, 15 (6), 1-11
- Li, F. & Zou, Y. (2014). The Impact of Credit Risk Management on Profitability of Commercial Banks: A Study of Europe. Unpublished Project. Umeå School of Business and Economics

- Makori, O. G. (2015). Effects of Credit Risk Management Practices on Profitability of Deposit Taking Sacco's in Nairobi County. Unpublished MBA Project.
 Management University of Africa, Kenya
- Mombo, C. A. (2013). The Effects of Nonperforming Loans on the Financial Performance of Deposit Taking Microfinance Institutions in Kenya. Unpublished MBA project School of Business, University of Nairobi.
- Mugenda, A. (2003). Research methods Quantitative and qualitative approaches by Mugenda. *Nairobi, Kenya*.
- Musyoki, D., & Kadubo, A. S. (2012). The impact of credit risk management on the financial performance of banks in Kenya for the period. *International Journal of Business and Public Management*, 2(2), 72-80.
- Mutua, D. M. (2014). Effect of Credit Risk Management on the Financial Performance of Commercial Banks in Kenya. Unpublished MBA Dissertation, University of Nairobi, Nairobi.
- Nawaz, M., Munir, S., Siddiqui, S. A., Tahseen-ul-Ahad, F. A., Asif, M., & Ateeq, M. (2012). Credit risk and the performance of Nigerian banks. *Interdisciplinary Journal of Contemporary Research in Business*, 4(7), 49-63.
- Ngwa, E. (2010). Credit Risk Management in Banks as Participants in Financial Markets. A Qualitative Study of the Perception of Bank Managers in Sweden. Umeå School of Business
- Ogboi, C., & Unuafe, O. K. (2013). Impact of credit risk management and capital adequacy on the financial performance of commercial banks in Nigeria. Journal of emerging issues in economics, finance and banking, 2(3), 703-717.
- Parrenas, J. C. (2005). Risk Monitoring Procedures used by Commercial Banks: A Survey of Commercial Banks in Four Asian Emerging Market

Poudel, R. P. S. (2012). The impact of credit risk management on financial performance of commercial banks in Nepal. *International Journal of* arts and commerce, 1(5),9-15.

pp. 1-8.

- Sabeza, F., Shukla, J., & Bajpai, G. (2015). Assessing Credit Risk Management Practices and Performance of Commercial Banks in Rwanda. International Journal of Social Science and Humanities Research. Kigali, 3, 323-333.
- Sangmi, N., & Nazir, T. (2010). Analyzing Financial Performance of Commercial Banks in India: Application of CAMEL Model. *Pakistan Journal of Commerce & Social Sciences*, 4(1).
- Singh, A. (2013). Credit risk management in Indian commercial banks, International Journal of Marketing, Financial Services & Management Research
- Stiglitz, J. E., & Weiss, A. (1981). Credit rationing in markets with imperfect information. *The American economic review*, *71*(3), 373-410.
- Sujeewa, K. (2015). Impact of Credit Risk Management on the Performance of Commercial Banks in Sri Lanka. International Journal of Scientific Research and Innovative Technology, 2 (7), 24 – 29.
- Tanui, J. K., Wanyoike, D. M., & Ngahu, S. (2015). Assessment of Credit Risk Management Practices on Financial Performance Among Deposit Taking Saccos In Nakuru East Sub County, Kenya. International Journal in Management & Social Science, 3(5), 602-610.
- Wachiuri, M. W. (2012). *The effect of capital adequacy requirements on credit creation by commercial banks in Kenya* (Doctoral dissertation).
- Warsame, M. (2016). Credit Risk Management Practices and Its Impact on Banks' Financial Performance: An Empirical Study of Islamic and Conventional Banks in Kenya. In Proceedings of Business and Social Sciences Research Conference (pp. 11-13).

APPENDICES

APPENDIX I: DATA CAPTURE SHEET

			COMMERCIAL BANK NAME			IE	
ITEM	1		YEAR				
NO	DESCRIPTION	NPL	2013	2014	2015	2016	2017
1	Capital Adequacy						
2	Liquidity						

APPENDIX II: COMMERCIAL BANKS LICENSED BY CBK

- 1.Kenya Commercial Bank
- 2. Standard Chartered
- 3. Barclays Bank
- 4. Bank of India
- 5. Bank of Baroda (K)
- 6. Commercial Bank of Africa
- 7. Prime Bank Ltd
- 8. Co operative Bank
- 9. National Bank
- 10. M-Oriental Commercial Bank
- 11. Citibank N.A. Kenya
- 12. Habib Bank A.G. Zurich
- 13. Middle East Bank (K)
- 14. Bank of Africa (K)
- 15. Consolidated Bank of Kenya
- 16. Credit Bank Ltd
- 17. Transnational Bank
- 18. Stanbic Bank (K)
- 19. African Banking Corporation
- 20. NIC Bank PLC
- 21. Ecobank Kenya Ltd
- 22. Spire Bank Ltd
- 23. Paramount Bank
- 24. Jamii Bora Bank Ltd

- 25. Guaranty Trust Bank
- 26. Victoria Commercial
- 27. Guardian Bank
- 28. I&M Bank
- 29. Development Bank
- 30 Diamond Trust Bank
- 31.Sidian Bank
- 32.Equity Bank
- 33. Family Bank
- 34. Gulf African Bank Ltd
- 35. First Community Bank
- 36. UBA Kenya Bank Ltd
- 37. HFC
- 38. Chase Bank
- 39.Imperial Bank
- 40. Charter House Bank
- 41. Giro Bank
- 42. Equatorial Bank
- 43.Spire