DETERMINANTS OF CREDIT RISK IN ISLAMIC COMMERCIAL BANKS IN KENYA

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A RESEARCH PROJECT PRESENTED IN PARTIAL FULFILLMENT OF THE REQUIREMENT OF THE AWARD OF DEGREE OF MASTERS OF BUSINESS ADMINISTRATION, SCHOOL OF BUSINESS UNIVERSITY OF NAIROBI

DECEMBER, 2017
DECLARATION

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

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

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ACKNOWLEDGEMENT

I would like to thank the Almighty God for granting me the opportunity and strength to pursue this course. It is through his grace and power that he has enabled me to undertake this research.

This research project would not have been possible without the support of my supervisor Dr, Cyrus Iraya for his valuable guidance, advice and mentorship and for this, am thankful.

To the University of Nairobi and the lecturers that have impacted knowledge that has enabled my completion of the project. To the management of the various banks that helped and provided information as requested.

Last and not least I owe my deepest gratitude to my family for their financial support, patience and understanding throughout the course, for offering encouragement every step of the way.
DEDICATION

This project is dedicated to my family who has been by my side throughout my study and whose inspirations keep me going.
ABSTRACT

Islamic Banks continue to experience increase in high default rate and high level of nonperforming loans indicating presence of credit risks. The study objective was to examine determinants of credit risk in Islamic commercial banks in Kenya. The study adopt descriptive survey research design. The population of study consisted of all Islamic banks in Kenya and the commercial banks in Kenya offering the Islamic banking products and services. The study used secondary data collected from Islamic commercial banks financial books and financial report of the institutions. Inferential statistic was used to establish the relationship between credit risk and performance of loans portfolio for the Islamic commercial banks in Kenya. Predictor bank lending had a statistically significant and negative relation with credit risk in Islamic banks. The study found that Predictor Management efficiency has a significant and negative relationship with credit risk. It is evidenced that increase in total costs of bank financing through loans would results into increase in total loans exposing the banks to more unforeseen credit risks. The predictor liquidity management had a significant negative relation with credit risk in Islamic bank. Increase in liquidity management would lead to decrease in credit risks among the Islamic banks. The study established that predictor capital adequacy had a significant, negative relationship with credit risks in Islamic Bank. The increase in bank size predict significant positive relationship with credit risk in Islamic Banks. The increase in bank volume of assets would improve bank management capacity to reduce the occurrence of credit risks in Islamic Banks in Kenya. The study conclude that there exist a strong, significant and positive correlation between lending rate and credit Risk Bank lending has a statistically significant and negative relation with credit risk in Islamic banks. The Predictor Management efficiency has a significant and negative relationship with credit risk and therefore that increase in total costs of bank loans increase total loans exposing the banks to more unforeseen credit risks. The study concluded that liquidity management has a strong, significant and negative correlation with credit Risks. The predictor liquidity management had a significant negative relation with credit risk in Islamic bank. The findings led to conclusion that there exist a strong, significant and negative relationship between capital adequacy and credit Risk and that predictor capital adequacy had a significant, negative relationship with credit risks in Islamic Banks in Kenya. The study recommend that management in Islamic commercial bank should determine an optimal bank lending rate to manage occurrence of unforeseen credit risks and reduce bank lending rate and reduce occurrence of Non-performing loans. The study recommend that management in Islamic bank should enhance Management efficiency by reducing total cost of bank financing of credit facilities and reduce as Management efficiency has a significant and negative relationship with credit risks and therefore that increase in total costs of bank loans increase total loans exposing the banks to more unforeseen credit risks. The study recommend that management of Islamic banks should enhance liquidity management so as to decrease occurrence of credit risk. Increase in predictor liquidity management would significantly negative relation with credit risk in Islamic banks. The study recommend that regulatory authority such as Central Bank of Kenya and other financial agencies should clearly enhance monitoring and assessment on Islamic bank capital adequacy and increase risk weighted assets to safeguard occurrence of credit risk.
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ABBREVIATIONS / ACROMNYS.

CBK  - Central Bank of Kenya
CI   - Cost Income Ratio
DW   - Durbin Watson
ESOP - Employee Share Ownership Scheme
GDP  - Gross Domestic Product
I.R  - Interest Rate
M.E  - Management Efficiency
MPT  - Modern Portfolio Theory
NPA  - Non-Performing Asset
NPL  - Non-Performing Loans
CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

The credit risk in commercial banks has been on the limelight with regards to problems facing global financial institutions today. A look around on the causes of global financial crisis, the Euro zone crisis and the fall of world greatest institutions such as Enron boils down to the question of how best is credit risk being managed. The magnitude of the financial crisis clearly demonstrates how critical commercial banks have been inter-connected to the world economy (Agenello and Sousa, 2011). The realization of commercial banks being an enigma of the world economic pillar has sparked industry players to re-examine the causes that are likely to trigger banking crisis (De Grauwe, 2008). Economist and financial think tanks attributes the success of financial industry to the mystery of financial intermediation. The health of a financial system especially in developing economies is directly correlated to the health of an economy (Aghion, Howitt & Faulkes, 2005).

Across the world, credit risks has shown to be the most important of all risks that financial institutions face (Sabrani, 2002). Developing states for instance USA, Japan and Sweden with developing nations like South Asia and Latin America all have crisis related to levels of nonperforming loans. In view of Greuning and Bratanovic (2003), one of the basis forming proper management of credit risk involve specific guidelines outlining allocation and scope of the banking institution. According to Derban, Binner and Mullineux (2005), credit assessment of borrowers should involve adequate screenings among lending
institutions. As shown by symmetric information theory, adequate and reliable information leads to proper screening of applicants.

Establishment of proper optimal credit policy could proof hard especially in combination with credit policy variables. Normally, one or more variables of the firms shall be changed while noting the effect related with this. It is important to note that credit policy of an organization is based on prevailing economic status in the country (Pandey, 2008). A change in economic status results into change in credit policies of firms. Commercial banks develop a credit management practices to govern their credit management. Pandey, (2008) indicated that commercial banks generate revenue from credit extended to individuals and corporate although the loan repayments may be uncertain. According to Ditcher (2003), it is important to evaluate conditions of risks and borrowers features for attaining performance of loan portfolio.

Credit risk in Islamic banks occurs due to internal and external change in environment. This was measured by the efficiency , liquidity management , change in economic growth, inadequate Regulatory frameworks in emerging economies especially in Africa countries has accelerated rapid growth of credit portfolio without elaborate mechanism of managing credit risk. Therefore, it is on this premise that this study sought to explore the determinants of credit risk in Islamic banks in Kenya.

1.1.1 Credit Risk

Credit risk one of the major risks in commercial banks and the ability to manage it effectively determines banks’ stability. When executing financial decisions, banks use a credit risk assessment tool that helps to estimate the probability that the potential borrowers will default.
on their loan obligations (Nikolaidou & Vogiazas, 2014). During appraisal process, credit risk analysis is meant to minimize the potential loss to acceptable risk levels (Derelioglu & Gurgen, 2011). To reduce the likelihood of lose due to eminent credit risk; governments have introduced prudential guidelines making financial industry one of the most highly regulated.

Basel committee of banking supervision (1999) established capital risk provisions to enhance monitoring of this sensitive industry (Ioannidis, Pasiouras and Zopounidis, 2010). The non-performing loan (NPL) in the balance sheet of a financial institution represents the ratio of aggregate non-performing loans and the total gross loan. In this research, non-performing loans will be considered as a measure of credit risk. Historical evidence shows that most banks crisis relates with the inadequate management of credit risk (Thiagarajan, Ayyappan and Ramachandran, 2011).

1.1.2 Determinants of Credit Risks in Islamic Commercial Banks

One of the backbones of the economy of Kenya as a country is the banking industry. Over the last few years, the banking industry in Kenya recorded a remarkable growth in assets, liabilities and most importantly profitability. Similarly, the competition between the payers has been fierce leading to world class innovative products which has seen commercial banks in Kenya record enormous profits. Banks performance factors determined occurrence of credit risk due to internal and external forces of the banks (Naceur &Omran, 2011).

Macroeconomic determinants are perceived to bear the greatest impact on firms’ creditworthiness. Favorable macroeconomic conditions relate to reducing non performing
loans in banks hence lower credit risk. During economic recessions, probability of default increase thus increasing the level of nonperforming loans. On recession’s times, income is constraints and borrowers priorities on basic expenses at the expense of their credit obligations.

There exist an inverse relationship between GDP and NPL (Vazquez, Tabak and Sauto, 2012). Stock market index is another key determinant of credit risk in commercial banks. The rise and fall of the stock index reflect correlates to the levels of disposable income available for investing. Similar to growth domestic product, stock index determinant carries an inverse relationship to the quality of loan portfolio. Where stock return rises it implies ability to pay debt obligations is boosted thus reducing credit risk (Wong, Wong, and Leung, 2010).

Internal credit risk determinants relates to management efficiency within the Islamic commercial banks. Ineffective credit management are mainly characterized agency conflict on insider lending, unbalanced sectarian lending, speculative lending among others. This has been a phenomenon in major countries such as Mexico, Venezuela, Zimbabwe and Kenya especially in the late 1990s. Occurrence of credit risk is influence by management efficiencies level in financial institution is measured on efficiency ratio on banks (ration of total cost to total revenue). The higher the ratio the higher the credit risk and vice versa (Derban, Binner & Mullineux 2005)

Loan portfolio is the banks most important asset hence, portfolio quality reflects the credit risk of loan delinquency and determines future revenues and an institutions ability
to increase outreach and serve existing customers. Portfolio quality is measured as portfolio at risk over 30 days (Nikolaidou & Vogiazas, 2014).

1.1.3 Commercial Banks in Kenya

The Kenyan Banking sector is made up of Central Bank as the main regulator, commercial banks, non-banking financial entities and forex bureaus. Banks in Kenya operate in turbulent environmental forces (Pearce & Robinson 1997; & Thompson & Strickland, 1996). In the past one decade, the banking sector has witnessed a number of developments. One aspect was proper change management strategies where the institutions heavily dependent on tradition branch-based channels up until 1990s (CBK, 2008).

Commercial banks in Kenya mobilize financial resources and therefore contributing towards economic growth and development. Lending and issuing out loans is the main activities of commercial banks in Kenya since they earn them greater profits. However, there are several risks related to loans that banking institutions face for example default risk. The country comprise of 44 commercial banks (CBK, 2014).

1.1.4 Islamic Commercial Banks in Kenya

All banks including those operating pursuant to Islamic Banking principles are subject to the requirements of the Banking Act. Indicators in the first year of Management of the two fully-fledged Islamic banks pointed to potential for Islamic banking in Kenya. There is still room to grow this market niche given tremendous expansion of Kenya’s banking
sector for instance, the number of bank accounts tripled from 2.6 million in 2005 to 7.5 million in 2009 (Gulf African Bank, 2014). Currently there are 2 fully fledged Islamic Banks and five commercial banks offering Islamic bank product and services in Kenya (CBK, 2015). Islamic banks do not allow interests but only profit sharing. This therefore shows that financing sharia products has elements of holding fixed assets and trading although this is contradiction of the Section 12 of the Banking Act in Kenya.

Lending in Kenya represents the main activities that banking institutions engage in. Lending results into loan facilities to members that grows the revenue of banking institutions. However, loans result into a number of risks among financial institutions and especially default risks. However, this is controlled through Credit Reference Bureau helping in information sharing that reduces the default risk among lending institutions (CBK, 2016).

1.2 Research Problem

Efficiency in management of results into credit risks and this subsequently leads to quality and performance of loan portfolios Harker and Satvros, (1998 (Chen and Pan, 2012). Because of huge losses encountered by banking institutions, emphasis has been given on credit risk management among lending institutions (Nikolaidou & Vogiazas, 2014). Commercial banks have leveraged on measures of managing credit risk in mitigating against financial losses due to loan mismanagement and recoveries of the amount loaned.

Globally, commercial banks experience rise in credit risks. According to Aver (2008) indicated that GDP, unemployment rate, inflation rate, interest rate and stock market
index influence credit risk occurrence in Slovenia Banking sectors and affected credit portfolio. In India, Das and Ghosh (2007) asserted that banks microeconomic factors led to occurrence of credit risk. Majority of commercial banks in Unites States of America, United Kingdom and Euro Zone countries have been surviving on government’s bailouts. Besides the credit crunch on global financial industry, civilians are now threatening to protest for the spiraling state debts. In Hong Kong, an investigation of performance of banks was linked to credit risk management was done by Claudine and Felix (2008). Luqman (2014) noted that credit risk in commercial banks performance in Nigeria led to increase in loan and advances to total deposit affecting bank profitability.

To protect the banking sector in Kenya, management in Islamic banks need to adopt efficient mechanism of credit risk management to manage credit risk exposures to acceptable levels (Derelioglu and Gurgen, 2011). Ineffective credit risk check was evidenced by near collapse of key banks in Kenya due to political interference, global crisis. Currently, the central bank through its risk management guidelines requires that Islamic banks conduct stress testing scenario to ascertain credit risks are at bare minimum and ensure allocation of risk capital. However, Islamic Banks continue to experience increase in high default rate and high level of nonperforming loans indicating presence of credit risks (CBK, 2015).

Locally, most of the studies focus on credit risk management and performance of loans among lending institutions. For example, Sindani (2012) examined how credit risk management affected performance of loans. Essend (2013) conducted a similar study in SACCOs. Kithinji (2011) examined management of credit risks and how profitability of
banks in Kenya is affected. Musyoki (2011) and Ogilo (2012) separately and empirically examined how credit risk affects performance of banks in Kenya. Therefore, few studies have been done on how credit risk among Islamic banks in Kenya. This study therefore sought to fill the existing research gap by identifying factors that cause credit risk in Islamic commercial banks in Kenya by answering the question what are determinants of credit risk in Islamic commercial banks in Kenya?

1.3 Objective of the Study

The study objective was to examine determinants of credit risk in Islamic commercial banks in Kenya.

1.4 Value of the Study

The study would significant to the management of Islamic commercial banks in Kenya as they would be able to uncover the factors of credits risk and adopt appropriate measure to mitigate occurrence credit risk to reduce level of nonperforming loans and enhance bank profitability.

The study will be significant to management of the Islamic banks for instance oversight boards, senior management and investors of financial institutions in Kenya who will clearly understand determinants of credit risks in Islamic commercial banks in Kenya and seek effective mitigation measures for effective credit risk reduction and improve on bank profitability.

The study will have great benefit to the policy maker and the government financial regulators. It will help the regulators to understand the scope of credit risk to determine best
credit risk management and formulate credit risk management policies such as risk testing provisions to determine the adequacy of the risk capital provided for by the regulator. The findings will inform adoption of sound credit risk management strategies to grow profitability for lending institutions.
CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presents literature review. It presents the theoretical and empirical review on studies related to the purpose of the study. The chapter was also presented determinants of credit risk and finally a chapter summary was provided.

2.2 Theoretical Review

The study was grounded on the following theories, Asymmetric Information Theory,

2.2.1 Liquidity Theory of Credit

This theory was formulated by Emery (1984). The theory indicates that credit rationed institutions utilize more trade credit as compared to normal accessibility from banking institutions. The main point of this argument is that financially constrained firms, offers of trade credits compensate the reduction offer of credit from lending institutions.

Empirical evidence has been gathered in view of this for instance, Nielsen (2002) established that small firms react by doubling up accepted trade credit. Firms that are financially unconstrained demand less credit and largely offer the same credit and therefore there exists negative relationship between accessibility of the buyer to other financing sources (Petersen & Rajan, 1997).
2.2.2 Asymmetric Information Theory

The theory was first used by Akerlof (1970). The theory indicates existence of information asymmetries in assessment of lending applications by commercial banks (Binks & Ennew, 1997). The theory indicates situations where parties to a transaction do have relevant information (Ekumah & Essel, 2003). Either one of the parties is more informed than the other party (Epp, 2005). This result into adverse selection cost of monitoring and moral hazard.

The relevancy of the theory to the study is that credit reference bureaus allow exchange of information on credit worthiness of borrowers and this facilitates the process of credit review (Denis, 2010). This reduces information asymmetry between borrowers and lenders and therefore reducing default rates.

2.2.3 Transactions Costs Theory

In vertical boundaries of firms, this theory played an important role as a framework. According to Williamson (2000), transfer of goods across technologically separable interface results into transaction costs as suggested by the theory. There is termination of one stage of activity as the other one begins. The theory was first developed by Schwartz (1974). It holds that suppliers may be advantageous over traditional lenders. Threats to breach of contracts show untrustworthiness as no alternative exists. Locking up in one party to a transaction results into hold up.
2.2.3 Portfolio Theory

This theory was advanced by (Markowitz 1952). The theory proposes maximization of portfolio expected returns given amount of risk in the portfolio. The theory also suggests minimization of risks for given level of expected returns. Thus calls for careful selection of various assets in the portfolio (Markowitz 1952).

The theory was formulated in 1950s up to early 1970s. This was seen as a tremendous step in the field of finance. However, the theory has suffered a number of criticisms. One of the criticisms relates to covariance between the asset classes. The second criticism regards the distribution of returns (Micheal and Sproul 1998).

2.2.4 Liquidity Preference Theory

The third theory that guided the study was liquidity preference theory proposed by United Kingdom economist John Maynard Keynes. Keynes observed that all factors held constant, people prefer to hold cash (liquidity) rather than any other form of assets. Therefore, a premium is required for compensating investment in illiquid assets.

Liquidity preference theory continue to dominate the central concepts in economic and finance in its application on the theory of demand for money. With regards to Keynes theory, central banks set the rate of interest in order to control the price of assets though the demand for money. On emphasis on why people will at all times prefer holding cash, the economist explained these to the existence of three motives: the motive to keep cash of daily transactional need, the motive to keep cash for precautionary tendencies and
finally the speculative motive so as to take advantage on opportunities (Bibow, 1995). The analogy of Keynes theory in imperative on the assets and liabilities functions of a commercial bank. The theory explains why banks will undertake to compensate for liabilities and also provides essence of why banks will seek compensation for their assets. This compensation describes the interest rate factor which is a risk factor affecting credit risk in commercial banks. Therefore, banks will charge higher interest rates where possibility of default is higher hence liquidity preference theory.

2.3 Determinants of Loan Performance in Commercial Banks

Value of loan portfolio not only depends on rates of interest earned but also on the extent that borrowers will pay the interest and the principal amount (jasson, 2002). One of the main activities of commercial banks is lending and loan portfolio is and the main source of revenue among lending institutions. However, it is associated with greater risks.

Sound management of credit and lending department of a lending institution is important in enhancing performance of the entire organization. Assessment of lending process with a focus on what is done in the lending department helps in identification of challenges and solutions.
2.3.1 GDP Growth

GDP growth rate forms a prominent measure of economic activity. Whenever GDP growth rate improves household’s salaries and wages increases which cyclically improves the quality of loans portfolios in banks. Conversely, when economic growth rate declines; household cash flows are reduced and therefore households priorities their expenditures on consumptions rather than on meeting their debt obligations (Hamerle, Dartsch, Jobst and Plank, 2011).

GDP growth rate is seen as the greatest significant determinant of credit risk among lending institutions. However, there exists an inverse relationship between GDP growth rates and Non Performing loans (Vazquez, Tabak and Sauto, 2012). One of the bases of financial intermediation is the rate of interest charged. Banks facilitate mobilizations of deposits by offering depositors a price on their savings. These pooled funds are thereafter diversified by sector lending as a means to mitigate risk of loan defaults (Ngugi, 2001).

2.3.2 Bank Lending

Long term interest rates on lending affect the price borrowers pay on their financial obligations. The higher the price on interest the more likely the borrower will be unable to fully satisfy his obligations to service debt. Interest rate being macroeconomic variable is influenced by the regulatory authority such as central banks on its fiscal and monetary policy formulation. Its carries and direct relationship to credit risk. The higher the price the more likely the loan will be defaulted and vice versa (Aver, 2008). Research study
links the effect of credit risk to inflation rate. Studies contends that inflation rate is directly related to credit risk and its does not matter whether the banking regime is conventional or Islamic as the case was found even with the Iranian Islamic banking (Makiyan, 2003). Where an economy is characterized by reduced purchasing power due to increased inflation, banks performance on profitability reduces due to increased portfolio at risk.

2.3.3 Management Efficiency

The efficiency of management is a significant determinant of credit risk among commercial banks. Inadequate management among commercial banks leads to a crisis in the banking sector and therefore losses (Tay, 1991). Management responsibility and their competencies influenced risk perception of banking institutions in Kenya. Poor practices of managing risks result into bad lending practices and this increased the level of nonperforming loans.

In view of the CBK guideline of managing risk released in the year 2013, proper systems of monitoring and controlling loans need to be established among banking institutions in Kenya. Such credit policies should give procedures followed in appraisal. Approving, monitoring and recovering of loans.

2.3.4 Credit Control

Credit risk is the chance that the expected returns from a loan issued out would not equal to the actual return sought (Conford, 2000). According to Coyle (2000), credit risk is the loss resulting from the loanees to pay the interest and the principal as and when it falls
due. There are several sources of credit risk for example flaws in laws and regulations, low liquidity and capital level, poor underwriting, review, selection and appraisal practices and information asymmetry.

There are several steps of reducing credit risk exposure for example increasing capitalization, requirement of collaterals in offering loans, information sharing and reduction in nonperforming loan amount (Sandstorm, 2009). With these measures in place, profitability of the banking institution is enhanced.

2.3.5 Capital adequacy

Capital adequacy is maximum leverage level which banking institutions are attain by management (Jansson, 1997). A simple measure of capital adequacy is the portion of risk weighted assets in relation to regulatory equity, normally taken as 12.5 times (Jansson, 1997).

In many developing countries capital adequacy has been linked to microfinance institutions in Kenya. However, commercial banks require greater capital adequacy ratio as compared to that of microfinance. This is because some of the features of microfinance institutions include scarce geographical diversification and greater liquidity levels (Christen et al, 2003). Therefore, with a given delinquency level of loans, the rate at which banks loose capital is higher as compared to microfinance institutions. Therefore, this points out the need for strict compliance with low leverage position that is higher capital adequacy ratio (Vogel et al, 2000).
2.4 Empirical Review

Gizawb Kebede and Selvaraj (2015) assessed how credit risk affected Ethiopia’s profitability of commercial banks. The study collected secondary data over a period of 12 years that is from 2003 to 2004. The study established that credit risk management affected profitability of banks.

Ntiamoah, Egyiri, Diana Fiaklou and Kwamega (2014) examined how credit risk management affected performance of loans in Ghana. Both qualitative and quantitative methods were adopted. From the findings, a high positive correlation was established between terms of credit and policy, credit risk appraisal, analysis and control in relation to performance of loans.

Ayodele, Thomas, Raphael and Ajayi (2014) assessed how credit policy affected Nigeria’s commercial banks’ performance. The study relied on primary data collected using questionnaires. From the findings, proper credit policy helps in minimization of bad debts. Byusa and Nkusi (2012) studied how credit policy affected performance of banks in Rwanda. The study targeted 3 banks. From the findings, all the studied banks had credit policy in place.

Kargi (2011) assessed how credit risk management practices affected Nigeria’s banking sector profitability. From the findings, significant influence of credit risk was established. Al-Khoury (2011) studied specific features of banks and the entire banking environment. From the findings, capital and liquidity risk are major determinants of profitability as indicated by ROA. Aver (2008) empirically examined how credit risk affected banking
systems in Slovenia. From the findings, there was a notable influence of certain macroeconomic variables on credit risk.

Locally, Kiage, Musyoka and Muturi (2015) examined how determinants of positive credit information sharing among banking institutions in Kenya. From the findings, competition positively influenced performance of lending institutions. Privacy protection negatively influenced commercial banks’ financial performance.

Wanja (2013) examined how credit policy affected performance of commercial banks. Specifically, the study examined relationship between loan terms and conditions and performance, to examine the relationship between loan processing procedures, amount of loan disposable, credit information and length of credit relationship with the bank and performance. The study was carried out using descriptive research design. The population for the study was all the forty three commercial banks headquarters thus a census was taken. To obtain information from respondents both open and closed ended questionnaires was used. In order to meet the study's objective both primary and secondary data was collected. The target population was forty three respondents consisting of credit officers of the banks. Pilot study was carried on four branches of commercial banks which were selected by simple random sampling method to test the validity of the instrument. Data collected was analyzed through descriptive statistics, frequencies. From the findings, nature of the terms and conditions of the loan facilities largely affected competitiveness of the banking institution.
Ngetich (2011) examined the effects of interest rate spread on the level of non-performing assets in commercial banks in Kenya. The study results found a strong relationship between interest spread and the ration of N.P.A. The study concluded that I.R spread affects N.P.A in banks because it increased the cost loaded on principle amount calling for stern regulatory framework in credit risk management.

Oondo (2014) examined how management of credit risk affects commercial banks’ performance. Descriptive research design was employed by the researcher. Both descriptive and inferential statistics were used in analysis of the data. From the findings, credit risk management had significant effect on performance. The study recommends that commercial banks in Kenya should be encouraged to share information on their borrowers in order to improve the quality of the loan book. However banks should have better credit risk management practices so as to enhance their financial performance.

Sindani (2012) examined how effective credit risk management systems on performance of loans. Overally, the study examined how credit risk management system affected loan performance. From the findings, collection policy greatly affected loan performance.

Mwaurah (2013) examined the macroeconomic indicators affecting credit risk among Kenyan Commercial banks. The study adopted descriptive design. Data was collected quantitatively. The findings of the showed that GDP, inflation and interest rates, efficiency in management and performance of stock markets influenced credit risks among commercial banks in Kenya.
2.5 Summary and Conclusion

From the review of the literature, credit risk plays a critical role in Improving financial performance in commercial banking institutions. Most studies such as (Ntiamoah, Egyiri, Diana Fiaklou, Kwamega, (2014) have emphasized how credit risk affects performance of loan facilities. They have failed to suggest what a sound credit policy is made of.

Empirical studies have shown that despite the importance of commercial banks in an economy, Banks are still collapsing due to high levels of nonperforming loans. Das and Ghosh (2007) related non-performing loans to firm related factors after controlling macro-economic variables in their study of determinants of credit risk in India state owned banks. Aver (2008) in his study on empirical analysis of credit risk factors affecting Slovenian banking system related credit risk to selected macroeconomic factors. A further study conducted by Kithinji (2010) on credit risk management and profitability of commercial banks in Kenya found no relationship between credit risk and profitability. Her findings emphasized that presence of other factors rather than credit risk affected profitability of banks. Although studies on determinants of credit risk on banks have been done in developed countries such as US, Britain and Middle East countries, empirical studies reveal no local research has been done in Kenya. Therefore this study will seek to analyze the determinants of credit risk in Islamic commercial banks in Kenya.
CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter outlines the research design and methodology that was used to carry out the research. The chapter presents the research design, the population, sample size and sampling procedure, data collection and data analysis and presentation.

3.2 Research Design

The study adopted descriptive survey research design. This enabled the study to collect information about who, where, how and what of an area under the study. This is supported by Copper and Schilder (2008) that the design is suitable as it enables the collection of data that helped in answering the research question. A descriptive research design is deemed fit in examining determinant of credit risk in Islamic commercial banks in Kenya.

3.3 Population of the Study

The population of study consisted of all 3 Islamic banks in Kenya and the commercial banks in Kenya offering the Islamic banking products and services. The study adopted a census study collect data from for ten years from 2006 to 2016. This was census study hence no sampling.
3.5 Data Collection

The study used secondary data. The data was collected from Islamic commercial banks financial books and financial report of the institutions. From financial report percentage of loan loss and gross loan was extracted from financial statement. Data on Nonperforming loan and loan loss provision from financial reports. Data was collected for the period 2007-2016

3.6 Data Analysis

The collected data was analyzed through description statistics, means and standard deviations. Results was presented in tables and charts. Inferential statistic was used to establish the relationship between credit risk and performance of loans portfolio for the Islamic commercial banks in Kenya. The significance level for the study was at 0.05.

Analytical Model.

Multiple regression analysis used to conduct the test of statistical significance and explanatory power using data analysis techniques.

\[ Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \varepsilon \] (1)

Where, \( Y \) = Credit risk. Non- performing loans (%). Nonperforming loans/ total loans 
\( \alpha \) = Constant Term, The average loan performance holding the explanatory variables constant
\( \beta_{1,\ldots,5} \) = Beta coefficients,
\( X_1 \) = Commercial Banks Lending rate
\( X_2 \) = Management efficiency
\( X_3 \) = Liquidity Management Requirement
3.6.1 Managementalization of Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>Indicator</th>
<th>Measurement</th>
<th>Extracted From</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>Credit risk</td>
<td>% of loan repaid / Gross loans</td>
<td>Extracted from financial books on profit and loss statement</td>
</tr>
<tr>
<td>X₁</td>
<td>Bank Lending</td>
<td>Commercial Banks Lending rate (%)</td>
<td>Balance sheet statement</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Interest rate (IR)</td>
<td></td>
</tr>
<tr>
<td>X₂</td>
<td>Management efficiency</td>
<td>Total Cost / Total Revenue</td>
<td>Balance sheet statement</td>
</tr>
<tr>
<td>X₃</td>
<td>Liquidity Management Requirement</td>
<td>Total Loan / Total Deposit</td>
<td>Financial statements</td>
</tr>
<tr>
<td>X₄</td>
<td>Capital Adequacy</td>
<td>Capital / Total Assets</td>
<td>Financial statements</td>
</tr>
<tr>
<td>X₅</td>
<td>Size</td>
<td>Log of total Assets</td>
<td>Balance sheet statement</td>
</tr>
</tbody>
</table>

3.6.2. Test of Significant

The significance of the regression model was determined at 95% confidence interval and 5% level of significance. The results of significance was interpreted at 5% level of significance.

The p-values was interpreted for significance. T-test was used to determine whether there is any significant difference in the determinant of credit risk in Islamic banks in Kenya. The ANOVA and F-test showed the model goodness of fit that was used in the study.
CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the findings of the study determinants of credit risks in Islamic commercial banks. The chapter presents the data analysis, results and discussion for the findings.

4.2 Descriptive Statistics

The study sought to collect and analyze consolidated data from the 3 Islamic banks in Kenya. Secondary data obtained from annual audited reports from the banks and from the Central Bank of Kenya, which is also the regulator of the banking sector was used. From financial reports, data on paid loans and gross loans were extracted. Total cost of loan and total revenues was also extracted from the bank financial reports. Data on liquidity management that is total loan and total banks deposits were also extracted from banks books. From Central Bank Supervisory reports, capital and risk weighted Assets was extracted. Total assets was also extracted from the Central banks of Kenya and from banks’ annual financial reports. The data collected was for the period 2008-2016.
Table 4.1: Descriptive Analysis on Islamic Credit Risks Determinants for 2012-2016

<table>
<thead>
<tr>
<th></th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit risk NPL / Total loans</td>
<td>0.0089</td>
<td>0.7067</td>
<td>0.1266</td>
<td>0.204</td>
</tr>
<tr>
<td>Bank Lending (Lending rate (%))</td>
<td>0.2523</td>
<td>0.1467</td>
<td>0.1952</td>
<td>0.173</td>
</tr>
<tr>
<td>Operating efficiency (TC/TR)</td>
<td>0.0089</td>
<td>0.2166</td>
<td>0.3432</td>
<td>0.7208</td>
</tr>
<tr>
<td>Liquidity Management Requirement (TL/TA)</td>
<td>0.0105</td>
<td>0.8327</td>
<td>0.1881</td>
<td>0.1975</td>
</tr>
<tr>
<td>Capital Adequacy (Capital/RWTA)</td>
<td>0.1416</td>
<td>0.9979</td>
<td>0.5727</td>
<td>0.1297</td>
</tr>
<tr>
<td>Size (Log Size)</td>
<td>0.5111</td>
<td>0.7015</td>
<td>0.5811</td>
<td>0.4532</td>
</tr>
</tbody>
</table>

The results in Table 4.1 indicate the descriptive results where the Mean of credit risk as measured by the ration of NPL and Total Loans is 0.1266 with a Minimum of 0.0089 and a Maximum of 0.7067. The Mean of Lending rate was 0.1952 with a minimum mean of 0.2523 and a Maximum of 0.1467. The descriptive results of Management efficiency had a mean of 0.3432 with a minimum mean of 0.0089 with a Maximum Mean of 0.2166 and that liquidity management requirements had a mean of 0.1881 with a minimum mean of 0.0105 while maximum mean was 0.8327. The results further indicated that the mean of capital adequacy (Capital/RWTA) was 0.5747, a minimum of 0.1416 and a maximum mean of 0.9979 and finally size had a mean of 0.5811 which lied between minimum mean of 0.5111 and Maximum of mean of 0.7015.
4.3 Diagnostic Statistics

Table 4.2: Diagnostic Statistics

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Collinearity</th>
<th>Normality Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Tolerance</td>
<td>VIF</td>
</tr>
<tr>
<td>Bank Lending (Lending rate (%))</td>
<td>4.726</td>
<td>4.668</td>
</tr>
<tr>
<td>Operating efficiency (TC/TR)</td>
<td>2.473</td>
<td>2.5193</td>
</tr>
<tr>
<td>Liquidity Management Requirement (TL/TA)</td>
<td>1.471</td>
<td>0.8321</td>
</tr>
<tr>
<td>Capital Adequacy (Capital/RWTA)</td>
<td>1.561</td>
<td>6.4528</td>
</tr>
<tr>
<td>LogSize</td>
<td>2.564</td>
<td>2.4814</td>
</tr>
</tbody>
</table>

The results on collinearity, the study established that Tolerance for the Independent variables had a Tolerance Value greater than 1. The lending rate was 4.726, operating efficiency had tolerance of 2.473, Liquidity Management Requirement had 1.471, capital adequacy had 1.561. While that of bank size was 2.564. The VIF of the IVs were 4.668, for lending rate, 2.5193 for operation efficiency, liquidity management requirement had a VIF of 0.8321 while capital adequacy had VIF of 6.4528 while that of bank size was 2.4814. Multicollinearity did not exist as Tolerance for the independent variables were above .1 and VIF were less than 10 or an average much greater than 1.

On normality test, the study used Kurtosis test. The study found that bank lending rate had Kurt of 3.9020 indicating a relatively peaked distribution among all the banks. The study established that data on Management efficiency, had Kurt of 3.8437 was relatively flatter distribution, KURT of Liquidity Management was 0.0654 and that of capital
adequacy was 2.5042 while that of Bank Size was 6.4287. This indicated that data collected exhibited a normal distribution.

4.3 Correlation Analysis

Table 4.3: Correlation between Determinants of Credit Risk and Credit Risk

<table>
<thead>
<tr>
<th></th>
<th>Credit Risk (NPL/TL)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lending Rate</td>
<td>Pearson Correlation</td>
</tr>
<tr>
<td>Operating efficiency (TC/TR)</td>
<td>Pearson Correlation</td>
</tr>
<tr>
<td>Liquidity Management</td>
<td>Pearson Correlation</td>
</tr>
<tr>
<td>Capital Adequacy</td>
<td>Pearson Correlation</td>
</tr>
<tr>
<td>Bank Size</td>
<td>Pearson Correlation</td>
</tr>
</tbody>
</table>

**-Correlation is significant at the 0.01 (2 tailed)
*- Correlation is significant at the 0.05 (2 tailed)

The correlation between determinants and credit risks both in direction either positive or negative and strength of association were determined using Pearson Product Moment correlation coefficient. This would help in assessed whether there exists any relationship the study variables before further regression analysis. The criterion employed was that Correlation Coefficient of 0.7 and above was strong, 0.4-and less than 0.7 was assigned moderate 0 and less than 0.4 weak (Mirie, 2014)

The correlation coefficient was also used to test whether there existed were if the correlation coefficient if more than 0.9 (r>0.9) there exist high multicollinearity which may led to unreliable regression model (Dancey & Reidy, 2011). The results in Table 4.3 shows that there is a strong, significant and positive correlation between lending rate and credit Risk (NPL/TL) where r=0.7699, P V=0.001<0.01), there is a strong , significant and negative correlation between Management efficiency (TC/TL) and credit risk
(NPL/TL) where r=0. 7611, PV=0.0021, Liquidity management has a strong significant and negative correlation with Credit Risks, r=0.7424, PV=0.0371<0.05 and that there exist a strong, significant and negative relationship between capital adequacy and credit Risk (NPL/TL), as r=-0.8565, PV=0.003<0.01 while Bank size had a moderate significant and positive correlation with credit risk as r=0. 5027, PV=0.000<0.05 The study found that increase in lending rates would lead to increase in credit risks increasing nonperforming loans in the banks while credit risks has a negative relationship with Management risks, liquidity management and capital adequacy and bank size.

4.4 Regression Analysis

A Multiple regression analysis was carried out to determine the relationship between determinants and credit risks in Islamic Commercial Banks in Kenya.

Table 4.4: Regression Model Summary

<table>
<thead>
<tr>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.8293a</td>
<td>0.6877</td>
<td>0.6723</td>
<td>0.0132</td>
</tr>
</tbody>
</table>

Independent Variables: (Constant), Lending Rate, Operating efficiency, Liquidity Management, Capital Adequacy and Size of Islamic Bank

Dependent Variable: Credit Risk (NPL/TL)
The model summary results in Table 4. $R^2$ is 0.6877, Std Error= 0.0132 indicating that there was a significant variation between determinants of credit risks and credit risks in commercial banks of 68.77% at confidence level of 95%.

**Table 4.5: Goodness of Fit**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>5.839</td>
<td>4</td>
<td>1.45975</td>
<td>14.543</td>
<td>0.001a</td>
</tr>
<tr>
<td>Residual</td>
<td>41.495</td>
<td>25</td>
<td>1.6598</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>47.334</td>
<td>29</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dependent Variable: Credit Risk

The results in Table 4.5 presents results on goodness of fit of the regression model. These results indicate that the model had an F-ratio of 14.543, $P=0.001<0.05$. This result ascertain the regression model adopted by the study had a significant goodness of fit as $F=14.543$ and far exceeds the $F=statistic 0.14072$ and $PV=0.001<0.05$. 
Table 4.6: Beta Regression Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>3.5476</td>
<td>.308</td>
<td>8.011</td>
<td>.0012</td>
</tr>
<tr>
<td>Lending Rate</td>
<td>-0.6816</td>
<td>.0618</td>
<td>.474</td>
<td>12.912</td>
</tr>
<tr>
<td>Operating efficiency</td>
<td>-0.5294</td>
<td>.0644</td>
<td>.319</td>
<td>3.5912</td>
</tr>
<tr>
<td>Liquidity Management</td>
<td>-0.6689</td>
<td>0.0471</td>
<td>-0.521</td>
<td>6.272</td>
</tr>
<tr>
<td>Capital Adequacy</td>
<td>-0.5920</td>
<td>0.0715</td>
<td>-0.305</td>
<td>8.045</td>
</tr>
<tr>
<td>Size of DTM</td>
<td>0.4254</td>
<td>0.0313</td>
<td>2.472</td>
<td>10.513</td>
</tr>
</tbody>
</table>

Independent Variables: (Constant), Lending Rate, Operating efficiency, Liquidity Management, Capital Adequacy and Size of Islamic Bank

Dependent Variable: Credit Risk (NPL/TL)

The Multiple regression analysis model proposed for the study was.

\[ Y = \alpha + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5 + \epsilon \] (1)

The resultant regression model took the form:

\[ Y = 3.5476 - 0.6816X_1 - 0.5294X_2 - 0.6689X_3 - 0.5920X_4 + 0.4254X_5 + \epsilon. \]

The regression results indicated that predictor bank lending had a statistically significant
and negative relation with credit risk in Islamic banks $\beta_1=0.6816, \text{PV}=0.049<0.05, t=12.912$. The regression results indicated that Predictor Management efficiency has a significant and negative relationship with credit risk as $\beta_2=-.5294, \text{PV}=0.0039, t=3.5912$, Predictor liquidity management had a significant negative relation with credit risk in Islamic bank as $\beta_3= -0.6689, \text{PV}=0.000$ and $t=6.272$. The regression results also indicated that predictor capital adequacy had a significant, negative relationship with credit risks in Islamic Bank as $\beta_4 =0.5920, \text{PV}=0.015$, $t=8.045$. While size of the bank had a significant positive relationship with credit risk in Islamic Banks as $\beta_5 =0.4254, \text{PV}=0.0001$, $t=10.513$.

4.5 Discussion of Findings

The study revealed that lending rate was 0.1952 with a minimum mean of 0.2523 and a Maximum of 0.031, Management efficiency had a mean of 0.3432 and that liquidity management requirements had a mean of 0.1881. The results further revealed that the mean of capital adequacy (Capital/RWTA) was 0.5727. The results is consistent with Guidotti et al. (2004) who found that Capital adequacy establishes the maximum level of leverage that a financial institution is allowed to reach on its hence the ratio of risk-weighted assets relative to regulatory equity determine level of credit risk the bank is exposed to.

The study revealed that there is a strong, significant and positive correlation between lending rate and credit Risk (NPL/TL) where $r=0.7699, \text{PV}=0.001<0.01$, there is a strong, significant and negative correlation between Management efficiency (TC/TL) and credit risk (NPL/TL) where $r=0.7611, \text{PV}=0.0021$. The findings concurred with Tay
(1991) who revealed that managerial efficiency determine credit risk level in commercial banks and that commercial banks crisis arises mostly due to inadequate management capabilities.

Liquidity management has a strong significant and negative correlation with Credit Risks, $r=0.7424$, $PV=0.0371<0.05$ and that there exist a strong, significant and negative relationship between capital adequacy and credit Risk (NPL/TL), as $r=-0.8565$, $PV=0.003<0.01$ while Bank size had a moderate significant and positive correlation with credit risk as $r=0.5027$, $PV=0.000<0.05$ The study found that increase in lending rates would lead to increase in credit risks increasing nonperforming loans in the banks while credit risks has a negative relationship with Management risks, liquidity management and capital adequacy and bank size. The findings were consistent with Aver (2008) who revealed that liquidity management requirement, management efficiency and capital adequacy impact on level of nonperforming loans in banks Slovenian banking system.

The regression results indicated that predictor bank lending had a statistically significant and negative relation with credit risk in Islamic banks $\beta_1=0.6816$, $PV=0.049<0.05$, $t=12.912$. The regression results indicated that Predictor Management efficiency has a significant and negative relationship with credit risk as $\beta_2=0.5294$, $PV=0.0039<0.05$, $t=3.5912$, Predictor liquidity management had a significant negative relation with credit risk in Islamic bank as $\beta_3=-0.6689$, $P=0.000$ and $t=6.272$. The study was consistence with Ntiamoah, et al (2014) who found that credit administration and liquidity management, advanced credit terms and course of action, advancing, credit management and assessment, and credit risk control lower occurrence of credit risks.
The regression results also indicated that predictor capital adequacy had a significant, negative relationship with credit risks in Islamic Bank. The study revealed that size of the bank had a significant positive relationship with credit risk in Islamic Banks as $\beta_5 = 0.4254$, $PV=0.0001$, $t=10.513$. 
CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents summary, conclusion and recommendation of the findings. The objective was to examined determinants of credit risks in Islamic Banks in Kenya.

5.2 Summary of Findings

The study established that credit risk measured by a ratio of NPL to Total Loans is predicted by bank lending rate, Management efficiency, liquidity management requirements and capital adequacy (Capital/RWTA) to a great extent. The study revealed that increase in banks loans is as a results on increasing in bank lending rate making loan facility expensive and expose the banks to unforeseen credit risks. The study established that increase in lending rates would lead to increase in credit risks increasing nonperforming loans in the banks while credit risks has a negative relationship with Management efficiency, liquidity management and capital adequancy and bank size.

The study established that there exist a strong, significant and positive correlation between lending rate and credit Risk (NPL/TL). The regression results confirmed that predictor bank lending had a statistically significant and negative relation with credit risk in Islamic banks. Increase in lending rates would lead to increase in credit risks as more customers may face challenge in repaying the loan and loan facilities become more expensive. Increase in lending rates such as interest rate spread increase level the level of
non-performing assets and that increase in lending rate improve total cost loading on principle amount where adequate financial regulatory framework in credit risk management in Islamic commercial banks in Kenya.

From the correlation results indicated that there is a strong, significant and negative correlation between Management efficiency (TC/TL) and credit risk (NPL/TL). The study found that Predictor Management efficiency has a significant and negative relationship with credit risk. It is evidenced that increase in total costs of bank financing through loans would results into increase in total loans exposing the banks to more unforeseen credit risks.

The study revealed that liquidity management has a strong, significant and negative correlation with credit Risks. The correlation results were supported by regression findings which indicated that predictor liquidity management had a significant negative relation with credit risk in Islamic bank. Increase in liquidity management would lead to decrease in credit risks among the Islamic banks.

From the correlation coefficient analysis, the study revealed that there exist a strong, significant and negative relationship between capital adequacy and credit Risk. The study established that predictor capital adequacy had a significant, negative relationship with credit risks in Islamic Bank. Therefore increase in capital against risk weighted total assets would increase credit risks facing the banks as decrease in bank’s capital base expose the banks to increase in credit risks as the banks faces complexities in credit with low risk weighted capital base.

The increase in bank size predict significant positive relationship with credit risk in
Islamic Banks. The increase in bank volume of assets would improve bank management capacity to reduce the occurrence of credit risks in Islamic Banks in Kenya.

5.3 Conclusions

From descriptive analysis, the study concluded that credit risk measured by a ratio of NPL to Total Loans is predicted by bank lending rate, Management efficiency, liquidity management requirements and capital adequacy (Capital/RWTA) to a great extent. Increase in banks loans is as a resultants increase in bank lending rate making loan facility expensive and expose the banks to unforeseen credit risks. The study established that increase in lending rates would lead to increase in credit risks increasing nonperforming loans in the banks.

From the findings, the study conclude that there exist a strong, significant and positive correlation between lending rate and credit Risk (NPL/TL) Bank lending has a statistically significant and negative relation with credit risk in Islamic banks. Increase in lending rates would lead to increase in credit risks as more customers may face challenge in repaying the loan and loan facilities become more expensive. Increase in lending rates such as interest rate spread increase level the level of non-performing assets and that increase in lending rate improve total cost loading on principle amount where adequate financial regulatory framework in credit risk management in Islamic commercial banks in Kenya.

The study concluded that there exist a strong, significant and negative correlation between Management efficiency (TC/TL) and credit risk (NPL/TL). The Predictor
Management efficiency has a significant and negative relationship with credit risk and therefore that increase in total costs of bank loans increase total loans exposing the banks to more unforeseen credit risks.

The study concluded that liquidity management has a strong, significant and negative correlation with credit risks. The predictor liquidity management had a significant negative relation with credit risk in Islamic bank. Increase in liquidity management would lead to decrease in credit risks among the Islamic banks.

The findings led to conclusion that there exist a strong, significant and negative relationship between capital adequacy and credit risk and that predictor capital adequacy had a significant, negative relationship with credit risks in Islamic Banks in Kenya. This is informed by the fact that increase in capital against risk weighted total assets increases credit risks facing the banks as decrease in bank’s capital base expose the banks to increase in credit risks as the banks faces complexities in credit with low risk weighted capital base.

5.4 Policy Recommendations

The study recommend that management in Islamic commercial bank should determine an optimal bank lending rate to manage occurrence of unforeseen credit risks and reduce bank lending rate and reduce occurrence of Non-performing loans. This because bank lending has a statistically significant and negative relation with credit risk in Islamic banks. Increase in lending rates would lead to increase in credit risks as more customers may face challenge in repaying the loan and loan facilities become more expensive.
Increase in lending rates such as interest rate spread increase level the level of non-performing assets and that increase in lending rate improve total cost loading on principle amount where adequate financial regulatory framework in credit risk management in Islamic commercial banks in Kenya.

The study recommend that management in Islamic bank should enhance Management efficacy by reducing total cost of bank financing of credit facilities and reduce as Management efficiency has a significant and negative relationship with credit risks and therefore that increase in total costs of bank loans increase total loans exposing the banks to more unforeseen credit risks.

The study recommend that management of Islamic banks should enhance liquidity management so as to decrease occurrence of credit risk. Increase in predictor liquidity management would significantly negative relation with credit risk in Islamic bank. Increase in liquidity management would lead to decrease in credit risks among the Islamic banks.

From the findings and conclusion of the study, the study recommend that regulatory authority such as Central Bank of Kenya and other financial agencies should clearly enhance monitoring and assessment on Islamic bank capital adequacy and increase risk weighted assets to safeguard occurrence of credit risk. Increase in capital against risk weighted total assets increases credit risks facing the banks as decrease in bank’s capital base expose the banks to increase in credit risks as the banks faces complexities in credit with low risk weighted capital base.
5.5 Limitations of the Study

In conducting the study, the researcher encountered a number of challenges. One of the challenges was lack of management from some of the bank management who were unwilling to give information. This study was dependent on financial statements and annual reports from banks but some were unwilling to give such information. However, the researcher explained to the bank authorities that the sought information was just for academic purposes and would not be released to third party.

The other limitation was the inability to include more commercial banks. This study concentrated only on Islamic commercial banks. Therefore the finding could not be generalized to all commercial banks.

The study also faced limitation where the management were failing to reveal the financial performance of the bank and sometimes delayed in offering the reports. The researcher did follow up to ensure data was collected without further delays.

The study also faced a limitation, whereby the management was found to be uncooperative because of the sensitivity of the information required for the study. The researcher explained to the management that the information they provided was to be held confidential and was only for academic purpose only.

5.6 Suggestions for Further Research

This study examined the credit risk in Islamic commercial bank. The study recommends that a further study should be carried out to examine the credit risk in other financial
institutions such as Deposit taking Microfinance Institutions and Deposit taking credit Union.

A further study should be carried out to examine the relationship between capital adequacy and loan performance in Islamic commercial banks, commercial banks and deposit taking Microfinance institutions in banking industry. A further study should be conducted to determine determinants of credit risk in listed commercial banks in Kenya to provide a broad view on the determinants of credit risk in banking institutions.

The study also recommends that a further study should be carried out to examine the relationship between liquidity management and loan performance in commercial banks in banking sector. This would provide the management with insight on what measures could be adopted to implement liquidity policies effectively.
REFERENCES


Ayodele, Thomas and Ajayi, (2014). PEARLS monitoring system, World Council Information Center, Madison, WI, World council of Credit Unions Toolkit Series (4)


### Appendix1: Data collection Sheet

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Nonperforming Loan</td>
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<tr>
<td>Loan Paid</td>
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<tr>
<td>Gross Loan</td>
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<td>Total Assets</td>
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<td></td>
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<tr>
<td>Lending Interest Rate</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Gross Domestic Product (%)</td>
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<td></td>
<td></td>
<td></td>
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<tr>
<td>Total Interest Expenses (TIE)</td>
<td></td>
<td></td>
<td></td>
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**Dubai Bank Kenya Ltd.**

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### BANKING SECTOR CAPITAL AND RISK WEIGHTED ASSETS - DECEMBER 2015

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