EVALUATING THE RELATIONSHIP BETWEEN LIQUIDITY, CAPITAL ADEQUACY AND NON PERFORMING LOANS ON FINANCIAL PERFORMANCE: CASE STUDY OF HABIB BANK AG ZURICH

BY

ABRAHAM TESFAI

UNITED STATES INTERNATIONAL UNIVERSITY-AFRICA

SUMMER 2015
EVALUATING THE RELATIONSHIP BETWEEN LIQUIDITY, CAPITAL ADEQUACY AND NON PERFORMING LOANS ON FINANCIAL PERFORMANCE:
CASE STUDY OF HABIB BANK AG ZURICH

BY

ABRAHAM TESFAI
639347

A Research Project Report Submitted to the Chandaria School of Business in Partial Fulfillment of the Requirement for the Degree of Masters in Business Administration

UNITED STATES INTERNATIONAL UNIVERSITY

SUMMER 2015
STUDY DECLARATION
I, the undersigned, declare that this is my original work and has not been submitted to any other college, institution or university other than the United States International University in Nairobi for academic credit.

Signed___________________________ Date____________________

ABRAHAM TESFAI (ID: 639347)

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

Signed_____________________________ Date____________________

Dr. Amos Njuguna

Signed_____________________________ Date____________________

Dean, Chandaria School of Business
COPYRIGHT

© Copyright by Abraham Tesfai 2015

All rights reserved. No part of this project may be produced or transmitted in any form or by any means, electronic, mechanical, including photocopying, recording or any information storage without prior written permission from the author.
ABSTRACT

Financial institutions are faced with acute trials of ruling better and reliable means to upsurge their returns, improving margins, maintaining necessary capital ratios, solidifying balance sheets and enhancing efficiencies within the organization. Commercial Banks therefore employ financial risk management practices whose main objective is to ensure that the risks are consciously taken with full knowledge, clear purpose and understanding so that it can be measured and moderated.

This study sought to investigate the relationship between three components of CAMEL model and the financial performance of Habib Bank AG Zurich, Kenya. The CAMEL indicators used in this study include liquidity ratios, capital adequacy ratios, non-performing loans. The study also sought to investigate on the relationship liquidity ratios, capital adequacy ratios, non-performing loans and profitability of Habib Bank AG Zurich.

This study used a case study design. The target population for this study was the 43 commercial banks existing in Kenya. The study used purposive sampling to select Habib Bank AG Zurich making inferences using the financial reports for a period of seven years (2008-2014). Correlation and regression analysis were used to draw inferences. The analysis was done by use of SPSS version 21.

The study found that the three CAMEL indicators influence the profitability of Habib Bank AG Zurich in terms of ROE, ROA and cost income. Liquidity influences ROE, ROA and cost income ratio positively implying that an increase in liquidity will lead to an increase in profitability of commercial bank. In addition, non-performing loans were found to influence ROE and ROA and cost income ratios negatively.

The study recommends that the finance managers should pay attention to the liquidity of commercial banks to improve profitability. Profitability and liquidity reinforce each other and therefore finance managers should not consider the two variables as independent. The study also recommends that the Bank should organize the process of liquidity management through identifying, measuring, monitoring, and controlling liquidity risk. Further, the study recommends that it is fundamental for commercial banks to practice scientific credit risk control (application
of risk evaluation techniques), improve their efficacy in credit analysis and loan management to secure as much as possible their assets.
ACNOWLEDGEMENT

I first thank God for the strength he has given this far and for the good health he has blessed me with. Secondly, I want to extend my special gratitude to my supervisor, Dr. Amos Njuguna, for the great partnership we made. Sir, your encouragement, guidance and patience in reading, correcting and refining this work are greatly appreciated.
DEDICATION

To my loving family who have given me a reason to go all the way. Your compassionate and encouraging has played a major role to my completion of this study. Thank you for your understanding and the sacrifice you made to allow me to continue to the end and may God bless all of you.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>STUDY DECLARATION</td>
<td>ii</td>
</tr>
<tr>
<td>COPYRIGHT</td>
<td>iii</td>
</tr>
<tr>
<td>ABSTRACT</td>
<td>iv</td>
</tr>
<tr>
<td>ACKNOWLEDGEMENT</td>
<td>vi</td>
</tr>
<tr>
<td>DEDICATION</td>
<td>vii</td>
</tr>
<tr>
<td>TABLE OF CONTENTS</td>
<td>viii</td>
</tr>
<tr>
<td>LIST OF TABLES</td>
<td>x</td>
</tr>
<tr>
<td>LIST OF FIGURES</td>
<td>xii</td>
</tr>
<tr>
<td>LIST OF ACRONYMS</td>
<td>xiii</td>
</tr>
<tr>
<td>CHAPTER ONE</td>
<td>1</td>
</tr>
<tr>
<td>1.0 INTRODUCTION</td>
<td>1</td>
</tr>
<tr>
<td>1.1 Background of the Study</td>
<td>1</td>
</tr>
<tr>
<td>1.2 Statement of the Problem</td>
<td>4</td>
</tr>
<tr>
<td>1.3 Purpose of the Study</td>
<td>5</td>
</tr>
<tr>
<td>1.4 Research Questions</td>
<td>5</td>
</tr>
<tr>
<td>1.5 Significance of the Study</td>
<td>6</td>
</tr>
<tr>
<td>1.6 Scope of the Study</td>
<td>7</td>
</tr>
<tr>
<td>1.7 Definition of Terms</td>
<td>7</td>
</tr>
<tr>
<td>1.8 Chapter Summary</td>
<td>8</td>
</tr>
<tr>
<td>CHAPTER TWO</td>
<td>9</td>
</tr>
<tr>
<td>2.0 LITERATURE REVIEW</td>
<td>9</td>
</tr>
<tr>
<td>2.1 Introduction</td>
<td>9</td>
</tr>
<tr>
<td>2.2 Relationship between Liquidity and Financial Performance</td>
<td>9</td>
</tr>
<tr>
<td>2.3 Relationship between Capital Adequacy and Financial Performance</td>
<td>13</td>
</tr>
<tr>
<td>2.4 Relationship between Non-Performing Loans and Financial Performance</td>
<td>18</td>
</tr>
<tr>
<td>2.5 Chapter Summary</td>
<td>24</td>
</tr>
<tr>
<td>CHAPTER 3</td>
<td>25</td>
</tr>
<tr>
<td>3.0 RESEARCH METHODOLOGY</td>
<td>25</td>
</tr>
<tr>
<td>3.1 Introduction</td>
<td>25</td>
</tr>
<tr>
<td>3.2 Research Design</td>
<td>25</td>
</tr>
</tbody>
</table>
3.3 Population and Sampling Design .................................................................25
3.4 Data Collection Methods ...........................................................................26
3.5 Data Analysis Methods ..............................................................................26
3.6 Chapter Summary .......................................................................................27

CHAPTER 4 ........................................................................................................28

4.0 RESULTS AND FINDINGS ..........................................................................28
4.1 Introduction ..................................................................................................28
4.2 General Information ....................................................................................28
4.3 Effect of Liquidity on Financial Performance ..............................................34
4.4 Effect of Capital Adequacy Ratio on Financial Performance .......................38
4.5 Effect of Non-Preforming Loans on Financial Performance .........................43
4.6 Effect of Liquidity, NPLs and Capital Adequacy on Financial Performance ...49
4.7 Chapter Summary .......................................................................................50

CHAPTER 5 ........................................................................................................52

5.0 DISCUSSION, CONCLUSION AND RECOMMENDATIONS .......................52
5.1 Introduction ..................................................................................................52
5.2 Summary of the Results .............................................................................52
5.3 Discussion ....................................................................................................53
5.4 Conclusions ................................................................................................58
5.5 Recommendations ......................................................................................59

REFERENCES ..................................................................................................62

APPENDICES .................................................................................................67
APPENDIX I: CHECK LIST .............................................................................67
LIST OF TABLES

Table 4. 1: Mean and Std Deviation for ROE, ROA, CIR, NPL, CAR and LID ................33
Table 4. 2: Liquidity and Financial Performance Correlations Coefficients ...............34
Table 4. 3: Liquidity and ROE Regression Coefficients ........................................35
Table 4. 4: Liquidity and ROE ANOVA .................................................................35
Table 4. 5: Liquidity and ROE Model Summary ......................................................36
Table 4. 6: Liquidity and ROA Regression Coefficients ..........................................36
Table 4. 7: Liquidity and ROA ANOVA .................................................................37
Table 4. 8: Liquidity and ROA Model Summary ......................................................37
Table 4. 9: Liquidity and Cost Income Ratio Regression Coefficients ......................37
Table 4. 10: Liquidity and Cost Income Ratio ANOVA .........................................38
Table 4. 11: Liquidity and Cost Income Ratio Model Summary ..............................38
Table 4. 12: Capital Adequacy Ratio and Financial Performance Correlation Coefficients ....39
Table 4. 13: Capital Adequacy Ratio and ROE Regression Coefficients ..................40
Table 4. 14: Capital Adequacy Ratio and ROE ANOVA .........................................40
Table 4. 15: Capital Adequacy Ratio and ROE Model Summary ..............................41
Table 4. 16: Capital Adequacy and ROA Regression Coefficients ............................41
Table 4. 17: Capital Adequacy and ROA ANOVA ....................................................42
Table 4. 18: Capital Adequacy and ROA Model Summary .......................................42
Table 4. 19: Capital Adequacy on Cost Income Ratio Regression Coefficient ............42
Table 4. 20: Capital Adequacy on Cost Income Ratio ANOVA ................................43
Table 4. 21: Capital Adequacy on Cost Income Ratio Model Summary ....................43
Table 4. 22: Non-Prefoming Loans and Financial Performance Correlations Coefficients ....44
Table 4. 23: Non-Prefoming Loans and ROE Regression Coefficients .....................45
Table 4. 24: Non-Prefoming Loans and ROE ANOVA .............................................45
Table 4. 25: Non-Performing Loans and ROE Model Summary ........................................46
Table 4. 26: Non-Performing and ROA Regression Coefficients ......................................46
Table 4. 27: Non-Performing and ROA ANOVA .................................................................47
Table 4. 28: Non-Performing and ROA Model Summary ..................................................47
Table 4. 29: Non-Performing Loans and Cost Income Ratio Regression Coefficients ..........47
Table 4. 30: Non-Performing Loans and Cost Income Ratio ANOVA ..............................48
Table 4. 31 Non-Performing Loans and Cost Income Ratio Model Summary ....................48
Table 4. 34: Regression Coefficients for Independent Variables and Financial Performance ....49
Table 4. 33: ANOVA for Independent Variables and Financial Performance .......................50
Table 4. 32: Model Summary for Independent Variables and Financial Performance ..........50
LIST OF FIGURES

Figure 4. 1: Return on Assets .................................................................28
Figure 4. 2: Return on Equity .................................................................29
Figure 4. 3: Cost Income Ratio ...............................................................30
Figure 4. 4: Liquidity ............................................................................31
Figure 4. 5: Capital Adequacy Ratio ......................................................32
Figure 4. 6: Non-Performing Loans .......................................................33
# LIST OF ACRONYMS

**BCBS:** Basel Committee on Banking Supervision  
**BIS:** Bank of International Settlement  
**CBK:** Central Bank of Kenya  
**CPG:** Credit Policies Guidelines  
**HBZ-K:** Habib Bank AG Zurich Kenya  
**KCPA:** Kenya Credit Providers Association  
**LCR:** Liquidity Coverage Ratio  
**MFIs:** Microfinance Institutions  
**NBFI:** Non-Bank Financial Institution  
**NPI:** Non-Performing Loans  
**NPLS:** Non-Performing Loans  
**NRP:** Nepal Rastra Bank  
**PBT:** Profit Before Tax  
**ROA:** Return on Assets  
**ROE:** Return on Equity  
**SACCOs:** Savings and Credit Co-operative  
**US:** United States
CHAPTER ONE
1.0 INTRODUCTION

1.1 Background of the Study

Commercial banks play a central role in commercial-based lending. In many global nations, banking activities are routinely performed by banks via the provision of debts to their clientele (Gande, 2008). The process of credit creation is run in a smooth manner during the transfer of funds from those who save to the potential borrowers. There are a number of risks that affect commercial institutions; credit risks, liquidity risk and interest rate risk; however, the most prevalent is credit risk which implies the inability of the bank's counterparties to meet their obligations and collateral not securing the bank's receivables and includes settlement risks as well as country risks, settlement risks relates to the process of settlement and clearing, while the country risk of credit connected with a country’s overseas receivables (Jimenez & Saurina, 2006).

Credit risk entails a loan that a bank grants in a way that; it may or may not be refunded in full or partial manner, and that the loan is at a risk of being returned. The management of credit risk is an integral role in banks because its aids in loans processing. It helps in maximizing risks of bank, accustomed rate of risk returns via the maintenance of exposure of risks of credit with the intention of shielding institutions from the unfavorable effects of risks associated with credit (Allen & Gale, 2004).

Since 2001 to 2011, Poudel (2012) evaluated the tribulations brought about by the credit risk management on the basis of financial performance of banks in Nepal. From the study, financial performance of a bank is solely dependent to its management on credit risk. Gudara et al. (2010) also conducted a study that focused on banks performance, risks and capital buffer during business cycles and banking regulation in Canada. The study indicated that, banks in Canada were well insulated against the worldwide financial crisis because they were highly capitalized.

By use of regression analysis, Kolapo, Ayeni and Oke (2012), used the panel data that was collected between 2000 and 2010, and concluded that, the consequence of credit risk to the performance of banks as presented by the ROA (Return on Asset) was invariant. They also concluded that the performance of banks cannot be pegged on the managerial type and pattern of
an individual institution. Furthermore, Hosna, Manzura and Juanjuan (2009) put emphasis on the credit risk management of the level of profitability of the bank. They also noted that, high capital investment translates into increased banks’ profitability.

In this study, Muhammed, Shahid, Munir and Ahad (2012) used regression and correlation techniques to investigate whether performance in Nigeria’s banks was affected by credit risks. Their results show that the management of credit risk has a big impact on the Nigeria’s bank profitability. While investigating the relationship between the profitability and credit risk in Ghanaian banks, Boahene, Dasah and Agyei (2012) used regression technique to analyze their data. Between 2004 and 2008, Kargi (2011) carried out an investigative study on Nigeria banks, regarding the relationship between credit risk and their profitability. The results of the study indicate that the determinants of a bank’s asset quality are loans, non-performing loans and advances.

In the current world, financial and operating ratio are mostly used to verify the performance and condition of a firm. Financial institutions' Modern early warning models became popular when Sinkey (1975) made use of discriminant analysis in distinguishing and identifying problems that banks were facing. To forecast the financial deterioration of banks, various procedures and measures have been put in place to recognize when banks are about to experience financial distress. These measures, though changing from one country-to-another, are planned to produce financial soundness ratings. The most common ratings include CAMEL (Capital Adequacy, Asset Quality, Management Quality, Earnings and Liquidity) rating system (CBK, 2010). The CAMEL rating system is employed to assess the soundness of commercial banks in Kenya.

Fredrick (2010) illustrated that, Kenyan banks’ performances are highly dependent to the management of credit risks, while Jackson (2011), collaborated with Fredrick (2010) findings, used profit on Equity as an alternative and CAMEL indicators as free variables for banks’ performance. Jackson’s findings also concurred with Fredrick’s that CAMEL form can be utilized as an alternative for credit risks’ management. Musyoki and Kadubo (2011) illustrated that, management of credit risk is a vital determinant for better bank’s performance to be achieved. All these studies concurrently concluded that, success of a bank is dependent on how it manages its credit risk.
Various studies have looked at CAMEL ratings efficacy and they generally concluded that data that is available publicly combined with CAMEL ratings regulatory can pinpoint the problem of commercial banks. Uzhegova (2010) made use of a CAMEL model in examining factors that affect the profitability of banks. Their study revealed that all the CAMEL indicators had a significant influence on the profitability of commercial banks. In addition, a study conducted by Ongore and Kusa (2013) on financial performance determinants in commercial banks, established that the most important determinants were capital adequacy, liquidity ratio and nonperforming loans.

Commercial banks in Kenya play a significant role as financial institutions when serving their clients in order to achieve its targets. According to Central Bank of Kenya (2013), the gross loans in 2013 was 1,578.8 billion. The report indicated that the increase in the gross loans led to a reduction in banks liquidity ratio, which reduced from 41.9 percent in 2012 to 38.6 percent in 2013. However, the was an increase in the ratio of non-performing loans to total loans from 4.7 percent in 2012 to 5.2 percent in 2013.

Non-formal lending institutions also disbursed a significant portion of the loans in the market. These Non-formal institutions included SACCOs (credit unions), which lent over US$2 billion as loans, and MFIs (micro financial institutions), which administered slightly above US$300 million (KCPA, 2013). The Kenyan banking and financing sector acts as a link where, other sectors such as the manufacturing and agricultural also depend on the financing and banking sector for their expansion and development. Further, the results indicate that operational resources can be redirected to new and high-value activities that could lead to development of organization.

According to CBK (2014) banks in have been constructing a buffer capital in relation to the prudential requirements of the CBK’s, and on the other hand, CBK has been conducting activities of stress-evaluation in order make sure that they are progressing suitably in the estimated 18-months construction window. Barclays, Co-operative Banks as well as Equity banks have already accustomed their ratios prior to processes; their processes of adopting new methods of accounting have resulted in drop. By the year 2014 December; the Kenyan Banking
system consisted of 43 commercial banks, 48 foreign exchange bureaus, 2 Non-bank financial institutions (NBFIs) and 4 building societies (CBK, 2014).

Habib Bank AG Zurich Kenya (HBZ-K) started its operations in the mid-1978. Today, HBZ-K operates four branches, out of these; three are located in Nairobi and one in Mombasa. HBZ-K offers services via its matchless capacity to present all these products that are to be provided by an established institution, yet give and remain focused to its clients needs. These expectations are designed and optimized for individual clients; individual owned and operated businesses, corporate and SMEs through, the efficient delivery channels and banks’ international network. Like other commercial banks, Habib Bank AG Zurich adopts credit risk management policies which are determined by; ownership, credit policies, credit scoring systems, banks regulatory environment and the caliber of management of the Banks. This study seeks to investigate the effect of liquidity, capital adequacy and non performing loans on the financial performance of Habib Bank AG Zurich.

1.2 Statement of the Problem

As the numbers of challenges emanating from hard economic growth continue to rise, financial institutions as well as the banking sector are exposed consequently to risks that are as well increasing. As Benedikt, Ian, Judit and Wolf (2007) suggest, distinct stakeholders, including the management of banks who offer credit services to customers have become concerned about the elevating magnitude on loans termed as non-performing. There has been an increasing importance of credit risk management in both banks and other financial institutions in the recent years. The increased importance is not based on the fact that the financial industry is in crises, but also because the management is a fundamental concept of determining the survival of a bank, its profitability as well as its overall growth.

Financial institutions in the banking sector often suffer from lending practices that are poor. Appropriate steps which include assessment and evaluation are crucial in controlling and mitigating risks associated with lending that is connected, especially when it is going to individuals or companies. Benedikt et al. (2007) study that focused on policies of credit management applied by ten banks operating in the United States found out that credit management methods are helpful in the achievement of targets at a loan’s level. These findings
confirmed the wide-ranging attractive implications of the utilization of risk management techniques.

Despite the growth in the Kenyan banking sector, the sector still faces many challenges with respect to the management of risks that banks are exposed to. Commercial banks in Kenya are forced to adjust their credit policy in line with other banks in the market so as to remain competitive. There are other studies that have been done focusing on credit risk management and financial performance in Kenya. For instance, Jackson (2011) and Musyoki and Kadubo (2011) did studies on the effect of credit risk management on the financial performance in Kenya. However, these studies did not outline how CAMEL indicators influence financial performance of commercial banks. In addition, Okoth and Gemechu (2013) conducted a study in commercial banks in Kenya on the determinants of their performance and established that the key determinants were capital adequacy, management efficiency, asset quality and liquidity management. In a study on the influence of credit risk management on commercial banks performance, Aduda and Gitonga (2011) established that credit risk management had a significant effect of profitability measured in terms of ROE and ROA. It was in this light that the current study sought to close the existing gap by carrying out a study on the effect of 3 components of CAMEL model (Liquidity, capital adequacy ratios and non-performing loans) on the financial performance of commercial banks in Kenya where the focus was on Habib Bank AG Zurich, Kenya.

1.3 Purpose of the Study
The purpose of this study was to evaluate the effect of 3 components of the CAMEL model on the financial performance of Habib Bank AG Zurich, Kenya.

1.4 Research Questions
The following research questions were used for this study:

1.4.1 What is the relationship between Liquidity and the financial performance of HBZ in Kenya?

1.4.2 What is the relationship between the capital adequacy ratios and the financial performance of HBZ in Kenya?
1.4.3 What is the relationship between non-performing loans (NPLs) and the financial performance of HBZ in Kenya?

1.5 Significance of the study
The benefits that would arise from this study are as follows;

1.5.1 Financial Institutions
To financial institutions in Kenya, the study provides information on how credit risk management measures influence profitability. Financial institutions can use this information to improve profitability by manipulating the measures of credit risk management that include the CAMEL indicators.

1.5.2 Investors
To investors in Kenya, the study provides information on the measures of credit risk management that can help them forecast the profitability of financial institutions in the future by looking at their trend. In the study provides information on Liquidity and capital adequacy ratios and how they influence profitability of financial institutions. This information helps them to decide when to increase capital and liquidity.

1.5.3 Managers of HBZ
The would be of great importance to managers in HBZ in Kenya as it would help them to clearly understand more on effect of credit risk management measures on the financial performance of the bank. They would have the advantage of applying the recommendations made on the study and engage the relevant stakeholder to determine how to avoid credit risks in a bid to maximize returns.

1.5.4 Regulatory Bodies and the Government
The study would also have great benefit to the government and regulatory bodies. It would help the regulators to understand the scope to credit risk management and how to strengthen the capital adequacy requirement in the financial industry in terms of policies such as stress testing provisions to determine the adequacy of the risk capital provided for by the regulator.
1.5.5 Researchers and Academicians

These research findings would help in addressing the existing knowledge gap in literature of credit risk management and capital adequacy affecting financial performance in Kenya. It would also be a valuable addition to the existing knowledge and provide a platform for further research which would be useful to academicians and scholars.

1.6 Scope of the Study

This study was focused exclusively on the Habib Bank AG Zurich particularly on the Head Office of the Bank positioned in Nairobi. This involved collecting information from the Bank’s records on the effect of credit risk management and capital adequacy on the financial performance of Habib Bank AG Zurich. This was relevant in collecting the data required as finances and distances are the limiting factors that inhibit collecting the data from all the commercial banks across the country. This study was conducted from June 2014 to November 2014 and exclusively used secondary data.

1.7 Definition of Terms

1.7.1 Capital adequacy

Capital adequacy is a financial institution's major capital in relation to its assets fraction ratio (loans and investments), it is also used to measure the financial institution’s financial strength and stability (Kargi, 2011).

1.7.2 Credit Risk Management

The management of Credit risk is the procedures that integrate recognition of risk, developing a strategy to manage it, risk assessment, and improvement of risk through use of managerial assets (Cuthberston & Nitzsche, 2003).

1.7.3 Credit Risk

Credit risk is the possibility of loss which may occur as a result of non-payments by the debtor’s or other lines of credit (either the interest (coupon) or/and the principal) (Kolapo et al., 2012).
1.7.4 Nonperforming loans

This is the amount of borrowed money that the debtor has failed to pay the scheduled payments for about 90 days (Gande, 2008).

1.7.5 Financial Performance

Financial performance is the firm’s operational strength with regard to its expenditure and revenue as indicated by its financial statements (Poudel, 2012).

1.7.6 Risk Management

This is the continuous identification process, analysis, evaluation and the treatment of losses exposure and risk monitoring, control as well as the utilization of financial resources in mitigating unfavorable outcomes of losses or uncertainties in decision-making and investment (Das & Ghosh, 2007).

1.7.7 Risk

Kolapo et al., (2012) define risk in the banking context as an occurrence of an uncertainty that is connected with a particular event.

1.8 Chapter Summary

This chapter forms the study’s introduction. It presents the study’s background, problem statement, study’s purpose, research questions, study’s significance, study’s scope and definition of terms. Chapter two contains literature review with regard to research questions. Chapter three consists of the study’s methodology, followed by findings and results in chapter four whereas chapter five concludes with the study’s summary of the findings, conclusion, discussion and recommendations.
CHAPTER TWO
2.0 LITERATURE REVIEW

2.1 Introduction
Literature review serves the purpose of determining what research has already been conducted with regard to the research problem under study. It is reviewed using the independent variables identified in the study’s research questions. On this study, it is split into the following subheadings: correlation or relationship between Liquidity and the profitability; relationship between the capital adequacy ratios and the profitability and the relationship between non-performing loans (NPLs) and the profitability.

2.2 Relationship between Liquidity and Financial Performance
2.2.1 Insolvency
Banks are insolvent in theoretical terms either (a), at a state of low liquidity in such a way that that it is not in a position to settle all debts in terms of cash flow that is negative, it is not easy to meet cash flow problems, or (b) if the value of an organization’s market-based liabilities exceed the value of assets, which are reduced by bankruptcy costs (Kargi, 2011).

Due to the losses and gains on intangible assets that are not usually shown on the books of a bank, insolvency determination is a complex process. Not on the odd occasion, regulators are reported to commonly delay procedures for bankruptcy further than how insolvency economically occurs. In the process of avoiding liquidation costs, regulating agencies usually close only those banks that are reluctant. In the beginning, financial institutions that are solvent can have a strong drive towards termination because of liquidity that is short time by management. Indicators should cover funding sources and capture large maturity mismatches. Liquidity is the degree to which debts obligations coming due in the next 12 months can be paid in cash or assets that will be turned into cash (Muhammed, Shahid, Munir & Ahad, 2012).

The mismatching and controlled mismatching for that matter, of the interest rate and maturities of liabilities and assets is central to commercial banks management. It is rare for microfinance to be wholly matched since transacted business is more often than not of different types and uncertain term. An unmatched position potential improves profitability but also increases the risk of losses. The management of risks authorizes that; provided the liquidity demand from
shareholders and debtors do not have a high correlation, intermediaries need to act by pooling the two categories of clientele collectively as a way of conserving the need of holding liquid assets that are costly in order to enable buffering in opposition to deposit that is not expected and withdrawals, as well as take downs on loans (Figelman, 2008).

Liquidity risk management is entering a new and much more demanding era. The Basel Committee on Banking Supervision and the International Institute of Finance has set up far above the ground hurdles in relation to institutional values and recommendations. The United Kingdom’s FSA (Financial Services Authority), in the meantime, are going to publish their proposals to reinvigorate their regulations for liquidity-based risk (Ramadan et al., 2011). The advent of nonbank competition and the rise of third-party funding mean that community banks now operate in a dynamic funding market, which requires the use of more sophisticated liquidity risk management practices. Industry experts point to many different underlying causes for the demise of growth in deposits, such as the increased financial sophistication of the public, demographic shifts, the rise of nonbank competitors offering a whole wave of alternative investment products, new delivery systems such as the Internet, and competition from credit unions and insurance companies (Goddard et al., 2008).

2.2.2 Debt Mix Structure

Effective debt mix structure can only be achieve by the knowledgeable team in the treasury department of the organization whom will develop a well-managed debt mix structure that can sustain the liquidity of the organizations into unforeseeable future (Ferrari, Jaffrin & Shrestha, 2007). Through an effective debt management, the organization credit rating will be tested that allows the organization to weigh themselves in the industry as to their credit worthiness and its potential to attract new debt into the firms overall capital structure. Credit rating is an emerging issue in Kenya and it has open a new way of how firms and individuals can authenticate their credit worthiness to the financial institutions which are offering loans. The credit worthiness is the ability to absorb additional debt and at same time pay back what has been lend to the organizations without fail (Tchankova, 2002).

The dynamic risk management involved in effective debt mix strategies calls for high understanding of its benefits and utilization of finance borrowed with a vision to get a return that
will consolidate both principal and interest charged. The credit policies of firms can have an element of leniency or stringency. Where policies are lenient, firms lend in a liberal manner to an extent of giving credit to people with a questionable credit worthiness character. This results in high amounts being borrowed, and in turn, high profit levels are acquired, in an assumption that debts owed are fully collected by the bank (Bessis, 2003). On the other hand, Lenders can sometimes refuse to offer loans even if borrowers have the willingness to reimburse a higher rate of interest, or, sometimes they offer loans with restrictions by giving a smaller size of loans as opposed to the requirements of borrowers. The basic argument puts it that; credit needs to be offered in accordance to the capability of repayment, especially on the basis of current performance. Benedikta et al. (2007) conducted a study on the management of credit policies in ten major banks of the United States and observed that risk management advances determine the potential of permanency for the achievement of loan target.

2.2.3 Diversification of Variable Rate of Debts

Financial market offers variable rates of debts which are taken up depending on the corporate evaluation understanding of its financial needs. The markets offers fixed rates and variable rates that fluctuates with the net income of firm and its important for the firms to choose wisely and diversify as much as possible to reduce the risk of obtaining debt from the market that does not choke the firm’s financial obligations (Barth, Caprio & Levine, 2004). Although it’s understood that the firms get the advantage of tax shield which reduces the tax effect since interest charged in the firms profit and loss statement is an allowable expenses. It’s also to the management to know which rate will offer a maximum benefit to the firm’s cash flow setting clear financial goals and strategies to deal with benefits which are expected to accrue from debt diversification.

Issuing variable rate of debt is sophisticated strategy. In optimal condition, firms are likely to experience lower costs of borrowing, or decrease the outcome of investment that is volatile in terms of via the issue of securities at a variable rate, though, their uses exposes firms to many additional risks. But despite of the risks in it, it still offers the borrowers with the opportunity to finance the projects for which repayment of restructuring has got a high probability (Kwan & Eisenbeis, 2005). Nowadays firms use a diversified portfolio that takes into account the firm’s attitude towards financial uncertainty and firm’s willingness to trade-off risk and return. There is no one-size-fits-all-solution. That type of comprehensive and holistic thinking is what the
researcher intend to explore in this variable by closely building base examination on indicators that includes Balance Sheet Risk Mitigation, Interest rate risks, Remarketing Risks, Liquidity /Renewal Risks and Rollover Risks. All these indicators are expected to provide a window of satisfying the study reflection and answer the research question (Athanasoglou, Brissimis & Delis, 2005).

A study carried out by Bobakova (2003) US concluded that the management of risks associated with credit constitutes a suitable practice for banks, and that above ninety percent state owned banks in a country have been adopting paramount practices. Credit policies that are inadequate still remain the most important sources of solemn predicaments in the industry of banking. This results in an effective management of risks, which has attained a focus that is increased in the last decades. The most important responsibility of the management of credit risk via the application of a suitable policy is meant to maximize the risk of a bank with an adjusted return rate via the maintenance of exposure to credit within limits that are acceptable. Furthermore, financial institutions are needed to have skills for managing risks of credit in a complete collection and risk in credits transactions to individuals. Banks that are private display more seriousness in the implementation of successful strategies for the management of risks associated with credit. Party transactions that are as well related need to be evaluated by a board of directors under due processes of good governance (Kithinji, 2010).

### 2.2.4 Liquidity Coverage Ratio

On the word of Vinals Fiechter, Pazarbasioglu, Kodres, Narain and Moretti, 2010), the essence of the requirement for liquid assets lies on the foundation that pressures faced by banks are in line with customer deposits’ deposits. For banks which mobilize wholesale funds, a liquid asset requirement based on retail deposits provides inadequate protection against liquidity pressures. Many bank regulations already include a statutory liquid asset requirement. The Liquidity Coverage Ratio (LCR) is extremely wide-ranging and complicated because it needs to hold on to adequate elevated liquid assets that are of great quality so that it covers all potential liquidity pressures sources over a period of 30 days, under conditions of stress, including partially withdrawing deposits, unsecured loss of funding in wholesale terms in addition to calls on credit facilities that are committed. Banks are expected to have a lot more assets in liquid for covering liabilities for wholesale that mature in thirty days as opposed to deposits done in retail. This is
because liabilities done in wholesale have less stability compared to deposits of retail (Siraj & Pillai, 2011).

The rating of the firms will have either positive or negative impact on their borrowing power hence creating firm’s ability to remain liquid or illiquid. The rejection of any financial request of an institution is bound to have a great impact on the cash flow of an organization hence causing a negative opinion against the firms’ financial capability in honoring its financial obligation as and when they become due (Said, 2012). Debt Leverage is the extent of which a firm is funded by debt and it’s measured by the ratio of debt to equity. Debt is considered to be an external source of funding to the firm and the cost of its application must well defined in order not to distort the financial arrangement of an organization either in short or long term basis. An effective debt mix strategies must take into account this aspect of cost of capital in evaluating an effect debt option to be used in capitalization of company financial needs. Banks are mandated to ensure that they have prepared CPG (Credit Policies Guidelines) to make lending and investment decisions, all which reflect a bank’s tolerance rate for risk of credit (Saad & El-Moussawi, 2009).

2.3 Relationship between Capital Adequacy and Financial Performance
2.3.1 Credit Exposures

Capital adequacy is the determination of the minimum capital amount required to satisfy a specified economic capital constraint (Kashyap et al., 2002). Capital is considered to be sufficient if it has the ability to decrease future insolvency risks to a level at which they can be predetermined, or if the bank’s paid premium to insurers is fair, in that, it is capable of covering losses that are expected for the insurer. This is in terms of, considering the capital and risk of an institution in regard to the time of the determination of the insolvency in addition to the kind of losses that would be paid. In the long run it determines how financial institutions can cope well with the shocks to their statements of financial position. Thus it’s useful to track capital adequacy ratios that take financial risks, foreign exchange credit and interest rate risks, by assigning risks ratios established by the Bank of International Settlement (BIS) (Gudmundsdsoa, Ngoka-Kisingul & Odongo, 2013).

Capital adequacy is measured in commercial banks in relation to the relative risk weight whose assignment is on a dissimilar assets category which is held on along with off in controlling the
incentives, taking on excessive as well as for the absorption of reasonable amounts of losses. Exposure to credit occurs at the time of bank’s activity of lending money to a willing borrower or buying financial-based assets like commercial bills which any company or a bank would issue. Also, a company may have another form of agreement with other parties in regard to paying money to a bank, an act that is listed under the contract for foreign exchange. The risks intrinsic in an exposure of credit are mainly influenced by a company’s financial potency of party who owes cash to a bank (Greuning & Sonja, 2003). Early recognition of weaknesses in the credit portfolio is important and allows alternative action and for an effective determination of loan loss potential. The bank has adopted the rating and classification of accounts enumerated in the Prudential Guidelines “CBK/PG/04 issued by the Central Bank of Kenya.

Granting extensions, deferrals, renewals and additional credits to existing accounts must be ratified in accordance with the approval relative risk weight levels. At a minimum it must have approval levels and reporting requirements in respect of the above. The follow-up procedure for all loans and the various reports to be submitted both to management and board of directors are enumerated in the credit manual (Fredrick, 2010). High levels of credit show that there is a high likelihood of the debts to be repaid to the lending bank, or, if it is not paid, the bank would demand or force individuals to pay their loans. Risk of credit is as well influenced by factors in the market, which have a consequence on assets cash flow or value, which in most cases are given to the bank as a loan’s collateral. For instance, when a financial institution lends money to an individual, and takes a house mortgage to stand in as the security of the loan, the market in which the property is located influences on whether the bank is in a position to recover its money from the borrower. Even for those loans that are unsecured or contracts, factors in the market have a great influence on the ability of a debtor to repay money to the lending bank has a great influence on the bank’s credit risk (Agenor & Pereira, 2010).

Kuo and Enders (2004) conducted a study on the management credit risk policies for banks operating in the state of China and established that on rapidly increasing a financial marketplace; the money-making banks that are state owned in China face the extraordinary challenges, which are harsh, and in turn, are unable to continue competing with other overseas banks, lest they come up with changes that are better.
In this considerate transformation, the management credit risks reformation becomes the most significant for the determination of whether the commercial banks that are owned by the state of China have the potential to continue to exist in the midst of the challenges. However, research highlights some policies for the management of credit risk in place. The expansive structures as well as comprehensive credit risk guidance for assessment as well as the management have been provided in the ‘Basel New Capital Accord,’ currently extensively followed in the international realms (Campbell, 2007). A large number of countries have been on their way to implement the ‘better wait’ as well as approaches that are gradual amidst enormous challenges caused by the ‘Basel II’. Noteworthy numbers of nations have developed willingness for suspending the implementation of the Basel II, or rather; make a decision concerning uncomplicated approaches for the determination of credit risks (Kuo & Enders, 2004).

2.3.2 Moral Hazard Incentives

Fredrick (2010) observed that capital requirement can reduce the less moral hazard incentives by forcing investors to end up absorbing a great fraction of the foreseen losses, in so doing; it cuts down on the deposit insurance value that is placed in option. Gudmundssoa et al. (2013) argues this to develop new way to evade the intended consequences because supervision alone cannot prevent microfinance institutions from gaining and manipulation of risk weights based on internal ratings. Consequently, these institutions typically operate with a credit risk management that is poor and incompetent their financial position and performance are affected. Banks have the option of also using credit committee in their loans approval. Credit committee is the body of individuals charged with responsibility of making decision in relation to loans; this committee is essential control in cutting down on credit risk and enhancing loan recovery.

Decision granting loan will have been arrived at after an analysis has been carried out by the committee of more than one person thus reducing the risk of one person abusing the authority granted to him by granting loans to friends and relatives easily as this would result to poor loan recovery and hence poor financial performance (Kashyap et al., 2002). The policy of lending to be utilized is required to have a link with the bank’s wholesome approach, and factors for consideration in the designing of an ample lending strategy needs to include; the credit policy in existence, norms of the industry, the country’s general economic situation as well as the economic climate that is prevailing. Saad and El-Moussawi (2009) state that a credit policy that
is prevailing helps in improving oversight that is prudential in relation to the quality of asset, establishing minimum set standards, in addition to the application of a universal language and procedure (risk assessment, documentation, pricing, authorization, securities as well as ethics), for measuring and reporting the position of assets that are non-performing, loans categorization and the provisioning processes.

The applied policy on credit needs to frame the philosophy of a bank’s lending as well as the definite measures, in addition to how monitoring should be done in regard to the activity of lending. A policy for Credit control refers to a universal principle that governs the process by which credit is given to the customers of a bank (Said, 2012). A policy spells out the regulations concerning people that are supposed to have access to credit, why and when to obtain credit, including the arrangements for repayment as well as the required collaterals for the loan. The assessment method risk and evaluation of risk for all prospective applicants are done as part policies for controlling credit. An institution’s board and the management have to institute procedures and policies for ensuring that their bank possesses a finely standard process of granting credit, an efficient management strategy for portfolio, limits that are prudent, a credit review that is efficient as well as an appropriate categorization procedure for loans, in addition to a methodology that is appropriate to deal with exposure to problems (Siraj & Pillai, 2011). Since lending is the representation of banks’ central activities and also determines their level of profitability, the pricing of loan is termed as the central part of revenues along with expenditure.

2.3.3 Audit Function

The boards have to adopt the provisioning policy recommended by CBK in Prudential Guidelines. This is the minimum provision policy and senior management may make provisions in excess of this guidelines. Senior management should ensure that the provisions comply at a minimum to the International Accounting Standards, regulatory requirements and provisioning guidelines issued by the Central Bank of Kenya (Kithinji, 2010). Senior Management formulates credit rating system which will be documented in the credit manual. The measurement of the risk will take into account the nature of the credit, maturity; exposure profile; existence of collateral or guarantees and potential for default. The risk department will undertake an analysis of the whole economy or in particular sectors to ensure contingency plans are taken on higher than
expected levels of delinquencies and defaults. Credit administration is critical in ensuring the soundness of the credit portfolio.

Senior Management will set up a credit administration team to ensure that once a credit is granted it is properly maintained and administered. The role of the credit administration will include record keeping, preparation of the terms and conditions as well as verifying the perfection and safe custody of the securities. The functions will be detailed in the credit manual and job description. The main function of the risk manager will be to monitor, control and measure the credit risk. The risk Manager’s duty includes identification of possible events or future changes that could have a negative impact on the institution’s credit portfolio and the bank’s ability to withstand the changes. The areas to examine critically are: Economic or industry changes, Market – risk events and Liquidity conditions (Gande, 2008).

As credit is one of the high risk areas, internal audit will provide assurance to both the board and management that the policies, procedures and processes are adequate and are complied with. With the application of stringent credit policies, credit can only be restricted to customers who are carefully determined by the bank officials by the utilization of a system for credit appraisals. This is done to minimize costs in addition to bad debts related losses, but are likely to decrease returns of revenue from lent out loans, cash flow and profitability (Pokhrel, 2006).

2.3.4 Aversion of Risk

A widespread challenge for conducting the analysis of autonomy is distributed in a common question on how risk and its pricing can be distinguished as the compensation that investors demand for the bear of default risks that are sovereign. The prices of financial assets are driven by a combination of the fundamentals as well as the investors’ risk’s appetite (Benedikt et al., 2007).

Hence, we may consider the intensity of absolute risk as being determined by the country’s economic factors and the price tagged on that risk is dependent on the financiers’ general risk repulsion, but some issues may change over time. Poudel (2012) concurred with this statement and concluded that sovereign bonds are spreading much faster than they did previously. They argue that, this spread has been accelerated by global factors than domestic factors of an
individual country. Furthermore, risk appetite and market sentiment are also identified to be determinants of new bond spreads (Demirguc-Kunt & Detragiache, 2000).

Bobakova (2003) illustrated how a supposedly sound assessment of investors’ risk repugnance can be achieved by contrasting the return distributions implicit by option prices against return distributions that are estimated from the movements of the essential asset prices. Athanasoglou, Brissimis and Delis (2005) applied this model to index options in the stock markets and obtained monthly estimates of shareholders’ valuable risk appetite. They reported that these pointers of risk attitude exceed national confines in their impact on international monetary markets.

The systems of utility estimation compute the investors’ risk aversion and translate it into increased yield spreads. In a marketplace setting that is complete; any financial claims’ payoffs have a likelihood of being replicated via carrying out trading the securities that are underlying. Their price equals the value of the prevarication portfolios to which they are associated. However, environments of market that have dominant risks of credit, risks that run in association with customer’s defaults cannot be eliminated completely (Kwan & Eisenbeis, 2005). For example, if a firm’s default is caused by its value declining lower than a certain level; the ideal duplication for securities that are defaultable, and which have been issued by a firm require the firm's to trade the asset value. While the stock of firms can be traded, the value of assets is not, hence; the comprehensiveness assumption is broken down (Bessis, 2003). Buyers or sellers of firms’ defaulted collaterals take the path of risk that is un-hedgeable, which needs quantifications so that the security’s value shall increase.

2.4 Relationship between Non-Performing Loans and Financial Performance

In commercial-based lending, banking for commerce plays a central role (Das & Ghosh, 2007). The majority of the banks that are commercial in nature in various countries carry out investment and asset activities of banking via the by provision of fresh loans to their esteemed customers (Gande, 2008). The process of creating credit works in a smooth manner in the course of transferring funds from eventual savers to those that are borrowing them (Tchankova, 2002). However, commercial-based lending is affected by potential risk sources. The major risks include interest rate risk, market risks, liquidity risk, politically connected risks, credit risk and risks that relate to foreign exchange. However, the principal risk that banks and other financial
mediators face is the credit risk. Credit risk’s indicators include the existence of non-performing loans (bad loans), provision for losses of loans and loans foe problems (Jimenez & Saurina, 2006). Credit risk is termed as that which occurs when a bank grants a loan, and, is not either in full or in partial terms repaid to the bank (Campbell, 2007), as well as the existence of that risk which entails counterparty or customer’s defaults.

Prior to the deregulation of the financial sector, banks could easily grant credit to customers with a high profile in regard to creditworthiness. Financial deregulation provided a chance for meeting credit demands of various borrowers. By the nineteen eighty’s, the so-called period of advances in boom-time, there was reportedly great amounts of ‘bad credit,’ such that banks were forced to become over cautious in regard to the extension of credit. Processes of the management of risks associated with credit risk have the tendency of enforcing banks so that they can establish a novel process that can be used to approve newt credit and extend existing loans. The processes are integrated with particular monitory strategies, which are also coined with suitable steps for controlling and mitigating lending associated risks (Ferrari, Jaffrin & Shrestha, 2007).

The justification for studying organizations’ activities by focusing on risk management can be traced to Figelman (2008), who argued that the systems used in the in commercial institutions need to be evaluated in regard to the "purposeful viewpoint" as opposed the utilization of an "institutional viewpoint," because for over long durations of time functions, there has been much concern for the creation of institutions. Research on financial services has followed this functional approach by relating organizations' activities to the functions performed by them. Goddard, McKillop and Wilson (2008) suggested that; inter alia, the central function of a financial institution is its ability to distribute risk across different participants. According to Cipovová and Belás (2012), modern financial institutions are in the risk management business as they undertake the functions of beating and managing risks in place of their esteemed clientele via creating a pool of risks as well as selling services specialists in risks.

2.4.1 Return on Earnings

The continuous feasibility of commercial institutions is dependent on their ability for earning enough returns on capital and assets. The assessment of performance on earnings has its heavy reliance on comparing the key measures for profitability including returns on equity and asset
returns. This is crucial in industrial benchmarking and the formation of norms for peer groups. Most studies done on banks have emphasized on organizational profitability in relation to ROA and ROE. The profitability measure of institutional performance is widely acceptable to financial firms, bankers, company owners, creditors as well as the management. All these kind of people accept it because of their heightened interest of gaining knowledge the institution’s ability to earn more money than that the paid amounts in interest terms (Boahene et al., 2012). The ROI ratio is utilized in the determination of a bank’s profitability.

The management of credit risk has several key principles which include establishing a comprehensible arrangement, responsibility allocation as well as accountability. The procedures are given priority in a way that they occur in a disciplined manner disciplined manner, where the assignment of responsibilities is communicated clearly, and that accountability is assigned thereto (kolapo, Ayeni & Oke, 2012). Gudara, Lai and Soumare (2010) state that; the overwhelming bank concerns in relation to the management of risks are in two ways.

First the reactions of Newton against losses incurred by banks, enhances an understanding that when losses have occurred, the probability of being bearable. Additionally, recent advancements in the commercial financing field non-bank competitions as well as the secularization push banks to trace loan borrowers who are viable. As a result, may organizations have shifted to market sources that are open like the bond markets. The management and the organization of the function of lending is a manner that is exceedingly professional way and operating in a proactive way minimizes the degree of all assumed risks. Banks also have the ability to tap measuring techniques that are sophisticated in the approach the management of risks (Poudel, 2012).

2.4.2 Loan Portfolio

An institution incurs non-payment risks whenever it has granted credit to potential customers. The management of Credit entails the procedures, systems as well as controls that an institutions puts in place for ensuring that there exists an effective method for the collection of payments from customers so that non-payment can be minimized (Jackson, 2011). The management of risks associated with credit forms an integral part of the overall strategy for risk managemnt in a company. Many business failures are often associated with poor management of credit risks. The
majority of small enterprises, for instance, lack enough resources as well as adequate expertise for operating credit management systems that are sound (Musyoki & Kadubo, 2011).

Loan portfolio forms the principal source of risks that affect the financial institutions. Loan portfolio is ideally expected to be the bank's largest asset. Notably, most banks’ financing is not supported by bankable collateral, the quality of the loan portfolio is absolutely crucial (Khanal, 2007). Three accounting ratios are used to measure portfolio quality including: PAR (Portfolio at risk) which helps in measuring the segment of a loan portfolio that is contaminated by means of arrears because a proportion of the full amount of portfolio, where the desired level is less than 10 per cent; Risk coverage ratio which shows what proportion of the portfolio at risk is covered by actual loan losses where the rate could be as high as 90 per cent and Loans written off ratio which represents the amount of loans removed from the accounting books because of a substantial loss where a maximum of 4 per cent is envisaged (Campbell, 2007).

Profitability indicators are used to gauge the schemes’ net income in relation to the structure of its balance sheet. These indicators provide an indication of whether a bank is earning an adequate return on the funds invested on the institution. This performance indicator is also linked with portfolio quality and efficiency indicators. The capital of a banking institution is considerable in two most important ways. Narrowly, it is considered to be that amount which institution owners contribute (share capital that is paid-up), and which offers them rights for enjoying all the bank’s future earnings. More exhaustively, it is considered as that quantity of the funds of the owner that are available for supporting the business of a bank (Athanasoglou et al., 2005). The presently given definition is an inclusion of reserves, and can as well be termed as the entire funds of a shareholder (Bobáková, 2003).

Positive relationships between capital and returns is shown by Naceur (2003); Kwan and Eisenbeis (2005). Naceur and Goaied (2003) did a study to investigate on the existing determinants of the performance of banks in Tunisia between 1980 and 1995. The findings of the study showed that those banks struggling to have productivity on capital and labour improved as well as the ones who had the ability of reinforcing equity. Naceur (2003) has agreed that banks that are well-capitalized are faced with a less need for funding from an external sources so that bankruptcy as well as the costs of funding can be lowered, an advantage that is said to translate
to commendable profitability. Therefore, researchers widely posit that the more capital a financial institution has, the more resistant it will be to.

A poor portfolio leads to poor quality and inefficiency, for example, this is reflected in profitability. Profitability is measured using three ratios: Return on assets which provide an overall measure of profitability by assessing of net income to average total assets whereby the desired level is around 3.7 per cent for smaller banks in the developing countries (Fredrick, 2010). Financial self-sufficiency measures the total income as a ratio of adjusted operating expenses. The total expenditure is adjusted for inflation costs, market interest rates for donated capital and all in-kind subsidies and donations. Portfolio yield measures the total loan income to average net loan portfolio. The targeted level for this ratio is at least 10 per cent (Poudel, 2012).

2.4.3 Return on Asset

Financial institutions’ solvency is vulnerable to risks at the impairment of assets, hence; it becomes crucial that quality indicators related to assets’ quality be monitored in regard to how they might be overexposed to certain trendy risks in loans that are considered as non-performing in addition to the profitability and the health of the borrowers who need money from a bank. The risk of credit is dominant in the process of lending that forms the backbone of the banking businesses. It comes up when there is a default by a borrower on agreements made on the loan. Where a borrower defaults in a given financial institution their payment makes the institution face serious cash flow problems, which affects its liquidity position eventually (Gudara, Lai & Soumare, 2010).

Given the significance of the management of risks in an organization's functioning, the efficiency of an organization's, the management of risks is required to affect the financial productivity and performance significantly (kolapo et al. 2012). Kargi (2011) argues that risk management matters for financial performance of firms. According to Figelman (2008), risk management is an important function of financial institutions in creating value for shareholders and customers. The corporate finance literature has linked the importance of risk management with the shareholder value maximization hypothesis. This suggests that a firm will engage in risk management policies if it enhances shareholder value. Thus, the management of risks that is
efficient, either in firms which are termed as non-banking or in entities that carry out banking activities is seen as a way to improve a firm’s value as well as the wealth of shareholders.

Profit efficiency in commercial banks has a high sensitivity towards the risk of credit and risks of insolvency, however, is insensitive to the liquidity risk and loan products’ mix. Ramadan, Kilani and Kaddumi (2011) empirically on the effects of interest rate as well as how organizations in pre-crisis situations in Korea are exposed to exchange rates. The study reported that commercial banks in as well as the corporations for merchant banking had a significant exposure to risks associated with interest and exchange rate, and also that the resulting commercial banks’ was notably connected to the degree at which they were exposed to pre-crisis. There was also evidence that the case of Korea highlighted the essence of having an upgraded system for the management of risks as well as supervision so as to have financial liberalization precondition.

Returns on bank loans are usually larger than those on corporate bonds. This difference may be attributed to the typically high seniority of loans i.e. riskiness of loans with respect to that of bonds. Khan and Ahmed (2001) blamed the risk management structures implemented by some banks were to blame for credit defaults, primarily the lax procedures used in credit risk assessment.

Credit risk management should be at the centre of banks operations in order to maintain financial sustainability and reaching more clients. Banks are frequently challenged by poor practices of lending (Kargi, 2011). There is a necessity to have in place necessary steps that are meant for mitigating and controlling risks that are linked to finance lending to both individuals and institutions (kolapo, Ayeni & Oke, O2012). Therefore, the NRB (Nepal Rastra Bank) has come up with principles for guiding and governing how detailed procedures for lending are implemented in various banks. The NRB provides a framework consisting of criteria to be followed in lending, for instance, the assessment of borrowers (Firm specific analysis and macro-economic factors), credit’s purpose, track records, new credit’s collateral on liquidity status as well as the repayment capacity.

2.4.4 Deposit Liabilities

Empirical evidence from Naceur and Goaied (2001) indicate that the best performing financial institutions are those who manage to maintain high levels of accounts of deposit in relation to
their overall assets. When the ratio of total deposits is increased, the implication is that funds available to the institution are available so that a firm can benefit in diverse profitability such as lending and investing activities. In turn, this should increase the bank’s returns on assets ceteris paribus (Vinals et al, 2010).

Athanasoglou et al (2005) have suggested that risks associated with bank taking often cause obstinate effects on the profits of a bank as well as safety. Bobáková (2003) also asserts that a bank’s profitability is dependent on the ability of it to predict, monitor risks and avoid them as well, so that they possibly cover losses caused by arising risks. Hence; a bank is needed to consider the level to which its assets are exposed to risks in the making of decisions regarding resources’ allocation. From time to time, good workers may be hired, but their effort will eventually drop down to the preexisting level. At other times, workers who are lazier than existing employees may be hired, dragging down the performance of current workers. Since only hires that cause workers to shirk more have an impact, the equilibrium is for efficiency to fall over time and the profitability of the firm is adversely affected.

According to Siraj and Pillai (2011), organizations have long viewed the problem of risk management as the need to control risks which make up most, if not all, of their risk exposure to liquidity risk, credit risks, foreign exchange as well as interest rates. Although institutions have realized that there is an existence of counterparty in addition to legal risks, they have often considered them to be central and essential to their risk concerns to a minimal extent. Whenever a counterparty risk is considered significant, its evaluation is done using risk of credit procedures that are standard, and habitually within the department of credit. At the same time, most banking officers often consider legal risks to be arising from their decisions of credit or, to a greater extent like, failure to employ the proper procedure of financial contracting.

2.5 Summary of the chapter
This chapter has detailed the review of relevant literature covering the three main relevant issues of research. The study focused on the relationship between Liquidity and the financial performance; the relationship between the capital adequacy and the financial performance; and the relationship between non-performing loans (NPLs) and the financial performance. Chapter three presents the methodology that was used in the study.
CHAPTER 3
3.0 RESEARCH METHODOLOGY

3.1 Introduction
This chapter deals with the methodology that the researcher used while carrying out the study. This chapter describes the research design and the methodology that was used to fulfill the research aim and objectives. The Chapter discusses the research design, the population, sampling and sampling procedure, types of data, data collection and research instruments to be used in analyzing the data as well as the ethical considerations in the study.

3.2 Research Design
Research design is the method that is utilized in carrying out a research. Greener (2008) defines a research design as the scheme, outline or plan that is used to generate answers to research problems. Research design entails the understanding of situations for the collection and the analysis of collected data in such a way that it combines their relationship with research to the economy of procedures. An explanatory research design was used in this research study. According to Gupta (2012), an explanatory research design connects ideas in an effort to explain cause and effect.

The study also used a case study design. In this case, the study only focused on Habib Bank AG Zurich Kenya. According to Kothari (2004), a case study allows for the collection of a lot of information about a situation or organization that would not be possible to collect by use of other research designs. The data collected using a case study is in most instances greater in depth and richer compared to data collected using other research methods.

3.3 Population and Sampling Design

3.3.1 Population
A population is a collection of elements in which the study is based on. A population element on the other hand, is the subject on which the measurement is undertaken. (Burns & Burns, 2008). The target population is the specific population from which information is to be obtained. Target population can also be said to be the whole group of persons who have observable common characteristics (Murthy & Bhojanna, 2008). To be able to describe and explain the behavior of the specific population to be studied, specific interests of the population must be identified. This
means that the homogenous population must meet certain specifications. The target population of this study consisted of all the 43 commercial banks in Kenya.

3.3.2 Sample Population

3.3.2.1 Sampling Frame

From the sampling frame the required number of subjects, respondents, elements and firms are selected in order to make a sample. All the 43 commercial banks in Kenya make up the sampling frame of this study.

3.3.2.2 Sampling Technique

The study used purposive sampling to select on Habib Bank AG Zurich. The researcher believed that Habib Bank AG Zurich has the information that can show the association between the variables of interest. The bank was chosen as it is in the second tier in commercial banks ranking.

3.4 Data Collection Methods

This study collected mainly secondary data which was used for this study. Secondary data is data that exists somewhere having been collected and used for some other purposes (Gupta, 2012). Secondary data includes publications, journals, and periodicals. Collection of secondary data consists of collection and analyzing of information from published materials and from other desk search sources such as the internet. Other sources such as press releases, annual reports and published data are also used. The data was analyzed using the financial reports for a period of seven years (2008-2014) and the regression statistical tool was employed for the estimation of the model. In the model, the performance indicators used were; return on assets (ROA), return on equity (ROE) and Cost/Income. The risk management indicators used were; capital adequacy ratios, liquidity ratio and non-performing loans (NPLs).

3.5 Data Analysis Methods

The analysis of quantitative data that was collected was done by the use of descriptive and inferential statistics utilizing the SPSS version 21, and presentation was done by the use of percentages, means, standard deviations and frequencies. The information was displayed by use of tables, figures and in prose-form. Responses were tallied by computing percentages of variation in response as well as providing descriptions and interpretations of data in accordance
with the objectives of the study and assumptions through use of SPSS. The researcher broke the data down into the distinct aspects so that it could give values on the effect of Liquidity, capital adequacy ratios, non-performing loans (NPLs) the financial performance of Habib Bank AG Zurich, Kenya. This study also used correlation analysis and regression analysis to investigate on the relationship between the independent variable (liquidity, capital adequacy and non-performing loans) and the measures of the dependent variable (financial performance).

3.6 Chapter Summary
Chapter three offers an insight on how the researcher conducted the research and collected data from the field. It shows how data was collected, using what instruments and how data was analyzed. This chapter was a pre-requisite to chapter four which provides the presentation of study results. Chapter three gives the researcher the chance to emphasis on the research framework used in the study and also provide proof to substantiate the creditworthiness of the study results.
CHAPTER 4
4.0 RESULTS AND FINDINGS

4.1 Introduction
This chapter analyzes, presents, interprets and discusses the findings of the study in relation to the purpose of the study. The purpose of this study was to evaluate the effect of 3 components of the CAMEL model on the financial performance of Habib Bank AG Zurich, Kenya. The study also sought to determine the relationship between performance/profitability (ROE, ROA, cost income ratio) and the non-performing loans (NPLs), the relationship between the profitability and capital adequacy ratios and the relationship between profitability and Liquidity of commercial banks.

4.2 General Information
The general information comprised of the summary of the financial performance of Habib Bank AG Zurich, its liquidity, capital adequacy and non-performing loans.

4.2.1 Financial Performance

4.2.1.1 Return on Assets
The profitability ratios used in this study include ROE and ROA and cost/income.

![Figure 4.1: Return on Assets](image_url)
As indicated in figure 4.1 above, the return on assets of Habib Bank AG Zurich has been fluctuating for the last 7 years. According to the findings, return on assets was highest in the year 2014 with 5.31%. This is followed by the 4.3% in 2013, 4.24% in 2012, 3.85% in 2009 and 3.64% in 2008. Return on assets was lowest in the year 2011, which was a decrease from 3.05% in the year 2010. These findings show that although the return on assets in Habib Bank AG Zurich has been fluctuating in the last 7 years, generally there has been an increase.

4.2.1.2 Return on Equity

![Return on Equity Graph]

**Figure 4. 2: Return on Equity**

According to the findings, there has been a fluctuation in return on Equity in Habib Bank AG Zurich in the last 7 years. From the findings, return on equity was highest in the years 2008 at 30.74%. This was followed by 30.26% in 2009, 29.80% in 2014, 27.64% in 2012, 25.96% in 2013, 23.12% in 2010 and 20.78% in 2011. The years 2013 and 2011 experienced decreases in return on equity from the previous years. This shows that return on equity has been unstable over the years with 2008 having the highest figure and 2011 having the lowest figure.
4.2.1.3 Cost Income Ratio

Figure 4.3: Cost Income Ratio

In relation to cost income ratio, the study found that it has been unstable over the years. From the findings, the years 2011 had the highest cost income ratio at 65.78%. This is followed by 2012 with 63.17%, 2010 with 62.67%, 2014 with 61.17%, 2008 with 60.37%, 2013 with 58.62% and 2009 with 58.57%. The year 2011 had the highest Cost income ratio and had the lowest ROE and ROA.

4.2.2 Liquidity

Liquidity ratio shows the ability of a bank to repay short-term creditors out of its total cash. It is a ratio of liquid assets and short term liabilities. The liquidity of Habib Bank AG Zurich for the last 7 years is shown in figure 4.4.
As indicated in figure 4.4, the liquidity ratio in Habib Bank AG Zurich has been fluctuating over the years. From the findings, the years 2012 had the highest liquidity ratio at 86.3\%, followed by the 2014 with 84.80\%, 2013 with 82.40\%, 2010 with 78.80\%, 2009 with 74.50\%, 2008 with 73.90\% and 2011 with 73.40\%. This shows that the year 2011 had the highest liquidity ratio and the year 2012 had the highest liquidity ratio.

### 4.2.3 Capital Adequacy

Capital adequacy is the required capital minimum reserves that a bank or other financial institution is required to have. It signifies the percentage ratio of primary capital to the financial institution’s assets (loans and investments) and it is also used as a measure of financial stability and strength for financial institutions. The trend of the capital adequacy in Habib Bank AG Zurich, in the last 7 years, is shown in figure 4.5.
From the findings, the year 2012 had the highest capital adequacy ratio at 55.7%, followed by the year 2010 with 40.30%, 2014 with 38.10%, 2011 with 36.20%, 2009 with 33.7%, 2013 with 32.90% and 2008 with 29.10%. This shows that the year 2012 had the highest capital adequacy ratio in Habib Bank AG Zurich and the year 2008 had the lowest capital adequacy ratio.

4.2.4 Non-performing Loans

Non-performing loans are loans that borrowers are making payments for the principal amount and the interest. The trend of non-performing loans in Habib Bank AG Zurich is shown in figure 4.6.
As shown in figure 4.6 above, the number of non-performing loans in Habib Bank AG Zurich had been decreasing over the years, although the decrease has not been consistent. From the findings, the year 2009 has the highest non-performing loans at 6.656%, followed by the year 2008 with 5.857%, 2010 with 4.145%, 2012 with 4.145%, 2011 with 3.713%, 2013 with 3.142% and 2014 with 2.451%.

4.2.5 Mean and Std Deviation for ROE, ROA, CIR, NPL, CAR and LID

Table 4.1: Mean and Std Deviation for ROE, ROA, CIR, NPL, CAR and LID

<table>
<thead>
<tr>
<th>Year</th>
<th>ROE</th>
<th>ROA</th>
<th>CIR</th>
<th>NPL</th>
<th>CAR</th>
<th>LID</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>26.90</td>
<td>3.91</td>
<td>61.47</td>
<td>4.31</td>
<td>38.00</td>
<td>79.16</td>
</tr>
<tr>
<td>Std Deviation</td>
<td>3.54</td>
<td>0.76</td>
<td>2.42</td>
<td>1.37</td>
<td>7.98</td>
<td>5.01</td>
</tr>
</tbody>
</table>

From the findings, the mean for Return on Equity for the period between 2009 to 2014 was 26.90 and standard deviation was 3.54. In addition, mean for return on assets was 3.91 and standard deviation was 0.76. Further, the mean of cost income ratio was 61.47 and the standard deviation was 2.42. The non-performing loans had a mean of 4.31 and a standard deviation of 1.37. The capital adequacy ratio had a mean of 38 and a standard deviation of 7.98. Lastly, liquidity was found to be at mean of 79.16 and a standard deviation of 5.01.
4.3 Relationship between Liquidity and Financial Performance

4.3.1 Correlation Analysis

A correlation analysis was conducted to establish whether there is a relationship between liquidity and profitability in Habib Bank AG Zurich. In addition, a positive correlation coefficient implies that there is a positive association while a negative correlation coefficient implies that there is an inverse or negative relationship.

Table 4. 2: Liquidity and Financial Performance Correlations Coefficients

<table>
<thead>
<tr>
<th></th>
<th>Liquidity</th>
<th>Return</th>
<th>of</th>
<th>Return</th>
<th>on</th>
<th>Cost</th>
<th>Income</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Equity</td>
<td>Assets</td>
<td></td>
<td>Ratio</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liquidity</td>
<td>Pearson</td>
<td></td>
<td>.870*</td>
<td>.971**</td>
<td>.820*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Correlation</td>
<td></td>
<td>.971**</td>
<td>.820*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.011</td>
<td>.005</td>
<td>.010</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return of Equity</td>
<td>Pearson</td>
<td>.870*</td>
<td>1</td>
<td>.909**</td>
<td>.873*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Correlation</td>
<td></td>
<td>.909**</td>
<td>.873*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.011</td>
<td>.005</td>
<td>.010</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Return on Assets</td>
<td>Pearson</td>
<td>.971**</td>
<td>.909**</td>
<td>1</td>
<td>.879**</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Correlation</td>
<td></td>
<td>.909**</td>
<td>.879**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.005</td>
<td>.009</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost Income Ratio</td>
<td>Pearson</td>
<td>.820*</td>
<td>.873*</td>
<td>.879**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Correlation</td>
<td></td>
<td>.873*</td>
<td>.879**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>.024</td>
<td>.010</td>
<td>.009</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to the findings, there is a positive association between the independent variable (liquidity) and return on equity, return on assets and cost income ratio as shown by correlation coefficients of 0.870, 0.971 and 0.820 respectively. In addition, the association between liquidity and return on equity, return on assets and cost income ratio was significant at p-value of 0.011,
0.000 and 0.024 respectively. The association was considered significant as the p-value (0.011, 0.000, and 0.024) were less than the significance level (0.05) at 95% confidence level. From these findings we can infer that an increase in liquidity would lead to an increase in profitability ratios like return on equity, return on assets and cost income ratio.

4.3.2 Regression Analysis

4.3.2.1 Effect of Liquidity on ROE

Table 4. 3: Liquidity and ROE 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>1</td>
<td>(Constant)</td>
<td>5.497</td>
<td>2.460</td>
<td>2.234</td>
</tr>
<tr>
<td></td>
<td>Liquidity</td>
<td>.395</td>
<td>.100</td>
<td>.870</td>
</tr>
</tbody>
</table>

According to the findings in table 4.3, the regression model takes the form;

\[ \text{ROE} = 5.497 + 0.385 \text{Liquidity ratio} + \varepsilon \]

These findings show that taking liquidity constant, the value of ROE in Habib Bank AG Zurich will be 5.497. The findings also show that there is a positive relationship between liquidity and ROE. A unit increase in liquidity would lead to a 0.385 increase in ROE in Habib Bank AG Zurich. The relationship is statistically significant as the p-value is greater than the significance level (0.011<0.05).

Table 4. 4: Liquidity and ROE ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>F Calculated</th>
<th>F Critical</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>108.623</td>
<td>1</td>
<td>108.623</td>
<td>15.507</td>
<td>6.61</td>
<td>.011</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>35.024</td>
<td>5</td>
<td>7.005</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>143.648</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to the analysis of variance, the model is significant in predicting the influence of liquidity on return on Equity in Habib Bank AG Zurich, since the p-value (0.011) was less than
the significance level (0.05). In addition, the F-calculated (15.507) was greater than the F-critical (6.61).

Table 4.5: Liquidity and ROE Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.870a</td>
<td>.756</td>
<td>.707</td>
<td>2.64667</td>
</tr>
</tbody>
</table>

From the findings, liquidity explains 75.6% of return on equity in Habib Bank AG Zurich as shown by the $R^2$. This therefore means that some other factors not included in this model explain 24.4% of return on equity in Habib Bank AG Zurich.

4.3.2.2 Effect of Liquidity on ROA

Table 4.6: Liquidity and ROA 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>1</td>
<td>(Constant)</td>
<td>1.219</td>
<td>.450</td>
<td>2.711</td>
</tr>
<tr>
<td></td>
<td>Liquidity</td>
<td>.055</td>
<td>.006</td>
<td>.971</td>
</tr>
</tbody>
</table>

From the findings in table 4.6, the regression can take the form;

$$\text{ROA}=1.219+0.055\text{Liquidity ratio} + \varepsilon$$

This shows that on holding liquidity constant the value of ROA will be 1.219. In addition, the findings show that there is a positive relationship between liquidity and ROA. A unit increase in liquidity would lead to a 0.055 increase in ROA in Habib Bank AG Zurich. This relationship was significant as the p-value was less than the significance level.
According to the analysis of variance, the model is significant in predicting the influence of liquidity on return on assets in Habib Bank AG Zurich, since the p-value (0.000) was less than the significance level (0.05). In addition, the F-calculated (83.111) was greater than the F-critical (6.61).

According to the findings, liquidity explains 94.3% of return on assets in Habib Bank AG Zurich as shown by the \( R^2 \). This therefore means that some other factors not included in this model explain 5.7% of return on assets in Habib Bank AG Zurich.

4.3.2.3 Effect of Liquidity on Cost Income Ratio

From the findings in table 4.9, the regression can take the form:

\[
\text{ROA} = 41.053 + 0.316 \times \text{CIR} + \varepsilon
\]
This shows that on holding liquidity constant the value of cost income ratio will be 41.053. In addition, the findings show that there is a positive relationship between liquidity and cost income ratio. A unit increase in liquidity would lead to a 0.316 increase in cost income ratio in Habib Bank AG Zurich. This relationship was significant as the p-value was less than the significance level (0.024<0.05).

Table 4. 10: Liquidity and Cost Income Ratio ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F Calculated</th>
<th>F Critical</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>69.484</td>
<td>1</td>
<td>69.484</td>
<td>10.288</td>
<td>6.61</td>
<td>.024b</td>
</tr>
<tr>
<td>Residual</td>
<td>33.769</td>
<td>5</td>
<td>6.754</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>103.252</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to the analysis of variance, the model is significant in predicting the influence of liquidity on cost income ratio in Habib Bank AG Zurich, since the p-value (0.0024) was less than the significance level (0.05). In addition, the F-calculated (10.288) was greater than the F-critical (6.61).

Table 4. 11: Liquidity and Cost Income Ratio Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.820a</td>
<td>.673</td>
<td>.608</td>
<td>2.59879</td>
</tr>
</tbody>
</table>

From the findings, liquidity explains 67.3% of cost income ratio in Habib Bank AG Zurich as shown by the $R^2$. This therefore shows that some other factors not included in this model explain 32.7% of cost income ratio in Habib Bank AG Zurich.

4.4 Relationship between Capital Adequacy and Financial Performance

4.4.1 Correlation Analysis

The study used correlation analysis to establish whether there is an association between capital adequacy ratio and the profitability ratios (return on equity, return on assets and cost income ratio)
From the findings, there is a positive association between capital adequacy ratio and the three profitability ratios (return on equity, return on assets and cost income ratio) as shown by correlation coefficients of 0.911, 0.876 and 0.859 respectively. In addition, the association between capital adequacy ratio and return on equity, return on assets and cost income ratio were significant at p-value of 0.004, 0.010, and 0.013. The association was considered significant as the p-values (0.004, 0.010, and 0.013) were less than the significance level (0.05) at 95% confidence level. From these findings we can infer that there is an association between capital adequacy ratio and the three profitability ratios (return on equity, return on assets and cost income ratio).
4.4.2 Regression Analysis

4.4.2.1 Effect of Capital Adequacy on ROE

Table 4. 13: Capital Adequacy Ratio and ROE 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>(Constant)</td>
<td>4.193</td>
<td>1.612</td>
<td>2.601</td>
<td>.000</td>
</tr>
<tr>
<td>capital adequacy ratio</td>
<td>.567</td>
<td>.115</td>
<td>.911</td>
<td>4.943</td>
</tr>
</tbody>
</table>

According to the findings in table 4.13, the regression model takes the form;

\[ \text{ROE} = 4.1193 + 0.567 \text{ Capital adequacy} + \varepsilon \]

These findings show that taking capital adequacy constant, the value of ROE in Habib Bank AG Zurich will be 4.193. The findings also show that there is a positive relationship between capital adequacy ratio and ROE. A unit increase in capital adequacy ratio would lead to a 0.567 increase in ROE in Habib Bank AG Zurich. The relationship is statistically significant as the p-value is greater than the significance level (0.004<0.05).

Table 4. 14: Capital Adequacy Ratio and ROE ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F Calculated</th>
<th>F Critical</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>119.246</td>
<td>1</td>
<td>119.246</td>
<td>24.434</td>
<td>6.61</td>
<td>.004</td>
</tr>
<tr>
<td>Residual</td>
<td>24.401</td>
<td>5</td>
<td>4.880</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>143.648</td>
<td>6</td>
<td>4.880</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The significance value is 0.004 which is less than 0.05 and thus the model is statistically significant in predicting how capital adequacy ratio influence return on equity. The F critical was 6.61 at 5% level of significance. Since F calculated (24.434) is greater than the F critical, this shows that the overall model was significant.
Table 4.15: Capital Adequacy Ratio and ROE Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.911a</td>
<td>.830</td>
<td>.796</td>
<td>2.20913</td>
</tr>
</tbody>
</table>

As indicated in the table above, capital adequacy ratio explains 83% of return on equity in Habib Bank AG Zurich as shown by the $R^2$. This therefore means that some other factors not included in this model explain 17% of return on equity in Habib Bank AG Zurich.

4.4.2.2 Effect of Capital Adequacy on ROA

Table 4.16: Capital Adequacy and ROA 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>.150</td>
<td>.675</td>
<td>.223</td>
<td>.832</td>
</tr>
<tr>
<td>capital adequacy ratio</td>
<td>.068</td>
<td>.017</td>
<td>.876</td>
<td>4.059</td>
</tr>
</tbody>
</table>

From the findings in table 4.16, the regression model takes the form;

$$\text{ROA}=0.150+0.068 \text{ Capital adequacy} + \varepsilon$$

These findings show that taking capital adequacy constant, the value of ROA in Habib Bank AG Zurich will be 0.150. The findings also show that there is a positive relationship between capital adequacy ratio and ROA. A unit increase in capital adequacy ratio would lead to a 0.068 increase in ROA in Habib Bank AG Zurich. The relationship is statistically significant as the p-value is greater than the significance level (0.010<0.05).
The significance value is 0.010 which is less that 0.05 and thus the model is statistically significant in predicting how capital adequacy ratio influence return on assets. The F critical was 6.61 at 5% level of significance. Since F calculated (16.473) is greater than the F critical, this shows that the overall model was significant.

As indicated in table 4.18 above, capital adequacy ratio explains 76.7% of return on equity in Habib Bank AG Zurich as shown by the \( R^2 \). This therefore means that some other factors not included in this model explain 23.3% of return on assets in Habib Bank AG Zurich.

### 4.4.2.3 Effect of Capital Adequacy on Cost Income Ratio

From the findings in table 4.19, the regression model takes the form:

\[
\text{ROA} = 46.414 + 0.453 \text{Capital adequacy} + \varepsilon
\]
These findings show that taking capital adequacy constant, the value of cost income ratio in Habib Bank AG Zurich will be 46.414. The findings also show that there is a positive relationship between capital adequacy ratio and cost income ratio. A unit increase in capital adequacy ratio would lead to a 0.453 increase in cost income ratio in Habib Bank AG Zurich. The relationship is statistically significant as the p-value is greater than the significance level (0.013<0.05).

**Table 4. 20: Capital Adequacy on Cost Income Ratio ANOVA**

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F Calculated</th>
<th>F Critical</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>76.194</td>
<td>1</td>
<td>76.194</td>
<td>14.080</td>
<td>6.61</td>
<td>.013</td>
</tr>
<tr>
<td>Residual</td>
<td>27.058</td>
<td>5</td>
<td>5.412</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>103.252</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As indicated in table 4.20, the significance value is 0.013 which is less that 0.05 and thus the model is statistically significance in predicting how capital adequacy ratio influence cost income ratio. The F critical was 6.61 at 5% level of significance. Since F calculated (14.080) is greater than the F critical, this shows that the overall model was significant.

**Table 4. 21: Capital Adequacy on Cost Income Ratio Model Summary**

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.859&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.738</td>
<td>.686</td>
<td>2.32628</td>
</tr>
</tbody>
</table>

As indicated in table 4.21 above, capital adequacy ratio explains 73.8% of cost income ratio in Habib Bank AG Zurich as shown by the R<sup>2</sup>. This therefore means that some other factors not included in this model explain 26.2% of cost income ratio in Habib Bank AG Zurich.

4.5 Relationship between Non-Performing Loans and Financial Performance

4.5.1 Correlation Analysis

A correlation analysis was used to establish whether there is a relationship between non-performing loan and profitability ratios (ROE, ROA, Cost Income ratio).
Table 4. 22: Non-Preforming Loans and Financial Performance Correlations Coefficients

<table>
<thead>
<tr>
<th></th>
<th>Non-performing loans</th>
<th>Return of Equity</th>
<th>Return on Assets</th>
<th>Cost Income Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pearson Correlation</strong></td>
<td>1</td>
<td>-.966**</td>
<td>-.873*</td>
<td>-.852*</td>
</tr>
<tr>
<td><strong>Sig. (2-tailed)</strong></td>
<td>.000</td>
<td>.010</td>
<td>.015</td>
<td></td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td><strong>Pearson Correlation</strong></td>
<td>-.966**</td>
<td>1</td>
<td>.909**</td>
<td>.873*</td>
</tr>
<tr>
<td><strong>Sig. (2-tailed)</strong></td>
<td>.000</td>
<td>.005</td>
<td>.010</td>
<td></td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td><strong>Pearson Correlation</strong></td>
<td>-.873*</td>
<td>.909**</td>
<td>1</td>
<td>.879**</td>
</tr>
<tr>
<td><strong>Sig. (2-tailed)</strong></td>
<td>.010</td>
<td>.005</td>
<td>.009</td>
<td></td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td><strong>Pearson Correlation</strong></td>
<td>-.852*</td>
<td>.873*</td>
<td>.879**</td>
<td>1</td>
</tr>
<tr>
<td><strong>Sig. (2-tailed)</strong></td>
<td>.015</td>
<td>.010</td>
<td>.009</td>
<td></td>
</tr>
<tr>
<td><strong>N</strong></td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
</tbody>
</table>

According to the findings, there is an inverse association between non-performing loans and profitability ratios, ROE, ROA, Cost Income ratio, as shown by correlation coefficients of 0.966, 0.873 and 0.852 respectively. In addition, the associations were significant at p-values of 0.000, 0.010 and 0.015. The association was considered significant as the p-values (0.000, 0.010 and 0.015) were less than the significance level (0.05) at 95% confidence level. This shows that an increase in non-performing loans would lead to a decrease in ROE, ROA and Cost Income ratio.
4.5.2 Regression Analysis

4.5.2.1 Effect of Non-performing Loans on ROE

Table 4. 23: Non-Performing Loans and ROE 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>9.853</td>
<td>1.740</td>
<td>5.663</td>
<td>.002</td>
</tr>
<tr>
<td>Non-performing loans</td>
<td>-3.195</td>
<td>.385</td>
<td>-.966</td>
<td>-8.300</td>
</tr>
</tbody>
</table>

A shown by the findings in table 4.23, the regression model takes the form:

\[ \text{ROE} = 9.853 - 3.195\text{CAR} + \varepsilon \]

These findings show that taking non-performing loans constant, the value of ROE in Habib Bank AG Zurich will be 9.853. The findings also show that there is an inverse relationship between non-performing loans and ROE. A unit increase in non-performing loans would lead to a 3.195 decrease in ROE in Habib Bank AG Zurich. The relationship is statistically significant as the p-value is greater than the significance level (0.000<0.05).

Table 4. 24: Non-Performing Loans and ROE ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of df</th>
<th>Mean Square</th>
<th>F Calculated</th>
<th>F Critical</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>133.928</td>
<td>133.928</td>
<td>68.891</td>
<td>6.61</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>9.720</td>
<td>1.944</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>143.648</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to the analysis of variance, the model is significant in predicting the influence of non-performing loans on return on Equity in Habib Bank AG Zurich. This is because the p-value (0.000) was less than the significance level (0.05). In addition, the F-calculated (68.891) was greater than the F-critical (6.61).
Table 4.25: Non-Performing Loans and ROE Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.966a</td>
<td>.932</td>
<td>.919</td>
<td>1.39429</td>
</tr>
</tbody>
</table>

From the findings, non-performing loans explain 93.2% of return on equity in Habib Bank AG Zurich as shown by the $R^2$. This therefore means that some other factors not included in this model explain 6.8% of return on equity in Habib Bank AG Zurich.

4.5.2.2 Effect of Non-Performing on ROA

Table 4.26: Non-Performing and ROA 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>(Constant)</td>
<td>1.288</td>
<td>.407</td>
<td>3.165</td>
<td>.025</td>
</tr>
<tr>
<td>Non-performing loans</td>
<td>-.361</td>
<td>.090</td>
<td>-.873</td>
<td>-4.010</td>
</tr>
</tbody>
</table>

According to the findings in table 4.26, the regression model takes the form;

\[ \text{ROE} = 1.288 - 0.361 \times \text{CAR} + \varepsilon \]

These findings show that taking non-performing loans constant, the value of ROA in Habib Bank AG Zurich will be 1.288. The findings also show that there is an inverse relationship between non-performing loans and ROA. A unit increase in non-performing loans would lead to a 0.361 decrease in ROA in Habib Bank AG Zurich. The relationship is statistically significant as the p-value is greater than the significance level (0.010<0.05).
Table 4. 27: Non-Performing and ROA ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F Calculated</th>
<th>F Critical</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1.710</td>
<td>1</td>
<td>1.710</td>
<td>16.079</td>
<td>6.61</td>
<td>.010b</td>
</tr>
<tr>
<td>Residual</td>
<td>.532</td>
<td>5</td>
<td>.106</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2.242</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to the analysis of variance, the model is significant in predicting the influence of non-performing loans on ROA in Habib Bank AG Zurich. This is because the p-value (0.010) was less than the significance level (0.05). In addition, the F-calculated (16.079) was greater than the F-critical (6.61).

Table 4. 28: Non-Performing and ROA Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.873a</td>
<td>.763</td>
<td>.715</td>
<td>.32610</td>
</tr>
</tbody>
</table>

From the findings, non-performing loans explain 76.3% of return on equity in Habib Bank AG Zurich as shown by the \( R^2 \). This therefore means that some other factors not included in this model explain 23.7% of return on assets in Habib Bank AG Zurich.

4.5.2.3 Effect of Non-Performing Loans on Cost Income Ratio

Table 4. 29: Non-Performing Loans and Cost Income Ratio Regression Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>54.035</td>
<td>2.964</td>
<td>18.228 .000</td>
</tr>
<tr>
<td>Non-performing loans</td>
<td>-2.392</td>
<td>-.656</td>
<td>.852  -3.646 .015</td>
</tr>
</tbody>
</table>

A shown by the findings in table 4.29, the regression model takes the form:

\[
\text{ROE}=54.035-2.392\text{CAR} +\epsilon
\]
These findings show that taking non-performing loans constant, the value of cost income ratio in Habib Bank AG Zurich will be 9.853. The findings also show that there is an inverse relationship between non-performing loans and cost income ratio. A unit increase in non-performing loans would lead to a 2.392 decrease in ROE in Habib Bank AG Zurich. The relationship is statistically significant as the p-value is greater than the significance level (0.015<0.05).

Table 4.30: Non-Performing Loans and Cost Income Ratio ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F Calculated</th>
<th>F Critical</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>75.031</td>
<td>1</td>
<td>75.031</td>
<td>13.293</td>
<td>6.61</td>
<td>.015b</td>
</tr>
<tr>
<td>Residual</td>
<td>28.221</td>
<td>5</td>
<td>5.644</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>103.252</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

According to the analysis of variance, the model is significant in predicting the influence of non-performing loans on cost income ratio in Habib Bank AG Zurich. This is because the p-value (0.015) was less than the significance level (0.05). In addition, the F-calculated (13.293) was greater than the F-critical (6.61).

Table 4.31 Non-Performing Loans and Cost Income Ratio Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.852a</td>
<td>.727</td>
<td>.672</td>
<td>2.37577</td>
</tr>
</tbody>
</table>

From the findings, non-performing loans explain 72.7% of return on equity in Habib Bank AG Zurich as shown by the R². This therefore means that some other factors not included in this model explain 27.3% of cost income ratio in Habib Bank AG Zurich.
4.6 Effect of Liquidity, NPLs and Capital Adequacy on Financial Performance

Table 4.32: Regression Coefficients for Independent Variables and Financial Performance

<table>
<thead>
<tr>
<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>
</tr>
<tr>
<td>(Constant)</td>
<td>6.039</td>
<td>1.037</td>
<td></td>
</tr>
<tr>
<td>Non-performing loans</td>
<td>-0.304</td>
<td>0.061</td>
<td>-0.058</td>
</tr>
<tr>
<td>capital adequacy ratio</td>
<td>0.261</td>
<td>0.087</td>
<td>0.082</td>
</tr>
<tr>
<td>Liquidity</td>
<td>0.036</td>
<td>0.072</td>
<td>0.068</td>
</tr>
</tbody>
</table>

A shown by the findings in table 4.34, the regression model takes the form:

\[
\text{ROE} = 6.039 + 0.036 \times LR + 0.261 \times \text{CAR} - 0.304 \times \text{NPL} + \varepsilon 
\]

These findings show that taking the three independent variables (liquidity, capital adequacy ratio and non-performing loans) constant, the value of ROE in Habib Bank AG Zurich will be 6.093. In addition, the findings show that there is a positive relationship between liquidity ratio and ROE as shown by a regression coefficient of 0.036 and a p-value of 0.048. Holding all the other variable constant, a unit increase in liquidity ratio would lead to a 0.036 increase in ROE in Habib Bank AG Zurich. The findings also show that there is a positive relationship between capital adequacy ratio and ROE as shown by a regression coefficient of 0.261 and a p-value of 0.008. Holding all the other variable constant, a unit increase in capital adequacy ratio would lead to a 0.261 increase in ROE in Habib Bank AG Zurich. The findings show that there is an inverse relationship between non-performing loans and ROE as shown by a regression coefficient of 0.304 and a p-value of 0.000. This shows that holding all the other variables constant, a unit increase in non-performing loans would lead to a 0.304 decrease in ROE in Habib Bank AG Zurich. From these findings we can infer that non-performing loan was the most significant followed by capital adequacy ratio and liquidity ratio.
Table 4.33: ANOVA for Independent Variables and Financial Performance

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F Calculated</th>
<th>F Critical</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>141.522</td>
<td>3</td>
<td>47.174</td>
<td>66.562</td>
<td>9.28</td>
<td>.000</td>
</tr>
<tr>
<td>Residual</td>
<td>2.126</td>
<td>3</td>
<td>.709</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>143.648</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The significance value is 0.000 which is less that 0.05 and thus the model is statistically significant in predicting how liquidity, capital adequacy ratio and non-performing loans influence return on equity. The F critical at 5% level of significance was 9.28. Since F calculated (66.562) is greater than the F critical, this shows that the overall model was significant.

Table 4.34: Model Summary for Independent Variables and Financial Performance

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.993a</td>
<td>.985</td>
<td>.970</td>
<td>.84185</td>
</tr>
</tbody>
</table>

According to the findings, the three independent variables (liquidity, capital adequacy ratio and non-performing loans) explain 98.5% of return on equity in Habib Bank AG Zurich as shown by the $R^2$. This therefore means that some other factors not included in this study explain 1.5% of return on equity in Habib Bank AG Zurich.

4.7 Chapter Summary

This chapter presented the findings and interpretation of the study. Section 4.1 was an introduction. Section 4.2 presented the general information of the dependent and the independent variables (financial performance, liquidity, capital adequacy and non-performing loans). Section 4.3 presented the findings on the first research question: what is the relationship between Liquidity and profitability of commercial banks in Kenya? Section 4.4 presented the findings on the second research question: What is the relationship between non-performing loans (NPLs) and profitability (ROE, ROA, Cost Income ratio) of commercial banks in Kenya? Section 4.5 presented the findings on the third research question: What is the relationship between the capital adequacy ratios and profitability in commercial banks? Section 4.6 presented the findings on the
effect of the three independent variables on financial performance. Chapter five presents discussion of the findings, conclusion and recommendations.
CHAPTER 5
5.0 DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction
This chapter gives the findings, conclusions, the discussion, recommendations of the study on the basis of the objective of the study and also the suggestions for further research.

5.2 Summary of the Study
The purpose of this study was to evaluate the effect of 3 components of the CAMEL model on the financial performance of Habib Bank AG Zurich, Kenya. The study’s research questions were: What is the relationship between Liquidity and the financial performance of HBZ in Kenya? What is the relationship between the capital adequacy ratios and the financial performance of HBZ in Kenya? What is the relationship between non-performing loans (NPLs) and the financial performance of HBZ in Kenya?

The study used an explanatory research design as well as a case study design to study the research problem. The target population of this study consisted of all the 43 commercial banks in Kenya. All the 43 commercial banks in Kenya made up the sampling frame of this study. The study used purposive sampling to select on Habib Bank AG Zurich. The researcher believed that Habib Bank AG Zurich has the information that can show the association between the variables of interest. The bank was chosen as it is in the second tier in commercial banks ranking. This study collected mainly secondary data which was used for this study. The data was analyzed using the financial reports for a period of seven years (2008-2014) and the regression statistical tool was employed for the estimation of the model. In the model, the performance indicators used were; return on assets (ROA), return on equity (ROE) and Cost/Income. The risk management indicators used were; capital adequacy ratios, liquidity ratio and non-performing loans (NPLs). The analysis of quantitative data that was collected was done by the use of descriptive and inferential statistics utilizing the SPSS version 21, and presentation was done by the use of percentages, means, standard deviations and frequencies. The information was displayed by use of tables, figures and in prose-form. This study also used correlation analysis and regression analysis to investigate on the relationship between the independent variable (liquidity, capital adequacy and non-performing loans) and the measures of the dependent variable (financial performance).
With regard to the relationship between liquidity and the financial performance of Habib Bank AG Zurich, the study found that over the 7 years period (2008-2014) liquidity ratio was fluctuating though the highest figure was in 2014 (86.30%). From both the correlation analysis and the regression analysis, the study found that liquidity was influencing return on equity positively. The study also found that there was a positive significant relationship between liquidity and return on assets. Further, the study found that there was a positive and significant relationship between liquidity and cost income ratio.

In relation to the relationship between capital adequacy ratio and financial performance of Habib Bank AG Zurich, the study found that capital adequacy was fluctuating of the years. The highest figure was in 2010 (55.7%) and the lowest figure was in 2014 (29.10). The study also found that there is a positive significant relationship between capital adequacy ratio and return equity. The study also found that there is a positive relationship between capital adequacy ratio and return on assets. It was also revealed that capital adequacy had a positive and significant influence of cost income ratio.

In relation to the relationship between non-performing loans and the financial performance of Habib Bank AG Zurich, the study found that non-performing loans were increasing over the year, but there was a decrease in 2011 and 2014. The highest figure (5.656%) was in the year 2013. The study also found that non-performing loans were negatively and significantly influencing return on equity. In addition, non-performing loans were found to significantly influence return on assets. Finally, the study found that there was a negative and significant relationship between non-performing loans and cost income ratio.

5.3 Discussion

5.3.1 Relationship between Liquidity and Financial Performance

The study found that the liquidity of Habib Bank AG Zurich was fluctuating over the years. According to Vinals et al. (2010), the essence of the requirement for liquid assets lies on the foundation that pressures faced by banks are in line with customer deposits’ deposits. Banks are expected to have a lot more assets in liquid for covering liabilities for wholesale that mature in thirty days as opposed to deposits done in retail. This is because liabilities done in wholesale have less stability compared to deposits of retail.
The study also revealed that there exist a positive relationship between profitability and liquidity for commercial banks. Liquidity is one of the factors that determine profitability of commercial banks. Regarding the provision of liquidity, banks accept funds from depositors and extend such funds to the sector while providing liquidity for any withdrawal of deposits. Liquidity ratios are used to measure a business’ capacity to meet the payment obligations by measuring the near-cash against cash with the payment obligations. In line with Kargi (2011), if the coverage of the former by the latter is inadequate, it shows that the business might face complications in meeting its immediate financial obligations. This can, in turn, affect the company's business operations and profitability. The Liquidity versus Profitability Principle indicates that there is a trade-off between liquidity and profitability; gaining more of one ordinarily means giving up some of the other.

Financial liquidity is better when the due time of their payment is distant, that is when current liabilities constitute a smaller part of all liabilities. According to Poudel (2012), it is important to note that excess liquidity or insufficient liquidity may be injurious to the smooth running of the organization. Since liquid assets such as cash and government securities generally have a relatively low return, holding them imposes an opportunity cost on a bank. In the absence of regulation, it is reasonable to expect banks will hold liquid assets to the extent they help to maximize the firm’s profitability. As indicated by Allen and Gale (2004) if liquidity decreases, the need for cash can be filled by taking more short-term loans but short-term loans can also be expensive and can be a sign of illiquidity and should have a negative impact on firms.

Liquidity and profitability are two fundamental categories of company activities, constituting the basis of its evaluation. Striving to maintain financial liquidity on a high level indicates keeping a large share of current assets, especially cash. According to Campbell (2007), this increases the financial liquidity level, and companies which quickly, without any delays, settle their liabilities in cash may expect to obtain some discounts from their suppliers and clients, enjoy greater trust of loan-providers who analyze liquidity before granting loans, and most of all, it diminishes the risk of insolvency. On the other hand, maintaining too big share of current assets may be disadvantageous for the company profitability. According to Athanasoglou Brissimis and Delis (2005), this is especially true about the excess cash in relation to expected expenses and this part of products or material inventory which does not participate in the current turnover, and thus do
not contribute to generating profit and are only some kind of security for unexpected events, such as sudden boost of demand or problems with supplies.

Moreover, receivables, belonging to current assets, are only potential means, whose reception cannot be guaranteed, and which could be used more effectively with more efficient open account policy. As indicated by Boahene, Dasah and Agyei (2012), the surplus of cash, inventories and receivables constitute the excess current assets and generate the cost of lost opportunities. The cost of lost opportunities is the loss of potential profit which would be earned if some resources frozen in current assets were allocated for the undertakings increasing company profitability.

5.3.2 Relationship between Capital Adequacy and Financial Performance

The study found that capital adequacy was fluctuating over the years. According to Greuning and Sonja (2003), capital adequacy is measured in commercial banks in relation to the relative risk weight whose assignment is on a dissimilar assets category which is held on along with off in controlling the incentives, taking on excessive as well as for the absorption of reasonable amounts of losses. Exposure to credit occurs at the time of bank’s activity of lending money to a willing borrower or buying financial-based assets like commercial bills which any company or a bank would issue.

The study established that there is a positive relationship between capital adequacy and profitability. These finding agree with Poudel (2012) argument that capital adequacy ratio influences Return on assets, return on equity and cost income ratio positively. By applying minimum capital adequacy ratios, the efficiency and stability of the financial system can be promoted by reducing the probability of banks becoming insolvent. These findings agree with Ramadan, Kilani and Kaddumi (2011) argument that by becoming insolvent, a bank may incur a loss of confidence in the financial system, resulting in financial predicaments for other banks and perhaps threatening the smooth running of financial markets. Also, it assists in maintaining an efficient and sound financial system. It further offers some protection to depositors. In case of a dissolution, depositors’ funds are prioritized before capital, so that depositors would only lose money if the bank incurs a loss which goes beyond the amount of capital it has. The level of protection available to depositors is higher with higher capital adequacy ratio.
Credit exposures come about when a bank lends money to a customer, or purchases a financial asset for instance a commercial bill issued by another bank or a company. It could also be due to any other arrangement with another party that necessitates that party to pay money to the bank for example under a foreign exchange contract. A credit risk is one that the bank will not be able to fully recover the money it is owed. According to Saad and El-Moussawi (2009), the risks embedded in a credit exposure are significantly affected by the financial strength of the party owing money to the bank. The greater the strength, the more probable it is that the debt will be paid or that the bank can, if need be, enforce repayment. Credit risk is as well affected by market factors that affect the cash flow or value of assets that are used as collateral for loans. For instance, if a bank makes a loan to an individual to buy a house, and takes a mortgage on the house as collateral, any drastic movements in the property market have a great effect on the possibility of the bank recovering all money owed to it. Even for unsecured contracts or loans, market factors affecting the ability of the debtor to pay the bank can affect credit risk.

5.3.3 Relationship between Non-Performing Loans and Financial Performance

The study established that the number of non-performing loans has been fluctuating over the years. According to Jimenez and Saurina (2006), credit risk indicators include the existence of non-performing loans (bad loans), provision for losses of loans and loans for problems. Credit risk is termed as that which occurs when a bank grants a loan, and, is not either in full or in partial terms repaid to the bank, as well as the existence of that risk which entails counterparty or customer’s defaults.

The study established that there is an inverse relationship between non-performing loans and profitability. This shows that profitability decreases with an increase in non-performing loans. These findings agree with Boahene et al. (2012) argument that organizational profitability in relation to ROA and ROE is widely and negatively influenced by non-performing loans. Nonperforming loan is a menace that needs to be eradicated forthwith and as such the study found that the main causes of nonperforming loans for the bank include poor corporate governance, the general administration and the structure of most banks are poor, lack of transparency where the banks are concealing some facts and only publish what the public need to know and not what they want to know or should be informed with, weak regulations, shady bank practices in which banks are lending money to investors to buy shares from the banks which
result in the rise in their stock prices and also led to gross loan debts/defaulting, insider lending, national economic downtown, reduced consumer ability, lax credit risk assessment and untrained personnel, lack of aggressive credit collection method, banks negligence in monitoring loans, the speedy process in insider lending and owner concentration.

The bad loan problems consist of a stock component (old debt) that is not performing and a flow component (new lending) that may become non-performing. As indicated earlier by Said (2012), by decreasing loans, banks can reduce the possibility of new non-performing loans generated from new lending. However, when banks’ non-performing loans are below the threshold level, there is lower tendency for banks to reduce lending as the non-performing loans are under banks’ acceptable level.

In commercial banks, the management of credit risk has several key principles which include establishing a comprehensible arrangement, responsibility allocation as well as accountability. The procedures are given priority in a way that they occur in a disciplined manner disciplined manner, where the assignment of responsibilities is communicated clearly, and that accountability is assigned thereto. According to Uzhegova (2010), the management of risks associated with credit forms an integral part of the overall strategy for risk management in a company. Many business failures are often associated with poor management of credit risks. The majority of small enterprises, for instance, lack enough resources as well as adequate expertise for operating credit management systems that are sound.

Loan portfolio forms the principal source of risks that affect the financial institutions. According to Pokhrel (2006), three accounting ratios are used to measure portfolio quality including: PAR (Portfolio at risk) which helps in measuring the segment of a loan portfolio that is contaminated by means of arrears because a proportion of the full amount of portfolio, where the desired level is less than 10 per cent; Risk coverage ratio which shows what proportion of the portfolio at risk is covered by actual loan losses where the rate could be as high as 90 per cent and Loans written off ratio which represents the amount of loans removed from the accounting books because of a substantial loss where a maximum of 4 per cent is envisaged.
5.4 Conclusions

5.4.1 Relationship between Liquidity and Financial Performance

The study concludes that liquidity ratio positively and significantly influences the financial performance of Habib Bank AG Zurich. This shows that an increase in liquidity ratio would lead to a positive and significant increase in return on equity in Habib Bank AG Zurich. In addition, an increase in return on liquidity would lead to a positive and significant increase in return on assets in Habib Bank AG Zurich. Further, an increase in liquidity would lead to a positive and significant increase in cost income ratio. The results of this study conclude that profitability and liquidity have a positive relationship and that liquidity is one of the determinants of profitability of commercial banks.

5.4.2 Relationship between Capital Adequacy and Financial Performance

The study concludes that there is a positive relationship between capital adequacy and return on the financial performance of Habib Bank AG Zurich. The study also concludes that capital adequacy ratio shows significant relationship with return on assets ratio, which means that well-capitalized banks experience negative returns. The study also revealed that an increase in capital adequacy would lead to a positive and significant influence on return on equity in Habib Bank AG Zurich. Further, an increase in capital adequacy would lead to a positive and significant increase in cost income ratio in Habib Bank AG Zurich. This shows that capital adequacy is a significant determinant of the financial performance of commercial banks.

5.4.3 Relationship between Non-Performing Loans and Financial Performance

The study concludes that non-performing loans have a negative and significant influence on financial performance of Habib Bank AG Zurich. The study found that an increase in non-performing loans would lead to a significant decrease in the return on equity of Habib Bank AG Zurich. In addition, an increase in nonperforming loans would lead to a significant decrease in the return on assets of Habib Bank AG Zurich. Further, an increase in nonperforming loans would lead to an decrease in cost income ratio of Habib Bank AG Zurich. This shows that non-performing loans is a key determinant of the financial performance of commercial banks.
5.5 Recommendations

5.5.1 Suggestions for Improvement

5.5.1.1 Relationship between Liquidity and Financial Performance

Liquidity was found to influence the measures of financial performance of Habib Bank AG Zurich. To financial institutions in Kenya, this study recommends that they should come up with internal policies that can enhance the liquidity of their banks.

To the managers of Habib Bank AG Zurich, the study recommends that they should enhance their liquidity management through identifying, measuring, monitoring, and controlling liquidity risk in their bank. In addition finance managers should identify all the factors that influence the liquidity of their banks with an aim of developing strategies to minimize their effect.

To the investors, the study recommends that they should use liquidity ration as one of the determinants of the financial performance of commercial banks to forecast their performance in the future. In addition, the study recommends that investors should invest more in commercial banks with a high liquidity as their financial performance is expected to increase.

To the government of Kenya and regulatory bodies, this study recommends that they should come up with policies to enhance the liquidity of commercial banks in Kenya. This will help to improve the financial performance of the banks and protect the investors a well.

5.5.1.2 Relationship between Capital Adequacy Ratios and Financial Performance

The study found that capital adequacy has a positive and significant influence on the financial performance of Habib Bank AG Zurich. This study therefore recommends that commercial banks in Kenya should identify and enhance factors that influence the capital adequacy of their banks. In addition, they should come up with internal policies that can be used to enhance their capital adequacy ratio.

To the investors, the study recommends that they can use capital adequacy ratio to predict and forecast the financial performance of commercial banks in Kenya in terms of return on equity, return on assets and cost income ratio. The study also recommends that investors can use capital adequacy ratio to decide on which bank to invest in.
To the managers of Habib Bank AG Zurich, the study recommends that they should come up with strategies to improve the capital adequacy ratio of their banks. The study also recommends that they should advice their banks on the best internal policies to enhance capital adequacy ratio.

To the government of Kenya and the regulatory bodies such as Central Bank of Kenya, the study recommends that they should come up with more policies to regulate and govern capital adequacy in commercial banks in Kenya. This will help to improve the performance of the banks and hence the income of the country. In addition, policies on capital adequacy can be used as a way of preventing the banks from falling and hence protect the investors as well as other stakeholders.

5.5.1.3 Relationship between Non-Performing Loans and Financial Performance

The study found that non-performing loans have a negative and significant influence on the financial performance of commercial banks. This study therefore recommends that commercial banks in Kenya should come up with internal policies that clearly show the procedure and the requirements for obtaining a loan.

To the managers of Habib Bank AG Zurich, this study recommends that they should come up with strategies to reduce non performing loans. These strategies should focus on collection of the already existing non performing loans and strategies to reduce possible defaults in the future. In addition, the managers should revise the loan approval process of their banks so as to reduce the level of nonperforming loans in their banks.

To the investors, the study recommends that they should use non performing loans in commercial banks in Kenya to predict and forecast their performance in the future. In addition, the study recommends that they should invest more in commercial banks with the lowest levels of nonperforming loans.

To the government of Kenya and regulatory bodies, the study recommends that they should come up with policies to reduce non performing loans in commercial banks. The policies should focus on how to compel defaulters to pay, to enhance collection of debt and to reduce non performing loans in all financial institutions in Kenya.
5.5.2 Suggestions for Further Studies

This study was limited to Habib Bank AG Zurich and hence its findings cannot be generalized to the whole of the banking sector in Kenya. The study therefore suggests further studies in the effect of liquidity, capital adequacy ratio and non performing loans on the financial performance of commercial banks in Kenya. In addition, this study was limited to 3 components of CAMEL (liquidity, capital adequacy ratio and non performing loans). This study therefore suggests that further studies should be conducted on how all the CAMEL indicators (Capital Adequacy, Asset Quality, Management Quality, Earnings and Liquidity) influence the financial performance of commercial banks.
REFERENCES


Basel Committee on Banking Supervision (2010) - Basel III: A global regulatory framework for more resilient banks and banking systems


APPENDICES

APPENDIX I: CHECK LIST

<table>
<thead>
<tr>
<th>Year</th>
<th>ROE</th>
<th>ROA</th>
<th>CIR</th>
<th>NPL</th>
<th>CAR</th>
<th>LR</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2009</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2010</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2011</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2012</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2013</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\[
ROE = \frac{PBT}{\text{Shareholders funds}}
\]

\[
ROA = \frac{PBT}{\text{Total Assets}}
\]

\[
CIR = \frac{\text{Total expense}}{\text{Total Income}}
\]

\[
CAR = \frac{\text{Tier 1 Capital + Tier 2 Capital}}{\text{Risk Weighted Assets}}
\]

\[
NPL \text{ Ratio} = \frac{\text{NPLs}}{\text{Gros Loan}}
\]

\[
LR = \frac{\text{Assets}}{\text{Liabilities}}
\]