EFFECT OF LOAN PORTFOLIO GROWTH ON FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA

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DECLARATION

This Research Project is my original work and has not been presented for a degree award in any other University.

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This Research Project has been submitted for examination with our approval as University Supervisors.

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Signature   Date

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DEDICATION

I dedicate this project to my parents Thiong'o and Ruth, to Liz my fiancee, to my brothers Kimani and Daniel, to my sisters Wacheke and Wanjiru and to all my friends for their moral, social, spiritual and financial support.

ACKNOWLEDGMENT

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ABBREVIATIONS AND ACRONYMS

CBK: Central Bank of Kenya

GDP: Gross domestic product

NIM: Net interest margin

ROA: Return on assets

ROE: Return on equity

DEFINITION OF KEY TERMS

Asset quality: The quality of a bank's loan portfolio (Dang, 2011).

Capital adequacy: A measure of a bank's financial strength in terms of its ability to withstand operational and abnormal losses (Ayele, 2012). It is a measure of banks solvency and ability to absorb risk (Maki and Athanasios, 2014).

Financial Performance: Financial performance is a measure of efficiency in management of current assets and rate of acquisition of new assets (Ongore & Kusa, 2013). It is a measure of efficiency to meet its obligation by ensuring sound liquidity, solvency and profitability as well maintaining positive value of assets.

Liquidity management: Refer to the ability of a bank to fulfil its obligations, mainly of depositors (Dang, 2011).

Loan portfolio: These are various categories of loans making up the total loans held by a commercial bank (Keeton, 2009).

Loan portfolio growth: The change in a total value loans in a banks' loan portfolio (Keeton, 2009).

ABSTRACT

Loans comprise the single largest asset for commercial banks. To grow the banks' assets bank managers focus on growing the amount of loans granted by the bank. The general objective of this study was to evaluate the effect of growth in loan portfolio on financial performance of commercial banks in Kenya. Specifically the study was seeking to evaluate the effect of growth in commercial bank's loan book, the effect of change in banks asset quality, the effect of change in banks liquidity and the effect of change in banks capital adequacy on the financial performance of commercial banks in Kenya. The study sought to test the following hypotheses: loan growth has no effect on financial performance of commercial banks; asset quality has no effect on financial performance of commercial banks; liquidity has no effect on financial performance of commercial banks and capital adequacy has no effect on financial performance of commercial banks. The study used a regression research design. The population of interest consisted of the 44 commercial banks in Kenya. A sample of 31 commercial banks was selected. The study covered a five-year period from 2011 to 2015. The study used primary and secondary data. A questionnaire was used to collect the primary data while secondary data was obtained from published financial statements of commercial banks. Data was analyzed using descriptive statistics and summarized in frequency tables. Multiple linear regression was also used in the analysis. The study found that growth in loan portfolio had a negative effect on financial performance of commercial banks in Kenya. The effect was significant. The effect of loan growth on financial performance of commercial banks in subsequent years was found to be adverse. This study found that the quality of banks assets had a positive effect on financial performance of commercial banks in Kenya. The effect of asset quality was found to be statistically significant. It was found that liquidity management had negative effect on financial performance of commercial banks, that banks that hold a high level of liquid assets perform poor financially. However the effect of liquidity management was not significant. The study found that capital adequacy had a positive effect on financial performance of commercial banks. The effect of capital adequacy was significant. The study concluded that growth in a bank's loan portfolio had a negative and significant effect on financial performance of commercial banks. The study concluded that the quality of a banks' loan portfolio had a positive and significant effect on financial performance of commercial banks in Kenya. Further the study reached a conclusion that high level of liquidity for commercial banks in Kenya has a negative but not significant effect on financial performance of commercial banks in Kenya. Finally the study concluded that amount of bank capital has a positive and significant effect on financial performance of commercial banks in Kenya. The study recommended that commercial banks should strategically execute their loan portfolio growth strategies so as to minimize the problem of loan losses in subsequent years. It also recommended that to enhance financial performance banks should ensure they maintain a high quality loan portfolio. Also the study recommends that in order to minimize the negative of high liquidity, commercial banks should identify and maintain optimal levels of liquid assets. The study also recommended to improve financial performance commercial banks in Kenya should increase the amount of core capital.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

One of the major core businesses of many commercial banks is lending. According to experts, the loan portfolio is one of the largest sources of revenue and asset. Salas & Saurina (2012) defined loan growth as the change in a banks' loan portfolio. Growth in a banks' loan book is seen a significant measure of managerial performance and portrays bank credit policies. Most of the times, banks tend to alleviate the level of credit standards with an aim of achieving higher market shares. Such actions may lead to a problem in adverse selection and a significant increase in non-performing loans. Keeton (2009) attributed faster loan growth to increased loan losses and supply shifts resulting in an increased willingness of banks to lend. As a result, banks tend to increase lending through a reduction in borrowing interest rates and minimizing the interest rates charged on loans by lowering the minimum credit standards for most loans. For example, the banks may decide to minimize the amount of securities a lender must have to be granted a loan, accept lenders who do not have a powerful credit history, or put in place policies that allow people with less proof of having enough cash flow to service the loans to obtain a loan. Most of the times, such approaches mean that the bank might see an increase in the number of defaulted loans. Therefore, if financial institutions lower their credit standards and minimize the loan rates, there will be an increase in lending due to supply shifts then without a doubt there will be an increase in loan losses in future.

Rajan (2009) made an interesting argument that an increase in bank loan growth can be attributed to the myopic concern for banks to increase their reputation but in the short-term. Since a bank may have difficulties recovering losses from questionable loans, it may take an approach to increase short-term profits at the expense of long-term profits by easing credit standards and boosting loan growth. Therefore, banks have a powerful chance of influencing the masses through manipulation of earnings since outsiders will interpret the low profits as a sign of poor management. Keeton (2009) ascribes banks willingness to lend to euphoria and competition. Most of the times, banks tend to become optimistic in the business expansion process making them underestimate the risk of default on new loans. Based on this perspective, therefore, financial institutions will operate carefully during and after periods of incurring huge losses and later lend at a high interval when the memory of the losses recede. Ideally, banks will compete vigorously during times of prosperity since high profits lead to an increase in new entries. As a result, the competition will lead to a decline in loan rates and credit standards.

Loan growth can also be due to other reasons other than a shift in supply. Keeton (2009) offers two explanations for this. One of the explanations is that there could be an increase in demand that is not in any way related to borrower's creditworthiness and shift in the productivity of the borrowers' investments. The increase in credit demand not related to borrowers' creditworthiness will play a role in boosting loan growth and raising credit standards and a reduction in making losses in future. In the process, if banks are faced with an increase in credit demand, they will rise their loan lending rates and tighten the credit standards. If there is elasticity in supply of funds, there will be an

increase in total bank lending. However, the likelihood of making losses in future will reduce as credit standards are tightened and in the process increasing the creditworthiness of lenders. On the effect of productivity of the borrowers' investments, a productivity shock will make borrowers embrace huge investments and increase their demand for credit. The efforts in easing credit standards and an increase in borrowers demand for loans will boost a growth in bank loans.

In instances of pure demand shift, an increase in loans leads to upward pressure on loan rates and credit standards leading to an uncertain net change in credit standards. Egert, Backe, & Zumer (2006) noted that there has been an increase in lending in the private sector especially among transition economies. They attributed this growth to different aspects such as macroeconomic stabilization, comprehensive reforms and privatization in the financial sector, the introduction of market institutions and legal reforms.

In Kenya, the Central Bank of Kenya (CBK) regulates and supervises the banking sector. During the year ended December 2015, the sector comprised 44 commercial banks, 1 mortgage finance company, 10 microfinance banks, 8 representative offices of foreign banks, 86 foreign exchange bureaus, 14 money remittance providers and 2 credit reference bureaus. Commercial banks play the critical roles of financial intermediation, liquidity transformation and risk transformation. In Kenya commercial banks dominate the financial sector and therefore it is no surprise that financial intermediation solely relies on commercial banks. The banks operate and are guided by the stipulations laid fourth in the Banking Act and by the CBK. The CBK offers the banks an opportunity to develop, implement and regularly review a sound lending policy (CBK, 2015). In a nation where the commercial banks are a major dominant

group in the financial sector, credit growth is of immense implication for economic growth of the nation.

In Kenya, the banking sector in Kenya has with time witnessed a significant growth in consumer lending and corporate lending (Afande, 2014). This is evidenced by the growth in demand for credit as the amount of gross loans increased by 23.125% in the year across all sectors. The major areas that saw an increase in demand for credit were personal, trade sectors, and agriculture and communication sectors among others. Commercial banks in Kenya diversify their loan portfolios across different economic sectors (CBK, 2015).

1.2 Statement of the Problem

Loan growth is a crude measure of credit risk, but its role in generating subsequent non-performing loans is indisputable. As banks increase their desire to lend, credit standards will the first to be affected followed closely by a growth in loans and lastly by loan losses. As a result, more lenders will qualify for loans and the existing lenders will request for larger loans while total borrowing will increase. However, the losses attributed to bank loans may take a longer duration of time to respond since bad loans also often face repayment periods in the first year (Keeton, 2009). Foos, Norden, and Weber (2010) argued that loan growth may have a tremendous negative impact on bank risk. The situation is usually more risky when new loans are given to lenders that had been rejected before, were unknown or non-existent, and had too little collateral compared to the credit quality. Salas & Saurina (2012) noted that an explosion in credit demand is one of the issues that lead to problems in loans. Hardy and Pazarbasioglu (2009) noted that a distress in the banking sector is always preceded by an explosion in

credit. Rajan (2004) posited that most of the times, bank managers may be forced to twist earnings in a manner that will make the general public think that they are having a favourable credit policy and loan portfolio, such as through rapid loan growth resulting in high earnings. However, the fact unavoidable losses take more time to materialize. As a result, most banks tend to develop strategies that will realize these losses when every bank is facing a downturn since a bank's image may be less sensitive to poor earnings when most banks are admitting to poor earnings. Further banks may try to create coordination between their tight credit policies and lending booms. As a result, the banks may demonstrate that the credit cycles including those in the loan growth have not been created by external situations but through own policies.

There have been numerous studies that have tried to investigate the impact of loan growth on the performance of commercial banks. In yet another study, Foos *et al,*. (2010) analysed the situation in relation to loan growth and risk. They made an interesting argument that there exists a strong relationship between risk and loan growth. Barajas, Giovanni & Levchenko (2007) noted that in periods that are marked by an increase in loans, there is always some kind of a system distress. In another study, Laidroo (2012) noted that there is a powerful negative correlation between a bank's credit risks and lending growth. However, they also maintained that there is a powerful relationship that exists between lending growth and the level of equity, deposit ratio and liquidity of any bank. It is important to mention that the existing literature on the subject fails to show the connection that exists between loan growth and financial performance of commercial banks. However, there have been some steps and efforts taken towards this direction where some studies evaluated the determinants of financial performance

on Kenya's commercial banks (Ongore & Kasu, 2013; Muthee, 2010; Onuonga, 2014). In a study by Ongore & Kasu (2013) they focused on the impact of capital adequacy, asset quality, management efficiency, liquidity GDP and inflation on financial performance of commercial banks. In another study by Oneonta (2014) he considered the effect of bank assets, loans, capital, deposits and assets quality on banks profitability. Muthee (2010) focused on the relationship between credit risk management and profitability. The aforementioned local studies failed to consider the effect of growth in bank's loan portfolio on the financial performance of commercial banks. It is this gap in knowledge that this study was seeking to fill by evaluating the effect of growth in loan portfolio for Kenya's commercial banks on financial performance. The study contributed to the empirical evidence of the factors affecting financial performance of commercial banks in Kenya.

1.3 Objectives of the Study

1.3.1 General Objective

The general objective was to examine the effect of growth in Kenya's commercial banks loan portfolio on financial performance.

1.3.2 Specific Objectives

The specific objectives were:

i   To determine the effect of growth in commercial bank's loan portfolio on financial performance of commercial banks in Kenya.

ii   To determine the effect of asset quality on financial performance of commercial banks in Kenya.

iii   To determine examine the effect of liquidity management on financial performance of commercial banks in Kenya.

iv   To determine examine the effect of capital adequacy on financial performance of commercial banks in Kenya.

1.4 Research Hypotheses

The research hypotheses were:

H_{01}:   Loan growth does not have a significant effect on financial performance of commercial banks in Kenya.

H_{02}:   Asset quality does not have a significant effect on financial performance of commercial banks in Kenya

H_{03}:   Liquidity management does not have a significant effect on financial performance of commercial banks in Kenya.

H_{04}:   Capital adequacy does not have a significant effect on financial performance of commercial banks in Kenya.

1.5 Justification of the Study

The banking sector dominates the financial sector in Kenya and stability of the sector is critical for economic growth. Loans are a major asset for commercial banks and often managers' performance is measured based on growth in loan book. The intensity of competition among commercial banks in the loans market may potentially result in bank managers advancing loans without proper consideration of the quality of loans. This effect of loan growth on financial performance could be positive or negative depending on the quality of the loan. However, this effect may not materialize until after several

years. Understanding the effect of growing the loan book on performance of banks will allow bank manager to evaluate the effectiveness of their loan decisions on a longer-term basis and be able to make sustainable lending decisions. Supervisors and regulators of commercial banks should be able to devise better lending policies thus ensuring a more stable banking environment and minimize the incidences of bank crises.

1.6 Significance of the Study

This research contributed to the existing body of knowledge on the factors affecting the financial performance of commercial banks in Kenya. Specifically brought to the fore the effects of growth in banks' loan portfolio on the financial performance of commercial banks. Researchers in future can use it as a basis for further research. Based on the findings of this research managers of commercial banks were able appreciate the effects of changes in a number of banks performance measures on financial performance. The findings were an aid in the making of policy decisions relating to growing of loan portfolios in commercial banks. Further policy makers such the Central Bank of Kenya may find the finding of the study useful in terms in making regulations for the supervision of bank lending and achieving stability of the banking sector in Kenya.

1.7 Scope of the Study

This research study was concerned with the impact of loan growth on the financial performance of commercial banks in Kenya. Specifically it addressed loan growth and financial performance of commercial banks licensed in Kenya from 2011 to 2015.

1.9 Limitations of the Study

The study has faced a number of limitations and challenges. For example, there is the challenge of getting to senior management personnel due to their busy schedules. To mitigate the issue, the researcher dedicated a lot of time in collection of data and sending emails to ensure that there is an increased response rate. Due to the sensitivity of the banking information, most of the respondents felt that by offering information, they would risk revealing crucial information to competitors. The limitation was mitigated by assuring the respondents that the information offered will only be used for academic purposes and treated with utmost confidentiality. An introduction letter attached to the questionnaires affirmed confidentiality.

Regarding the financial constraints, the research required a lot of money to ensure that all logistical issues are taken care of; such as provision of stationery in terms of questionnaires and the distribution of the questionnaires. In relation to this therefore, the researcher had to operate on a very tight budget and make quite some substantial sacrifices in order to meet the demands of the research project. The study was also limited in that the data obtained through the questionnaires lacked a high degree of precision. Whereas secondary data is verifiable since it is obtained from the CBK publications and KBA publications, the primary data may not offer enough verification of the offered information.

<div align="center">**CHAPTER TWO**</div>

<div align="center">**LITERATURE REVIEW**</div>

2.1 Introduction

This chapter reviewed various theories suggested to explain growth in commercial bank lending, related empirical evidence and a discussion of the hypothesized variables. The chapter is organized to start with the theoretical framework, conceptual framework, discussion of research variable, empirical review, followed by summary of literature and research gaps concludes.

2.2 Theoretical Framework

Several theories have been suggested to explain growth in commercial bank lending. This study is anchored on three theories namely; institutional memory hypothesis (Berger & Udell, 2008), financial fragility hypothesis (Amri, Prabha, & Wihlborg, 2012), financial accelerator theory (Bernanke & Gertler, 1989) and information content hypothesis (Zemel, 2012).

2.2.1 Institutional Memory Theory

Berger & Udell (2008) articulated the institutional memory theory linking loan growth to credit standards. According to this theory, a bank loan grows due to the easing of the credit standards as time lapses since their last credit bust. As time passes since the last experience with problem loans, the ability of loan departments to effectively evaluate risks and point out potential problems decreases. During the early lending cycle of banks, the lessons on the last bust are usually fresh in the memories of loan officers who witnessed the ex-post realization of their prior loan decisions. According to Foos *et al.*

(2010), loan officers' skills tend to deteriorate with time since, especially of their banks stay for a long period before experiencing a loan bust. In particular, Foos *et al,*. (2010) noted how loan officers end up originating loans without proper screening, analysis, and structuring while paying little or no monitoring of loans once they are granted. The result is substantial growth in a banks' loan portfolio without due consideration of inherent credit risk. Consequently, the loan boom of such banks turns into a bust prompting loan officers to take drastic measures aimed at managing their distressed credits. As the officers address such loan problems, they end up re-learning the strategies of ensuring good loans, monitor them; thus, avoid bad loans that might paralyse the operations of their banks.

According to Foos *et al,*. (2010), the factors that cause the deterioration in credit standards can be attributed to a number of factors. Firstly, losing skilled and experienced loan officers can adversely affect the ability of the bank to manage its lending. Experienced officers may be promoted to senior positions within the same bank or may leave the said bank, calling for a replacement often by new inexperienced officers. The new officers not only lack the much-needed experience of loan portfolio but also lack the background knowledge regarding the last loan bust of the bank. Secondly, a bank's loan review function is likely to be less effective since the last bust because since few observed problem loans are available to use in evaluating the skills and performance of loan officers. In other words, few observed problem loans provides an inadequate evidence to show how the loan officers acted or reacted before and after the bank experienced such loan problems. According to Berger & Udell (2008), fewer problem loans tend to worsen the agency problem between loan officers and bank

management making loan review process less effective. If loan growth is due to deterioration in credit standards as suggested by the institutional memory hypothesis, loan growth would result in poor financial performance by the commercial banks.

2.2.2 Financial Fragility

Amri, Prabha & Wihlborg (2012) examined the financial fragility hypothesis by explaining the link between high loan growth and the subsequent banking crises. According to Amri *et al,*. (2012*),* indicators of financial friability are linked to major distortions or imbalances within the financial sector. The financial fragility theory identify six potential indicators of financial fragility that may lead to a banking crises following periods of high loan growth; financial reformation; a rise in capital inflows; escalation of asset prices; high leverage of firms and households; definite or absolute protection of banks' creditors and banking regulation and supervision that is ineffectual. As households increase consumption and production increases in firms during economic surges, demand for credit increases causing sudden increase in asset prices, net worth, and positive expectations of the future (Amri *et al.* 2012). The hope to increase incomes and revenues for both households and firms, respectively, leads them to take on more debt with an aim to increase their profits and net worth. While the same can boost gains, it can as well heighten the susceptibility to losses. The theory predicts that high advantage increases the likelihood that a banking crisis will follow high credit growth.

Amri *et al,*. (2012) noted that the quick growth in loans and prices of assets experienced during economic surges if often transitory in nature. Anytime the profit expectations are not attained, both the net worth and prices of assets of the borrowing firms. Consequently, the lenders experience loan losses and confidence in the financial sector

is lost leading to problems when the formerly economic booms turn to bust. Tornell & Westermann (2006) argued that the tendency of bankers to carry out risky loan lending without an actual effective risk monitor is caused by financial liberalization. Also, if financial liberalization occurs through the removal of controls imposed on lending rates and credit allocation, it loosens credit limitations; therefore, boosting the private credit growth. With financial liberalization, competition among various banks increases which, in turn, reduces net income as well as gross income margins. In order to compensate loses by the plunge in profitability, bank managers are prompted to increase loan growth (Amri *et al.* 2012*).* This can be done even without paying much attention to the status and quality of their loan portfolios.

Following the argument in this theory, banks tend to grow their loan portfolio during the period of economic prosperity when the loans market is characterized by optimism. The rapid expansion of a banks' loan portfolio by lending to the private sector during economic booms is likely to be followed by a banking crises and periods of poor banking financial performance during the downturn. Following this hypothesis, it would be expected that banks financial performance and the quality of assets would be cyclical to loan growth; financial performance would improve in an economic upturn. However, in the down turn, the financial performance of the banks deteriorates as the quality of the loans extended during the upturn is exposed.

2.2.3 Financial Accelerator Theory

Bernanke & Gertler (1989) suggested a financial accelerator theory to explain the impact of economic shocks on the aggregate economic activity of a bank. In particular, the theory provides crucial insights regarding the adverse effects of small economic

shocks the aggregate economic activity due the imperfections associated with financial markets. Bernanke & Gertler (1989) defined financial accelerator as a mechanism of economic shocks amplification and propagation. The financial accelerator theory considers an interchange between the net worth of economic agents and the external finance premium due to the uneven information shared by lenders and borrowers. Specifically, a positive correlation between economic agents' net worth and the aggregate economic activity results in a change in the latter. The net worth of economic agents is inversely related to the terms they are able to raise external finance and the external finance premium due imperfect information. The inverse relation between output change and external financing make borrowing easier during a phase of economic expansion than during recession.

Bernanke, Gertler, & Gilchrist (2009) asserted that different loan market conflicts that may increase financial disturbances may be investigated using the same mechanism as how the financial accelerator effect is studied with regard to monetary transmission policy. I yet another study, Boissay (2011) complemented the financial accelerator theory with the loan-supply transmission channel. Borrower's balance sheets are used by potential lenders to get information that helps them decide whether to loan borrowers as per the market rates or not. During economic expansions, corporations' balance sheets are better in that there emerges a "virtuous" cycle during the expansions and a "vicious" cycle in times of recessions. Asset prices and positive customer expectations increase during expansions, causing heightened credit demand for companies. For this reason, there occurs an upsurge of bank lending alongside relaxation of credit standards and more credit risk.

As opposed to economic expansion, when economic downturn starts, the companies' asset prices fall, their financial status worsens, and customers begin having pessimistic expectations (Boissay, 2011). According to Boissay (2011), these outcomes reduce the companies' value of collaterals. As a result, the banks' nonperforming assets and loan losses increase as its profitability and capital adequacy decreases. Bank-dependent borrowers are usually affected during the recession period when the bank restricts lending which leads to lower investment and credit demand (Boissay, 2011). This theory suggested that banks' loan portfolio is likely to grow substantially resulting in improved financial performance during periods of economic expansion. However, during recession banks will find it more difficult to lend resulting in a contraction in the loan portfolio. Also loan growth over an economic expansionary period may have adverse effect on banks financial performance in a recession period as the borrowers find it difficult to service the their loans.

2.2.4 Information Content Theory

Zemel (2012) argued that new investments made by any bank are explained by the general growth of its loan portfolio. The theory claims that a banks' future financial performance is greatly communicated by the growth of its loan portfolio. Loan portfolio growth could provide information about the future growth opportunities in the bank's lending market. Loan growth is an indication that the bank is able to seek out new profitable markets, thus leading improved profitability and cash flow positions. Loan growth can also be used to convey good or bad news regarding to the expected financial performance of banks. Issuance of new loans may suggest thank has successfully expanded its market share by convincing more customers to take its loan packages. In

this case, loan growth leads to improved financial performance. According to Zemel (2012), loan growth can also arise when a bank decides to issue new loans as a way of hiding its losses associated with its current loan portfolio. In particular, the bank can issue new loans to its existing borrowers in an attempt to enable the bank to maintain payment of outstanding troubled loans. Such a move makes it possible for the bank to keep troubled loans out of the various loan loss accounting categories on the bank's financial statements. Consequently, the bank can show an improving financial performance that external stakeholders can easily access in such financial statements; hence, delays bankruptcy of such banks.

From the Content Theory, it is logic to hypothesize that various bank features and types of loans granted affect the information conveyed by its loan portfolio growth. On one hand, features that make it possible for the bank to identify new growth opportunities tend to a positive image. On the other hand, features that make a bank to unsustainable and bad loans convey negative news. Thus in banks with good financial performance, loan growth conveys an expectation of better financial performance. Loan growth for banks with poor performance may be an indicator of even worse performance as the bank could be ever greening its loan portfolio. Loan growth will provides positive financial performance and market valuations if the features of the loans are likely to result in the bank having increased market power. However if the features of the loan make a bank to engage in ever greening the banks financial performance and market valuation will worsen and all else equal result in bankruptcy (Zemel, 2012).

2.2.5 Agency Theory

The Agency Theory provides a theoretical framework for understanding the conflicts that might in the interactions between a principle and an agent of an organization. Jensen & Meckling (2002) argue that agency theory indicates that the agencies' nature is bond between the agent and principal which are basic in firms and companies' activities. Therefore, the agency theory provides a platform for settling any conflict that might arise between the agent and the principle. In doing so, organisations can prevent the cost associated with agency conflicts; for instance, agency cost of equity and cost of debt.

According to the agency theory, a separation between the owners and managers of company creates divergence of interests which ultimately increase the agency cost. These costs refer to the aggregate of: the agent incentive costs and monitoring costs incurred by the principals in limiting the divergence of interests; bonding costs incurred to deter the principals from taking interest diverging actions; and the welfare reduction or residual loss incurred by the principal as a result of the divergence between the agents decisions and welfare maximizing decisions expected by the principals (Jensen & Meckling, 2002). Managers would often deploy corporate assets for their own selfish interests rather than the interest of the stock holders. These problems are usually exacerbated by differentials in risk preference between the agents and the principals (Jensen, 1986). Often, shareholders are more concerned about the systematic risk while managers are more interested in unsystematic risk which conflicts are more pronounced in companies with substantial free cash flows. This is so because the managers will chose to invest the excess cash flows to optimize profits and not to increase cash

payments to shareholders. Accordingly managers of commercial banks may be motivated to grow the size of their banks by generating additional loans out of the banks free cash flows (Acharya, Hasan & Saunders, 2006).

2.2.6 Resource-based Theory

The resource based theory assumes that firms undertake deliberate managerial effort to achieve sustainable competitive advantage. It illustrates that firms can have different resources and capabilities, which can, nevertheless, be stable which can be attributed to the various technologies used by banks for diversification of products (Barney & Hesterly, 2011). Combining the various resources and capabilities of a firm, gives it an upper hand in the competitive area in relation to time saving, its cost of operation, business agility and quality of service. In their study, Goold & Campbell (2008) identified the benefits of sharing knowledge coordinated strategies, vertical integration, and tangible resources. According to Contractor, Kundu, & Hsu (2009), a firm can utilise such resources to generate an economy of scale by increasing the efficiency in the utilisation of its readily available resources. Therefore, the resource-based view approach enlists the circumstances under which a firm's resources lead to high returns over longer periods of time using Porter's five competitive forces (Lieberman & Montgomery, 2012). According to Lieberman & Montgomery (2012), the resource-based view explains the resource-benefits accruing to a firm by envisaging the existence of resource position barriers where by the holders of a resource are able to maintain a sustainable competitive advantage in relation to other holders and third persons.

2.3 Conceptual Framework

The empirical evidences from previously conducted studies and theories provide the basis for the construction of a conceptual framework for this study. In particular, the theories identified provide a conceptual framework, so that knowledge can be interpreted for empirical application in line with the research question identified in Chapter One. As Figure 2.1 shows, one dependent variable and four independent variables were identified in this conceptual framework.

Independent Variables   **Dependent Variable**

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┌─────────────────────────┐
│                         │
│  Loan growth            │
│                         │
└─────────────────────────┘

┌─────────────────────────┐              ┌─────────────────────────┐
│                         │              │ Financial Performance   │
│  Asset quality          │  ─────────▶  │ Return on Assets        │
│                         │              │                         │
└─────────────────────────┘              └─────────────────────────┘

┌─────────────────────────┐
│                         │
│  Liquidity management   │
│                         │
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┌─────────────────────────┐
│                         │
│  Capital adequacy       │
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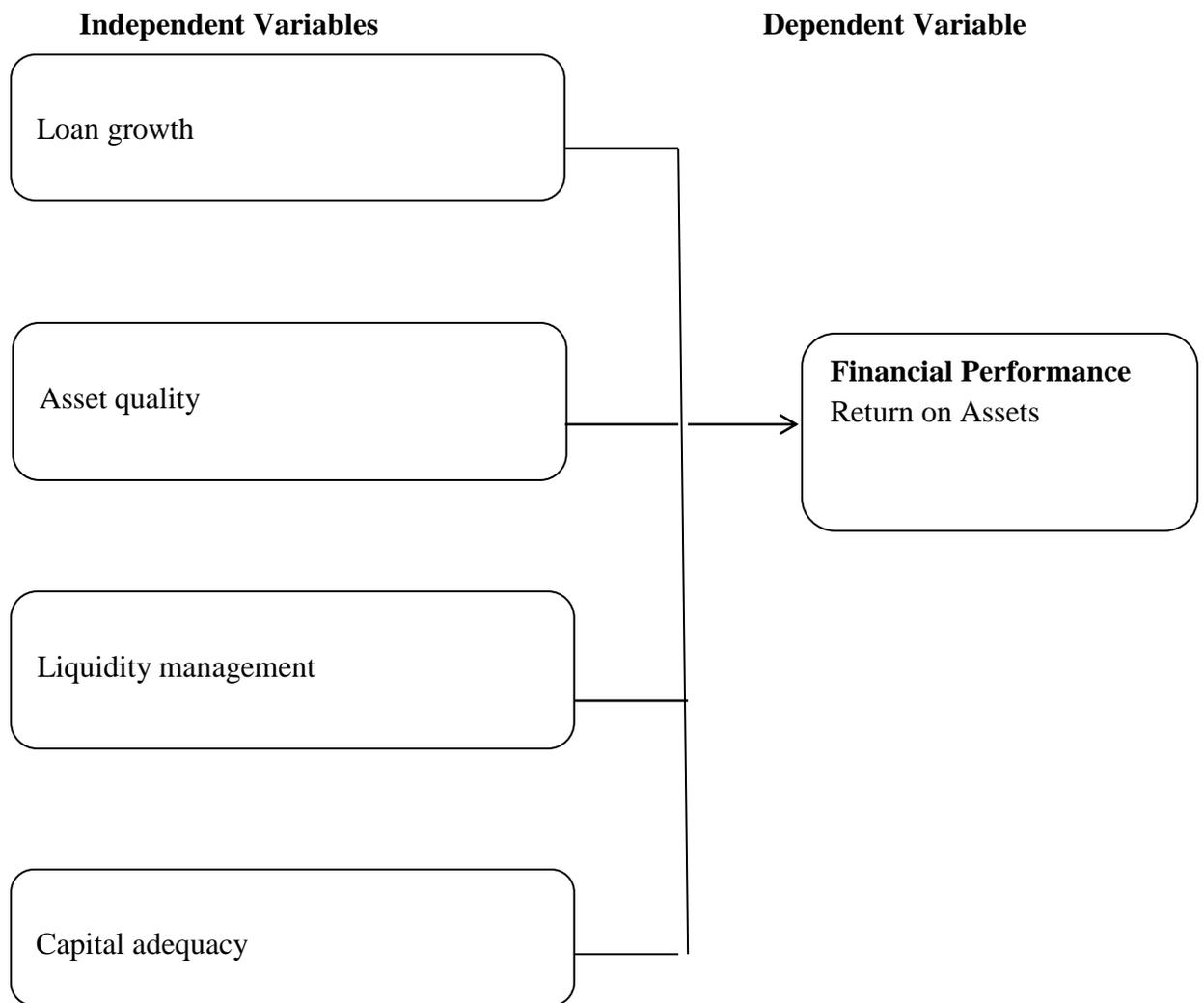
Figure 2.1: Conceptual Framework

The conceptual framework focuses on the economic indicators as the variables for analysing the performance of commercial banks in Kenya. The thought was to use evidence from previously conducted studies to predict the relationship between the independent and independent variables. In brief, the loan growth, asset quality, capital adequacy, and liquidity management were the independent variables. The financial performance of the banks was the dependent variable, whereby the Return on Assets (ROA) was used as the parameter.

2.3.1 Loan Growth

Loan growth refers to the change in a banks' loan portfolio. Growth in a banks' loan book is seen a significant measure of managerial performance. Sinkey & Greenawalt (2011) noted that there is a great positive relation of the average of previous loan growth to the concurrent loan loss rate. In a previous study, Salas & Saurina (2002) noted that loan growth of banks dealing with savings is positively related to loan losses three to four years ahead. The duo noted that the relationship was not only positive but also significant. In hey another study, Foos *et al,.* (2009) observed that a bank's loan growth can lead to an increased loan loss provisions during the subsequent three years resulting in reduced profitability.

2.3.2 Asset Quality

Dang (2011) & Lafunte (2012) acknowledge the importance of a banks' loans in generating income by putting into use the money cash deposited by customers. From banks' perspective, loans are critical assets that generate income; therefore, loan portfolio quality is an important determinant of banks' performance or profitability. According to Dang (2011), the loss associated with delinquent loans is one of the

highest risks that banks face. Therefore, the ratio of Loan Loss Reserves to Net Interest Revenue can be used to measure the quality of banks' assets by indicating how much of the total portfolio has been provided for but not charged off. In yet another study, Lafunte (2012) argued that the existence of an effective mechanism to counter deterioration in asset quality can aid in solving this major bank problem. According to Lafunte (2012), deteriorating in asset quality is a common cause of bank failure. Kosmidou, Pasiouras & Tsaklanganos (2006) agreed with Lafunte (2012) that a poor loan quality pose the risk of reducing interest revenue while at the same time increase the provisioning costs of a bank.

2.3.3 Liquidity Management

Liquidity is a common terminology in banking which refers to the ability of banks to fulfil their short-term obligations to depositors by ensuring that cash is available whenever the customers need to withdraw. Dang (2011) noted that liquidity level is positively linked to the profitability of a bank. Thus, profitability increases in banks that maintain adequate levels of liquidity. According to Ongore & Kusa (2013), customers' deposits to total assets and total loan to customers' deposits are useful financial ratios for measuring the liquidity ratios of banks. In another study, Makaa (2013) revealed a significant positive relationship between banks' liquidity and financial performance. Hassan & Bashir (2003) noted that net loans to total assets ratio is a liquidity ratio that can successfully measure the portion of banks' assets that are tied up in loans. In particular, higher net loans to assets ratio indicates a better performance due to increased interest income.

2.3.4 Capital Adequacy

Capital adequacy is reliable parameter for measuring the ability of banks to survive operational and abnormal losses. Further, capital adequacy can be used to measure the ability of banks to undertake additional businesses, considering the regulatory requirement on the minimum capital that such banks are required to maintain. Higher capital adequacy is associated with more financial flexibility for financial institutions. According to Ayele (2012), higher capital ratio allows banks to earn more profits by translating their safety advantage into profits. Capital adequacy ratio, which measures the banks' solvency and its ability to absorb risk, determines risk behavior of banks. Maki & Athanasios (2014) noted the importance of capital adequacy ratio in protecting depositors and promoting stability and efficiency of financial systems.

According to Hassan & Bashir (2003), the ratio of equity is one of the basic ratios for measuring capital strength that shows the ability of banks to absorb losses and deal with risk exposures. Hassan & Bashir (2003) noted that the ratio of equity to total assets tends to have a positive relationship with the performance of a bank. In a previous study, Kashyap, Rajan & Stein (2002) had indicated that capital adequacy can potentially protect depositors and promote the stability of financial systems across the globe. As Kashyap *et al,.* (2002) observed, tier one and tier two are the two types of capital that can be measured. Tier one capital absorbs losses without the requirement of a bank to cease trading. In contrast, tier two capital tends to absorb losses in the event of a winding-up; therefore, it provides a lesser degree of protection to the depositors.

2.3.5 Measures of Financial Performance

When determining the financial performance of commercial banks, several parameters can be used to measure the different financial aspects of a bank. The Return on Assets (ROA), the net interest margin, and the Return on Equity (ROE) are reliable financial indicators that provide crucial insights regarding the financial performance of banks. In brief, the ROE is a financial ratio that shows the amount of profit that a bank has earned in relation to the total amount of shareholders' equity invested. Therefore, the ROE shows the effectiveness of the bank's management in using the funds of the shareholders (Khrawish, 2011). Khrawish (2011) defined ROA as the ratio of income to total asset, which measures the ability of the bank to generate income by maximising the utilisation of the resources. In other words, the ROA usually shows the effectiveness of the bank in deriving the net income from its accrued resources.

Regarding the net interest margin, the net interest and net interest income are important financial indicators that can be used to determine the performance of banks. Gul, Faiza & Khalid (2011) defined net interest margin as the net interest income divided by total earnings assets. Therefore, the net interest margin can be interpreted as the difference between the interest income of a bank and the amount of interest paid on deposits scaled by the amount of interest earning assets. According to Dorota (2012), net interest margin is the most straightforward measure of the earnings potential of new loans. Banks usually face a trade-off between high margins and high volumes. The willingness to expand rapidly implies that interest margins may have to be compromised. This loss in terms of interest rate levels may be possibly offset however by a volume effect. Potential earnings that it generates always spur loan growth.

2.4 Empirical Review

Foos *et al,.* (2010) analysed the relation between loan growth and financial performance using data from 16,000 banks operating in 16 developed countries. The longitudinal study focused on financial performance of the banks between 1997 and 2005. The findings revealed that current loan growth leads to a peak in loan loss three years later leading to a decreasing relative risk at the individual bank level. Foos *et al,.* (2010) concluded that loan growth is positively related to bank risk. Although the positive relationship is strong, the negative effects of the risk tend to materialise three years later. They also show that new loans on developed markets are granted at the expense of lower margins, although the new clients are possibly more risky than the old customer base. Therefore, the study demonstrated that loan portfolio expansion have a negative effect on bank capital ratios.

In another study, Barajas, Giovanni, & Levchenko (2007) explored the effect of quick domestic credit expansion on performance of commercial banks financially in the emerging markets of Europe. They noted that despite financial deepening being of significant value to economic growth, credit booms increase a bank's susceptibility to crises. Their study established that credit booms are indeed associated with episodes of banking system distress, and that the effect is highly nonlinear in both credit growth itself and the in the impact of other variables during credit booms. The study found that crises was likely to occur in cases of larger, more prolonged booms, and those coinciding with higher inflation and, to a lesser extent, low economic growth. They concluded that better banking supervision and greater trade openness seem to reduce the crisis probability.

24

In more recent study, Labonne & Lame (2014) examined the relationship between loan growth and bank capital requirement in the French banking sector. Data from the French banking sector between years 2003 and 2011 that was combined to provide information on bank-level bank lending survey responses. The findings revealed that on average, more capital means an acceleration of credit but the elasticity of lending to capital depends on the intensity of the supervisory capital constraint. It also showed that when banks are constrained credit growth is more sensitive as the share of nonperforming loans rises.

Laidroo (2012) investigated the determinants of lending growth and cyclicality of banks in Central and Eastern Europe. The study consisted of 15 banks between years 2004-2010. The result supported cyclicality in lending growth. The relationship between GDP growth and lending growth was found to be lower when economy is below trend than it is above trend. Laidroo (2012) discovered that lending growth is negatively linked to the monetary policy indicator and bank's credit risk and positively linked to the bank's level of liquidity, profitability, and deposit ratio. Bank's size was noted to have a negative association with lending growth while banking sector concentration was positively associated with the same.

At the national level, Ongre & Kasu (2013) conducted a study to determine the factors affecting the financial performance of commercial banks operating in the Kenyan market. The aim of the study was to examine how performance of Kenyan commercial banks was affected by bank-specific factors and macroeconomic elements. A panel data for 37 commercial banks for the year 2001 to 2010 was analyzed using linear multiple regression model. This empirical study showed that the performance of commercial

25

banks in Kenya is majorly affected by capital adequacy, asset quality and management efficiency with the effect of liquidity on the same, not being strong. There was found to be a positive relationship between bank performance management efficiency and capital adequacy, and a negative relationship between bank performance and asset quality. However, liquidity management represented by liquidity ratio was found to have no weighty effect on the banks' performance in Kenya. The study found that GDP had a negative correlation with ROA, Net Interest Margin (NIM), and positive with ROE. Inflation was noted as having a relatively strong negative correlation with financial performance of the Kenyan commercial banks.

Onuonga (2014) analysed profitability of Kenya's top six commercial banks. The study aimed at investigating the effects of internal factors of profitability in the top six Kenya's commercial banks between 2008 and 2013. Onuonga (2014) employed the generalised least squares to estimate the impact of the banks' capital, assets, loans, deposits, and assets' quality on profitability. It was found that all top six commercial banks' performance was majorly affected by bank size, capital strength, ownership, operations expenses, and diversification. A recommendation to the Kenyan Government by the study was made that policies encouraging increase in capital bases and asses by the commercial banks should be put in place. In a similar study, Muthee (2010) focused on determining the association between non-performing loans and performing loans. From all the commercial banks analysed in the study, it was evident that profitability was affected by the credit risk management. Nonperforming loans reserves were found to be positively related with return on equity. However, the relationship was not statistically significant.

As a developing economy, Malawi faces similar challenges that the Kenyan market faces, especially in the banking system. In a recent study, Chimkono, Muturi, & Njeru (2016) evaluated the effect of non-performing loans and other factors on performance of commercial banks. The aim of the study was to investigate how financial performance of Malawian commercial banks is affected by non-performing loan ratios and other factors. It used a correlational research design and regression analysis was conducted. The study used secondary data over the period 2008 to 2014 and performed a census on all commercial banks licensed by the Reserve Bank of Malawi. The findings revealed that non-performing loan ratio and cost efficiency ratio had a significant negative impact on the performance of Malawian commercial banks.

2.5 Critique of Empirical Literature

From previous studies, it is evident that scholars have paid considerable amount of attention to commercial banks and their loan practices. A high level of agreement between scholars is evident. For instance, Amri *et al,.* (2012) echoed the same sentiment that Hassan & Bashir (2003) shared about the rapid growth in loans and asset prices observed during boom times. On the same note*,* Foos *et al,.* (2009) agreed with Kosmidou, Pasiouras & Tsaklanganos (2006) that a poor loan quality could reduce interest revenue and increase the provisioning costs of a bank. These studies provide insightful evidences on the dilemma that banks face while giving out loans. These studies show how lending managers try to balance between short-term and long-term goals (Sinkey & Greenawalt, 1991; Hassan & Bashir, 2003). While giving the more loans brings more profitability, giving unsecure loans increases the liabilities associated with the inability of customer to keep up with payment. For example, Salas & Saurina

(2002) noted that loan growth of savings bank positively relates to loan losses, although the bank celebrates the short-term gains.

The reviewed literature highlights the consequences of growth in loan portfolio for commercial banks. Many scholars show how growth in the loan portfolio will have a positive effect on the banks financial performance so long as borrowers are able to service their loans(Salas and Saurina, 2002; Amri *et al.* (2012). The studies also show that lending growth positively relates to banks equity, profitability, liquidity, and deposit ratios (Hassan & Bashir, 2003). An interesting matter alluded to by the literature is that commercial banks can often be able to maximize the effect of loan portfolio growth on financial performance by attempting to anticipate the occurrence of nonperforming loans thus scaling down loan growth when such occurrence is expected. However, the empirical evidence is mixed on the possibility of loan growth resulting in banking crises.

The relevance of these previous studies depends on the applicability in the Kenyan banking system. Evidently, most of the studies reviewed represent banking systems that share little similarities with the Kenyan banking system *(*Amri *et al*., (2012) Kosmidou, Pasiouras & Tsaklanganos, 2006; Hassan & Bashir, 2003). The current studies on Kenyan commercial banks have addressed different aspects; therefore, do not answer any of the research questions in this study (Onuonga, 2014; Chimkono, Muturi, & Njeru, 2016). As a lower-middle income country, Kenya has its own country-specific characteristics, especially on how individuals borrow and make payments. Therefore, the studies derived from higher income societies might not represent the Kenyan banking system. Therefore, this study is important in providing country-specific

findings that take into account Kenya's income per capita, ability to pay unsecured loans, rate of defaulting, and interest rates charged among other challenges facing Kenyan commercial banks.

2.6 Summary

Several theories have been proposed to explain growth in commercial bank lending. These theories characterize growth in lending by commercial banks and explain the potential effects on financial performance in subsequent periods. Institutional memory hypothesis links loan growth to credit standards. It argues that credit standards within banks ease with time that elapsed since the institutions last experienced a bad loan crisis. As the lessons learnt from previous credit problems fade, banks tend to loosen their credit standards and herding effects from an enthusiastic, growing market affect their behaviour.

Financial fragility hypothesis attribute high credit growth leading to a banking crisis to a number of factors namely; high leverage of firms and households; financial liberalization; surge in capital inflows; asset price booms; strong explicit or implicit protection of banks' creditors and weak banking regulation and supervision. The presence of one or several of these factors in an economy increases the probability that credit growth will end up in a banking crisis. Financial accelerator theory is based on an argument that due to financial markets imperfection, small economic shocks can have large and persistent effects on aggregate economic activity. Thus in times of economic upturn lending by commercial banks will tend to expand significantly however banks will experience poor performance in the downturn as nonperforming loans increases.

Soundness of the banking sector is critical for the stability of an economy. While growth in bank lending is a desirable measure of bank performance, the quality of such loans has a major effect on financial performance in subsequent years. Loan growth may arise from increased demand for financing by enterprises or from increase in funding by commercial banks. Reviewed literature identify the effect of credit growth as resulting in increased provisioning in nonperforming loans in subsequent years but the effect do not materialize until after three years. Majorly credit booms have been identified as ending up in banking crisis. However, it would be expected that diligent growth in bank loans would result in increased interest income and improved financial performance.

2.7 Research Gaps

Growth in loan book is major performance metric for bank managers. However, such a measure may encourage short-termism behaviour where managers seek to grow their loan portfolios without proper regard to the associated risk. Evidence on the effect of growth in loan portfolio on performance of commercial banks is limited. Prior research provides evidence on the effect of loan growth on increase in nonperforming loans and the link to credit risk *(Foos et al.,* 2010*;* Salas & Saurina, 2002). Barajas *et al,.* (2007) and Kraft & Jankov (2005) attribute the failure of banking systems to credit booms. While these studies link growth in lending to nonperforming loans and banking crises they fail to directly provide evidence on the effect of loan growth on financial performance of commercial banks.

Locally, Ongre & Kasu (2013) researched the effect of bank specific and macroeconomic factors on financial performance of commercial banks. In this study,

the effect of macroeconomic variables was inconclusive. Onuonga (2014) examined the effect bank assets, capital, and loans, deposits and assets quality on bank profitability. The aforementioned studies failed to consider the effect of growth in bank loans on financial performance of commercial banks. This study seeks to bridge this knowledge gap by evaluating the effect of growth in bank loan portfolio on financial performance of Kenyan commercial banks.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter focuses on offering the different research designs that were employed in the study. The target population, sampling technique, sample size, research instruments, data collection procedures, pilot test, data analysis and presentations, statistical model and testing that was used in the study were described in sections 3.2 to 3.9.

3.2 Research Design

A regression research design was used to explore the relationship between the factors involved. According to Zikmund (2003), researchers tend to use regression studies in seeking certain types of evidence to help them understand and predict relationships. Regression studies attempts to establish that when one thing or event occurs, it is due to another factor. In this case, the performance of the banks was linked to the lending decisions that these banks make. Therefore, a regression research design was justified for this study since it was expected that changes in bank specific factors causes change in performance of banks.

3.3 Target Population

Kothari (2004) define population as the number of items where desired information is obtained. The population of interest consisted of the 44 commercial banks in Kenya. The Kenyan banking sector has been characterized by significant growth in bank loan book year on year. Mugenda (2004) assert the target population is one where the researcher generalizes the results of a study. The target population was the 44

commercial banks operating between 2011 and 2015 (Appendix I). This period was selected as it was a period of rapid credit expansion by commercial banks.

3.4 Sampling Frame

Howitt & Cramer (2011) pointed that for researchers to generalize findings from the sample to the population they must carefully select the survey sample. A sampling frame refers to the listing of the members of a specific population. A sampling frame is essential to allow the researcher to select a subset of the population under research. A sampling frame and is, in a sense, an operational definition of the population of interest. The sampling frame for this study consisted of the senior loan officers of commercial banks in Kenya. The senior loan officers were selected since they were the ones that finally approve loan applications and drives loan growth.

3.5 Sampling Technique and Sample Size

Shaughnessy, Zechmeister, & Zechmeister (2012) explain that sampling is an approach where a subset of a population is obtained to represent the entire population. Stratified sampling was used to select the sample. According to Berg (2001) stratified sampling involves dividing the population into subgroups known as strata and selecting independent samples from each stratum. With each stratum a particular sampling fraction is applied in order to ensure representativeness of proportions in the full population. The strata used for this study were the tier classification used by Central Bank of Kenya to classify banks into tier one, tier two or tier three. Simple random sampling was then used to select the actual sample. Simple random sampling is a probability sampling technique in which each element of the sample frame has an equal chance of being included in the sample (Howitt & Cramer, 2011). For each commercial

banks sampled 2 respondents were sought. This provided 62 respondents that is 31 commercial banks*2 respondents.

The sample size in this study was determined using the following formula:

$n = N(cv^2)/\{cv^2 + (N-1)e^2$

Where n = sample size

N = target population

Cv = co-efficient of variation which is taken as 0.5

e = Tolerance at desired level which is taken at 0.05 or at 95% confidence level

Using this formula, the sample size was computed thus:

n = 44* $(0.5)^2$ / $\{(0.5)^2 + (44-1) (0.05)^2\}$ =30.77 (approximately 31)

n=31 constitute 70.45% of the target population

The sample was determined as shown in Table 3.1 below.

Table 3.1: Sampling frame and sample size

Strata (Bank Tier)	Number of Banks in the stratum	Proportion	Number included in the Sample Proportion*31
Large	6	0.136364	4
Medium	16	0.363636	11
Small	22	0.50	16
Total	**44**	**1**	**31**

3.6 Research Instruments

This research study made use of primary and secondary data. Primary data are those that are collected afresh and for the first time, and thus happen to be original in character (Kothari, 2004). Primary data was collected using a questionnaire-appendix 5. A questionnaire refers to a number of questions that are printed or typed in a clear

manner on a form or set of forms. The questionnaire was mailed or delivered to respondents who were expected to read and understand the questions and write down the reply in the space meant for the purpose in the questionnaire itself. The respondents had to answer the questions on their own (Cooper & Schindler, 2011). The questionnaire was used to collect data relating to the independent variables. Secondary data are those which have already been collected by someone else and which have already been passed through some analysis (Kothari, 2004). Secondary data sources were used to obtain data relating to the dependent variable. A data collection sheet-Appendix 6 was used for collecting secondary data.

3.7 Data Collection Procedures

Data collection procedure involved designing a questionnaire. The questionnaire was first piloted as described in section 3.8 below. The questionnaire was then distributed to the sampled commercial banks. A self-administered questionnaire was used in which the respondents completed the questionnaire on their own time at their convenience. An email reminder was sent to the respondents five days after the questionnaires were delivered. The questionnaire was then collected four days after the reminder. Secondary data was collected by scrutinizing and recording the relevant data from the published financial statements of the commercial banks.

3.8 Pilot Testing

Howitt & Cramer (2011) posit that before embarking on the main stage of fieldwork, it is crucial to pilot the draft questionnaire. A pilot test involves testing the questionnaire on a small number of respondents who are the same type as those in your sampling frame. Howitt & Cramer (2011) suggest that piloting can be conducted on between 5-50

35

respondents depending upon the final sample size. Piloting enables the researcher to ensure that; all the relevant issues are included, the order is correct, ambiguous or misleading questions are identified, the pre-codes are correct and no issues have been forgotten or omitted that the respondent deem would be important.

3.8.1 Reliability Testing

A measuring instrument is reliable if it provides consistent results. Reliability is concerned with securing consistent results with repeated measurements of the same person and with the same instrument. Reliability can be determined by comparing the results of repeated measurements (Kothari, 2004). The Cronbach's alpha was used to determine how reliable the instrument was. Cooper and Schindler (2011) assert that cronbach's alpha has the most utility for multi-item scales at the interval level of measurement. Items in the questionnaire underwent reliability analysis in accordance with the four factors extracted. Gliem & Gliem (2003) recommend a cronbach that exceeds 0.7. In this study, reliability of 0.7 and above was considered acceptable and the formula developed by Cronbach was used to calculate the alpha (Cronbach, 1951).

3.8.2 Validity Testing

Validity refers to the degree to which an instrument measures what it is supposed to measure. It is the extent where the differences in a measuring instrument reflect the correct difference among those that are being tested. *(Shaughnessy et al.,* 2012*).* On the other hand, construct validity refers to the extent to which the measurement questions measure the presence of the different kinds of constricts a researcher intends to measure (Saunders *et al.,* 2007*).* In this study and for the sake of construct validity, the questionnaire was divided into several parts to ensure that every part assessed

information for a specific objective and to ensure that the same closely tied conceptual framework of the study.

The element of content validity is one where the measurement device offers adequate coverage of investigate questions. Creswell (2003) makes a point that a colleague and / or a person with expert knowledge in a subject matter can offer additional insight into the study and research findings. To promote content validity, the questionnaire was put through a thorough examination by two independent senior resource persons, from the investment banking institutions. Investment bankers were selected because of the role they play in arranging financing for listed companies. The resource individuals were asked to carry out an evaluation of the statements in the questionnaire for purposes of relevance and whether they were meaningful and clear.

The questionnaire used in this study was pilot tested on six respondents with a request that they provide a critique of the questions posed, and make suggestions for improvements. The pilot test was used to test the validity and reliability of the questionnaire. For the validity, the responses were used to determine the extent to which the questionnaire collects relevant data as required. In particular, the pilot study was used to measure content validity as well as the reliability of the questionnaire.

3.9 Data Analysis

The process of data analysis is important in that it inspects, cleans, transforms, and models data with the aim of highlighting critical information, offering conclusions, and embracing decision-making. Data analysis started once all the data has been captured. Closed-ended questions were analysed using nominal scales into mutually exclusive categories and frequencies by employing descriptive statistics using the statistical

package for social scientists (SPSS). Analysis involved the production and interpretation of frequency tables that describe and summarize the data.

Multiple regression analysis was used to evaluate the effect of independent variables on the dependent variable. The regression focused on describing and evaluating the relationship that exists between one variable and another. More specifically, regression is employed to explain movements in a variable by focusing on movements in one or more other variables. Regression technique is based on cause effect relationship between the dependent and independent variables (Brooks, 2008). The significance of the independent variables was tested using t-test at 5% level of significance. The adequacy of the regression was tested using F-test while the coefficient of determination (R^2) was used to evaluate the explanatory power of the independent variables.

3.9.1 Model Specification

The multiple regression model used was specified as follows:

ROA=α+β_1 LPG +β_2 ASSQ +β_3 LIQ +β_4CAR + ε_i

Where

ROA= Return on assets

LPG=Loan growth percentage

LIQ= liquidity level

ASSQ=Asset quality

CAR= Capital adequacy

α=constant term

β_j= Coefficients for the independent variables (j=1…4)

ε_i= Error term/residual

CHAPTER FOUR

RESEARCH FINDINGS AND DISCUSSION

4.1 Introduction

This chapter focused on the analysis of the data collected and discussions of the findings. The chapter was organized to start with the result of pilot testing followed by an analysis of the response rates, then analysis of findings followed by a discussion of the results. Data was analysed using SPSS and presented using tabulations. Multiple regression technique was also used in the analysis.

4.2 Pilot Test Results

A pilot study was carried out to check on validity and reliability of the questionnaire in gathering the data. A sample of 3commercial banks was picked. Return rate was100%. Factor analysis was carried out with a threshold of a factor loading of 0.3. All composite measures that gave a factor loading of less than 0.3 were subsequently dropped from the questionnaire. The composite measures that were retained constituted all the questions in the questionnaire that were administered to the respondents during main study. The results of factor analysis are as shown in   Table 4.2.

Table 4.2: Factor Analysis Results

	Composite Measures	Dropped Measures	Retained Measures
Loan portfolio growth	6	1	5
Asset Quality	5	0	5
Liquidity management	5	0	5
Capital adequacy	4	0	4

The study used cronbach's alpha statistic with a threshold of more than 0.7. All variables gave a cronbach's alpha of more than 0.7and therefore were retained for further study.

Table 4.3: Reliability Test Results

Variable	Cronbach's alpha
Loan portfolio growth	0.743
Asset Quality	0.965
Liquidity management	0.853
Capital adequacy	0.807

4.3 Analysis of Response Rate

Analysis of the rate at which questionnaires that was given out to the respondents and how they were returned for analysis in complete form is as analysed in table 4.3.

Table 4.4: The Response Rate of Respondents

	No of respondents	% valid	Cumulative %
Returned	53	85.48	85.48
Not returned	9	14.52	100
Total	**62**	**100**	

The target number of respondents for this study was 62 respondents. Of the questionnaires distributed 53 were returned. This represented a response rate of 85.48%, which is considered sufficient for the study. A high response rate is helpful to ensure that results are representative of the target population. Mugenda and Mugenda (2004) assert that a response rate of more than 50% is adequate for analysis.

4.4 Analysis of Respondent Opinions

The variables growth in loan portfolio, asset quality, liquidity management and capital adequacy were used in this study as independent variables while financial performance was used as the dependent variable. The respondents were asked to indicate the extent to which they agreed or disagreed with specific statements on each aspect of financial performance of commercial banks. The data obtained was analysed using mean scores and standard deviations.

4.4.1 Respondent's opinion on the Relationship between Growth in Commercial Banks Loans Portfolio and Financial Performance of Commercial Banks in Kenya

To determine the effect of growth in commercial banks loan portfolio on financial performance, the respondents were asked to indicate whether they agreed or disagreed

with some statements. The results obtained are shown on table 4.5 below and table 4.6 in appendix 5.

Table 4.5: **Respondent's opinions on the Relationship between Commercial Banks Loan Portfolio Growth and Financial Performance**

Statement	N	Mean	Std. Deviation
Growth in a bank's loan portfolio adversely affects the banks financial performance in subsequent years	53	3.5	0.7
Growth in bank's loan portfolio results in increase in nonperforming loans in subsequent years	53	3.5	0.7
Loan portfolio diversification helps reduce the problem of bad loans as the bank's loan portfolio grows	53	2.3	1.2
Commercial banks lower their lending rate in order to grow their loan book	53	2.9	1.0
Commercial banks lend more cautiously following periods of heavy losses occasioned by bad loans	53	3.4	0.5

Key: 0⇔1.5 disagree 1.6⇔2.5 not sure 2.6⇔3.5 agreed and 3.6⇔4.0 strongly agree

Table 4.5 shows that the respondents agree that growth in a banks' loan portfolio adversely affects the banks financial performance of commercial banks in subsequent years (3.5) also the respondents agree that growth in bank's loan portfolio results in increase in nonperforming loans in the subsequent years (3.5). the respondent were not sure whether loan portfolio diversification helps reduce the problem of bad loans as the loan portfolio grows (2.3). The respondents agreed that commercial banks lower their lending rates in order to grow their loan book (2.9) they also agreed that commercial banks lend more cautiously following periods of heavy losses occasioned by bad loans.

4.4.2 Respondents Opinion on the Relationship between Commercial Banks Asset Quality and Financial Performance of Commercial Banks in Kenya

Results on whether the respondents agreed or disagreed to various statements relating to the effect of asset quality on financial performance of commercial banks are presented in table 4.7 below and table 4.8 in appendix 5.

Table 4.7: Respondent's Opinions on the Relationship between Commercial Banks Asset Quality and Financial Performance

Statement	N	Mean	Std. Deviation
The quality of a banks' loan portfolio positively affect financial performance of commercial banks	53	3.8	0.5
Loan portfolio diversification determines the quality of assets held by a bank	53	2.8	1.7
The quality of a banks' loan portfolio deteriorates following periods of rapid lending	53	3.1	0.9
Increase in nonperforming loans affects financial performance of commercial banks adversely	53	4.3	1.6
In periods of economic expansion banks do not pay much attention to borrowers' credit history	53	3.4	0.8

Key: 0⇔1.5 disagree 1.6⇔2.5 not sure 2.6⇔3.5 agreed and 3.6⇔4.0 strongly agree

Table 4.7 shows that the respondents strongly agreed that the quality of banks loan portfolio positively affects the financial performance of commercial banks (3.8). The respondents agree that loan portfolio diversification determines the quality of assets held by banks (2.8). They also agree that the quality of banks loan portfolio deteriorates following periods of rapid lending (3.1). The respondents strongly agreed that increase in nonperforming loans affects the financial performance of banks adversely with a

Likert mean of 4.3. Respondents also agreed that in period of economic expansion

banks do not pay much attention to borrowers' credit history (3.4).

4.4.3 Respondents Opinion on the Relationship between Liquidity Management and Financial Performance of Commercial Banks in Kenya

To determine the effect of liquidity management on financial performance, the

respondents were asked to indicate whether they agreed or disagreed with some

statements. The results obtained are shown on table 4.8 below and table 4.10 in

appendix 5.

Table 4.8: **Respondents opinion on the relationship between liquidity management and financial performance of commercial banks**

Statement	N	Mean	Std. Deviation
Banks that hold a high level of liquid assets tend to perform poorly financially	53	3.4	0.5
Poor liquidity management is a cause of poor financial performance among commercial banks	53	3.2	0.6
An increase in the statutory liquidity requirement would result in better financial performance for commercial banks and overall stability of the banking sector	53	2.2	1.1
Better supervision over banking sector liquidity by the Central Bank of Kenya would enhance financial performance of commercial banks	53	4.0	5.2
Loan growth reduces the liquidity level of commercial banks	53	3.2	0.7

Key: 0⇔1.5 disagree 1.6⇔2.5 not sure 2.6⇔3.5 agreed and 3.6⇔4.0 strongly agree.

The result in table 4.8 indicates that the respondents agree that banks that hold a high

level of liquid assets tend to perform poor financially (3.4). They also agree that poor

liquidity management is a cause of poor financial performance among commercial banks (3.2). The respondents were not sure whether increase in the statutory liquidity requirement would result in better financial performance for commercial banks and overall stability of the banking sector (2.2). The respondents strongly agreed that better supervision over banking sector liquidity by the Central Bank of Kenya would enhance financial performance of commercial banks (4.0). Further they agreed that loan growth reduces the level of liquidity of commercial banks (3.2).

4.4.4 Respondents Opinion on the Relationship between Capital Adequacy and Financial Performance of Commercial Banks in Kenya

To determine the effect of capital adequacy on financial performance, the respondents were asked to indicate whether they agreed or disagreed with some statements. The results obtained are shown on table 4.11 below and table 4.12 in appendix 5.

Table 4.11: **Respondents opinion on the relationship between capital adequacy and financial performance of commercial banks**

Statement			Std.
	N	Mean	Deviation
High level of core capital relative to the total risk weighted capital affects the financial performance of commercial banks	53	3.6	0.5
Banks with high level of core capital to customers deposit perform better financially	53	3.3	0.9
Increase in the amount of statutory capital would positively affect the financial performance of commercial banks	53	2.7	1.1
Increasing a bank's capital level enhances growth in a banks' lending capacity thus promoting loan portfolio growth	53	3.3	0.7

Key: 0⇔1.5 disagree 1.6⇔2.5 not sure 2.6⇔3.5 agreed and 3.6⇔4.0 strongly agree

The results in table 4.11 indicate that the respondents strongly agree that High level of core capital relative to the total risk weighted capital affects the financial performance of commercial banks (3.6). They also agreed that banks with high level of core capital to customers deposit perform better financially (3.3). They also agreed that increase in the amount of statutory capital would positively affect the financial performance of commercial banks (2.7). Further the respondents agree that increasing a bank's capital level enhances growth in a banks' lending capacity thus promoting loan portfolio growth (3.3).

4.5 Correlation Analysis between Return on Assets, Loan Growth, Asset Quality, Liquidity and Capital Adequacy

A correlation coefficient is a statistic that describes the degree of linear association between two variables. The table below shows the correlation between return on assets, loan growth, asset quality, liquidity and capital adequacy.

Table 4.13: Correlation Matrix: Correlation between return on assets, loan growth, asset quality, liquidity and capital adequacy

		Financial performance	Loan growth	Asset quality	Liquidity	Capital adequacy
Financial performance	Pearson Correlation	1	0.781	0.553	-0.283	0.436
	Sig. (2-tailed)		0.019**	0.092	0.104	0.009**
	N	53	53	53	53	53
Loan growth	Pearson Correlation		1	0.227	-0.035	0.397**
	Sig. (2-tailed)			0.102	0.806	0.003
	N		53	53	53	53
Asset quality	Pearson Correlation			1	0.234	0.227
	Sig. (2-tailed)				0.092	0.102
	N			53	53	53
Liquidity	Pearson Correlation				1	0.134
	Sig. (2-tailed)					0.337
	N				53	53
Capital adequacy	Pearson Correlation					1
	Sig. (2-tailed)					
	N					53

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

Table 4.13 shows the correlation coefficients between return on assets and loan growth, asset quality, liquidity and capital adequacy. Correlation between return on assets and loan growth was found to be 0.718 with a p-value of 0.019. This result suggested that there was a strong positive correlation between return on assets and loan portfolio growth. Since p-value 0.019 is less than 0.05, the correlation was significant at 5% level of significance. Correlation coefficient between return on assets and asset quality was found as 0.553 with a p-value of 0.092. These indicate a moderately strong positive correlation between return on assets and asset quality. However since the p-value 0.092 is greater than 0.05, the relationship is not significant at 5% level. The correlation between return on assets and liquidity was obtained as -0.283 with a p-value of 0.104. Return on assets and liquidity exhibited a moderately weak negative correlation. The correlation was not significant at 5% level since the p-value 0.104 is greater than 0.05. The correlation coefficient between return on asset and capital adequacy was found to be 0.436 with p-value of 0.009. The result showed that return on assets and capital adequacy was moderately positively correlated. The correlation is significant at 5% level of significance since p-value 0.009 is less than 0.05.

4.6 Effects of Growth in Loan Portfolio, Asset Quality, Liquidity Management and Capital Adequacy on Financial Performance of Commercial Banks in Kenya

To evaluate the effect of growth in loan portfolio, asset quality, liquidity management and capital adequacy on the financial performance of commercial banks, the respondents' response to these variables were regressed on a five year average return on assets for the commercial banks. The results of this regression are presented below.

Table 4.14: Regression Coefficients

	Unstandardized Coefficients		Standardized Coefficients		
	Beta	Std. Error	Beta	t	Sig.
Constant	1.184	3.157		0.375	0.709
Loan growth	-0.066	0.468	0.009	-1.140	0.018
Asset quality	0.607	0.061	0.149	0.010	0.031
Liquidity	-0.787	0.184	0.184	-4.282	0.126
Capital adequacy	0.836	0.159	0.194	5.266	0.021

Return on asset was regressed on loan portfolio growth, asset quality, liquidity management and capital adequacy. Table 4.14 reported the regression coefficients. The resulting regression model was of the form:

ROA= 1.184-0.066LPG+0.607ASSQ-0.787LIQ+0.836CAR

The following sections test the respective hypothesis on the effect of each independent variable on the financial performance. The hypotheses were tested using student t-test at 5% level of significance.

4.6.1 The effect of growth in commercial bank's loan portfolio on financial performance of commercial banks in Kenya

H_{01}: Loan growth does not have a significant effect on financial performance of commercial banks in Kenya.

The study hypothesised that loan growth does not have a significant effect on financial performance of commercial banks in Kenya. From table 4.14 loan growth had a

coefficient of -0.066 with a p-value of 0.018. This indicated that loan growth had a negative effect on return on assets. The coefficient of loan portfolio growth 0.066 indicates the percentage decrease in return on assets for a percentage increase in a banks' loan portfolio. The effect was significant at 5% level of significance since the p-value 0.018<0.05.

4.6.2 The effect of asset quality on financial performance of commercial banks in Kenya

H_{02}: Asset quality does not have a significant effect on financial performance of commercial banks in Kenya.

The study hypothesised that asset quality does not have a significant effect on financial performance of commercial banks in Kenya. The regression results in table 4.23 indicate that asset quality had a coefficient of 0.607 with a p-value of 0.031. The result indicates that asset quality had a positive effect on return on assets. The coefficient of asset quality 0.607 indicates that return on asset would increase by 0.607% for every unit increase in the quality of banks assets. The effect of asset quality on return on assets is significant at 5% level since the p-value 0.031 is less than 0.05.

4.6.3 The effect of liquidity management on financial performance of commercial banks in Kenya

H_{03}: liquidity management does not have a significant effect on financial performance of commercial banks in Kenya.

The study hypothesised that liquidity management does not have a significant effect on financial performance of commercial banks in Kenya. From table 4.23, liquidity had a coefficient of -0.787 with a p-value of 0.126. This indicates that liquidity management had negative effect on return on assets. The coefficient of -0.787 means that a unit

increase in liquidity would result in a 0.787% decrease in return on assets. However the effect is not significant at 5% level because the p-value of 0.126 is greater than 0.05.

4.6.4 The effect of capital adequacy on financial performance of commercial banks in Kenya

$H_{04:}$ capital adequacy does not have a significant effect on financial performance of commercial banks in Kenya.

The study hypothesised that capital adequacy does not have a significant effect on financial performance of commercial banks in Kenya. Capital adequacy had a coefficient of 0.836 with a p-value of 0.021 as reported in table 4.23. This result meant that capital adequacy had a positive effect on return on assets. A coefficient of 0.836 indicates that return on assets would increase by 0.836% for a unit increase in the amount of bank capital. The effect of capital adequacy was significant at 5% level since p-value of 0.021 is less than 0.05.

Table 4.15: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	0.956[a]	0.914	0.778	0.6504

Table 4.15 provided the summary result for the regression model. From the table, the coefficient of determination (R^2) was found to be 0.914. This suggested that variations in loan growth, asset quality, liquidity management and capital adequacy explained 91.4% of the variations in return on assets.

Table 4.16: Analysis of Variance (ANOVA)

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	214.573	4	53.643	126.815	0.000[a]
Residual	20.308	48	0.423		
Total	**234.881**	**52**			

Table 4.16 provided the result from which the overall usefulness of the regression model was evaluated. The overall regression was tested by performing F-test at 5% level of significance. The F ratio had a value of 126.815 with a significance level of 0.000. Since p-value 0.000 is less than 0.05, the regression results were significant at the 5% level of significance.

4.7 Discussion Findings

The overall objective of this study was to examine the effect of loan portfolio growth on the financial performance of commercial banks in Kenya. The specific objectives of the study were; to examine the effect of growth in loan portfolio on financial performance of commercial banks in Kenya, to examine the effect of asset quality on financial performance of commercial banks in Kenya, to examine the effect of liquidity management on financial performance of commercial banks in Kenya and to examine the effect of capital adequacy on financial performance of commercial banks in Kenya.

4.7.1 Effect of growth in commercial bank's loan portfolio on financial performance of commercial banks in Kenya

Loan portfolio growth refers to the overall increase the amount of loans advanced by a bank. Loans are the major assets held by banks. Growth in loan portfolio increases in the assets under management by a bank and is a key performance measure among

banks. This study found that growth in a bank's loans portfolio adversely affects the banks financial performance in the subsequent years. It also found that growth in banks' loan portfolio results in increase in nonperforming loans in subsequent years. These findings support the findings by Foos et al,. (2010) that current loan growth leads to increases in loans losses in subsequent years. Diversification is seen as a technique of minimizing exposure to loss. However the findings of this study failed to support that loan portfolio diversification reduces the problem of bad loans as banks grow their loan portfolios. Interest rates provide a pricing mechanism for loans in financial markets. As generally indicated by the law of demand, lower prices (interests rates for the case of loans) would help attract more demand. This study found that commercial banks lower their lending rates so as to attract more borrowers and grow their loan book. The study also found that commercial banks lend more cautiously following periods of heavy loans losses occasioned by bad loans which seems to render support to the institutional memory hypothesis (Berger & Udell, 2004). The result of regression analysis showed that loan portfolio growth had a negative effect on return on assets. The effect was statistically significant. This means that growth in bank loan reduced the profitability of commercial in Kenya.

4.7.2 Effect of asset quality on the financial performance of commercial banks in Kenya

The quality of assets for a bank depends largely on the quality of its loan portfolio as loans are the major asset of commercial banks from which they generate income. Therefore the quality of bank loan determines the profitability of banks. This study found that the quality of banks loan portfolio positively affects the financial performance of commercial banks. This is consistent with the finding by Ongore &

53

Kasu (2013) nonperforming loans (implying poor asset quality) had negative effect on financial performance. The study also concur with the findings of Onuonga (2014) that loan portfolio diversification determines the quality of assets held by banks. Similar to Ongore & Kasu (2013) the study noted that increase in nonperforming loans affects the financial performance of banks adversely. Further consistent to the institutional memory hypothesis of Berger & Udell (2004) the study found that in period of economic expansion banks do not pay much attention to borrowers' credit history. This means that commercial banks in Kenya that maintain high quality assets perform better financially.

4.7.3 Effect of liquidity management on the financial performance of commercial banks in Kenya

Commercial banks play the crucial role of liquidity transformation by transforming short term deposits into long term illiquid loans. Holding a high level of liquid assets generates opportunity cost for the bank in lost interest on investments. However a shortage of liquidity in banks can be disastrous and often credit to the failure of banks. This study found that high levels of liquidity results in poor financial performance of commercial banks. Liquidity was found to have a negative effect on return on assets. However, similar to the findings by Ongore & Kasu (2013) the effect was not significant. The study failed to establish whether increase in statutory liquidity requirement would result in better financial performance for commercial banks and overall stability of the banking sector however it established that better supervision over banking sector liquidity by the Central Bank of Kenya would enhance financial performance of commercial banks. Further loan growth was found to reduce the level of liquidity in commercial banks. This stems from the fact that commercial banks transform short term deposits into long term illiquid investment in the form of loans.

54

The implication of this finding is that commercial banks in Kenya that maintain high level of liquid assets perform poorer financially. Kenya commercial banks can improve their financial performance by identifying and maintaining their liquidity levels within some optimal range.

4.7.4 Effect of capital adequacy on financial performance of commercial banks in Kenya

Capital adequacy provides a measure of financial flexibility and the ability of commercial banks to on additional business. The study found that the amount of capital in a bank has a positive and significant effect on the financial performance of commercial banks. Capital adequacy was found to positively affect financial performance of commercial banks. These findings concur with those of Ongore & Kasu (2013), Labonne & Lame (2014) and Onuonga (2014) that capital strength significantly influence the financial performance of commercial banks. This argument is further supported by the finding that increase in statutory capital would positively affect the financial performance of commercial banks. Similar to Labonne & Lane (2014) the study supports that bank capital level enhances growth in banks' lending capacity thus promoting credit growth. This means that commercial banks in Kenya with a high level of capital perform better financially relative to those with lower levels of capital.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

In this chapter the researcher summarizes the findings of the study based on the findings on each of the four objectives. In each case the researcher briefly states the findings and the effect on financial performance. At the end of the chapter, the researcher's states recommendations and highlight areas that need further research.

5.2 Summary of Findings

5.2.1 The effect of growth in commercial bank's loan portfolio on financial performance of commercial banks in Kenya

The study found that growth in a banks' loan portfolio affects financial performance of commercial banks adversely in the subsequent years. It also found that growth in loan portfolio increases nonperforming loans in the subsequent years. Also the study failed to establish whether loan portfolio diversification helps to reduce the problem of bad loans as most of the respondents were not sure. The study found that commercial banks lower their lending rates in order to grow their loan book and that commercial banks lend more cautiously following periods of heavy losses occasioned by bad loans. The result of regression indicated that loan portfolio growth had a negative effect of return assets but the effect was not significant. These findings support those of Foos et al,. (2010) and Berger & Udell (2004) that growth in bank loans results in deterioration of financial performance by commercial banks in the subsequent years.

5.2.2 The effect of asset quality on financial performance of commercial banks in Kenya

This study found that the quality of banks loan portfolio positively affect the financial performance of commercial banks. It found that loan portfolio diversification determines the quality of assets held by banks. Further the study found that the quality of banks loan portfolio deteriorates following periods of rapid lending. It also found that increase in nonperforming loans adversely affect the financial performance of commercial banks. In addition the study found that in periods of economic expansion banks do not pay much attention to borrowers' credit history. The result of regression established that asset quality had a positive effect on financial performance of commercial banks and the effect was significant. The findings concurred with those of Ongore & Kasu (2013), Onuonga (2014) and Berger & Udell (2008) that loan portfolio diversification affected the quality of bank assets and banks with high quality assets had better financial performance.

5.2.3 The effect of liquidity management on financial performance of commercial banks in Kenya

This study determined that liquidity management had negative effect on financial performance of commercial banks. It found that banks that hold a high level of liquid assets perform poor financially. It also found that poor liquidity management is cause of poor financial performance among commercial banks. The study failed to establish whether increase in the statutory liquidity requirement would result in better financial performance for commercial banks. However the study established that better supervision over banking sector liquidity by the Central Bank of Kenya would enhance financial performance of commercial banks. In addition the study found that that loan

57

growth reduces the level of liquidity of commercial banks. Similar to Ogilo & Mugenya (2015) and Ongore & Kasu (2013) the study noted a negative effect on financial performance from holding a high level of liquidity. According to Kohler (2012) lack of liquidity may not be a significant determinant of financial performance so long as the entire banking system has liquidity. Banks experiencing (high) low liquidity can adjust their liquidity level by lending (borrowing) in the sector including from the central bank.

5.2.4 The effect of capital adequacy on financial performance of commercial banks in Kenya

The study found that capital adequacy had a positive effect on financial performance of commercial banks. It found that high level of core capital relative to the total risk weighted capital affects the financial performance of commercial banks and that bank with high level of core capital to customers deposit perform better financially. The study found that increase in the amount of statutory capital would positively affect the financial performance of commercial. These findings are in line with those of Ongore & Kasu (2013), Labonne & Lame (2014) and Onuonga (2014) that capital strength has a positive and significant influence the financial performance of commercial banks.

5.3 Conclusion

This study sought to examine the effect of growth in bank's loan portfolio on financial performance of commercial banks in Kenya. The study concluded that growth in a bank's loan portfolio had a negative effect on financial performance of commercial banks. Further the study concluded the following; growth in loan portfolio increases the amount of nonperforming loans in the subsequent years, commercial banks tend to lower their lending rates in order to grow their loan book and that commercial banks exercise caution in lending following periods of heavy losses occasioned by bad loans.

58

No conclusion was reached on whether loan portfolio diversification helps in reducing the problem of bad loans,

Secondly, the study sought to examine the effect of asset quality on the financial performance of commercial in Kenya. In this respect, the study reached the following conclusions; the quality of bank assets had a positive effect on return on assets and the effect was significant. The quality of a banks' loan portfolio positively affected the financial performance. Loan portfolio diversification was an important determinant of the quality of assets held by banks. The quality of bank assets deteriorates after periods of rapid lending and that banks do not pay much attention to borrowers' credit history during periods of economic expansion.

The third objective sought to examine the effect of liquidity management on the financial performance of commercial banks in Kenya. The study concluded that banks levels of liquidity for commercial banks had a significant negative effect on return on assets. Further the study reached the following conclusions; that holding a high level of liquid assets results in poor financial performance. Poor liquidity management is a cause of poor financial performance among commercial banks. Increase in statutory liquidity requirement would not result in better financial performance for commercial banks. Better supervision on liquidity of commercial banks would improve the financial performance of banks. Loan growth reduces liquidity of commercial banks.

Finally, the study sought to examine the effect of capital adequacy on financial performance of commercial banks. The study concluded that capital adequacy had a positive and significant effect on financial performance of commercial banks. The study also concluded the following: the financial performance of commercial banks is

affected by the level of core capital relative to the total risk weighted capital, banks with high amount of core capital relative to customers deposits perform better financially; increase in the amount of statutory capital would have a positive effect on the financial performance of commercial and increasing the amount of bank capital would enhance growth in bank lending.

5.4 Recommendations

Based on the first objective the study recommended that to improve financial performance commercial banks should grow their loan portfolios. However such growth should be strategically executed so as to minimize the problem of nonperforming loans in subsequent years. Also banks should exercise caution in lending in all periods to avoid reacting to loan losses occasioned by bad loans. Also the study recommends that managers should re-evaluate the importance of loan portfolio diversification in reducing the problem of bad loans.

From the findings on the second objective, the study recommended that banks should maintain assets of high quality as this has a positive effect on financial performance. Banks should diversify their loan portfolio as this was found to be an important determinant of loan portfolio quality. Also banks should pay attention to borrowers' credit history during periods of economic expansion.

The third objective sought to examine the effect of liquidity management on the financial performance of commercial banks in Kenya. The study recommended that banks should identify the optimal level of liquidity so as to minimise the negative effects on financial performance associated with holding high level of liquid assets.

Also banks should develop policies to improve the management of their liquid assets. The Central Bank should tighten supervision on liquidity of commercial banks.

Regarding the effect of capital adequacy on financial performance of commercial banks the study recommended banks should increase the amount of core capital since measure of capital adequacy showed that banks with high capital adequacy ratios perform better financially. Also the amount of statutory capital for banks should be increased. Further in order to enhance lending banks should consider increasing their capital base.

5.5 Suggestions for Further Research

Further research may seek to identify the strategies by which commercial banks grow their loan portfolios. They may also consider the risk return relationship of banks loan book in a portfolio context. Further additional studies may evaluate the relationship between loan portfolio growth and credit risk. Also research may seek to determine the risk taking behaviours among commercial banks in Kenya in their lending decisions. In addition future research may consider evaluate the effect of loan portfolio diversification on financial performance of commercial banks.

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APPENDICES

Appendix 1: Commercial Banks in Kenya

1. (ABC) African Banking Corporation Ltd.	24. First community Bank Limited
2. Bank of Africa Kenya Ltd	25. Giro Commercial Bank Ltd
3. Bank of Baroda (K) Ltd	26. Guardian Bank Ltd
4. Bank of India	27. Gulf African Bank Limited
5. Barclays Bank of Kenya Ltd.	28. Habib Bank A.G Zurich
6. CFC Stanbic Bank Ltd	29. Habib Bank Ltd
7. Charterhouse Bank Ltd	30. Imperial Bank Ltd
8. Chase Bank (K) Ltd	31. I &M Bank Ltd
9. Citibank N.A Kenya	32. Jamii Bora Bank Limited.
10. Victoria Commercial Bank Ltd11. Commercial Bank of Africa Ltd.	33. Kenya Commercial Bank Ltd
12. Consolidated Bank of Kenya Ltd.	34. K-Rep Bank Ltd
13. Co-operative Bank of Kenya Ltd	35. Middle East Bank (K) Ltd
14. Credit Bank Ltd.	36. National Bank of Kenya Ltd
15. Development Bank of Kenya Ltd.	37. NIC Bank Ltd
16. Diamond Trust Bank Kenya Ltd	38. Oriental Commercial Bank Ltd
17. Dubai Bank Kenya Ltd.	39. Paramount Universal Bank Ltd
18. Ecobank Kenya Ltd	40. Prime Bank Ltd
19. Equatorial Commercial Bank Ltd.	41. Standard Chartered Bank Kenya Ltd
20. Equity Bank Ltd	42. Trans-National Bank Ltd
21. Family Bank Limited	43. UBA Kenya Bank Limited
22. Fidelity Commercial Bank Ltd	44. Housing Finance corporation
23. Guaranty Trust Bank Ltd	

Appendix 2: Letter Seeking Authority
PAUL KIAMA THIONGO

Cell: 0703489273

Email: kiamathiongo86@gmail.com

Date----------------------

THROUGH BANK MANAGER

To: CHIEF LOAN OFFICERS

Dear Respondent,

REF: REQUEST FOR AUTHORITY TO CARRY OUT ACADEMIC RESEARCH

I am a graduate student of Technical university of Mombasa pursuing Master in Business Administration –Finance option. As part of the requirements for the award of this degree, I am expected to carry out a research and present a report to the university. My topic of research is: **EFFECT OF LOAN PORTFOLIO GROWTH ON FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA.**

I am kindly requesting for your support to enable me achieve this endeavour by allowing the chief loan officers at your bank to participate in filling the research questionnaire. The information provided will be treated with strict confidentiality and will be used for academic purposes only.

A copy of the final research finding can provided to you upon request.

Thank you in advance.

Yours faithfully,

Paul Kiama

Appendix 3: Questionnaire

Dear Sir/Madam

I am a student at the Technical University of Mombasa pursuing a master of business administration degree. In fulfilling the degree requirement am required to conduct research project. My research topic is **THE EFFECT OF LOAN PORTFOLIO GROWTH ON FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA.** To this end am kindly requesting you to fill in the following brief questionnaire. The information provided will be treated with strict confidentiality.

Instruction: Below is list of questionnaire pertaining to drivers of commercial bank loan portfolio growth and the associated effect on financial performance. Kindly indicate whether you agree or disagree with each statement by ticking (√) on the spaces that specify your choice from the options that range from "strongly agree" to "strongly disagree". A scale between 1 and 4 will be used where: SA- Strongly Agree= 4, A-Agree= 3, N- Not sure=2, Disagree= 1.

a) **The effect of growth in commercial bank's loan portfolio on financial performance of commercial banks in Kenya.**

Statement	SA	A	N	D
1 Growth in a bank's loan portfolio affects the banks financial performance in subsequent years.				
2. Growth in bank's loan portfolio results in increase in nonperforming loans in subsequent years.				
3. Loan portfolio diversification helps reduce the problem of bad loans as the bank's loan portfolio grows.				
4. Commercial banks lower their lending rate in order to grow their loan book				
5. Commercial banks lend more cautiously following periods of heavy losses occasioned by bad loans				

b) **The effect of asset quality on financial performance of commercial banks in Kenya.**

Statement	SA	A	N	D
1. The quality of a banks' loan portfolio positively affect financial performance of commercial banks.				
2. Loan portfolio diversification determines the quality of assets held by a bank.				
3. The quality of a banks' loan portfolio deteriorates following periods of rapid lending.				
4. Increase in nonperforming loans affects financial performance of commercial banks adversely.				
5. In periods of economic expansion banks do not pay much attention to borrowers' credit history.				

c) The effect of liquidity management on financial performance of commercial banks in Kenya

Statement	SA	A	N	D
1. Banks that hold a high level of liquid assets tend to perform poorly financially.				
2. Poor liquidity management is a cause of poor financial performance among commercial banks.				
3. An increase in the statutory liquidity requirement would result in better financial performance for commercial banks				
4. Better supervision over banking sector liquidity by the Central Bank of Kenya would enhance financial performance of commercial banks.				
5. Loan growth reduces the liquidity level of commercial banks.				

d) The effect of capital adequacy on financial performance of commercial banks in Kenya.

Statement	SA	A	N	D
1. High level of core capital relative to the total risk weighted capital affects the financial performance of commercial banks.				
2. Banks with high level of core capital to customers deposit perform better financially.				
3. Increase in the amount of statutory capital would positively affect the financial performance of commercial banks.				
4. Increasing a bank's capital level enhances growth in a banks' lending capacity thus promoting loan portfolio growth.				

Thank you for your time.

Appendix 4: Secondary Data Collection Form

Record Survey Sheet					
Name of commercial bank					
Financial Performance					
Financial Performance is a measure of efficiency to meet financial obligation by ensuring sound liquidity, solvency and profitability as well maintaining positive value of assets. It's measured by Return on Assets (ROA) given by Earnings After Profit divided by Total Assets. The following information will help to establish the ROA:					
Data Element	**Financial Year**				
	2015	2014	2013	2012	2011
Net income					
Total Assets					

Appendix 5: Analysis of Questionnaire Result

Key: 4= Strongly Agree, 3=Agree, 2=Not sure=2, Disagree= 1.

Table 4.6 Loan portfolio growth result

Statement	4 %	3 %	2 %	1 %	Likert mean
1 Growth in a bank's loan portfolio adversely affects the banks financial performance in subsequent years.	60.4	35.8	3.8	0.0	3.5
2. Growth in bank's loan portfolio results in increase in nonperforming loans in subsequent years.	62.3	32.1	3.8	1.9	3.5
3. Loan portfolio diversification helps reduce the problem of bad loans as the bank's loan portfolio grows.	24.5	17	18.9	39.6	2.3
4. Commercial banks lower their lending rate in order to grow their loan book	30.2	49.1	3.8	17	2.9
5. Commercial banks lend more cautiously following periods of heavy losses occasioned by bad loans	39.6	58.5	1.9	0.0	3.4

Table 4.9 Asset quality result

Statement	4 %	3 %	2 %	1 %	Likert mean
1. The quality of a banks' loan portfolio positively affect financial performance of commercial banks.	84.9	13.2	1.9	0.0	3.8
2. Loan portfolio diversification determines the quality of assets held by a bank.	28.3	39.6	15.1	17.0	2.8
3. The quality of a banks' loan portfolio deteriorates following periods of rapid lending.	39.6	43.4	7.5	9.4	3.1
4. Increase in nonperforming loans affects financial performance of commercial banks adversely.	52.8	47.2	0.0	0.0	4.3
5. In periods of economic expansion banks do not pay much attention to borrowers' credit history.	39.6	50.9	1.9	7.5	3.4

Table 4.10 Liquidity management result

Statement	4 %	3 %	2 %	1 %	Likert mean
1. Banks that hold a high level of liquid assets tend to perform poorly financially.	41.5	58.5	0.0	0.0	3.4
2. Poor liquidity management is a cause of poor financial performance among commercial banks.	32.1	64.2	3.8	0.0	3.2
3. An increase in the statutory liquidity requirement would result in better financial performance for commercial banks	6.3	8.3	17.7	67.7	2.2
4. Better supervision over banking sector liquidity by the Central Bank of Kenya would enhance financial performance of commercial banks.	30.2	69.8	0.0	0.0	4.0
5. Loan growth reduces the liquidity level of commercial banks.	32.1	60.4	3.8	3.8	3.2

Table 4.12 Capital adequacy result

Statement	4 %	3 %	2 %	1 %	Likert mean
1. High level of core capital relative to the total risk weighted capital affects the financial performance of commercial banks.	60.4	39.6	0.0	0.0	3.6
2. Banks with high level of core capital to customers deposit perform better financially.	47.2	45.3	7.5	0.0	3.3
3. Increase in the amount of statutory capital would positively affect the financial performance of commercial banks.	30.2	28.3	20.8	20.8	2.7
4. Increasing a bank's capital level enhances growth in a banks' lending capacity thus promoting loan portfolio growth.	41.5	50.9	3.8	3.8	3.3

Appendix 6: Financial ratios, Return on assets

LARGE	2015	2014	2013	2012	2011	Average
KCB	5.93	5.5	5.2	4.98	5.17	5.356
Co-operative bank	4.43	4.7	4.8	3.68	3.61	4.244
Equity bank	7.26	7.7	7.4	6.84	6.95	7.23
Barclays bank	5.44	5.8	7	7.18	6.24	6.332
MEDIUM						
Daimond trust	4.47	4.9	4.9	4.19	4.9	4.672
NIC bank	4.44	4.6	4.2	4.57	4.41	4.444
National bank of Kenya	1.9	1.9	1.7	3.56	4.49	2.71
Citibank NA	5.22	7	10.4	6.43	4.64	6.738
Family bank	4.24	4	2.7	2.01	2.48	3.086
Bank of Africa	0.33	2	1.3	1.43	1.81	1.374
Ecobank	-1.09	-3.3	-4.8	0.45	0.7	-1.608
SMALL						
African Banking corporation	1.49	2.9	2.9	4.12	4.67	3.216
Victoria commercial bank	3.68	4.3	4.8	4.31	5	4.418
K-rep bank	4.61	4.2	3.2	2.75	1.44	3.24
Giro bank	3.13	2.8	1.7	2.79	6.2	3.324
Fidelity bank	1.8	2.5	2	2.79	4.59	2.736
Development bank of Kenya	1.88	1.8	0.8	1.37	2.22	1.614
Guardian bank	2.59	3	1.9	1.92	1.39	2.16
Consolidated bank	-1.82	-0.8	1	1.61	2.46	0.49
Habib A.G Zurich	5.29	4.3	4.2	2.91	3.05	3.95
Transnational banks	1.86	2.3	3.7	4.05	3.33	3.048
Paramount Universal bank	1.32	1.2	1.2	2.39	6.35	2.492
Credit bank	-1.82	1	1.3	0.95	0.74	0.434
Equitorial commercial bank	-2.78	1	-4.6	0.55	-0.32	-1.23

Source, Central Bank of Kenya