

**THE INFLUENCE OF ASSET QUALITY ON FINANCIAL
PERFORMANCE OF COMMERCIAL BANKS IN KENYA**

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DECLARATION

I, the undersigned, declare that this research project is my original work and has not been submitted to any other college, institution or university other than the University of Nairobi for examination.

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

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DEDICATION

I dedicate this project first to my dear parents Mr. and Mrs. Mburu for their moral and financial support through the entire period of my research project. Secondly, to my siblings who greatly believed in me and supported me throughout the period. Thirdly to all my friends who chipped in to offer advice and encouragement during the process.

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LIST OF ABBREVIATION/ACRONYMS

ATM	Automated Teller Machine
CBK	Central Bank of Kenya
IMF	International Monetary Fund
MVA	Market Value Added
NPA s	Non-Performing Assets
NPL s	Non-Performing Loans
ROA	Return on Assets
ROE	Return on Equity
ROI	Return on Investment
ROS	Return on Sales
SPSS	Statistical Package for Social Sciences

ABSTRACT

The stability as well as resilience of a banking system can be used to determine the financial stability of a bank in any given economy. This can be done through banks maintaining quality bank assets which are capable of helping banking institutions achieve profitability. Despite the regulations of commercial banks in Kenya, many of them have collapsed and others placed under receivership due to frauds attributed to either weak or undermined control measures. This argument was based on fact established that the failure of banks is caused by the consequences of raising NPAs up in the entire banking system. This study therefore, focused on the examining the influence of asset quality on financial performance among commercial banks in Kenya. The study was anchored on the institutional theory and agency theory. This study relied on descriptive research design. The target population for this research comprised of all the 42 licensed commercial banks in Kenya which were in operation within the period of ten years that ranged from 2007 and 2016 from which secondary data was collected. Descriptive statistical techniques were used in data analysis. The Pearson's correlation revealed that only liquidity and capital adequacy had significant association towards financial performance of the commercial banks in Kenya while asset quality had an insignificant association. When regressed alone, it was revealed that asset quality was significantly related to financial performance of banks. However, upon inclusion of liquidity and capital adequacy as control variables in the relationship between asset quality and financial performance, it was found that liquidity and capital adequacy were the only variables that were found to be statistically significant on financial performance within commercial banks operating in Kenya. The study concluded that asset quality is significantly essential in measuring financial performance of financial institutions. The study recommended that the commercial banks operating in Kenya should put more emphasis on credit risk minimization and encourage diversity of revenue. Furthermore, the study also proposed that lending attitudes of commercial banks in Kenya should be regularly assessed by the CBK.

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

In the present dynamic world, banking industry has been characterized by considerable amount of uncertainty regarding the demand, supply and market price as there are operational costs and therefore not immune from trends of markets as their stock in trade is money which they deal with in terms of deposits from various economic agents as well as onward lending to different set of economic agents in forms of loans and advances (Adeolu, 2014). However, this process of creation of bank money requires enough assets to develop, sustain and for survival, as they shape firms' competitive advantage and help in achievement of business goals and objectives (Olingo & Anyanzwa, 2016). The stability as well as resilience of a banking system can be used to determine the financial stability of a bank in any given economy. This can be done through banks maintaining quality bank assets which are capable of helping banking institutions achieve profitability (Swamy, 2013).

This study relied on institutional theory and the agency theory. Institutional theory is applicable to institutions in different economies which tend to react differently to similar challenges (social, economic, and political factors) constituted in an institutional structure of an environment that provides firms with benefits for engaging in specific types of activities. On other hand, agency theory relates two business parties, namely the principal who in this case are the owners/shareholders and the agent who include managers and their representatives. The ability of commercial banks to provide market knowledge,

transaction efficiency and contract enforcement create demand for their services by market participants (Williams & Nguyen, 2005). Commercial banks offer various services to borrowers, savers and other financial market participants including; extending loans, accepting deposits, having in place Automated Teller Machine (ATM) services, agency banking, taking services to the people by opening branches close to their customers and suppliers and use of more relaxed modern banking halls (Dubel & Berlin, 2013). Moody's (2016) rating agency gave Kenyan lenders a clean bill of financial health, just after some banks went under receivership. The study, which assessed the overall stability of Kenya's 42 banks, says most lenders have promising growth prospects, although it pointed out that their asset quality faces risks stemming from structural weaknesses, rapid loan growth and rising interest rates.

The regulation of the Kenyan banking institutions is done by the Central Bank of Kenya (CBK), the Banking Act and the Company Act. CBK issues and continually conducts amendments on the guidelines of prudential and risk management in order to enhance the strengthening of banks regulatory system together with the rest of institutions in banking industry (CBK, 2006). Despite the regulation, many banks have collapsed and others placed under receivership due to frauds attributed to either weak or undermined control measures. For instance, between 2007 and 2016 several banking institutions were either closed down or put under receivership. These included Kenya finance corporation, Trade Bank, Euro Bank, Charter House, Dubai bank, Imperial bank as well as Chase bank (CBK, 2016; Shiundu, 2016).

1.1.1 Asset Quality

The concept of asset quality bank management involves the process of evaluating asset of organizations which are used in facilitating the measurement of their size and level of credit risk linked to the general operation. This has relationship to banks' left-hand side as displayed on balance sheet and its main focus is on provision of earnings through quality of loans given by banks. The meaning of asset quality and that of loan quality are essentially same and their management can be very essential as far as banking sector is concerned (Adeolu, 2014).

Swamy (2013) noted that aspect of Non-Performing Assets (NPAs) has increasingly been gaining much interest within recent past years. This argument was based on fact established that the failure of banks is caused by the consequences of raising NPAs up in the entire banking system. Some studies discovered that insolvency of an institution can be predicted by asset quality which is said to be one of the causes of failure of many banks since most of the banking institutions which have failed were linked to increase in the level of their non-performing loans (NPLs).

Based on the world financial report of International Monetary Fund (IMF) (2009), NPAs as a challenge, is believed to be one of the main causes of the economic stagnation in that it is becoming practically the same as financial intermediaries' functionality efficiency. The report further elaborates that two among the three key priorities that relates to NPAs directly is the identification and mitigating the distressed assets while ensuring that viable weak institutions are recapitalized and that collapsed institutions are resolved and reinstated. Therefore, it can be concluded that profitability of banks can be improved by better management of asset quality.

1.1.2 Financial Performance of Commercial Banks

In monetary terms, operations and policies of an organization are measured through financial performance. This is also used as a general measure of financial health of a firm within a specific period of time, and also in comparison of firms of the same level and in the similar industry/sector or as a comparison in aggregation of various sectors and/or industries. Mishkin (2007) stated that financial performance of an institution can also be measured in various ways including measurement based on return on investment (ROI) of a given firm, measurement based on return on assets (ROA), as well as estimation based on value addition, etcetera. The achievement of positive financial performance in any given organization can be realized through eradication of waste which may exist in the entire system and process. A “critical success factor” of organizations is based on the level at which the set objectives and mission are fulfilled in form of efficiency, effectiveness as well as economical aspect (Davies, 2005).

The Kenyan banking sector realized steady advancement in the present years which has enabled its great expansion across the region of East African. The sector also involves in automation, and outsourcing of both essential and non-essential services thus shift from old ways of banking to the current dynamic ways that enable them meet the needs of customer and challenges of globalized world. As such the Kenyan banking sector remains sound and resilient, developing and deepening faster. From the time the government introduced liberalization, the current operation of banking industry is in a business environment that is challenging and competitive as compared to olden days. It has led to flooding of financial services from many institutions providing same services/products as that of the banks, thus an increase rivalry. This most challenging and dynamic business

environment has made many banks to undergo major restructuring which come along with change in the look of the entire industry (CBK, 2015).

In case of failure of a banking institution operating in Kenya, there is provision of two as given in Banking Act; i) a statutory manager can be appointed as stipulated in section 34(2) which gives powers to safeguard the assets of that particular institution, managing the assets of the banking institution, the power of evaluating the institutions capital structure and giving recommendations to CBK on the available options which can help in reorganisation as well as restructuring in the effort to revive the bank; and ii) appointment of a liquidator as provided in section 35(1) of the insolvency of an institution (Magu & Kibati, 2016). In this regard, Euro Bank Ltd was placed under liquidation in 2003 after becoming insolvent following substantial losses emanating from huge non-performing loans and the placement of Daima Bank Ltd under Central Bank's statutory management after a prolonged loss-making period that led to gross undercapitalization. Prudential Building Society was placed under statutory management in the same year due to its insolvency which eroded its capital base (Kinyua, 2016).

1.1.3 Asset Quality and Performance of Financial Institutions

More often, a bank's loans tend to generate more share income among the entire assets of the banks. On the same note, commercial banks tend to generate more income from loans than other assets (Dang, 2011). Nazir (2011) states that asset quality determines the overall status of a bank and this is primarily affected by credit administration program and the loan's portfolio quality. Highest risks that banks faces are those linked to delinquent loans, therefore the recommended proxies for an assets quality in non-

performing loan ratios (Dang, 2011). Low non-performing loans show that a bank's loan portfolio is healthy so most banks strive to keep the loans at the lowest level possible.

Measurements of organization performance are mechanisms of financial management as well as performance of non-financial aspects. Good performance can be ensured through accountability of organizations projects that sustain their strategies, improved service delivery and enhancement of customer satisfaction. John and Morris (2011) affirmed that measures of objectivity in performance involve aspects like return on capital employed, net margin, growth in profit, return on equity, increase in revenue, growth in sales, and total returns. In addition, financial performance can be measured based on long-term investment, corporate assets as well as financial soundness (Dwivedi, 2002). This study will therefore investigate financial performance of commercial banks in Kenya by focusing on the ratio of return on assets.

1.1.4 Commercial Banks in Kenya

There were 42 commercial banks which were licensed and operating in Kenya as at December 2016 (CBK, 2016). These banks are controlled by multiple rules such as the Banking Act, the CBK Act, Company Act as well as other several policies and guidelines given by the CBK. The liberalization of Kenyan financial sector in 1995 happen through lifting of exchange controls as well as other regimes of control (CBK, 2014). Various financial institutions have shifted from main processes of transaction like document management, benefits administration, and payroll, to include other key processes like better management in local government, mortgage processing, and procurement in banking sector.

The banking sector in Kenya is increasingly embracing advancement in technology which has enabled banks reduce costs and improve customer service (Central Bank of Kenya, 2016). The dominance of banking industry of large banks is based on business management system, bank size measured by assets, deposit base and capital reserves as shown by the analysis of the data on customer deposits, capital reserves, number of institutions, weighted market share, as well as net assets (CBK, 2015).

A number of commercial banks operating in Kenya are either locally owned or have foreign ownership and among them, some are owned by the state/government and some are privately owned. Large banks tend to provide more financial services than small banks and where only few large banks dominate the banking system, leading to an oligopolistic market structure and use of parastatal deposits to protect specific banks from the rigors of market discipline. Additionally, government tend to be involved in setting interest rates on loans and deposits which means that small banks are competed out as they become less profitable and more inefficient.

1.2 Research Problem

Due to placement of some banks under receivership within the recent years, the fear of a number of banks operating in Kenya having weak structures is resurfacing where financial analysts have pointed out some of the causes to be fraud among the directors and presence of weakness in supervision of banks (Olingo & Anyanzwa, 2016). A good example is Chase Bank which was quoted as one of the banks which CBK placed under receiver management following deposit run on of about \$80 million, was due to restatement of the accounts of this bank in 2015 and cited poor insider lending position and bad debt. According to Waweru and Kalani (2009) similar situation happened with

the period of 1988, 1993 and 1998 from which 50 financial institutions failed due to weak systems.

A number of studies have been conducted on the subject of asset quality and financial performance in the banking sector. Suehiro (2002) undertook a study on bank restructuring with the objective of improving the asset quality and financial performance of the banking sector in Thailand. The findings of this study indicated that there was a decrease in NPLs from 42.9% in 1998, to 10.5% in 2001. In another research by Bourke (2009), looked at the external and internal factors affecting profitability for banks in twelve countries ranging from Australia, Europe and north America, found out that commercial institutions with large market prowess have risk avoiding behaviours in their operations.

Adeolu (2014) carried out a study to establish how asset quality relates to performance of banks on Nigeria's stock exchange based on market capitalization. This study discovered that asset quality was statistically relating and influencing performance of listed banks. A research carried out by Ivashina and Scharfstein (2008) was on lending by banks during the financial crisis of 2008 and the findings show that new loans to large borrowers decreased by 37% during the period of between September – November, 2008 when the financial crisis was at its peak as compared to a period of three-month before

In another similar study (Ongore, 2013), factors affecting the performance of finances of Kenyan commercial banks, it was found out that a bank's managerial decisions significantly contribute to its financial performance. In the study which sought to establish how asset quality affects profitability of commercial banks in Kenya by

(Cheruiyot, 2016), it was established that asset quality was significantly related to profitability of Commercial Banks in Kenya in a positive way since the ratio of non-performing asset to net assets was found to be low. Anjili (2014) examined the factors affecting management of asset and liability of commercial banks in Kenya related to financial performance. This study found out that a small reduction in operational efficiency can lead to high reduction in profits.

Various studies have been carried out on the concepts of asset quality and performance of financial institutions, however, few of these studies had citable significance that dealt with the issues of NPLs especially in the context of emerging economies like Kenya. The available studies done in the Kenyan context (Anjili, 2014; Cheruiyot, 2016; Ongore, 2013) either addressed only one of the constructs being investigated, or used small sample sizes of less than five years. Therefore, the present study contributed to this subject matter based on higher trend in the number of years (ten years, 2007 - 2016). The study sought to address the question: What influence did asset quality have on financial performance of commercial banks in Kenya.

1.3 Objectives of the Study

The objective of the study was to examine the influence of asset quality on financial performance of commercial banks in Kenya.

1.4 Value of Study

The study findings have implications on policy, practice and theory building. The outcomes of this study are useful to financial institutions and other organizations in their integral role of leading their employees towards maintaining effectiveness of asset quality

which will help in attaining overall organizational objectives. Recommendations made by this research are useful to policy makers like the government and the central bank of Kenya in the formulation of policies and regulations governing financial institutions.

Findings to be generated from this study are of great importance to the managers of Kenyan commercial banks while maintaining and enhancing controllable business environment which can enable both employees and managers to establish and sustain the banks in competitive environment through banks setting a supportive and positive attitude towards performance of commercial banks.

The study also contributed new knowledge to the body of existing literature for academicians through its empirical tests on the linkage among asset quality and financial performance. It therefore provided an avenue for further research on the variables in Kenya and other countries.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter serves as the foundation for the development of the study. It seeks to assist the researcher to critically understand the problem area and what previous researchers have done. It provides a discussion on the theories related to financial services, empirical researches from the available literature on the topic under study are presented in the chapter, as well as conceptual model of the study.

2.2 Theoretical Foundation

There exist various theories applicable to financial services. However, the present study was anchored on the institutional theory and agency theory.

2.2.1 Institutional Theory

Institutions have a wide scope of operations. This theory presumes that the organizations' processes takes into account the activities based on the structures, such as norms, schemes, routines, as well as rules which are put in place through guidelines in authority controlling social behavior in organisations (Scott, 2004). They tend to have different levels of jurisdiction, from a world with systems to one with localized interpersonal relationships (Lounsbury, 2008). Banks control asset quality in order to remain competitive and provide services to many clients.

According to Knetter (1989) and Scott (2008), institutions in different economies tend to respond in different way as per same problems brought about by economic, political as

well as social aspects constituting the structure of institutions and its business environment that provide the benefits which are realized through engagement in particular activities. Firms in the banking sector of Kenya are expected to adhere to prudential regulations formulated by the Central Bank to ensure that they observe the requirements of the banking act and the Central Bank Act which include definition of the loan limit that a single borrower can borrow from a financial institution.

2.2.2 Agency Theory

The relationship of agency can be described as “a contract/agreement in which one or more persons (the principals) engage another person (the agent) to take actions and act on behalf of the principal” (Jensen & Meckling, 1976). Elisenhardt (1989) indicates that this theory relates two parties, namely the principal who in this case are the owners/shareholders and the agent who include managers and their representatives. The agent is give the mandate by the principals to ensure the organization is stable and therefore very key in decision making. The executive directors make available valuable information about the activities of a firm while non-executive directors are usually expected to contribute both expertise and objectivity in monitoring managerial decisions all of which constitute agency costs (Freeman, Wicks & Parmar, 2004).

Financial institutions have managers who serve as agents and are charged with the responsibility of ensuring that the institutions are solvent, profitable and efficient. Managers make decisions on the type of banking activities to be undertaken with help of the central bank as the main agency that provides directives on most of the banking activities (Mario, 2014; International Monetary Fund, 2013). The main criticism of the

theory is that, agency costs have to be incurred impose checks and balances to ensure that managers do not maximize perquisites at the expense of the interest of the owners.

2.3 Determinants of Financial Performance of Financial Institutions

Financial performance in commercial banks is vital given the facts that banks play a significant role in the economy. An analysis of factors influencing the financial performance is very key especially with the increased number of banks in the industry and competition for customers over the years. This will help in ascertaining the determinants of performance and help the bank to focus on areas of improvement (Central Bank of Kenya, 2016). Heffernan and Fu (2010) argue that bank financial performance is largely influence by three aspects; macroeconomic variables, financial ratios and the type of the bank.

According to Richard *et. al.* (2009) three major aspects should be considered in organizational performance: (a) financial performance which includes profits, return on assets and return on investment; (b) product market performance which includes sales and market share; and (c) shareholder return which includes total shareholder return and economic value added. Uzhegova (2010) used CAMEL (Capital adequacy, Asset quality, Management efficiency, Earnings performance and Liquidity) to examine factors affecting financial performance in commercial banks.

2.3.1 Capital Adequacy

Capital is the amount of own fund available to support the bank's operations and act as a buffer in case of adverse situation (Athanasoglou *et. al.* 2005). The capital structure of commercial banks is highly regulated by the central bank to ensure the banks stay afloat

and therefore reducing on the number of bank failures and losses to depositors. (Kamau, 2009), argues that banks should ensure there is enough capital that will cater for the operations and expansion in order to make profit and obtain a larger market share in the industry.

According to Dang (2011), sufficiency of capital is determine based on capital adequacy ratio (CAR) which shows how the bank is strong to withstand losses during crisis. He further suggests that banks with high capital are able to withstand the external challenges faced in the industry and therefore low risk of bankruptcy. These banks are also able to fund their projects without obtaining external finances. Hence the government and CBK has put up strict measures on the capital minimum for the banks in the industry.

2.3.2 Asset Quality

Poor loan quality and bad debts has led to failure of many banks in the country leading to receivership of some banks in the recent past. According to Waweru and Kalani (2009), NPLs greatly contributed to the failure of some of the financial institutions in 1986. The study also concluded that many commercial banks results to failure due to the extensive insider lending and loans often to politicians. Hence asset quality is very vital in understanding the performance of the bank in the industry.

Non-performing loans results to wastage of time, effort and resources. It results to an indirect cost to the bank due to the low asset quality. The bank therefore will not earn interests on the loans and in long run it negatively affects the profitability of the bank (Cheruiyot, 2016).

2.3.3 Management Efficiency

Management efficiency refers to how best the management is able to allocate resource and the usability of the resources in order to make profits. It is an internal factor and most works to differentiate one bank from another. Management efficiency can be obtained by different ratios such as total asset growth, earning growth rate and loan growth rate (Kusa & Ongore, 2013). The study also concludes that operating profit to income ratio is a good measure of management efficiency.

One of the greatest contributors to management inefficiency is mismanagement of expenditures. Expenditure and profits have a directly proportional relationship and therefore the management should maximize on the profit by minimizing on the expenditure spend (Cheruiyot, 2016).

2.3.4 Liquidity Management

Liquidity is cash, cash equivalents or assets that can be easily converted to cash in order to meet short term responsibilities as they fall due (Uzhegova, 2010). Liquidity is therefore an important factor that is used to determine the level of bank performance. According to Dang (2011), there is a positive relation between adequate level of liquidity and bank profitability. The study also indicated that the most common financial ratios used to reflect the profitability level of bank are customer deposit to total asset and total loan to customer deposits.

According to Uzhegova (2010) suggests that banks with high liquidity ratio have low profits and high risk. In this case the bank's management is always in a cross road

regarding profitability and liquidity hence the management should be very keen in decision making.

2.4 Empirical Studies

2.4.1 Global Studies

There exist several empirical researches on the aspects related to Asset quality as well as financial performance. For instance, Suehiro (2002) undertook a study on bank restructuring with the objective of improving the asset quality and financial performance of the banking sector in Thailand. The main focus of this research on was improvement of ratio of non-performing loans (NPLs). The findings of this study indicated that there was a decrease in NPLs from 42.9% in 1998, to 10.5% in 2001. These findings indicated that restructuring NPLs improved the quality of bank assets. In another research by Bourke (2009), looked at the external and internal factors affecting profitability for banks in twelve countries ranging from Australia, Europe and north America, found out that commercial institutions with large market prowess have risk avoiding behaviours in their operations. According to this study, there exists a significant correlation business cycle and bank profitability.

A research carried out by Ivashina and Scharfstein (2008) was on lending by banks during the financial crisis of 2008 and the findings show that new loans to large borrowers decreased by 37% during the period of between September – November, 2008 when the financial crisis was at its peak as compared to a period of three-month before which lead to a decrease in profitability during the period and that the credit levels of banks decreased by 68% in 2008 as compared to the highest level of the credit boom in

the period of between March – May, 2007. Base on a sample interval of fifteen-year period that ranged from 1999 to 2001, Adeolu (2014) carried out a study to establish how asset quality relates to performance of banks on Nigeria's stock exchange based on market capitalization. This study discovered that asset quality was statistically influencing performance of listed banks.

In another research by Khalid (2012), studied the effects of asset quality to profitability of private banks found in India and concluded that a negative relationship exists between profitability and asset quality.

2.4.2 Local Studies

In another similar study (Ongore, 2013), it was found that a bank's managerial decisions significantly contribute to its financial performance and that macro-factors have an insignificant contribution to this performance. In the study which sought to establish how asset quality affects profitability of commercial banks in Kenya (Cheruiyot, 2016), established that asset quality was significantly related to profitability of Commercial Banks in Kenya positively since the ratio of non-performing asset to net assets was found to be low.

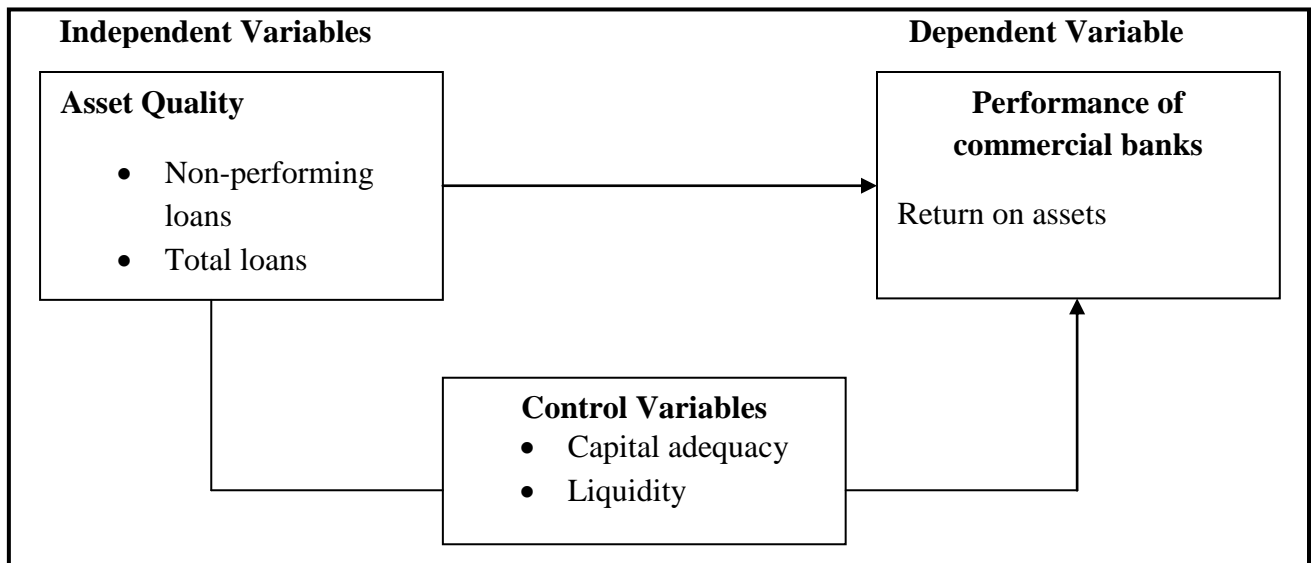
Anjili (2014) examined the factors affecting management of asset and liability of commercial banks in Kenya related to financial performance. This study found out that a small reduction in operational efficiency can lead to high reduction in profits and that increased income diversification leads to increased financial performance, keeping other factors constant.

Locally, there has been little research work on the influence of asset quality on performance of commercial banks in Kenya; this study therefore aims at filling the gap by examining this.

2.5 Conceptual Framework

The major goal of this research was to examine the influence of which asset quality has on performance of commercial banks operating in Kenya.

Figure 2.1: Conceptual Framework



Source: Author, 2017

Based on the literature reviewed, this study came up with a conceptual model as illustrated in Figure 2.1. The illustration depicts that asset quality can affect the performance of commercial banks. Therefore asset quality measured by non-performing loans and total loans are a representation of independent variables in this study, while performance of commercial banks is the dependent variable which is proxied by return on assets. Asset quality and liquidity were used as control variables.

2.6 Summary of Literature Review

Several studies carried on the aspects of asset quality of financial institution and their profitability shows some relevancy between the two constructs. Based on available literature, it can be construed that good performance can be ensured through accountability of organizations projects that sustain their strategies, improved service delivery as well as enhanced customer satisfaction. Measurements of organization performance are found to be mechanisms that apply both on both financial management as well as performance of non-financial aspects. Asset quality is found to determine the overall status of a bank and this is primarily affected by credit administration program and the loan's portfolio quality (Nazir, 2011).

For instance, a study by Suehiro (2002) found out that restructuring NPLs improved the quality of bank assets. In another research by Bourke (2009), it was discovered that a significant correlation exists between business cycle and bank profitability. A research carried out by Ivashina and Scharfstein (2008) show that new loans to large borrowers decreased by 37% during the period of between September – November, 2008 when the financial crisis was at its peak as compared to a period of three-month before which lead to a decrease in profitability. Adeolu (2014) discovered that asset quality was statistically relating and influencing performance of listed banks.

A study by Ongore (2013) found out that a bank's managerial decisions significantly contribute to its financial performance and that macro-factors have an insignificant contribution to this performance. Cheruiyot (2016) established that asset quality was significantly related to profitability of Commercial Banks in Kenya. In addition, a study done by Anjili (2014) found out that a small reduction in operational efficiency can lead to high reduction in profits.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter contains the methodology to be utilized in carrying out the research. It focuses on the research design, target population, research instruments, data collection and data analysis.

3.2 Research Design

This study relied on descriptive research design. The preference of this research design by this study was due to the fact that it had intention of establishing the causal between asset quality and performance of financial institutions. Unlike exploratory research design, descriptive research design was found to be more rigorous and helped in seeking the findings on how, who, when, and what of the issues under investigation (Cooper & Schindler, 2006).

3.3 Target Population

Population can be defined as the “entire group of individuals, events or objects that possess common characteristics” (Mugenda and Mugenda, 2012). According to Cooper and Schindler (2006) “population is the total collection of elements that the researcher wishes to examine and make observations on”. The target population for this research comprised all the 42 licensed commercial banks in Kenya as at December 2016 (See appendix I).

3.4 Data Collection

The study collected secondary data from all commercial banks which were in operation within the period of ten years that ranged from 2007 and 2016. The selection of these years was based on argument that several banking institutions inclusive of Euro Bank, Kenya Finance Corporation, Charter House, Trade Bank, Imperial bank, Dubai bank, as well as Chase bank were either closed down or put under receivership during this period of time (CBK, 2016; Shiundu, 2016). Review of periodic reports filed by the commercial banks was the source of secondary data which was collected to assist in achievement of the study objective. The study singled out data from these reports which was in line with the constructs under investigation. This included data to measure performance of financial institution (profit and total assets), data to determine asset quality (non-performing loans and total assets), capital adequacy was based on (capital and risk weighted assets) as well as liquidity which was measured through (current assets and current liabilities) of the commercial banks for the period under study.

3.5 Significance Tests Data Analysis

The level of association between the independent and the dependent variables was determined by conducting the various tests. The t – tests and p - values were used to determine individual significance of variable coefficients (β_1 and β_2). Assessment of the overall significance of the regression models was done using the p – value of F -statistics. In both cases, if p -value was ≤ 0.05 , then it implied that there existed significant relationship.

3.6 Data Analysis

Data was edited and coded according to the research objective. Descriptive statistical techniques were used in data analysis. The coded data was analyzed with aid of the statistical package for social sciences (SPSS). Descriptive statistics such as means and standard deviations were utilized. Besides, the study employed the use of inferential analysis to determine the influence of quality asset on financial performance of commercial banks in Kenya as well as inclusion capital adequacy and liquidity as control variables. This will be done through correlation and regression analysis where the study will follow the linear regression model hereunder:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where:

Y = Performance of commercial banks (return on assets)

α = Constant

X₁ = Quality assets (non-performing loans/total loans)

X₂ = Capital adequacy (capital/risk weighted assets)

X₃ = Liquidity (current assets/current liabilities)

$\beta_1 - \beta_3$ = are the regression coefficients of the independent variables (predictors)

ε = Error term.

CHAPTER FOUR

RESEARCH FINDINGS AND PRESENTATION

4.1 Introduction

This chapter on research findings and presentation is comprised of descriptive statistics of the study variables. Descriptive statistics was found to be vital for this study to predict the data by presenting it into a more meaningful way which necessitated the interpretation. The chapter as well presented inferential statistics which helped in the testing of associations and hypothesis of variables under study. The inferential used in this study included correlation analysis and regression statistics. First, the study tested the influence of asset quality on financial performance of commercial banks, thereafter; the study tested the influence of the dependent variable (asset quality) in conjunction with the control variables (capital adequacy and liquidity) on the financial performance of commercial banks.

4.2 Descriptive Statistics

This study carried out descriptive statistics which encompassed measures of mean, standard deviation, minimum and maximum as well as number of observations as shown in Table 4.1. The mean was used as a measure of central tendency which gave the average of a set of values gotten from data collected, the standard deviation was used to measure how value deviated from the central tendency, minimum and maximum were used gauge the lowest and the highest value of the given variables in the range of ten years under investigation. Financial performance had a minimum ratio of 0.001 and a

maximum ratio of 0.104. It however produced a mean ratio of 0.03285 and standard deviation ratio of 0.018254. Similarly, the results on asset quality revealed a minimum value of 0.001 and a maximum ratio of 2.459 with a mean ratio of 0.11733 and standard deviation ratio of 0.191135. Capital adequacy had a maximum value of 2.707 and a minimum of 0.079. Its average ratio for all the ten (10) years which ranged from 2007 – 2016 was 0.25489 with a standard deviation of 0.176337. Consequently, liquidity ratio produced a minimum ratio of 0.556 and a maximum ratio of 2.466. It has a mean ratio of 1.20270 and a standard deviation of 0.153053.

Table 4.1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Financial performance	420	.001	.104	.03285	.018254
Asset Quality	420	.001	2.459	.11733	.191135
Capital Adequacy	420	.079	2.707	.25489	.176337
Liquidity	420	.556	2.466	1.20270	.153053

Source: Research findings

4.3 Correlation Analysis

In order to determine the degree of association between the explanatory variables, the Pearson’s correlation was performed as shown in Table 4.2. The Pearson’s correlation coefficient (r) was used as a measure of the strength of association between any of the two variables being investigated. It helped in the determination of the extent to which each individual predictor variable moved together in explaining its association dependent variable. The study adopted a correlation coefficient (r) and *p* – value analysis, where a

correlation was considered significant when the probability value (p – value ≤ 0.05). From the findings, it was revealed that only liquidity and capital adequacy had significant association towards financial performance of the commercial banks in Kenya while asset quality had an insignificant association. The findings revealed that liquidity is statistically associated to financial performance ($r = 0.155$, $p = 0.001$). The results, further show that that capital adequacy is positively associated with financial performance ($r = 0.305$, $p = 0.000$).

Table 4.2: Pearson’s Correlation and Significance Test

		Financial performance	Liquidity	Asset Quality	Capital Adequacy
Financial performance	Pearson Correlation	1			
	Sig. (2-tailed)				
	N	420			
Liquidity	Pearson Correlation	.155**	1		
	Sig. (2-tailed)	.001			
	N	420	420		
Asset Quality	Pearson Correlation	-.033	.026	1	
	Sig. (2-tailed)	.505	.591		
	N	420	420	420	
Capital Adequacy	Pearson Correlation	.305**	.040	.164**	1
	Sig. (2-tailed)	.000	.416	.001	
	N	420	420	420	420

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

4.4 Regression Analysis

The regression analysis in this subsection was employed by the study to test the relationship between independent variables (or 'predictors') represented by asset quality, liquidity and capital adequacy and dependent variable which was in this case financial performance. The regression analysis included output of model summary, Analysis of Variance (ANOVA) that tested the hypothesis, as well as the beta coefficients of each independent variable. A smaller p – value (typically ≤ 0.05) indicated strong evidence and a large p – value (> 0.05) indicated weak evidence as advocated by Rumsey (2011).

4.4.1 Model's Goodness of Fit

The findings of the model summary of a linear relationship between the predictor variables against the dependent variable are as indicated in Table 4.3.

Table 4.3: Model Summary

Model	<i>R</i>	<i>R</i> Square	Adjusted <i>R</i> Square	Std. Error of the Estimate
1	.155 ^a	.024	.022	.254484

a. Predictors: (Constant), Asset Quality

Source: Research findings

The link of asset quality to financial performance produced an R value of 0.155 and gave a low R^2 estimation of 0.024. This indicated that the model between the two variables could not fit well since asset quality could only explain 2.4% of the variation of financial performance. Therefore, this is an indication that there exist other factors beside asset

quality which can help in further improvement of the model. The remaining factors could account for 97.6%.

4.4.2 ANOVA

The estimations of ANOVA results are as provided in Table 4.4. These findings gave a lower regression sum square of 0.662 with same mean square and a slightly high residual sum square of 27.071 accompanied with a mean square of 0.065. However, the results further presented an F - test value of 10.227 together with a $p < 0.001$. Which means that the null hypothesis asset quality has no effect on financial performance is rejected since the significance value is less than 0.05.

Table 4.4: ANOVA

	Model	Sum of Squares	Df	Mean Square	F	Sig.
	Regression	.662	1	.662	10.227	.001 ^b
1	Residual	27.071	418	.065		
	Total	27.733	419			

a. Dependent Variable: Financial performance

b. Predictors: (Constant), Asset Quality

Source: Research findings

4.4.3 Beta Coefficient

As illustrated in Table 4.5, the beta coefficients were used to indicate variance relationship while the t – values and p – values were used to determine the significance of

independent variable on dependent variable. The outcomes of the study revealed that asset quality is significantly related to financial performance of banks given that its beta coefficient value is 1.968, t value of 3.198 and an a recommendable p – value of 0.001.

Table 4.5: Beta Coefficient

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	1.109	.022		51.157	.000	1.066	1.151
1 Asset Quality	1.968	.615	.155	3.198	.001	.758	3.178

a. Dependent Variable: Financial performance

Source: Research findings

4.4.4 Model Summary

When liquidity and capital adequacy were included as control variables in the relationship between asset quality and financial performance, the model's R^2 value increased from 0.024 to 0.121 as indicated in Table 4.17.

Table 4.6: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.348 ^a	.121	.115	.242051

a. Predictors: (Constant), Asset Quality, Capital Adequacy, Liquidity

Source: Research findings

Implying that the joint effect of asset quality, capital adequacy and liquidity were able to explain 12.1% of the variation of banks performing financially.

4.4.5 ANOVA

The ANOVA results presented in Table 4.18 show that the model provided a regression sum square of 3.360 and a residual's sum square of 24.373 with a mean square of 1.120 for the regression and 0.059 for the residuals. The ANOVA results provided an *F*-test value of 19.116 and a $p < 0.000$. This would be interpreted that the null hypothesis that the asset quality of a bank, its capital adequacy as well as liquidity jointly, have no significance in predicting financial performance of a given bank is rejected.

Table 4.7: ANOVA

	Model	Sum of Squares	Df	Mean Square	F	Sig.
	Regression	3.360	3	1.120	19.116	.000 ^b
1	Residual	24.373	416	.059		
	Total	27.733	419			

a. Dependent Variable: Financial performance

b. Predictors: (Constant), Asset Quality, Capital Adequacy, Liquidity

4.4.6 Beta Coefficients

The results of beta coefficients on individual predictor variables illustrated in Table 4.8 show that the variables which were included in the model had significant effect on dependent variable. It can be deduced that liquidity is statistically significant in

determining the financial performance of a bank given the beta 1.839 $t = 3.138$) and a p – value of 0.002. Likewise, the findings gave a revelation that an increase in capital adequacy tend to increase financial performance of a commercial bank by 45.2%.

Table 4.8: Beta Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	1.014	.026		38.663	.000	.962	1.065
Asset Quality	-.121	.064	-.088	-1.886	.060	-.246	.005
¹ Liquidity	1.839	.586	.144	3.138	.002	.687	2.990
Capital Adequacy	.452	.067	.314	6.738	.000	.320	.584

a. Dependent Variable: Financial performance

Therefore, the initial regression equation used in this study was as below.

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon$$

Where: Y represented performance of commercial banks, α was constant, X_1 is asset quality, X_2 was equal to capital adequacy, X_3 represented Liquidity, $\beta_1 - \beta_3$ are the regression coefficients of the predictors, while ε was the model's error margin.

Thus, the resulting model is given hereunder:

$$Y = 1.014 - 0.121X_1 + 1.839X_2 + 0.452X_3$$

The regression model output generated from the data analyzed in this research gave a new predictor model as follows:

$$Y = 1.014 + 1.839X_2 + 0.45 X_3$$

This could therefore imply that liquidity and capital adequacy were the only variables that found to be statistically significant on financial performance within commercial banks operating in Kenya.

4.5 Discussion

The findings of this research revealed that asset quality when regressed alone has significant relation towards financial performance of commercial banks. However, the linkage between asset quality and financial performance provided a low explanatory power, an indication that the model between the two variables was weak or did not fit well. The findings contrary to Khalid (2012), who found out that a negative relationship exists between profitability and asset quality.

Nevertheless, the findings can be supported by studies by Adeolu (2014) whose research revealed that asset quality was statistically influencing performance of listed banks in Nigeria positively. In addition to this, another study by Cheruiyot (2016) established that asset quality was significantly related to profitability of Commercial Banks in Kenya in a positive way since the ratio of non-performing asset to net assets was found to be low.

Upon inclusion of the control variables in the second regression model, asset quality was found to insignificant. Nonetheless, the findings further revealed that capital adequacy and liquidity were found to be statistically significant in determining the financial

performance of a financial institution. Kamau (2009) stated that banks should ensure that there is enough capital that will cater for the operations and expansion in order to make profit and obtain a larger market share in the industry. Furthermore, Dang (2011) added that sufficiency of capital is determined by based on capital adequacy ratio (CAR) which shows how the bank is strong to withstand losses during crisis.

The capital structure of commercial banks in Kenya is highly regulated by the CBK to ensure the banks stay afloat and therefore reduce on the number of bank failures and losses to depositors. Banks with high capital are able to withstand the external challenges faced in the industry and therefore low risk of bankruptcy. These banks are also able to fund their projects without obtaining external finances.

Liquidity was also found to have a significant influence on financial performance of Kenyan commercial banks. Liquidity is therefore an important factor that is used to determine the level of banks' performance. The findings on liquidity conform to that of Dang (2011) whose study found out that there is a positive relation between adequate level of liquidity and bank profitability. The study also added that the most common financial ratios used to reflect the profitability level of bank are customer deposit to total asset and total loan to customer deposits.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a brief summary of the research findings together with conclusion which are made in line with findings of the study. The recommendations are as well given in this chapter based on the study findings.

5.2 Summary of Findings

The objective of this research project was to examine the influence of asset quality on financial performance of commercial banks in Kenya. Among the variables used in analysis were asset quality, liquidity, capital adequacy as independent and control variables and financial performance as dependent variable.

From the findings provided in descriptive statistics, it was revealed that liquidity had the highest mean, followed by capital adequacy, asset quality, and thereafter financial performance. The Pearson's correlation revealed that only liquidity and capital adequacy had significant association towards financial performance of the commercial banks in Kenya while asset quality had an insignificant association.

In the first regression model carried between asset quality and financial performance, it was discovered that this model had a low power in explaining the variation of financial performance. However, the results of ANOVA indicated that we reject the null hypothesis that asset quality has no effect on financial performance since the significance value was less than the critical value of 0.05. The outcomes of this model further revealed that asset quality was significantly related to financial performance of banks.

When liquidity and capital adequacy were included as control variables in the relationship between asset quality and financial performance, the model's R^2 value improved slightly. The ANOVA results indicated that the null hypothesis that the asset quality of a bank, its capital adequacy as well as liquidity jointly, has no significance in predicting financial performance of a given bank should be rejected.

It was revealed that liquidity was statistically significant in determining the financial performance. Similarly, the findings gave a revelation that an increase in capital adequacy could lead to an increase in financial performance of a commercial bank. Conversely, the new predictor model showed that liquidity and capital adequacy were the only variables that found to be statistically significant on financial performance within commercial banks operating in Kenya.

5.3 Conclusion of the Study

The conclusion of the research was made in relation to the study objective and findings. The study found out that asset quality was significantly essential to measure of financial performance of a given commercial bank since when regressed alone with financial performance it was found to be statistically significant. Therefore, it calls for banks to observe the impact of non-performing loans effectively as when not controlled well might result to negative impact on their performance.

However, upon inclusion of the control variables (liquidity and capital adequacy), asset quality was found to have an insignificant impact on the commercial banks' financial performance. On the other hand, liquidity and capital adequacy were statistically

significant in determining the financial performance of the commercial banks within the scope of ten years (2007 – 2016).

The study can also conclude that the increase in financial performance of commercial banks operating in Kenya depends on better management of expenditures. It can also be wrapped up that the relationship existing between capital adequacy and financial performance of commercial banks is positive. Profitability's positive influence caused through capital cost reduction was because of higher equity levels.

Similarly, study concludes that there is a positive correlation (association) between liquidity management and financial performance of commercial banks in Kenya. This could imply presence of sufficient liquidity level. Hence the management should ensure to maintain a liquidity level that will ensure the bank stays afloat and in long run improves on the profitability stand.

5.4 Recommendations of the Study

The study recommends the following policies which are done in relation with the findings of the study:

The commercial banks operating in Kenya should put more emphasis on credit risk minimization and encourage diversity of revenue. This is because when credit risk is improperly managed it might lead to reduction in profitability financial institutions, and it might affect the asset quality of the entity and also raise loan losses as well as non-performing loans which could ultimately distress financial institutions.

The study also proposes that lending attitudes of commercial banks in Kenya should be regularly assessed by the CBK. This can be done through assessment of the of credit

crunch degree where isolation of the impact of supply side of loans from the demand side are taken into account. The CBK should focus on the lending cycle of the banks as most of the failed banks have had a high non-performing loan amounts prior to their failures.

Security markets should be strengthened which might lead to a positive impact on the entire growth and performance of the banking industry and therefore an increase in competitive edge among the financial institutions. The Nairobi securities stock exchange should ensure they revisit their policies and procedures from time to time in order to accommodate the changing environments in the banking sectors and other industries.

Furthermore, the study recommends that more focus should be on policies of capitalization reinforcement which can be put in place by regulatory bodies in the banking sector. This will enable the commercial banks operating in Kenya to enhance their financial performance through capital cost reduction.

5.5 Suggestions for Further Study

This research examined the influence of asset quality on financial performance of commercial banks in Kenya and it revealed that asset quality provided low explanatory power towards financial performance. Therefore, there is a need for further studies whose data should be based on use of more variables, which should comprise of a larger sample size to help in more understanding and justification of results generalization.

Furthermore, another study can be done on factors that influence the liquidity and capital adequacy of financial institutions by doing so, it might contribute to academic literature and add value to the banks' performance. The study clearly showed that liquidity and capital adequacy affects the financial performance of commercial banks in Kenya in the

ten year periods significantly.

It can also be proposed that related research be carried out in other financial institutions other than commercial banks to give more understanding on the aspect of asset quality and financial performance. This is because other financial institution like Saccos and microfinance institutions also lend and therefore are have non-performing loans which greatly affects the financial performance of the institutions.

5.6 Limitations of the Study

The findings of the current study are applicable only to forty two (42) Commercial Banks in Kenya which were in operation as at December 2016 (see appendix I) and therefore it is hard to generalize these findings to all financial institutions including microfinance banks. Although all financial institutions carry out quite similar roles in the industry, the study only looked at commercials banks in Kenya for the ten year period. Therefore a similar study can be done for other financial institutions for comparison.

The dynamism of the variables used in this study was in relation to business cycle as well as demand on market. Therefore, the results might not be true on testing the real impact of the variables that deal with performance of commercial banks putting into consideration of limited time. The demand and business cycle of the market is subject to changes and different banks are affected different by the changes.

Furthermore, due to time and resource constraints, the study could not cover enough evidence based on different categories like bank ownership and size. Different variables affect the financial performance of the commercial banks differently depending with the

business cycle and the demands in the industry. More determinants of financial performance should be included as control variable in study for comparison.

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APPENDICES

Appendix I: List of Licensed Commercial Banks in Kenya

1. Standard Chartered Kenya
2. NIC Bank
3. National Bank of Kenya
4. Stanbic Bank
5. Victoria Commercial Bank
6. Trans National Bank Kenya
7. Spire Bank
8. Sidian Bank
9. Prime Bank (Kenya)
10. United Bank for Africa
11. Paramount Universal Bank
12. Oriental Commercial Bank
13. Middle East Bank Kenya
14. Kenya Commercial Bank
15. Jamii Bora Bank
16. Imperial Bank Kenya (In receivership)
17. I & M Bank
18. Housing Finance Company of Kenya
19. Habib Bank AG Zurich
20. Habib Bank
21. Gulf African Bank
22. Guardian Bank
23. Guaranty Trust Bank Kenya
24. Giro Commercial Bank
25. First Community Bank
26. Fidelity Commercial Bank Limited
27. Family Bank
28. Equity Bank
29. Eco-bank Kenya
30. Diamond Trust Bank
31. Development Bank of Kenya
32. Credit Bank
33. Cooperative Bank of Kenya
34. Consolidated Bank of Kenya
35. Commercial Bank of Africa
36. Citibank
37. Chase Bank Kenya (In Receivership)
38. Barclays Bank of Kenya
39. Bank of India
40. Bank of Baroda
41. Bank of Africa
42. ABC Bank (Kenya)

Source: Central Bank of Kenya (2016)