# THE EFFECT OF ASSETS QUALITY ON THE FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA

BY

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# DECLARATION

I, the undersigned, declare that this research is my own work and has never been presented in any other university or college for a degree or any other award.

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This research report has been submitted for examination with my approval as the University Supervisor.

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# ACKNOWEDGEMENTS

# DEDICATION

With special dedication and admiration, I dedicate this research to my wife Joan and son

Jayden.

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# LIST OF ABBREVIATIONS

CBK- Central Bank of Kenya

CRB- Credit Reference Bureau

IMF- International Monetary Fund

MFB- Microfinance Bank

MFC- Mortgage Finance Company

NPAs- Non-performing Asset(s)

SSA- Sub-Saharan Africa

# ABSTRACT

The objective of this study was to determine the effects of assets quality on the financial performance of commercial Banks in Kenya, between the years 2010 to 2014. The Asset quality also referred to as loan quality has been defined as the overall risk attached to the various assets held by an individual or institution. It measures how well a financial institution predicts the credit risk of their assets and how well they manage them. On the other hand, financial performance is a measure of how well a firm can use assets from its primary mode of business and generate revenues. This term is also used as a general measure of a firm's overall financial health over a given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation. The study adopted a descriptive design in its methodology and the researcher chose to study commercial banks due to availability of needed data and convenience. All the 43 commercial banks in Kenya were targeted for this study. Secondary data was obtained from annual Central bank of Kenya Banks supervision reports. SPSS version 20.0 was used for data analysis. The t-test with a 5% level of significance was used in the study and the correlation coefficient (r), coefficient of determination and analysis of variance (ANOVA) were calculated. The analysis showed that all the asset quality factors had a fairly statistical significant impact on financial performance. This was due to the fact that assets quality cannot solely determine the financial performance of commercial banks, unless other factors such as capital adequacy, management efficiency, earnings performance and liquidity are considered. The relationship between asset quality and financial performance was confirmed to be negative. Based on the findings, the study recommended that for high assets quality levels to be achieved, improved investment assets levels and the low rate of Non Performing Assets are to be realized through credit risk identification, measurement, monitoring and controlling. Further research on the factors influencing the asset quality of commercial bank in the country could add great value to the performance of local banks and academic literature.

# CHAPTER ONE

# INTRODUCTION

## 1.1 Background to the Study

A strong financial system is very important for a country to flourish. The economic progress of a nation and development of banking is invariably interrelated. The Banking sector is an indispensable financial service sector supporting development plans through channelizing funds for productive purpose, intermediating flow of funds from surplus to deficit units and supporting financial and economic policies of government. The importance of bank's stability in a developing economy is noteworthy as any distress affects the development plans (Rajaraman and Vasishtha, 2002) thereby the economic progress (Thiagarajan, et al, 2011). The stability of banking hence is a pre-requisite for economic development and resilience against financial crisis. Like any other business, success of banking is assessed based on financial performance / profitability and quality of asset it possesses (Ombaba, 2013).

Kenya has so far experienced three major banking crises (1986, 1993 and 1998) that led to the closing down of a total of 37 commercial banks (Kithinji and Waweru, 2007; Ngugi, 2001). Muriuki (1998), attributes the crises to the huge portfolio of non-performing assets (NPAs) that the banks had in their books. This impacted the country's banking sector, more so it's understanding of assets quality management and shaped the country's institutional response to the credit risk. This challenge led to the Central Bank of Kenya instituting a number of measures that were aimed at lowering the rate of loans default.

Asset quality also referred to as loan quality has been defined as the overall risk attached to the various assets held by an individual or institution. It is most commonly used by banks to determine how many of their assets are at financial risk and how much allowance for potential losses they must make. The most common assets requiring a strict determination of asset quality are loans, which can be non-performing assets if borrowers default on repayment obligations. Risk managers often assess the quality of assets by assigning a numerical ranking to each asset depending upon how much risk is involved (Ombaba, 2013).

Asset quality management is considered extremely important by the banking sector at home and abroad. The Basle Committee on Banking Supervision in 1997 issued an important document, "Core Principles for Effective Banking Supervision," which has been endorsed by the Central Bank governors of several countries, to present a comprehensive set of twenty-five core principles. Of these, one fourth are designed to address the relevant issues of bank asset quality (Tsai and Huang 1997), suggesting that asset quality is a general concern for the financial supervisory authorities in every country throughout the world.

Nagle (1991), indicated that the problems of asset quality may become the future time bomb for banks. In 1995, the "Standards for safety and soundness," which was established by the United States Federal Reserve Board, became effective, requiring United States financial institutions to set up asset quality monitoring systems for identifying possible emerging problems of bank asset quality, and demanding banks to regularly present the asset quality reports to the board of directors so as to evaluate the risks associated with asset quality deterioration.

Bank asset quality not only affects the financial and operating performance of the bank itself, but also further impinges on the soundness of the national financial system. Yin (1999) referred that the deterioration of asset quality from the ignorance of loan quality by banks is one of the main causes behind the Asian Financial Crisis.

In Kenya, as a move to ensure assets quality the Government has made significant changes over the last decade to the Banking Act (Cap 488) and Prudential Guidelines to strengthen arrangements in relation to bank licensing, corporate governance, capital adequacy, risk classification of assets and overall risk management (Thorsten et al, 2009).

Due to the strong emphasis of the asset quality, since 2001 when the ratio of Non Performing Assets to Gross Assets was at its highest of 22.6%, the financial institution have since been put under stringent watch and requirements to ensure that the ratios are maintained at the acceptable levels thereby resulting to the improved overall asset quality of the loan book and as well as the profitability levels (Oloo, 2013).

However, in the last 10 years the commercial banks in Kenya have continued to report excellent increasingly financial performance despite the increasing levels in the non-performing assets which results to deterioration of the quality of their assets (loans and advances). This trend is however contrary to the expected negative correlation. There has been little empirical research on this issue, particularly with respect to the relationship between the assets quality and financial performance of commercial banks in Kenya; thus forming basis for the subject of this study.

### 1.1.1 Assets Quality

Ombaba (2013), defined asset quality also referred to as loan quality as the overall risk attached to the various assets held by an individual or institution. This term is commonly used by banks to determine how many of their assets are at financial risk and how much allowance for potential losses they must make. The most common bank assets requiring a strict determination of asset quality are loans & advances. Increasing loan quality will improve the return of bank loans and reduce the costs of failure, but at the same time it will be attained at a cost that requires banks' attention to manage (Khalid, 2012).

A major threat to banking sector is prevalence of Non-Performing Assets (NPAs). NPA represents bad loans, the borrowers of which failed to satisfy their repayment obligations. Michael et al (2006), emphasized that NPA in loan portfolio affect operational efficiency which in turn affects profitability, liquidity and solvency position of banks (Ombaba, 2013).

Assets quality is a strong determinant of financial institution performance because it influences the interest incomes while and the same time reduces the cost burden of bad debts management as per the law requirements. The banks are required to set aside cash, which is deductible as an expense, to ensure they are able to absorb any losses that it may incur from loan defaults. The high the NPA ratio to the gross / net assets book the low the asset quality and vice versa and therefore it means that the trade-off between assets quality and financial performance is expected to be negative (Ombaba, 2013).

## 1.1.2 Financial Performance

Financial performance analysis of commercial banks has been of great interest to academic research since the Great Depression Intern in the 1940's. In the last two decades studies have shown that commercial banks in Sub-Saharan Africa (SSA) are more profitable than the rest of the world with an average Return on Assets (ROA) of 2 percent (Flamini et al., 2009). One of the major reasons behind high return in the region was investment in risky ventures. The other possible reason for the high profitability in commercial banking business in SSA is the existence of huge gap between the demand for bank service and the supply thereof. That means, in SSA the number of banks are few compared to the demand for the services; as a result there is less competition and banks charge high interest rates. This is especially true in East Africa where the few government owned banks take the lion's share of the market. The performance of commercial banks can be affected by internal and external factors (Al-Tamimi, 2010; Aburime, 2005).

Ngigi (2015) indicated that financial performance of Kenyan banks has continued to take hit from increased provisioning for bad loans as Central Bank of Kenya (CBK) heightens its scrutiny on their books. Even though CBK had previously encouraged restructuring of loans by banks to keep their risk low; their change of tack in a letter of intent to International Monetary Fund (IMF) on the heightened regulatory scrutiny could cause Kenyan banks to increase their loan loss provision expense, which in turn would lower profitability.

The financial performance of commercial banks in the Kenya has improved tremendously over the last ten years, as only two banks have been put under CBK statutory management during this period compared to 37 bank-failures between 1986 and 1998 (Mwega, 2009).

According to the Central Bank of Kenya (2014), the gross non-performing Assets (NPAs) increased by 32.4 percent from Kshs 81.8 billion in December 2013 to Kshs 109.9 billion in December 2014. Similarly, the ratio of gross NPAs to gross assets increased from 5.2 percent in December 2013 to 5.6 percent in December 2014 leading to assets quality deterioration respectively. This was majorly attributed to the spill-over effects of high lending interest rates in 2012 and challenges in the business environment contributed to the increase in NPAs. However, commercial banks continue to deploy enhanced appraisal standards to mitigate credit risk.

Similarly, the commercial banks registered Kshs 141.1 billion pre-tax profits during the period ending December 31, 2014, which was an increase of 12.2 percent from Kshs 125.8 billion for the period ending December 2013. Total income for the period stood at Kshs 418.7 billion, a growth of 15.6 percent compared with Kshs 362.2 billion registered at the end of December 2013. The increase in income was largely attributed to increase in interest on advances, which rose by Kshs. 35.8 billion occasioned by the growth in loans and advances in 2014 (CBK, 2014).

### 1.1.3 Relationship between Assets Quality and Financial Performance

Zimmerman (1996) showed theoretically how the management decisions, especially regarding loan portfolio concentration, were an important contributing factor in financial

institutions performance. He attributed good financial institution performance to quality management and in which the management quality was assessed in terms of senior officer's awareness and control of the bank's policies and performance.

Khalid (2012) examined the relationship between asset quality and operating performance of Indian private commercial banking industry. The analytical model showed that when a bank's asset quality becomes worse, it takes more resources for a bank to conduct non- value-added credit receiving activities, which leads to poor performance. Using actual data of sample banks from 2006-07 to 2010-11, the banks' operating efficiency scores were obtained through regression which showed that asset quality and profitability were negatively related. Also explained that due to the large number of banks in India which resulted in dropping profits level, rising risks appetite and assets quality deterioration caused by pernicious competition, it led to bank runs. Not only does banks asset quality affect its financial condition and operating results, but also the soundness of the entire banking system.

Yin (1999) pointed out that one of the primary reasons for the Asian financial crisis was asset quality deterioration originating from a huge neglect towards credit-giving criterion. Tsai (1999) indicated that, according to Standard and Poor's latest survey on the banking system of 61 countries all over the world, Taiwan's banking system was fragile and that the more fragile a country's banking system is, the more it needs to pay attention to asset quality management in order to ensure the sound development of the banking industry.

## 1.1.4 The Commercial Banks in Kenya

The Kenyan financial sector is majorly dominated more by commercial banks than capital markets, as the capital market are still considered narrow and shallow (Ngugi et al, 2006). Bank assets as a percentage of total assets in the financial sector are about 57 percent. The vital role played by commercial banks in Kenya in financing economic development brings to the fore the need to study the assets quality of commercial banks. The banking environment in Kenya has, for the past decade, undergone many regulatory and financial reforms. These reforms have brought about many structural changes in the sector and have also encouraged foreign banks to enter and expand their operations in the country (Kamau, 2009). Commercial banks dominate the financial sector in Kenya and as such the process of financial intermediation in the country depends heavily on commercial banks (Kamau, 2009).

According to the Central Bank of Kenya (2013), there were 43 registered commercial banks and one mortgage finance company as at December 2013. These Commercial Banks were further classified into three different classes depending on the market share by net assets, advances, customer deposits and pre-tax profits by Central Bank of Kenya. Large banks (tier I banks) which had asset size of over 15 billion shillings, medium banks (tier II banks) which had more than 5 billion shillings while small banks (tier III banks) had asset size of less than 5 billion shillings. Six banks were classified as tier I banks, fifteen as tier II banks while twenty three were tier III banks (CBK, 2013). Only nine commercial banks were listed in the Nairobi Stock Exchange (Barclays Bank, CFC Stanbic Holdings, Diamond Trust Bank, Equity Bank, Kenya Commercial Bank, National Bank of Kenya, NIC Bank, Standard Chartered Bank and The Co-operative Bank of Kenya).

**1.2 Research Problem**

Kenya's experience with the financial reform process shows a widening growth in the non-performing assets which has been a hindrance to the development of financial sector thus negatively contributing towards the growth of the Kenyan economy. The commercial banks management responsibility of closely monitoring the assets quality has proven to be quite tasking owing to theoretical foundations on the impact that assets quality has on the financial performance of the commercial banks. Thus, there is no doubt that these two variables are interrelated and hence the need to establish the nature and significance of relationship.

Fiscal policies by the Central Bank have done much to stabilize the market, but at times some interventions lead to unforeseen developments in the banking sector. For instance, the annual growth in private sector credit appeared to stagnate at 20.47 per cent in January 2014 compared to 20.08 per cent in December 2013 (FSD Kenya, 2014). According to the Central Bank of Kenya (2014) Supervision Report, the level of non-performing loans have been increasing steadily from Kshs.56 billion in 1997, to Kshs. 83 billion in 1998 to Kshs. 97 billion in 1999 & latest standing at Kshs 109.9 billion in 2014. This high level of non-performing loans continues to be an issue of major supervisory concern in Kenya. It is accepted that the low quantity or the high ratios of non-performing assets (NPAs) to gross assets is often associated with bank failures and financial crises in both developing and developed countries (Caprio and Klingebiel, 2002).

A number of studies have been undertaken both locally and internationally on the topic of assets quality. Stieglitz and Weiss (1981) pointed out that one major factor that affect the assets quality of financial institution is high interest rates charged as a compensation of taking higher risks resulting to adverse selection effects. Even though the banks have tightened monitoring of the behavior of borrowers, information is obtained at a cost and also, not perfect. This implies that the rational profit maximizing banks will practice credit rationing, which defeats the assumption generally made in financial liberalization literature, that interest rate liberalization eliminates credit rationing.

Demirguc-Kunt (1989) and Barr and Siems (1994) have showed that asset quality is a statistically significant predictor of insolvency for the cause of bank failures. Failing banking institutions always have a high level of non-performing loans prior to failure. This is in line with the research but it did not provide details of how performance was affected prior to the insolvency.

Adeolu, (2014) who carried out a study on asset quality and bank performance on commercial banks in Nigeria and with the use of the Pearson correlation and regression tool of the SPSS for data analysis and concluded that that asset quality had a statistically strong positive relationship and influence on bank performance which is contrary to Achou and Tenguh (2008), who established that non-performing loans (NPL) has an inverse relationship with banks' profitability while Khalid (2012) who examined the relationship between asset quality and operating performance of Indian private commercial banking industry concluded that asset quality and profitability are negatively correlated and Yin (1999) who pointed out that one of the primary reasons for the Asian financial crisis was asset quality deterioration originating from a huge neglect towards

credit-giving criterion. Therefore due to geographical gap and the contradicting findings by the researchers, it would be necessary to validate the actual position with a case study of commercial banks in Kenya.

Commercial banks in Kenya have continued to report increasing financial performance represented by profitability levels, despite deteriorating quality of the assets or increasing ratio of gross nonperforming assets to gross loans levels occasioned by the growth in loans and advances (assets). These results represent contrary expected established perceptions of negative correlation between the assets quality and financial performance; therefore their relationship thereof is worth being studied.

Even though most bank practitioners realize the great relevance of asset quality on financial performance, the literature of academic research on this subject using actual operating data is found to be limited. The purpose of this study is to apply a model analysis and actual operating data of banks in order to examine the relevance of Kenyan bank asset quality to operating financial performance.

## 1.3 Objectives of the Study

The main objective of the study is to determine the effect of assets quality on financial performance of the commercial banks in Kenya.

## 1.4 Value of the Study

The study is important to the government in determination and establishment of a stronger regulatory and legal framework for the Banking industry in Kenya. The study is useful to the government in policymaking regarding the commercial banks assets quality management which will result to further protecting the depositors' funds while enhancing the commercial banks financial performance and stability.

The study is also significant to the management of commercial banks in Kenya. The findings of the study will enable the bank managers formulate strategies to enhance better management of their loans / assets portfolio in line with their growth strategies thereby maintaining high quality of their assets and realize their firm's maximization of wealth goals.

The study will contribute to the body of knowledge in the area of commercial banks assets quality management. It will reconcile theory to reality while its findings will be used for further studies in the field in future. This will benefit the scholars and researchers in the field of credit and finance.

# CHAPTER TWO

# LITERATURE REVIEW

## 2.1 Introduction

This chapter highlights the literature relating to the research topic. This section deals with the review of theories relating to asset quality and financial performance; general literature review; review of empirical studies and finally gave a conclusion from the literature review indicating the gaps the research is addressing and the original contribution it will make to the field in general.

## 2.2 Theoretical Literature Review

### 2.2.1 Modern Portfolio Theory

Modern portfolio theory (MPT) or portfolio theory was introduced by Harry Markowitz with his paper "Portfolio Selection" which appeared in the 1952 Journal of Finance. This theory expounded on how risk-averse investors could construct portfolios to optimize or maximize expected return based on a given level of market risk, emphasizing that risk is an inherent part of higher reward. Thus an investor will benefit from diversification through a reduction in the riskiness of the portfolio while maximizing returns thereof. He further stated that only "unsystematic risk" which is specific to individual stocks could be diversified away as the number of stocks in the portfolio increases (Witt and Dobbins, 1979)

Csongor and Curtis, (2005) observed that using the above theory, banks have applied it in diversifying their loan portfolio so as to minimize the unsystematic credit risk which can be interpreted as risk of credit takers defaulting in a specific industry or geographic region simultaneously. The risk of a sudden decline in an industry or geographic region cannot be ignored, since history has proved that it is likely that at some point shocks may arise without giving enough time for the banks / companies to hedge or neutralize the position. Hence, it is in their interest to make sure that the concentration of portfolio is not too high (across industries, geographical regions or even individual firms).

According to the Portfolio balance model of asset diversification, the optimum holding of each asset in a wealth holder's portfolio is a function of policy decisions determined by a number of factors such as the vector of rates of return on all assets held in the portfolio, a vector of risks associated with the ownership of each financial assets and the size of the portfolio. It implies portfolio diversification and the desired portfolio composition of commercial banks are as a result of decisions taken by the bank management. Further, the ability to obtain maximum profits depends on the feasible set of assets which results to high assets quality desired by the management and the unit costs of monitoring each component of assets which delivers the targeted performance (Nzongang and Atemnkeng, 2006).

This theory, however, has a shortcoming; it cannot allow both more and less risk averse investors to find their optimal portfolio, a problem surmounted by the capital asset pricing model (CAPM) (Sharpe, 1964).

### 2.2.2 Capital Asset Pricing Model

The CAPM, associated with Sharpe (1964), Lintner (1965) and Black (1972) explains the risk of a particular asset or portfolio using the excess return on the market portfolio (Black, 1971). The model suggests that investors should hold diversified portfolios, and predicts that investors will hold some fraction of the market portfolio. Furthermore, an important implication of the CAPM, also referred to as efficient markets hypothesis, is that investors lacking special investment knowledge would be well advised to buy and hold diversified portfolios (Black, 1971).

The CAPM shows that investors require high levels of expected returns to compensate them for high expected risk. However, it is now widely recognized that in the presence of informational asymmetries and contract enforcement problems, it is not necessarily true that the banking system will allocate resources to projects or firms with the highest returns. Empirical evidence based on mean-variance portfolio selection, simulation analysis, and out of sample portfolio performance suggests that correcting for estimation error, particularly in the means, can substantially improve investment performance (for example Jobson *et al*, 1979; Jobson and Korkie (1980, 1981); Jorion, 1985, 1991).

Despite attempts to verify or refute the CAPM, there is no consensus on its legitimacy. The modeling approach employed in this paper is therefore that of the portfolio theory. This paper therefore assumes that quality assets/ loans are one of the items in a bank's portfolio. A banks portfolio consists of both assets and liabilities. It is the bank manager's jobs to construct a portfolio to yield a high return at the same time reduce the risk (standard deviation) of such a portfolio.

### 2.2.3 Tobin Theory of Investment

Tobin (1958) expanded on Markowitz's work by adding a risk-free asset to the analysis. This made it possible to leverage or deleverage portfolios on the efficient frontier; This lead to the notions of a super-efficient portfolio and the capital market line. Through leverage, portfolios on the capital market line are able to outperform portfolio on the efficient frontier. Tobin (1958) added the notion of leverage to portfolio theory by incorporating into the analysis an asset which pays a risk-free rate. By combining a risk-free asset with a portfolio on the efficient frontier, it is possible to construct portfolios whose risk-return profiles are superior to those of portfolios on the efficient frontier.

### 2.3 Determinants of Bank Financial Performance

In accordance with the above theories and models, many studies have introduced some useful variables in the financial performance function of commercial banks to shed light on key factors that make a difference in bank financial performance. Such studies are not without ambiguity especially with regard to the measurement of the variables and the results reported thereafter. However there is general agreement that bank financial performance is a function of internal and external factors. Koch (1995) observed that the performance differences between banks indicate differences in management philosophy as well as differences in the market served.

Athanasoglou et al, (2006) concurred and argued that financial performance is a function of internal factors that are mainly influenced by a bank's management decisions and policy objectives such as the level of liquidity, provisioning policy, capital adequacy, expense management and bank size, and the external factors related to industrial structural factors such as ownership, market concentration and stock market development

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and other macroeconomic factors. Though most of the studies on bank financial performance are based on developed countries especially the USA and Europe, a couple of studies focusing on developing countries have also used more or less the same variables to study the determinants of bank profitably (Flamini et al, 2009), (Sufian and Chong, 2009).

To identify the relevant determinants of commercial bank financial performance in Kenya, this study concentrated only on one among five of the bank-specific factors based on the CAMEL framework. CAMEL is a widely used framework for evaluating bank performance in relation to Asset Liability Management (ALM). CAMEL stands for capital adequacy, asset quality, management efficiency, earnings performance and liquidity. The system was developed by the US Federal Deposit Insurance Corporation (FDIC) for early identification of problems in banks "operations" (Uzhegova, 2010).

Though some alternative bank performance evaluation models have been proposed, the CAMEL framework is the most widely used model and it is recommended by Basle Committee on Bank Supervision and IMF (Baral, 2005). The Central Bank of Kenya also uses the same to evaluate the performance of commercial banks in Kenya.

## 2.3.1 Capital Adequacy and its Effect on Financial Performance

Capital adequacy refers to the sufficiency of the amount of equity to absorb any shocks that the bank may experience (Kosmidou, 2009). The capital structure of banks is highly regulated. This is because capital plays a crucial role in reducing the number of bank failures and losses to depositors when a bank fails, as highly leveraged firms are likely to take excessive risk in order to maximize shareholder value at the expense of finance providers (Kamau, 2009).

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Although there is general agreement that statutory capital requirements are necessary to reduce moral hazard, the debate is on how much capital is enough. Regulators would like to have higher minimum requirements to reduce cases of bank failures, whilst the financial institutions shareholders in contrast argue that it is expensive and difficult to obtain additional equity and higher requirements restrict their competitiveness (Koch, 1995). Beckmann (2007) argue that high capital leads to low profits since banks with a high capital ratio are risk-averse, they ignore potential (risky) investment opportunities and, as a result, investors demand a lower return on their capital in exchange for lower risk. However Gavila et al (2009) argues that, although capital is expensive in terms of expected return, highly capitalized banks face lower cost of bankruptcy, lower need for external funding especially in emerging economies where external borrowing is difficult.

Thus well capitalized banks should be profitable than lowly capitalized banks. Gavila (2009) using a sample of 10 Tunisian banks from 1980 to 2000 and a panel linear regression model, reported a strong positive impact of capitalization to ROA. Sufian and Chong (2008) also reported the same results after examining the impact of capital to the performance of banks in Philippines from 1990 to 2005. The banking sector in Kenya provides an interesting case to examine the impact of capital because the minimum statutory requirement has been upgraded to Kshs 1 billion in 2012. However based on the ministry of Finance and 2015 budgetary provisions, this is set to be revised to Kshs 5 billion in the year 2018.

## 2.3.2 Assets Quality and its Effect on Financial Performance

Credit risk is one of the factors that affect the health of an individual bank. The extent of the credit risk depends on the quality of assets held by an individual bank. The quality of

assets held by a bank depends on exposure to specific risks, trends in non-performing loans, and the health and profitability of bank borrowers (Baral, 2005). Aburime (2008) asserts that the financial performance of a bank depends on its ability to foresee, avoid and monitor risks, possibly to cover losses brought about by risks arisen. Hence, in making decisions on the allocation of resources to asset deals, a bank must take into account the level of risk to the assets.

Poor asset quality and low levels of liquidity are the two major causes of bank failures. Poor asset quality led to many bank failures in Kenya in the early 1980s. During that period 37 banks collapsed following the banking crises of 1986-1989, 1993-1994 and 1998 (Mwega, 2009). According to Waweru and Kalani (2009) many of the financial institutions that collapse in 1986 failed due to non-performing loans (NPLs) and that most of the larger bank-failures, involved extensive insider lending, often to politicians.

The CBK measures asset quality by the ratio of net non-performing loans to gross loans. However Koch (1995) argues that a good measure of credit risk or asset quality is the ratio of loan loss reserve to gross loans because it captures the expectation of management with regard to the performance of loans.  Hempel et al (1994) observed that banks with high loan growth often assume more risk as credit analysis and review procedures are less rigorous, however returns are high in such loans indicating a risk and return trade-off.

Kosmidou (2008) applied a linear regression model on Greece 23 commercial banks data for 1990 to 2002, using ROA and the ratio of loan loss reserve to gross loans to proxy profitability and asset quality respectively. The results showed a negative significant

impact of asset quality to bank profitability. This was in line with the theory that increased exposure to credit risk is normally associated with decreased firm profitability. Indicating that banks would improve profitability by improving screening and monitoring of credit risk.

### 2.3.3 Liquidity Management and its Effect on Financial Performance

Another important decision that the managers of commercial banks take refers to the liquidity management and specifically to the measurement of their needs related to the process of deposits and loans. The importance of liquidity goes beyond the individual bank as a liquidity shortfall at an individual bank can have systemic repercussions (CBK, 2009). It is argued that when banks hold high liquidity, they do so at the opportunity cost of some investment, which could generate high returns (Kamau, 2009).

The trade-offs that generally exist between return and liquidity risk are demonstrated by observing that a shift from short term securities to long term securities or loans raises a bank's return but also increases its liquidity risks and the inverse is true. Thus a high liquidity ratio indicates a less risky and less profitable bank (Hempel et al, 1994). Thus management is faced with the dilemma of liquidity and profitability. Levine (1998) emphasized the adverse effect of increased liquidity for financial Institutions stating that, "although more liquid assets increase the ability to raise cash on short-notice, they also reduce management's ability to commit credibly to an investment strategy that protects investors" which, finally, can result in reduction of the "firm's capacity to raise external finance" in some cases (Uzhegova, 2010).

In Kenya the statutory minimum liquidity requirement is 20%. However, according to CBK Bank Supervision Annual Report (2009), the average liquidity ratio for the sector was 39.8% in 2009, 37.0 % in 2008, and way above the minimum requirements. This has baffled many financial analysts as to how could banks withhold such amount of cash in a credit needy economy such as Kenya (Kamau, 2009). The CBK attributes this to the banking industry's preference to invest in the less risky government securities, while Ndung'u and Ngugi (2000) as cited by Kamau (2009) attributes this liquidity problem to the restrictions placed on commercial banks at the discount window, coupled with thin interbank market, a high reserve requirement and preference of government securities. Thus given the above foregoing analysis, the given Kenyan banking sector provides an interesting case to assess the effects of liquidity on profitability.

## 2.3.4 Management Efficiency and its Effect on Financial Performance

Poor management of expenditure is the main contributors to poor profitability (Sufian and Chong 2009). In the literature on bank performance, operational expense efficiency is usually used to assess managerial efficiency in banks. Mathuva (2009) observed that the Cost Income Ratio (CIR) of local banks is high when compared to other countries and thus there is need for local banks to reduce their operational costs to be competitive globally. Beck and Fuchs (2004) examined the various factors that contribute to high interests spread in Kenyan banks. Overheads were found to be one of the most important components of the high interests rate spreads. An analysis of the overheads showed that they were driven by staff wage costs which were comparatively higher than other banks in the SSA countries.

Although the relationship between expenditure and profits appears straightforward implying that higher expenses mean lower profits and the opposite, this may not always be the case. The reason is that higher amounts of expenses may be associated with higher volume of banking activities and therefore higher revenues. In relatively uncompetitive markets where banks enjoy market power, costs are passed on to customers; hence there would be a positive correlation between overheads costs and profitability (Flamini et al, 2009). Neceur (2003) found a positive and significant impact of overheads costs to profitability indicating that such cost are passed on to depositors and borrowers in terms of lower deposits rates/ or higher lending rates.

**2.3.5 Diversification of Income and its Effect on Financial Performance**

Financial institutions in recent years have increasingly been generating income from "off-balance sheet" business and from fees and commissions income. Albertazzi and Gambacorta (2006) as cited by Uzhegova (2010) noted that the decline in interest margins, has forced banks to explore alternative sources of revenues, leading to diversification into trading activities, other services and non-traditional financial operations. The concept of revenue diversifications follows the concept of portfolio theory which states that individuals can reduce firm specific risk by diversifying their portfolios. However there is a long history of debates about the benefits and costs of diversification in banking literature. The proponents of activity diversification or product mix argue that diversification provides a stable and less volatile income, economies of scope and scale, and the ability to leverage managerial efficiency across products (Choi and Kotrozo, 2006).

Chiorazzo et al (2008) noted that as a result of activity diversification, the economies of scale and scope caused through the joint production of financial activities leads to increase in the efficiency of banking organizations. They further argued that product mix reduces total risks because income from non-interest activities is not correlated or at least perfectly correlated with income from fee based activities and as such diversification should stabilize operating income and give rise to a more stable stream of profits (Uzhegova, 2010).

The opposite argument to activity diversification is that it leads to increased agency costs, increased organizational complexity, and the potential for riskier behavior by bank managers. Mihail (2009) mentioned that activity diversification results in more complex organizations which "makes it more difficult for top management to monitor the behavior of the other divisions/branches. They further argued that the benefits of economies of scale/scope exist only to a point. The costs associated with a firm's increased complexity may overshadow the benefits of diversification. As such, the benefits of diversification and performance would resemble an inverted-U in which there would be an optimal level of diversification beyond which benefits would begin to decline and may ultimately become negative.

Using annual bank level data of all Philippines commercial banks Sufian and Chong (2008) found a positive relationship between total non-interest income divided by total assets, a proxy for income diversification and bank profitability.

Uzhegova (2010) using a HH index of interest income, commissions, fee income, trading income, non-interest income and other operating income found empirical support of the

idea that banks involved in diversification activities expect some benefits. While Kotrozo and Choi 2006, using a similar index found that activity diversification tends to reduce performance compared to banks more focused in their activities.

## 2.4 Empirical Literature Review

Adeolu, (2014) carried out a study on asset quality and bank performance on commercial banks in Nigeria and with the use of the Pearson correlation and regression tool of the SPSS for data analysis and concluded that that asset quality had a statistically strong positive relationship and influence on bank performance. However, he also shows that there exists no relationship between bank loans and its profitability though this contradicts Khalid (2012) which reported that asset quality and profitability are negatively correlated in the banking industry.

Anjichi (2014) on the effects of assets and liabilities on the financial performance of commercial banks in Kenya over the period of 2004-2013 and using SPSS version 20.0 was used for data analysis which indicated that, the analysis all the CAMEL factors had a statistically significant impact on financial performance.

Garcia et al (2012) and Ponce (2010) measured the determinants of bank profitability in Spain; the results indicated that there is higher profit growth in banks having higher proportional of loans total assets, higher customer deposits, efficiency and lower credit risks. In this aspect they argued that higher profitability is to the bank which is capable of holding higher assets in terms of loans. Although there is additional costs of holding higher loan, the bank receive higher profit level, and where there is higher loan, liquidity

is the problem thus, banks need to strike to balance between the two, as in theory higher loans means higher profitability.

Athanasoglou et al (2008), Angbazo (1997), and De young and Rice (2004) found that there is positive relationship between quality of the assets as measured by decrease in doubtful assets, decrease in impairment losses decrease in non-performing loans and increase in receivable. In general the health balance sheet structure and effectiveness of credit administration tends to increase the profitability of the banks.

Carter, McNulty, and Verbrugge (2004) and Carter and McNulty (2005) suggest that monitoring may contribute positively to small bank financial performance because risk-adjusted loan yields, asset quality maintenance and spreads /margins are greater for small banks. They point out that one explanation for the positive relation between monitoring and performance is the ability of small banks to find economically valuable information about a firm's financial condition by monitoring the firm's demand deposit account.

Loan loss provision to total loans is an indicator of asset quality in commercial banks. This implies that an increase in non-performing loans leads to increase in loan loss provision and ultimately a negative impact on profitability and hence an increase in credit risk. Studies of Trujillo-Ponce (2012) on determinants of profitability for Spanish banks over the period of 1999-2009 indicated that, there was a direct and significant impact of loan loss provision ratio; a measure of loan / asset quality on bank profitability. In Greece, Athanasoglou et al., (2005), applied Generalized Method of Moments (GMM) technique to a panel of Greek banks over the period of 1985-2001. The results indicated that, increased exposure to credit risk reduced the profits of Greek banks. Staikouras and

Wood, (2004), using descriptive statistics; Matrix of correlation coefficients and multiple regression analysis, found that in European banks, Loans loss provisions to total loans had a significant negative impact on bank profitability. Ahmed et al., (2010), in their study found that loan loss provision has a significant positive relationship with non-performing loans. The results implied that an increase in non-performing loans led to increase in loan loss provision and ultimately a negative impact of profitability, hence an increase in credit risk.

According to Achou and Tenguh (2008), non-performing loans (NPL) has an inverse relationship with banks' profitability. Hence, they suggested that it is of crucial importance that banks practice prudent credit risk management and safeguarding the assets of the banks and protect the investors' interests. Similarly, Aboagye and Otieku (2010) contended that for banks to continue operations; they must make enough money through lending and fiduciary activities or services to cover their operational and financing costs, plough back retained earnings to finance future operations. This will enhance not only the survival but also their growth and profitability.

Streeter (2000) reported that asset quality management is considered one of banks major management problems in 2001 based on the self administered questionnaires served to the members of American Bankers Association Board which composed of one-third of bank officials from all U.S. banks, the result of the above survey sufficiently proves that asset quality management is a common issue for bankers in practice.

Bourke (1989) found that the changes in capital ratios and increase in assets have positive relationship with profitability, assuming that well capitalized banks have ability to grow

and found cheaper source of financing with better quality assets , in this aspect the better capitalize banks have the ability to absorb the loan loss and increase the profitability.

**2.5 Summary of Literature Review**

The literature review has elaborated how banks have put in to use the Markowitz modern portfolio theory, Capital Asset Pricing Model (CAPM) and Tobin Theory of Investment so as to alleviate the credit risk and maximizing their returns thereby linking the relationship between the banks quality of assets with performance. However, since assets quality cannot solely determine the performance of commercial banks, other factors which determine the profitability of commercial banks have been reviewed. Past studies on assets quality and financial performance have also been reviewed.

It is clear that from the global review, researchers have established mixed results on the effect and relationship between bank assets quality and financial performance on different periods in time. It is also clear from the empirical review that little if any has been done by the local studies to systematically establish the relationship between bank assets quality and the overall commercial banks performance in Kenya. This study therefore sought to systematically establish the relationship.

# CHAPTER THREE

# RESEARCH METHODOLOGY

## 3.1 Introduction

This chapter outlines the methods that were adopted by the study in order to obtain information on the relationship between assets quality and the financial performance in Kenyan commercial banks. It included the research design, population, data collection, data validity and reliability and data analysis.

## 3.2 Research Design

Descriptive design was used in the study since it was the most appropriate method due to the fact that it allowed observing and describing the behavior of a subject without influencing it in any way. In this research, descriptive research was used to determine the statistical association between the relationship of assets quality and financial performance of commercial banks in Kenya.

## 3.3 Population

The population of a research applies to the collection of all possible individuals, objects or measurements of interest (Mason et al, 1999). For the purpose of this research, the study population comprised of all the 43 commercial banks in Kenya as at 31/12/2014. Therefore, a census was adopted. The justification for this population was because of the fact that the information was readily accessible since it's a regulatory requirement for quarterly publication of financial statements by all commercial banks in Kenya.

## 3.4 Data Collection

The study employed the use of secondary data. The data was collected from the Central Bank of Kenya, published financial statement of banks and Banking Survey from 2010-2014. The banking Survey is an annual publication that publishes annual financial statement of all banks in Kenya while the Central Bank of Kenya publishes and analyzes financial institutions performance data annually. The study covered five years period from the years 2010 to 2014.

## 3.5 Data Validity and Reliability

To ensure validity and reliability of the data collected, only published data in the form of financial statements which is a requirement by law was used. The board of directors of each bank before publishing of any information, they have to attest to the validity and reliability and ensure that the statements show a true and fair view of the bank's financial position. The CBK supervisory reports were also used and since they are published by the regulator, the correctness of the data is assured.

## 3.6 Data Analysis

The data was collected and analyzed using the computer software known as Statistical Package for Service Solution (SPSS) version 20.0. Descriptive, correlations and regression analysis was applied to the study and compared the effect of independent variable on the dependent variable. The dependent variable which is represented by the Financial Performance of the banks and denoted by Return on Assets (ROA) which is a measure of profitability and it indicates how efficient the bank's management uses its assets to generate earnings/ incomes which is calculated as annual earnings divided by

total average assets. On the other hand, in order to obtain the independent variable which was represented by the Assets quality; it was evaluated using the following ratios: Gross NPAs to Gross Advances, Total Investments Assets to Total Assets and Net NPAs to Total Assets.

The two tailed t-test was used since the sample size will be greater than 30 with a 5% statistic test of significance. The nature of the relationship between the two variables was defined by the computing correlation coefficient (r) and coefficient of determination ($r^2$). The study hypothesis was that Asset Quality had a negative relationship to Financial Performance of commercial banks in Kenya.

Financial Performance $_{ROA}$ = $\alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + e$

Where;

Y–denotes the dependent variable (Financial Performance) measured as Return on Assets

$\alpha$ - is the value of the intercept.

$\beta$ - is the coefficient of the explanatory X variable.

$e$ - is the error term assumed to have zero mean and independent across time period.

$X_1$ - Ratio of Gross NPAs to Gross Loans & Advances.

$X_2$ - Ratio of Total Investments Assets to Total Assets.

$X_3$ - Ratio of Gross NPAs to Total Assets.

# CHAPTER FOUR

# DATA ANALYSIS, RESULTS AND DISCUSSION

## 4.1 Introduction

This chapter presents the analysis of study findings of the investigation on the effect of asset quality on financial performance of commercial banks between the years 2010 to 2014. In the study, the variables adopted included; Return on Asset which was used as a measure of financial performance while ratios of Gross NPAs to Gross Advances, Total Investments Assets to Total Assets and Gross NPAs to Total Assets were adopted to measure the asset quality. This chapter analyses the variables involved in the study and estimates of the model presented in the previous chapter.

## 4.2 Research Findings

This section of the study is aimed at establishing the general trend of financial performance and the asset quality in the Kenyan banking sector from 2010 to 2014.

## 4.2.1 Descriptive Analysis

Table 4.10 reports the mean scores of ROA from 2010 to 2014. The mean score of ROA for the whole sector was 2.2% in 2010 and declined to 1.8% in 2014 showing a decrease of 0.4%. Despite the decrease in ROA, the financial performance of the commercial banks of Kenya during the period 2010 to 2014 confirmed the findings of the earlier studies which found that commercial banks in Sub-Saharan Africa (SSA) are more profitable than the rest of the world with an average Return on Assets (ROA) of 2 percent (Flamini et al., 2009). Therefore, this means the performance of the sector was

comparable to international standards. This is very important for the development of the country as banks play a very important role of financial intermediation.

**Table 4.1: Yearly Mean Scores of Financial Performance and Asset Quality Factors**

| Year | Return on asset | Gross NPA / Gross Loans & Advances | Total Investment Assets / Total Assets | Gross NPA / Total Assets |
|------|------|------|------|------|
| **2014** | 1.8471% | 9.2320% | 86.3866% | 6.3051% |
| **2013** | 2.1233% | 7.9544% | 87.2327% | 5.1872% |
| **2012** | 1.8180% | 7.9481% | 85.9843% | 4.1832% |
| **2011** | 2.0901% | 8.0463% | 84.8994% | 4.3702% |
| **2010** | 2.2068% | 10.9407% | 85.7065% | 5.1630% |

Source: Research Findings 2015

The ratio of Gross NPA to Gross Loans and advances remained high but showing a declining movement from 2010 but reversed in 2014 when it increased to 9.23%. The commercial banks main assets is formed by loans and advances in which as per the above ratio of total investments assets to total assets, it indicated high concentrations of above 85% thereby qualifying to be regarded as the main business for the commercial Banks.

Also the ratio of Gross NPA to total assets fluctuated between 4.1% and 6.3% indicating the level of loans and advances impairment as a result of nonpayment of facilities as scheduled leading to provisions which reduces the profitability levels.

**Table 4.2: Aggregate Mean Scores of Financial Performance and Asset Quality Factors between 2010 to 2014**

|  | Mean | Std. Deviation | N |
|---|---|---|---|
| Return on Assets (ROA) | 2.02 | 2.168 | 215 |
| Total Investment Assets / Total assets | 86.04 | 8.049 | 215 |
| Gross NPA / Gross Loans & advances | 8.82 | 9.301 | 215 |
| Gross NPA /Gross assets | 5.04 | 6.835 | 215 |

Source: Research Findings 2015

The mean ratio of Return on assets 2.02% shows that the commercial Banks are pricing their products and services very well in order to effectively cover for their operational expenses which result to the impressive return on assets as compared to the other sectors in the economy & financial institutions world wide.

The mean ratio of the Gross NPA to Gross Loans & advances of 8.82% implies that more stringent credit risk management practices needs to be adopted before and after lending so as to reduce and maintain the ratios below 5.00% as per the international standards. Also the Gross NPA to total assets of 5.04% represent a high ratio compared to the international standards of retaining the levels within a level of 3%.

Further the mean ratio of Total Investment Assets to Total assets of 86.06% indicate that the commercial banks in Kenya invests majorly in loans and advances as well as short and long term government bonds compared to only 14% investments in fixed assets. For this reason, out of total investment assets, an average of 67% formed total loans and advances for the five year period analyzed thereby considered as the main asset for the commercial Banks financial statements.

**4.2.2 Correlation Analysis of Asset Quality and Financial Performance of Commercial Banks**

**Table 4.3: Correlation Table on Financial Performance and Asset Quality Factors**

| | | Return on Assets | Gross NPA/ Gross Loans & advances | Total Investment Assets / Total Assets | Gross NPA / Total Assets |
|---|---|---|---|---|---|
| Pearson Correlation | Return on Assets | 1.000 | | | |
| | Gross NPA/ Gross Loans & advances | -0.363 | 1.000 | | |
| | Total Investment Assets / Total Assets | 0.392 | -0.234 | 1.000 | |
| | Gross NPA / Total Assets | -0.241 | 0.863 | -0.027 | 1.000 |

Source: Research Findings 2015

Results on table 4.3 shows the correlations between asset quality factors and financial performance of commercial banks, while holding the correlation coefficient (r) value at between plus and minus one (-1.00 and +1.0). The study used the significance level of alpha = .05 (95%), Degrees of freedom (df) of 5, and two-tailed test.

**4.2.3 Regression of Asset Quality and Financial Performance**

The $R^2$ is a measure of the goodness of fit of the asset quality factors variables in explaining the variations in bank financial performance. Based on the study, correlation coefficient (r) was 0.482 and the coefficient of determination ($r^2$) was 0.232 indicating that 23% of the financial performance of commercial banks can be predicted by the asset quality factors identified in the study. Since the correlation of 0.232 is positive it can be concluded that even though the correlation is statistically not very significant / strong, it

fairly influences the relationship between asset quality and financial performance of commercial banks. This is due to the fact that asset quality cannot singly influence the financial performance of commercial banks as discussed under literature review.

**Table 4.4 Asset Quality and Financial Performance Model Summary**

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|---|---|---|---|---|
| 1 | .482[a] | .232 | .222 | .01913 |

Source: Research Findings 2015

**Table 4.5 ANOVA[a]**

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | .023 | 3 | .008 | 21.296 | .000[b] |
| | Residual | .077 | 211 | .000 | | |
| | Total | .101 | 214 | | | |

a. Dependent Variable: Return on Equity
b. Predictors: (Constant), Gross NPAs to Gross Advances, Total Investments Assets to Total Assets and Gross NPAs to Total Assets.

Source: Research Findings 2015

**Table 4.6 Coefficient and t-statistic Table**

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | 95.0% Confidence Interval for b | |
|---|---|---|---|---|---|---|---|---|
| | | B | Std. Error | Beta | | | Lower Bound | Upper Bound |
| 1 | (Constant) | -.046 | .016 | | -2.913 | .004 | -.078 | -.015 |
| | Gross NPA/Gross Loans & advances | -.081 | .031 | -.346 | -2.633 | .009 | -.141 | -.020 |
| | Total Investment Assets/Total Assets | .084 | .018 | .313 | 4.713 | .000 | .049 | .120 |
| | Gross NPA/Total assets | .021 | .040 | -.065 | .510 | .611 | -.059 | .100 |

a. Dependent Variable: Return on Assets (ROA)

Source: Research Findings 2015

The findings of the analysis are based on the significance level (alpha) of 0.05 (95%), degrees of freedom (df) of 5, and two-tailed test which indicated: Gross NPA / Gross Loans & advances ($R^2$=0.43; t= -2.633), Total Investment Assets/Total Assets ($R^2$=0.42; t=4.713) and Gross NPA/Total assets ($R^2$=0.24; t= 0.510)

The result show a positive coefficient of determination ($R^2$) indicating that: return on asset is influenced by Gross NPA / Gross Loans & advances, Total Investment Assets/Total Assets and Gross NPA/Total assets. In addition, the computed t-values: Gross NPA / Gross Loans & advances (t= -2.633), Total Investment Assets/Total Assets (t= 4.713) and Gross NPA/Total assets (t= 0.510) were higher than the significance threshold of 1.96 (0.05).

This then indicate that there is some significant relationship between financial performance and Gross NPA / Gross Loans & advances, Total Investment Assets/Total Assets and Gross NPA/Total assets.

## 4.2.4 Discussion of Research Findings

The results indicate that the ratio of Gross NPA / Gross Loans & advances is negatively related to return on asset (ROA), the financial performance measure as evidenced by the Pearson Correlation of -0.363, with coefficient of determination is 0.043 which indicates that the relationship may not be very strong. These results provide reasonable evidence to the consistent view that, the higher the asset quality levels, the better the financial performance. This means banks which fail to monitor their credit loans tend to be less profitable than those which pay particular attention to assets quality. This is in line with the theory that increased exposure to credit risk is normally associated with decreased bank profitability (Kosmidou, 2008). The beta of the ratio Gross NPA / Gross Loans & advances is -0.346 with a t-statistic of -2.633. The negative coefficients mean a 1% increase in Non Performing Assets or poor asset quality leads to a 0.346% decrease in financial performance. Therefore poor asset quality leads to lower financial performance to banks and the negative impact is significant at 5% test level.

The results further indicate that the ratio of Total Investment Assets to Total Assets is positively related to return on asset (ROA), the financial performance measure as evidenced by the Pearson Correlation of 0.392. The coefficient of correlation is 0.205 which indicates that the relationship may not be very strong. These results provide reasonable evidence to the consistent view that, the higher the total investment assets by banks, the better the financial performance. This supports the claim that banks with high

idle assets which are not under any investments, will realize low incomes thereby reducing financial performance.

The ratio of Total Investment Assets to Total Assets has a positive beta of 0.313 with a t-statistic of 4.713. This means high investment assets levels leads to an increase in financial performance to banks. This positive impact is significant at 5% test level. This means an increase in investment assets by 1% leads to an increase in financial performance by 0.313%.

The coefficient of correlation of -0.49, suggests a strong negative correlation between financial performance and Total Non Performing Assets to Total Assets ratio. The ratio also has a negative beta of -0.065 with a t-statistic of 0.510. This means poor asset quality ratio to total assets leads to lower financial performance to banks. This negative impact is significant at 5% test level.

The increase in Gross Non Performing Assets to Total Assets ratio by 1% leads to a decrease in financial performance by 0.065%. This impact is significant at least, at 5% test level.

Clearly the results indicated that all the assets quality factors had some significant impact on the financial performance of commercial banks during the period under study at least, at 5% test level. This means that asset quality contributes in the financial performance of commercial banks significantly beside other CAMEL factors discussed under the literature review.

# CHAPTER FIVE

# SUMMARY, CONCLUSION AND RECOMMENDATIONS

## 5.1 Introduction

This chapter introduces the summary of findings; conclusion and recommendations. It also highlights limitations of the study and finally gives suggestions for future research studies.

## 5.2 Summary of Findings

Multiple regression analysis has shown that asset quality is not only related to the financial performance of banks, but they also influence the financial performance of commercial banks in Kenya fairly significantly with a correlation of 0.232. The analysis revealed that the ratio of Gross Non Performing Assets to Gross Loans & advances was the most robust and important factor influencing financial performance in the sector. The results showed that a 1% increase in poor asset quality could result in 0.346% decrease in financial performance. This was statistically significant at 5% (-2.633) confidence level. Khalid (2012) and Athanasoglou et al., (2005) also found the same results for India and Greece banks respectively. The descriptive analysis showed that total non performing assets were as high as 50% of total loans and advances of one of the commercial bank during the study period. It is therefore obvious that a lot needs to be done to reduce impact of nonperforming asset in the banking sector to improve financial performance. The fairly negative impact of nonperforming assets to the gross loans and advances

indicates that banks financial performance is partially influenced by the assets quality therefore close watch must be maintained at all times.

The analysis revealed that the ratio of Total Investment Assets to Total Assets was also an important factor influencing financial performance in banks. The results showed that a 1% increase in Total Investment Assets to Total Assets ratio could result in 0.313% increase in financial performance. This was statistically significant at 5% confidence level with a t-statistic of 4.713. This result means banks should focus on improving their investments assets levels in order to improve their financial performance. This will enable the banks to take full advantage of business opportunities and returns from the depositors' funds as they increase their financial performance in the process. The implication of this finding is that investing in loans & advances as well as short-term, less risky securities like government bonds leads to increased profitability.

Finally the effect of Gross Non Performing Assets to Total Assets ratio was -0.065 and a t-statistic of 0.510 statistically significant at 5% significance level, resulting to a Pearson Correlation of -0.241 indicating that high ratio of Gross Non Performing Assets to Total Assets negatively affects profitability. That is 1% increase in the Gross Non Performing Assets to Total Assets ratio (indicating deteriorating asset quality), could lead to 0.065% reduction in financial performance. These results are consistent with previous findings by Kosmidou (2008) and Flemini et al (2009). Thus banks need to improve their processes of screening credit customers and monitoring of credit risk .This is an important indicator because banks have had serious problem with non-performing loans in the past which led to collapse of many banks.

**5.3 Conclusion**

The main objective of this study was to determinate and evaluate the effects of asset quality on the financial performance of commercial banks in Kenya. Data from 2010 to 2014 of 43 commercial banks was analyzed using multiple linear regressions method. From the discussion of the findings above, it was concluded that the asset quality is one of the significant factor influencing the financial performance of commercial banks in Kenya. The analysis showed that all the asset quality factors had some level of statistical significance on financial performance. The negative relationship between asset quality and financial performance of commercial Banks in Kenya was confirmed through the analysis results obtained.

The ratio of Gross Non Performing assets to Gross Loans advances was the most robust and important factor in influencing financial performance. Most of financial institutions use the ratio to determine their 'Portfolio at Risk (PAR)'. A slight decrease in poor assets quality could lead to relative higher financial performance due to reduction in provisions by the financial institutions.

The ratio of total investment assets to total assets was also significant in influencing performance in that, it reduced the impact of Non Performing Assets to the financial performance since through increasing the varied investments levels would result to the diversification of risks and returns to a wider scope thereby maintaining a certain level of financial performance despite increase in Non Performing Assets.

Banks which had low Non Performing Assets ratio to Total Assets performed better than those with high levels Non Performing Assets to Total Assets in their portfolios. The banks with more

risky assets (Non Performing Assets) on their balance sheet, lowers their capital reserves implying greater credit risk exposure. The ability of management to identify, measure, monitor and control credit risk is also reflected by this ratio. The quality of assets is an important parameter to gauge the strength of the bank.

## 5.4 Recommendations

On the basis of the findings of the study the researcher recommends that superior financial performance in commercial banks can be achieved by improving their investment assets levels and improving assets quality by reducing the rate of nonperforming loans through credit risk identification, measurement, monitoring and controlling. Thus it can be concluded that financial performance in the Kenyan banking sector is largely driven by asset quality management.

For asset quality banks need to improve their processes of screening credit customers and monitoring of credit risk .This is an important indicator because banks have had serious problem with non-performing loans in the past which led to collapse of many banks; with recent one being Dubai Bank which had a ratio of Gross NPA to Gross Loans of 54.99% prior to its placement under statutory notice in July 2015.

On the other hand banks should focus on improving their investment assets levels in order to improve their financial performance. This will enable the banks, take full advantage of business opportunities as well as diversifying of their portfolio to variety of investments, thereby leveraging on the risk minimization and returns maximization in their activities.

**5.4 Limitations of the Study**

Due to finance and time constraints, the research was limited to only commercial banks in Kenya. Therefore, to generalize the results for a larger group, the study should have involved a larger area of study, may be in other sectors of the economy or in other areas of the country. There was the challenge of accessing past bank record due to poor record keeping hence there was scant information that could be accessed in terms of published financial statements, however the researcher used other relevant documentation to collect the required information despite the fact that it took longer than anticipated. The research was also difficult to carry as the researcher had work and family commitments to attend to. This proved to be very destructing during the course of the research.

**5.5 Suggestions for Future Research**

The study sought to investigate how asset quality influences the financial performance of commercial banks in Kenya. However the variables used in the study were not exhaustive. Future research could incorporate macroeconomic variables such interest rates fluctuations, inflation and exchange rates. Also a study on the factors influencing the asset quality of commercial bank in the country could add great value to the performance of local banks and academic literature.

The scope of this research was limited to the evaluation of 43 commercial banks performance in Kenya. However, this may vary incase other financial institution like micro finances are included and more countries are considered so as to increase the population. Therefore, in furtherance of the research, one might want to consider this research as a reference to expand the scope and improve results of the research.

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**APPENDICES**

**APPENDIX I**

**List of Commercial Banks in Kenya**

| 1  | ABC Bank (Kenya)             |
|----|------------------------------|
| 2  | Bank of Africa               |
| 3  | Bank of India                |
| 4  | Bank of Baroda               |
| 5  | Barclays Bank                |
| 6  | CFCStanbic Bank              |
| 7  | Chase Bank (Kenya)           |
| 8  | Housing Finance              |
| 9  | Citibank N.A.                |
| 10 | Commercial Bank of Africa    |
| 11 | Consolidated Bank of Kenya   |
| 12 | Cooperative Bank of Kenya    |
| 13 | Credit Bank                  |
| 14 | Development Bank of Kenya    |
| 15 | Diamond Trust Bank           |
| 16 | Dubai Bank Kenya             |
| 17 | Eco Bank                     |
| 18 | Equatorial Commercial Bank   |
| 19 | Equity Bank                  |
| 20 | Family Bank                  |

| 21 | Fidelity Bank |
|----|---------------|
| 22 | Fina Bank (Kenya) |
| 23 | First Community Bank |
| 24 | Giro Commercial Bank |
| 25 | Guardian Bank |
| 26 | Gulf African Bank |
| 27 | Habib Bank AG Zurich |
| 28 | Habib Bank |
| 29 | Imperial Bank Kenya |
| 30 | Investment & Mortgages Bank |
| 31 | Jamii Bora Bank |
| 32 | Kenya Commercial Bank |
| 33 | K-Rep Bank |
| 34 | Middle East Bank Kenya |
| 35 | National Bank of Kenya |
| 36 | National Industrial Credit Bank |
| 37 | Oriental Commercial Bank |
| 38 | Paramount Universal Bank |
| 39 | Prime Bank (Kenya) |
| 40 | Standard Chartered Bank |
| 41 | Trans National Bank Kenya |
| 42 | United Bank for Africa |
| 43 | Victoria Commercial Bank |

## Average Return on Asset from 2010-2014

| No. | Bank Name | Average Return on Asset |
|---|---|---|
| 1 | ABC Bank (Kenya) | 2.38% |
| 2 | Bank of Africa | 1.02% |
| 3 | Bank of India | 3.06% |
| 4 | Bank of Baroda | 3.70% |
| 5 | Barclays Bank | 4.77% |
| 6 | CFC Stanbic Bank | 2.24% |
| 7 | Chase Bank (Kenya) | 1.89% |
| 8 | Housing Finance | 1.65% |
| 9 | Citibank N.A. | 4.08% |
| 10 | Commercial Bank of Africa | 2.49% |
| 11 | Consolidated Bank of Kenya | 0.18% |
| 12 | Cooperative Bank of Kenya | 3.30% |
| 13 | Credit Bank | 0.48% |
| 14 | Development Bank of Kenya | 1.10% |
| 15 | Diamond Trust Bank | 3.23% |
| 16 | Dubai Bank Kenya | 0.05% |
| 17 | Eco Bank | -1.04% |
| 18 | Equatorial Commercial Bank | -1.02% |
| 19 | Equity Bank | 5.53% |
| 20 | Family Bank | 2.15% |

| 21 | Fidelity Bank | 1.78% |
|----|---------------|-------|
| 22 | Fina Bank (Kenya) | 1.41% |
| 23 | First Community Bank | 0.64% |
| 24 | Giro Commercial Bank | 2.96% |
| 25 | Guardian Bank | 1.50% |
| 26 | Gulf African Bank | 1.42% |
| 27 | Habib Bank AG Zurich | 3.38% |
| 28 | Habib Bank | 2.52% |
| 29 | Imperial Bank Kenya | 4.30% |
| 30 | Investment & Mortgages Bank | 3.91% |
| 31 | Jamii Bora Bank | -0.74% |
| 32 | Kenya Commercial Bank | 3.83% |
| 33 | K-Rep Bank | 2.11% |
| 34 | Middle East Bank Kenya | 1.75% |
| 35 | National Bank of Kenya | 1.71% |
| 36 | National Industrial Credit Bank | 3.08% |
| 37 | Oriental Commercial Bank | 2.17% |
| 38 | Paramount Universal Bank | 2.33% |
| 39 | Prime Bank (Kenya) | 2.50% |
| 40 | Standard Chartered Bank | 4.06% |
| 41 | Trans National Bank Kenya | 2.21% |
| 42 | United Bank for Africa | -6.47% |
| 43 | Victoria Commercial Bank | 3.14% |

# APPENDIX III

**Yearly Aggregate Mean Scores of Asset Quality and Financial Performance factors**

| Year | Return on asset | Gross NPA / Gross Loans & Advances | Total Investment Assets / Total Assets | Gross NPA / Total Assets |
|------|-----------------|-----------------------------------|----------------------------------------|--------------------------|
| **2014** | 1.8471% | 9.2320% | 86.3866% | 6.3051% |
| **2013** | 2.1233% | 7.9544% | 87.2327% | 5.1872% |
| **2012** | 1.8180% | 7.9481% | 85.9843% | 4.1832% |
| **2011** | 2.0901% | 8.0463% | 84.8994% | 4.3702% |
| **2010** | 2.2068% | 10.9407% | 85.7065% | 5.1630% |

## APPENDIX IV

### Secondary Data Correlation Model

| Model | R | $R^2$ | df | t | sig |
|---|---|---|---|---|---|
| Gross NPA/Gross Loans & advances | -.065 | .043 | 5 | -2.633 | .009 |
| Total Investment Assets/Total Assets | .064 | .042 | 5 | 4.713 | .000 |
| Gross NPA/Total assets | .490 | .240 | 5 | .510 | .611 |

Source: Research Findings 2015