NON-PERFORMING LOANS AND FINANCIAL PERFORMANCE OF COMMERCIAL

BANKS IN KENYA

BY

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DECLARATION

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

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SUPERVISOR'S DECLARATION

I confirm that this research project has been carried out under my supervision.

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ABBREVIATIONS AND ACRONYMS

CBK – Central Bank of Kenya

IFRS – International Financial Reporting Standards

KBA – Kenya Banker's Association

KCB – Kenya commercial bank

KRA – Kenya Revenue Authority

NPLs – Non-Performing Loans

MFI – Micro Financial Institutions

ROA - Return on Asset

ROE – Return on Equity

SPSS- Statistical Package for Social Sciences

ABSTRACT

All financial institution all over the world are facing the enormous risks of the non-performing loans which has led to the decline in the portfolio quality of the non-performing loans. The non-performing loans are not in existence for any particular institution or even an economy but they affect both developed and developing economies. The Central Bank of Kenya prudential guideline classifies loans that either the principal or interest are past due for more than ninety days as non-performing loans. The general objective of this study was to establish the effects of non-performing loans on the financial performance (return on assets) of commercial banks in Kenya. The specific objectives of the study were: To identify the influence of the size of nonperforming loans on financial performance of commercial banks, to investigate the relationship between age of non-performing loans and financial performance on commercial banks, to identify the relationship between collateral of non-performing loans with respect to financial performance of commercial banks and to investigate the effects of cost of non-performing loans on the performance of the commercial banks. The study was guided by the credit crunch theory, moral hazard theory and the theory of performance. The study population was all the commercial banks in Kenya. The mode of data collection was extraction of collated secondary data in the form of annual banking supervisory reports by the Central Bank of Kenya derived from respective published annual financials of commercial banks. The study period was five years starting from the year 2011 to year 2016. The dependent variable in the study was the financial performance of commercial banks in Kenya while the independent variables were size, age, collateral and cost of nonperforming loans. The study used a regression analysis to find the relationship between the independent variables and the dependent variables. The study found a negative significant relationship between nonperforming loan size, age and cost with the return on assets of commercial banks in Kenya. The study found a positive significant relationship between financial performances of commercial banks in Kenya with the value of collateral of nonperforming loans. The study found a negative significant relationship between the financial performance of commercial banks in Kenya and the size of nonperforming loans, age of nonperforming loans and cost of nonperforming loans. The study findings supported moral hazard theory that states that moral hazard problems may be occasioned by asymmetric information which makes it difficult to distinguish between good and bad borrowers. The study recommends loan policies, practices and watching mechanism that will ensure reduce transition of loans from watch to substandard category and or eliminate movement of loans from substandard to doubtful as such movements have commercial implication on the overall financial performance of commercial banks in Kenya. The study recommends issuance of short term credit facilities in appreciation of the expected credit life loan provisioning that is coming into effect by the adoption of IFRS 9 on 01/01/2018. The study also recommend a proper and working relationship management of loan facilities and a monitoring mechanisms and actions on early warning signs of nonperforming loans with appropriate corrective actions.

CHAPTER ONE:

INTRODUCTION

1.1 Background to the Study:

All financial institution all over the world are facing the enormous risks of the non-performing loans which has led to the decline in the portfolio quality of the non-performing loans (Hurt 2011). This retrogression has been the nerve center for both the distress among the financial institutions and the economic financial crisis in both developed and developing countries in the world. Financial institutions need to put in place mechanisms in monitoring the behaviors of borrower. There has been an increased credit risk management for both the lender and the borrowers more so in the Sub-Saharan Africa since 1990's. This has been a result of the lending policies that exists in Africa as a whole. Moreover, the financial institutions need to review their lending policies. According to the recent studies by Victor (2016), the basic functional responsibilities related to lending include; assessment of potential borrower's credit risk; making the credit granting decision in tandem with credit terms and limits; collecting receivables as they fall due and dealing with defaulters; monitoring borrower's behavior and compiling management report; bearing the risk of default or bad debt; and financing the investment in receivables.

The non-performing loans have been on a sharp upward trend, recording Ksh. 176 billion as at March 2016, (Victor 2016). Bad loans at end of March 2016 stood at eight per cent of the total loans issued by banks up from 6.1 per cent in December and 4.6 per cent in June 2015 as per the regulator, (Victor 2016). The non-performing loans are not in existence for any particular institution or even an economy but they affect both developed and developing economies.

Financial institutions in Kenya are equally facing loan defaults with individual defaulters turning out to be of high numbers as compared to group loan defaulters.

1.1.1 Non-Performing Loans in Kenya

Non-performing loans are loan amount that the borrower is not making any repayment on the principal amount, interest amount or both for a period of more than 90 days (CBK 2013) .The loan will become non-performing depending the stipulated regulations that the bank or that which is put forth by the monetary regulatory authority (Gatere, 2012). In Kenya, the prudential guidelines of the Central bank of Kenya reveals that advances are classified into five categories namely; normal, watch, substandard, doubtful debts and loss. Normal category includes well-documented facilities to financially sound clients where no weaknesses exist. Such advances must not have been rescheduled (CBK, 2013). Watch includes good accounts that are always maintained and classified under normal but have exhibited some specific weaknesses (CBK, 2013). Substandard are facilities which though still operative involve some degree of risk and there exists possibility of some future loss unless close supervision is given and corrective action is taken to strengthen the position, for instance, three months' installments in arrears, (Kereta, 2011). Major weaknesses therefore exist on the advances issued on doubtful debts. The recovery of full amount outstanding might need to be extended or is doubtful and that loss will occur.

Both the financial institutions and the economy at large are being affected by the non-performing loans. According to Klein (2013), the financial crisis of 2008 had an enormous effect on the individual financial performance of financial institutions as well as far reaching macroeconomic effects in most countries around in the world. An increase in the non-performing loans over time,

results to difficulties in financing other institutions or even the other borrowers at stake. More resources therefore have to be committed towards provisions for the non-performing loans and additional costs will be spent in financing recovery efforts. These costs and the provisions consume a large portion of the returns that is earned by the financial institutions thus decelerating their financial performance.

The level of non- performing loans in the financial institutions also determines how sustainable a financial institution can be. Studies show that non-performing loan level is one of the major determinants of financial performance of the financial institutions, (Kereta, 2011). It is therefore evident that non-performing loans are very crucial when determining the level of financial performance that can be attained by the financial institutions. (Mwangi, 2012), explains an inverse relationship between the amount of non-performing loans and the financial performance. In the case when the non-performing loans are high, the financial performance measured by return on asset is low and vice versa. A similar opinion also on the same edge ascertains that non-performing loan management practices determine the financial performance on an organization. This therefore insinuates that the non-performing loan management practices have the potential of enhancing the financial performance of an organization.

1.1.2 Financial performance of commercial banks in Kenya

The commercial banks in Kenya have grown in customer deposits, loan book, capital reserve, and profitability over the years. There has been relatively insignificant change in the number of commercial banks during the study period. As at 31st December 2011, the banking sector comprised of 43 commercial banks and 1 mortgage finance company (CBK 2011), while at 31st

December 2016, there were 43 banking institutions of which 42 were commercial banks and 1 mortgage finance company (CBK 2016). A number of banks have been put under receivership such as Dubai Bank on 14/08/2015, Imperial Bank Limited on 13/10/2015 (CBK 2015) and Chase Bank Limited on 07/04/2016 (CBK 2016).

The banking sector in Kenya and commercial banks in particular have been registering a decline in return on assets despite year on year improvement in profitability during the period under study. According for CBK report of 2012 detailing the banking industry performance, the pre-tax profit for the commercial banks increased by 20.6 percent from Ksh. 89.5 billion in December 2011 to Ksh. 107.9 billion in December 2012. The return on assets increased from 4.4% in 2011 to 4.7% in 2012. The growth was largely attributed to income generated by increased loans and advances coupled with regional expansion initiatives (CBK 2012). During the period ended December 2013, the sector recorded a 16.6 percent growth in pre-tax profits (CBK 2013) with the return on assets remaining constant at 4.7%. This was followed by a 12.2 percent increase in pretax profit Ksh.125.8 billion in December 2013 to Ksh.141.1 billion in December 2014 (CBK 2014) however, the return on assets decreased to 3.4%. The banking sector registered declined performance in 2015 with profit before tax decreasing by 5.03 per cent from Ksh. 141.1 billion in December 2014 to Ksh. 134.0 billion in December 2015 (CBK 2015) in this period, the return on assets also reduced to 2.9%. In 2016 there was an increase of 10.91 percent in pretax profit to 147.4 billion in December 2016 (CBK 2016). The return on assets also improved to 3.3%. During the period under study, the average return on assets was 3.9%

Commercial banks have been recording an upward trend in the growth of customer deposits during the period under study. The number of customer deposits was Ksh 1.48 trillion as at December 2011, in December 2012, the deposit was Kes 1.707 trillion growing by 14.76% (CBK 2012).   As at December 2013, the customer deposit was Ksh 1.935 trillion with a 13.34 growth (CBK 2013). In December 2014, the customer deposit was Ksh 2.292 trillion being an 18.42% growth (CBK 2014). In 2015 December, the deposits grew to Ksh 2.485 trillion which was an 8.5% growth.   Customer deposits, which are the main source of funding for the banks grew by 5.3 percent from Ksh 2.485 trillion in December 2015 to Ksh 2.618.4 trillion in December 2016. The growth was supported by mobilization of deposits through agency banking and mobile phone platforms (CBK 2016)

CBK banking industry annual report on commercial banks from 2011 to 2016 indicates an increase in the capital and reserve. In 2016, the commercial banks capital and reserve was Ksh 597.5 billion. The general increase in capital and reserves is attributable to additional capital injections by commercial banks to meet the statutory capital adequacy requirements and exploit business opportunities (CBK 2016).   In 2011, 2012, 2013, 2014 and 2015 the capital reserve was Ksh 282.717 billion, Kes 362.182 billion, Kes 432.178 billion, Ksh 501.733billion and Ksh 540.578 billion respectively. This represented a Ksh 314.783 billion increase in capital reserve which was a 111.34 % increase from 2011 to 2016.

Facility advances to the customer have as well experienced significant growth. Net loans and advances from commercial banks was Ksh 1.152 trillion in 2011. There was a 12.5 percent increase to Ksh. 1,296.5 billion in December 2012 (CBK 2012).   In 2013, there was an increment

of 18.2 percent from Ksh. 1,532.4 billion in December 2013 (CBK 2013). This was followed by a 22.75% increase to Ksh 1.881 trillion in December 2014 (CBK 2014) and an 11.02% to Ksh 2.091 trillion in December 2015 (CBK 2015) and finally a 4.36 percentage increment to Ksh 2.182 trillion. This represents an average of 13.766 year on year growth in the loan book of commercial banks. Similarly, this was a Ksh 1.03 trillion growth in actual net loan book value from 2011 December to 2016 December.

Despite the above increase in the profits before tax, customer deposits, net loan and advances and capita reserve, the quality of the commercial banks loan book has been on the down ward trend. That is, the level of nonperforming loans has been increasing over the years. This exposes the commercial banks to risk of not collecting the funds loaned to customers. According to the CBK 2012, high interest regime witnessed in the first half of 2012 impacted negatively on the quality of loans and advances. As a result, nonperforming loans increased by 16.8 percent from Ksh. 53.0 billion in December 2011 to Ksh. 61.9 billion in December 2012. Similarly, the ratio of gross NPLs to gross loans increased from 4.4 percent to 4.7 percent in December 2012. As at 31/12/2013 the nonperforming loans in commercial banks was Ksh 81.9 billion being 5.2% of the gross loan book for the year (CBK 2013). In 2014, the nonperforming loan stood at Ksh. 108.3 billion being 5.6% of the gross loan book value (CBK 2014). As at 31/12/2015, the nonperforming loan was Ksh. 147.3 billion being 6.8% on the gross loan book (CBK 2015) and as at 31/12/2016, the nonperforming loan book stood at Kes 214.3 billion being a 45.5% increase and 9.2% of the gross loan book value (CBK 2016). The CBK 2016 notes that a challenging business environment witnessed during the period under review impacted negatively on the quality of loans and advances. This was attributed to among other factors; delayed payments

from public and private entities and poor weather conditions. Form the CBK reports of 2011 to 2016, there was a steady increase in the percentage of nonperforming loans to the gross loan book value from 4.4% in 2011 to 9.2% in December 2016.

1.1.3 Non-performing loans and financial performance of commercial banks

CBK (2013) prudential guideline categorizes loan in to five categories that is; normal, watch, substandard, doubtful and loss categories. Non-performing loans are loans that either the principle advanced or the interest earned or both are more than ninety days past due (CBK 2013). Such loans starts from the substandard loans, to doubtful loan category and finally to loss as per the CBK (2013) prudential guideline. Interest earned in loan and advances are the major source of profits to commercial banks and therefore a non-performance of loans and advances. Klein (2013), noted that non-performing loans will effect profitability of banks which is their main profit source. Eyup (2017), stated that an increase of the non-performing loans decreases bank profitability and a decrease of the non-performing loans increases bank profitability. (Victor 2016). The non-performing loans are not in existence for any particular institution or even an economy but they affect both developed and developing economies. . (Victor 2016). The non-performing loans are not in existence for any particular institution or even an economy but they affect both developed and developing economies. According to Klein (2013), the financial crisis of 2008 had an enormous effect on the individual financial performance of financial institutions as well as far reaching macroeconomic effects in most countries around in the world.

(Mwangi, 2012), explains an inverse relationship between the amount of non-performing loans and the financial performance. In the case when the non-performing loans are high, the financial

performance measured by return on asset is low and vice versa. Al-Kunari (2010) used panel data and identity firm size as a factor influencing non-performing loans and the overall financial performance of the commercial banks. Von Pischke (1991) noted that efficient loan sizes fit borrowers' repayment capacity and stimulate enterprise. Hietalahti& Linden, (2006) observed that loans that are too big also lead to repayment problems, dissatisfaction and high dropouts. According to Klein (2013), non-performing loans will effect profitability of banks which is their main profit source and ultimately financial stability of economy. Kanyiri, (2015) stated that some banks faced the challenge of declining profitability as a result of provisioning for nonperforming loans. Abel (2014), stipulates that there is a negative relationship between the non-performing loans and performance for commercial banks. Muniappan (2002) non-performing loans effects not only the profitability of banks by way of bearing costs of an asset that is not able to provide income but also negatively effects the capital adequacy. Korir (2011) noted a positive relationship between credit risk management practices and the financial performance of Deposit taking microfinance institutions in Kenya. More strict credit risk practices eliminate potential bad loss and therefore increases the financial performance. Kroszner, (2015), non- performing loans are closely associated with banking crises. Fawad and Taqadus, (2014) in their study of also the explanatory power of bank specific variables as determinants of nonperforming loans in Pakistan banking sector between 2006-2011 involving of 30 banks in Pakistan, observed that NPLs affects the bank's financial performance. CBK (2013) require commercial banks to make loan loss provisions for non-performing loans. Such provisions reduce the financial performance of commercial banks. Klein (2013) noted that banks commits resources towards provisions for the non-performing loans and additional costs are spent in financing recovery efforts. CBK (2013) prudential guideline requires banks to write off loans or portion of loans from their

balance sheet when banks lose control of the contractual rights over the loans or when all or part of a loan is deemed uncollectible or there is no realistic prospect of recovery. Such loan write-off negatively affects the financial performance of the commercial banks as the banks are unable to recover the principal advanced to customer and the interest on the same.

1.1.4 Commercial banks in Kenya

According to CBK development of banking report 2010, commercial banks in Kenya stated with Indian Money lender in the 18th Century. In 1896, the National Bank of India Established a branch in Mombasa and in 1904 opened a branch in Nairobi. The Kenya banking industry has experienced minimal change in the number of commercial banks in the recent past. As at 31/12/ 2011, the banking sector comprised of the Central Bank of Kenya, as the regulatory authority, 44 banking institutions that is 43 commercial banks and 1 mortgage finance company, (CBK 2011). Out of the 44 banking institutions, 31 locally owned banks comprise 3 with public shareholding and 28 privately owned while 13 were foreign owned. In 2017, the banking industry consisted of 43 commercial banks that is; 25 local private commercial banks, 3 local public commercial banks and 15 foreign owned commercial banks (CBK, 2017).

Recent regulatory development has seen the CBK issued a Cyber Security Guidance Note on August 27, 2017 (CBK 2017), interest rate capping in 2016 (CBK 2016), regulation on foreign currency exchange dealing in 2016 (CBK 2016), video teller machine- used in what is commonly known as 'video banking' for performing banking transactions or professional banking conversations via a remote video connection. This is mostly performed via purpose built banking transaction machines -similar to Automated Teller Machines (CBK 2017). In order to promote

transparency in pricing of credit, CBK together with the Kenya Bankers Association (KBA) developed an on-line website portal aimed at providing information on lending rates and charges offered by licensed banks. The portal is designed to enable users compare the price of credit from various banks (CBK 2017).

There has been grown in the financial performance of commercial banks in Kenya, for example the return on assets for commercial banks in Kenya was 4.4% in 2012 (CBK 2012) and 2.7 in 2017 (CBK2017). The industry has seen growth in customer deposits, Ksh 1.24 trillion as at December 2010, in December 2017, the customer deposits were Kes 2.86 trillion in December 2017 (CBK 2017). The net loans advanced to customer was Kes 914.9 billion in December 2010 (CBK 2010), the loan book grew to Kes 2 trillion in 2017 (CBK 2017). The total assets in 2017 was Kes 3.9 trillion while in 2010, the total assets was Kes 1.6 trillion There has been growth non-performing loans as well, NPL was 2.1 percent recorded in 2010, however, the NPL was 12.3 percent in 2017.

The commercial banks in Kenya have experience turbulence in the recent past with three commercial banks put under receivership and statutory management. These were Imperial Bank Limited in 2015 (CBK 2015), Dubai Islamic Bank in 2015 (CBK 2016) and Chase Bank Limited in 2016(CBK 2016). The total number of commercial banks under statutory management was four as at December 2017, these were; Charterhouse Bank, Imperial Commercial Bank & Chase bank. However, there was one bank facing liquidation as at 31/12/2017 (CBK 2017).

1.2 Statement of the Problem

The banking sector in Kenya has played an important role through the regulators namely Central Bank of Kenya and the Kenya Bankers Association, in providing the financial services to the people. The CBK under its new leadership of Dr. Patrick Njoroge has recommended for capitalization policy using a risk based approach. This led to the increase in the total capital to risk-weighted assets ratio increased to 14.5% up from 12% necessitated by the need to ensure banks are able to absorb the market shocks such as bad loans. The sharp increase in provisions has led to depressed earnings with some banks posting losses for the year 2015. Three other banks namely Chase Bank Kenya Limited, Imperial bank Limited and Dubai Bank Limited were placed under receivership from the year 2015. Most of the big lenders doubled their provisions for non-performing loans between year 2014 and 2015 (Kimotho, 2016). From January 2016 to March 2016, banks did experience a Sh.36.6 billion rise on bad debts.

The commercial banks, as per CBK guidelines are required to determine their bad and doubtful debts provisions in accordance to the International Financial Reports Standards (IFRS) and at the same time the banks ought to be submissive to the taxman through the Commissioner's guidelines on the account calculating the Income Tax liability (Rose, 2012). In IFRS guidelines, under IAS 39, highlights that an entity such as a bank is supposed to assess at each balance sheet date whether there is any objective evidence that a financial asset or a group of financial assets is impaired (Kimotho, 2016). Under the commissioner's guidelines, a bad debt is considered deductible once it is proved beyond reasonable doubts that it has become uncollectable and that all reasonable steps have been taken to collect it. This is often through evidence of actual

recovery steps and value judgment. The determination of recoverability of a bad loan is more often than not a tough judgment calls to make.

The Kenyan commercial banks have not been spared from the threat of increased non-performing loans especially owing to the fact that a large portion of the commercial banks have huge levels of provisions, medium to high asset quality ratios and also have advanced credit card facilities to their customers which was contributor to the American banks increased losses from the global financial crisis. Moreover, there has been need to expand the research on non-performing loans and financial performance both internationally and locally. Therefore, question addressed in the study was: what were the effects of nonperforming loans on the financial performance of commercial banks in Kenya? The study broke down components of nonperforming loans such as size, age, collateral and cost and assessed their relationship with the return to assets of commercial banks in Kenya over a five year period from 2011 to 2016.

1.3 Objectives of the study

The study was guided by both the general and the specific objectives.

1.3.1 General Objectives of the Study:

To determine the relationship between non-performing loans and financial performance of commercial banks in Kenya

1.3.2   Specific objectives:

      i.   To examine the relationship between the size of nonperforming loans on financial performance of commercial banks.

ii.   To investigate the relationship between age of non-performing loans and financial performance on commercial banks.

iii. To identify the relationship between collateral of non-performing loans with respect to financial performance of commercial banks.

iv.   To determine the relationship between cost of non-performing loans and the performance of the commercial banks.

1.4 Research Hypothesis

i.   There is no significant relationship between the size of non-performing loans and the financial performance of commercial banks?

ii.   There is no significant relationship between the nonperforming loans' age and the financial performance commercial banks'?

iii. There is no significant relationship between collateral of non-performing loans and the financial performance of commercial banks?

iv.   There is no significant relationship between the cost of non-performing loans and the financial performance of commercial banks?

1.5 Significance of the Study

This study aimed at contributing to the existing knowledge base on non-performing loans by addressing the existing gap from the previous research studies on non-performing loans. The study shed light on the key factors affecting the non-performing loans on the financial performance of commercial banks in Kenya. This study was to be a key indicator as a reference point for future studies that would be carried out in the future on the non-performing loans.

This study would be useful to the banking sector, more so on the commercial banks' managers in the necessity to progress and identify key factors affecting performance. The employees of the commercial banks will also have insight in the overall performance of the organization and appreciate the importance of control operations as this may affect their future career in the banking sector.

The investors also would use the study to overlook and see the best investment decisions based on the overall losses from the financial statements and taking into consideration the non-performing loans. The study would inform investors that the overall level of non-performing loans may affect their return on investment.

Since NPL is a component of asset quality and financial performance is a factor of economic growth, there is room for further research to identify correlations of asset quality on economic growth. Further there is a gap to identify the effect of NPLs on commercial banks' financial performance, especially after the downfall of three commercial banks in Kenya.

1.6 Scope of the Study

The study intended to identify the key effects of non-performing loans on the financial performance of commercial banks in Kenya, putting more emphasis on the liquidity measures, solvency measures as well as profitability measures with non-performing loans, the resources which had to be committed towards the provisions for the non-performing loans and the additional cost spent on the financing recovery efforts. Lastly, to check on the returns that

commercial banks lose every year due to non-performing loans from the branch level to the overall regional level.

1.7 Limitation of the Study

The limitation that arose related to truthfulness of the financial data that has been posted by banks and the consistency of the application of the guidelines as set by the CBK. The issue was raised with two closed banks, namely Chase Bank Kenya Limited and the Imperial Bank whereby the regulator insisted there was wrong classification of loans that led to several restatements. The study relied on secondary historical data which may be outdated and therefore do not reflect the current affairs. The study aggregated the data on financial performance and nonperforming loans components that is, size, age, collateral and cost of all the commercial banks over the study period and therefore the finding cannot reflect the impacts of nonperforming loans on the financial performance on specific and an isolated commercial bank, judgment of a specific commercial banks with reference to the study findings should therefore be done cautiously.

CHAPTER TWO:

LITERATURE REVIEW

2.1 Introduction

This chapter entails the relevant literature reviewed as far as the effects of non-performing loans on the financial performance of banks is concerned as well as Central Bank of Kenya taking into consideration the risks and policies that are faced by the commercial banks and the relevant studies that have been done to support this in Kenya. Among the theories to be observed in this chapter includes; the credit crunch theory and the moral hazard theory.

2.2 Theoretical Framework

Some of the theories relating to this study are discussed in this section includes; the credit crunch theory and the moral hazard theory.

2.2.1   The Credit Crunch Theory

The credit crunch theory was developed by Hyman Philip Minsky in 1992. In this theory, the demand and the supply are the main factors attributing to the reduced bank credit expansion. According to the theory, credit demands become more despondent as economic growth slows down because borrowers become more cautious in their attitude towards borrowing. Moreover, banks contribute to a decline in lending activity as during times of slow economic growth, this is because borrowers' credit quality declines which in turn leads to the collateral values decreasing and more loans encountering payment difficulties and this then has the effect of causing the banks to decrease their willingness to extend credit, (Omotende, 2013). This is in turn enforced through the toughening of non-price credit terms, such as collateral requirements, tighter lending

standards and wider margins on lending. This marked reduction in bank lending then leads to slower monetary expansion as both the banks and borrowers are in poor financial health. O'Brien and Brown further note that based on the cyclical credit losses and deteriorating borrower quality experienced during the credit crunch period, as well as the imposition of higher mandatory capital ratios by the banks' regulators, banks in several countries have raised the relative price of loans. This has in turn had a depressive effect on demand for the loans. However, as growth of the economies continues and the banks apply stricter lending standards, the bank's asset quality improves which dampens the banks' unwillingness to lend, (Saunders, 2012). The theory is relevant to the study because it shows how quality of collateral affects banks' credit health, behavior and decisions which in turn affect the financial performance of commercial banks.

2.2.2   The Moral Hazard and unobservable behavior concept

The moral hazard and unobservable behavior concept was developed by J. A Mirrless in 1999. Moral hazard refers the risk in which a party to a transaction provides misleading information about its assets, liabilities or credit capacity, or has an incentive to take unusual risks in a desperate attempt to earn a profit before the contract settles, (Wolfson, 2002). Usually a party to a transaction may not enter into the contract in good faith, thus providing misleading information about its assets, liabilities or credit capacity. It is postulated that; moral hazard problems may be occasioned by asymmetric information which makes it difficult to distinguish between good and bad borrowers. It is also noted that moral hazard has led to substantial accumulation of NPLs.

The theory is significant to the study as problems of moral hazard in financial institutions are evident at many stages of the recent financial crises. Borrowers and lenders tend to conceal crucial information pertaining to the lending and borrowing agreement, (Freeman et al, (2004).

Yet in modern macroeconomic theory economic growth rate depends, crucially, on the efficiency of financial institutions. The financial systems themselves depend on accurate information about borrowers and the project the funds are used for. Though it is asserted that NPLs may be caused by less predictable incidents, they indicated that moral hazards resulting from generous government guarantees could lead to loan default, (Capron, 2013).

Consistent with earlier assertions regarding moral hazard, it is arguable that microfinance banks with relatively low capital, just like other mainstream financial institutions, may respond to moral hazard incentives by increasing the riskiness of their loan portfolio. The foregoing is bound to result in higher non-performing loans on average in the future, Buchholz, (2014). As further reinforced by another study's argument, microfinance banks that tend to take more risks, including in the form of excess lending ultimately incur losses. Still in tandem with moral hazard, higher equity-to assets ratio results in lower NPLs. Given that, moral hazard incentives such as low equity tend to aggravate NPLs, then microfinance banks and other financial institutions ought to avoid such moral hazard incentives in order for them to mitigate losses through NPLs. This theory is relevant to the study because borrowers and lenders tend to conceal crucial information pertaining to the lending and borrowing agreement which increases the risk of nonperforming loans in commercial banks.

2.2.3 Theory of performance

The theory of performance was developed by Don Elger (2007) and relates six foundational concepts to form a framework that can be used to explain performance as well as performance improvements. According to this theory level of performance depends holistically on six

components that is context, level of knowledge, levels of skills, level of identity, personal factors, and fixed factors. Performance is a journey not a destination. The location in the journey is labeled as level of performance. Each level characterizes the effectiveness or quality of a performance. The theory states that the performance at higher level can be evidence by results that include increases quality, reduces cost increased capability, increased capacity, increased knowledge and increased identity and motivation.

The theory notes that performance is like a system and depends on the components of the system and on the interactions between these components. The theory holds that performance has rules as guidelines. The components holistically interact to establish performance. Such components include; One: Level of identity-associated with maturation in a discipline of a culture, internalized by person or organization, Two: Levels of skills describing and action that is relevant in a broad range of performance contexts, three: level of knowledge-knowledge involves facts, information, concepts, theories, or principles acquired by a person or group through experience or education. Four: Context of performance that relates to circumstances associated with the performance. It applies to multiple performances within the context but not a personal factor. Five: Personal factors that involve life situation of an individual that affected by other factors not within an individual controls such as macroeconomic situations or the education system. Six: fixed factor that cannot be altered. Some are generic.

The theory states that performance can be improved despite other factor being fixed and immutable. Performance can be improved by factors that depend on the action of the performer and other. The factors in performance improved are; One: Performer's mindset includes actions

that engage positive emotions such as setting challenging goals and allowing failure as a natural part of attaining high performance, and providing conditions in which the performer feels a right amount of safety. Two: Immersion. This is a physical, social, and intellectual environment can elevate performance and stimulate personal as well as professional development such as creating quality learning environments which outlines strategies for fostering immersion. Three: Reflective practice which involves actions that help people pay attention to and learn from experiences. The theory is relevant to the study was it high lights the incentives to performance, circumstances associated with the performance, and how performance can be improved despite other factors being immutable.

2.3 Empirical Literature Review

In this section, empirical studies were reviewed. The study analyzed theories, past studies, and researches by different researchers that have been conducted by different scholars on areas touching on components of non-performing loans and in particular credit risk, age, size and the cost of financial performance.

2.3.1 Size as a determinant of Non-Performing Loans and performance

Research from the previous studies such as Holder *et al.,* (2010), Bradley *et al.,* (2011), Michel, (2011) and Al-Kunari, (2010) have revealed that firm size plays a substantial role as a far as determining the non-performing loans of a firm(s) is concerned. According to Holder *et al.,* (2010) and Bradley et al., (2011), larger firms tend to have higher non-performing loans compared to small firms. Large firms have easier admittance to the capital markets and are thus

less reliant on internal funds. A positive relationship between non-performing loans and the firm size was theorized.

According to Michel (2011), found the statistically significant differences in non-performing loans among 10 different industries during the late 2010 through mid-2013. Michel tested only firm size in regard to firm specific variables that might have affected the non-performing loans and found no significant effect. However, he suggested that investment opportunities within industries might account partially for industry effect. Baker and Powell (2012) then updated the Michel study using data from 2005 to 2010. He identified effects to industry on non-performing loans unlike Michel's no control of other variables.

Al-Kunari (2010) used panel data and identity firm size as a factor influencing non-performing loans and the overall financial performance of the commercial banks. Commercial banks generate revenue through advancing of loans to customers. Loan portfolio is not only considered as the largest asset and pre-dominate source to generate revenue but also as one of the biggest risk source for the financial institution's soundness and safety as well (Richard et al., 2008). The size of the loan value that is nonperforming therefore have an impact on the revenue stream of commercial banks. Reducing the size of nonperforming loans increases the financial performance of commercial banks as the repayments obtained from the repayments of loans by customers are reported as income from financing activities by commercial banks. Klein (2013), non-performing loans will effect profitability of banks which is their main profit source. Increase of the non-performing loans decreases bank profitability and decrease of the non-performing loans increases bank profitability (Eyup 2017)

2.3.2 Age as a determinant of Non-Performing Loans and performance

The duration in time taken by a loan facility to move the various bands of risk classification such as normal, watch, substandard, doubtful and loss, determines the age of a nonperforming loan. The prudential guideline by CBK 2013, classifies loans based on the days overdue of any particular loan. Michael Pomerleano, (2011) states that age of a loan may reflect little resources allocated to monitor lending risks and, thus, may result to a higher NPLs in the future. In line with the moral hazard hypothesis, the scholar observed that banks with relatively low capital respond to moral hazard incentives by increasing the riskiness of their loan portfolio, which in turn, results to higher NPLs on average in the future.

In a study of causes and effects of NPLs on MFIs' operations in Ghana, Arko (2012) asserts that the lender should ensure that good decisions are made relative to granting of loans with the object of minimizing credit risk. In other words, the lender ought to always aim to assess the extent of the risk associated with the lending and try to minimize factors that could otherwise compromise repayment. Michael (2011) noted that, needless to say, the lender should gather information regarding the prospective borrower that will assist in reaching a sound credit decision. Michael (2011) noted that in order to mitigate NPLs which are occasioned by non-repayment of loans, MFIs in Ghana have adopted a standard loan request procedure and requirements that are usually contained in credit policy manual with the object of guiding loan officers and customers. A study by Haron *et al* (2012) sought to analyze the effectiveness of credit management system on loan performance in Kenya's MFIs. Haron *et al* (2012), observed that credit risk results from investor's risk of loss emanating from default in loan repayment. Haron *et al* (2012), argued that credit risk could be mitigated by employing a number of

strategies such as risk-based pricing, covenants, credit insurance, and tightening and diversification. Credit risk controls adopted by MFIs affect the loan performance. In a study on NPLs in Kenya commercial banks in Kenya, Mutuku (2016), noted that quality credit risk assessment and risk management and sufficient provisions for bad and doubtful debts can reduce the bank's credit risk. He asserted that when the level of NPLs is high, the assets provisions made are not adequate protection against default risk. It is asserted by Mucheke (2001) in a study of factors affecting NPLs in Kenyan banks that, granting loans to borrowers who are already overloaded with debt or possess unfavorable credit history could possibly expose banks to unnecessary default and credit risk.

According to Naomi and Nagib (2017) Information asymmetry is attributed to inappropriate determination of credit risk due to lack of requisite credit history of prospective borrowers. Financial institutions operating in isolation suffer from worse credit risk than those which share their credit information, Naomi and Nagib (2017). Serial defaulters, associated with credit risk, have negatively altered the lending business in the credit market, and as such negated the performance of banks, Fatemi and Fooladi (2010).

2.3.3 Cost as a determinant of Non-Performing Loans and performance
In the necessity to cover the potential losses on loans and write off bad debt in the profit and loss account, the banks normally make provisions for such. Defaulted loans force the banks to take certain measures in order to recover and securitize them in the best way. According to Sanderson Abel (2014), upon realization of the bank that the loan has become non-performing, they usually make efforts to recover the amount owed to them. He states that banks play an important role of

allocating and distributing people's saving for use in most productive investment. Bank's intermediary function is essential for economic activity as it enhances the productivity and efficiency of the economy as a whole. Bourke, (2014) reports the effect of credit risk on profitability appears clearly negative. Abel (2014), states that if bank's amount of disposal of non-performing loans continue to exceed their profits, the bank's net worth is reduced and lowers their risk-taking capacity, making it difficult to invest funds in risky projects and to realize potentially productive businesses. Abel (2014), noted that non-performing loans have the effect of eroding the bank's profitability which can happen in two ways; first, non-performing loans incur heavy disposal expenses, that is, making provisions for credit losses and postponing the final disposal of non-performing loans would cause additional losses if the collateral value of underlying asset declines. Secondly, holding non-performing loans for a long time without disposing them would incur costs other than the amount of disposal of non-performing loans. That is to say, by continuing to hold non-performing loans, or assets that do not generate returns, banks would lose returns that they would have earned if they had collected the loans.

According to Klein (2013), non-performing loans will affect profitability of banks which is their main profit source and ultimately financial stability of economy. Abel (2014), stipulates that there is a negative relationship between the non-performing loans and performance. Performance of the bank can be measured by the rate at which they turn deposits into loans and the capability of collecting those loans. Those who borrow from the banks ought to understand that banks are merely intermediaries hence resources that they lend to them are other client's investments. When investors place their investments with banks they have an expectation to receive their investment back plus a return at the appropriate time as agreed with their bankers.

Mwangi (2011) states that the customers to the banks are at liberty to borrow and the banks are at the liberty to lend the resources to the borrowers at an interest with an expectation that the money will be timely returned. If the borrower then fails to pay back the amount they borrowed, this then impairs the ability of a bank to meet the withdrawals demands of its depositors which can cause a lot of problems in the banking system sometimes leading to panic withdrawals. Under such circumstances the banks finds itself in a very uncomfortable situation as clients resolve to lose confidence in its intermediation function. Muniappan (2002) non-performing loans effects not only the profitability of banks by way of bearing costs of an asset that is not able to provide income but also negatively effects the capital adequacy. Mwangi (2011) states that the clients of the banks need to understand that non-performing loans becomes a huge cost on the economy when they begin to interfere with the normal financial intermediation role of banks. If the non-performing loans are kept on bank books and are continuously rolled over, the resources are effectively locked up in unprofitable sectors; thus, hindering the economic growth and impairing the economic efficiency. An amount of non-performing loans reflects the amount of money some of the deficits units in the country are experiencing and failing to access for productive purpose thus money has to go around in the economy if the economy is to function properly and grow.

2.3.4 Collateral as a determinant of Non-Performing Loans and performance

According to Fatemi and Fooladi (2010), Qualifying for a loan depends largely on the borrower's credit history. The lender examines the borrower's credit report, which details the names of other lenders extending credit, what types of credit are extended, the borrower's repayment history and

more. The report helps the lender determine whether the borrower is comfortable managing payments based on current employment and income. They observed that the lender may also evaluate the borrower's current and new debt compared to before-tax income to determine the borrower's debt-to-income (DTI) ratio. Lenders may also use the Fair Isaac Corporation (FICO) score in the borrower's credit report to determine creditworthiness and help make a lending decision.

Kwach (2011) states that when applying for a secured loan, such as an auto loan or a home equity line of credit, the borrower pledges collateral. The value of the collateral is evaluated, and the existing debt secured by the collateral is subtracted from its value. The remaining equity affects the lending decision. He observed that the lender evaluates a borrower's capital, including savings, investments and other assets that may be used to repay the loan if household income is insufficient. This is helpful in case of a job loss or other financial challenge. Banks therefore when continuously faced with the default problem, they may continue to lend out on the basis that the client offers adequate collateral, Bernstein (2012). This is one of the major reasons for banks demanding that a borrower pledges collateral which the bank can dispose when the borrower defaults. Under this arrangement, the bank has a legitimate expectation to get the money back or else they will put the pledged collateral under the hammer and the financial intermediation process will continue. Joe (2007), noted that lack of collateral that can be used to guarantee loans make lenders often lack the means to use the legal system to enforce repayment. A commercial bank has the right, upon default on the loan, to obtain the collateral in lieu of payment (Baker, 2014). The collateral held by commercial banks for the nonperforming loans can be disposed to recover the loan exposure by commercial banks. Lipunga, (2016) noted that that when borrowers default on secured loans, commercial banks recovers the outstanding loans

by offering for sale the collateral offered. Naomi (2017) noted that weakness in due diligence processes in ascertaining collateral causes bank losses. The quality of collateral held by commercial banks determines how much commercial banks will collect from sale of the same in case of recovery of nonperforming loans that may affect the financial performance of commercial banks.

2.4 Summary of the Literature Review and research gaps

This chapter mainly focused on the financial performance of commercial banks that was measured using ROA and the associated nonperforming loans. The study reviewed three theories; the credit crunch theory, the moral hazard theory and the performance theory, their significances and applications to nonperforming loans and financial performance of commercial banks. Earlier studies identified firm size as a significant determinant as far as determining the non-performing loans is concerned. The earlier researches have shown that age of non-performing loan may affect the little resources allocated to monitor lending risk, thus may result into higher NPL in the future. Previous reaches recommended risk assessment before lending and lending to perceived low default risk customer as a measure to reduce NPL and increase ROA for commercial banks. Qualifying for a loan depends largely on the borrower's credit history, Fatemi and Fooladi (2010). Earlier studies have recommended collateralization of loans advanced by commercial banks. Naomi (2017) noted that weakness in due diligence processes in ascertaining collateral causes bank losses,

Other scholars previously associated nonperforming loans the origin of financial crises around the globe including the 2008 financial meltdown that saw the dwindling of property values.

Some scholars associated NPL with loan prices. Some scholars have previously recommended improved risk assessment on customers before lending in order to minimize nonperforming loans and it is impact on financial performance of commercial banks. Strategies such as improved risk assessment of customers, collateralization of loans, de-risking on perceived high risk customers, early default warning signs and timely remedial and recovery procedures have been suggested and some implemented as ways of curbing non-performing loans and increasing the financial performance of commercial banks. However, all these previous studies have addressed non-performing loans and financial performance as a whole but have not broken down NPL and pointed out the impact of the specific components of NPL such as size of NPL, age of NPL, cost of NPL and collateral for NPL on the financial performance of commercial banks in Kenya. Therefore, a knowledge gap exists and this is the gaps that the study seeks to fill.

2.5 Conceptual Framework

Naomi and Nagib (2017) define a conceptual framework as a diagrammatical representation that shows the relationship between dependent variable and independent variables. Mugenda and Mugenda, (2009) defines conceptual framework as a concise description of phenomenon under study accompanied by a graphical or visual depiction of the major variables of the study. The conceptual framework therefore brings out the relationship between the dependent and the independent variables diagrammatically and visually. In this study, the dependent variable is the financial performance of commercial banks in Kenya while the independent variable is the size, gage, cost and collateral of nonperforming loans as shown in figure 2.1

Independent Variables

Dependent variable

Size of nonperforming loans
- Gross NPL to total loan book value

Age of nonperforming loans
- Days past due
- Days in NPL after restructure

Cost of nonperforming loans
- Loan loss provisions held
- Interest in suspense
- Loan write offs
- Loan recovery costs

Collateral of nonperforming loans
- Collateral present market value
- Collateral forced sale value
- Cash margins held

Financial performance
- Profitability
- ROA

Figure 2.1: Conceptual framework

CHAPTER THREE:

RESEARCH METHODOLOGY

3.0 Introduction

This Chapter presents the research methodology that was adopted by the study for the effect of non-performing loans on the financial performance of the commercial banks in Kenya. Some of the issues that were captured include the research design that was employed; the target population for the study; the different techniques that were employed to arrive at the sample size for the study; the type of data collection methods and the techniques adopted in analyzing the data that was collected.

3.1 Research Design

The study adopted a descriptive survey on all the commercial banks operating in Kenya, which sought to identify the level of non-performing loans in Kenya for the period between 2011 and 2016. This design was found to be most appropriate given the exploratory and descriptive nature of this study (Wawire & Nafukho, 2010). The research design employed aimed at obtaining the most recent, relevant and in-depth assessment, analysis and examination of the impact on nonperforming loan size, age, collateral and cost on the return on assets of commercial banks in Kenya as collated by the CBK.

3.2 Target Population

 According to Hungler and Pilot (1999), the population of any research is basically the total number of all the subjects and/or elements that are agreeing to a certain phenomenon under study. Commercial banks were the center of concern in this study. According to CBK (2016)

financial industry report, there were 42 licensed and operational commercial banks in Kenya in 2016. The target population was all the 42 operational commercial banks in Kenya. However, the population was limited to operational banks over the study period who had published and reported their financials to CBK as per the CBK Prudential Guideline of 2013. CKB industry performance does not include banks under receivership or statutory management. According to CBK 2016, Charterhouse Bank, under statutory management, Fidelity Commercial Bank, undergoing acquisition, Imperial Commercial Bank & Chase Bank that were in receivership at the time were excluded in the computation of the industry performance.

3.3 Sampling Technique and Sample Size

All the operational commercial banks in Kenya were included for the purposes of this study. The individuals that make the population were all included in the study as a block that gave a 100% sampling of the population. The study sample was therefore 42 operational commercial banks in Kenya. As noted by CBK (2016) three banks that were under receivership and statutory management were not included in the study. Only 42 operational banks that publish and report their financials to CBK were included in the study.

3.4 Data Collection instrument

In this section, secondary data was collected through secondary data collection sheet from the commercial banks published annual reports and other empirical studies on the topic under study. This was quantitative in nature and it included data on the level of non-performing loans, profitability of the commercial banks and the provision of bad debts. A 5-year data was collected

from 2011 to 2016 for the study to be comprehensive. This was appropriate through creation of a data collection schedule which was designed.

3.5 Data collection procedure

The data was collected through quantitative data extraction and tabulation of the same in MS Excel from the Central Bank of Kenya bank supervisory report and industry financial performance of all commercial banks in Kenya over a five year period from 2011 to 2016. The data extracted was quantitative in nature. The data was gathered in line with specific study variables over the five year study period. The extracted data was for the financial performance of commercial banks, loan classification and non-performing loans, value of collateral held by commercial banks and provisions made for non-performing loans by the commercial banks in Kenya as per the study variables over the five year study period (2011-2016)

3.6 Data Analysis and Presentation

Data analysis is the processing of data to make meaningful information (Sounders, Lewis & Thornbill, 2009). Burns & Grove (2003) defines data analysis as a mechanism for reducing and organizing data to produce finding that require interpretation by the researcher. The study used SPSS and MS Excel in data analysis. After data was collected using the secondary data collection sheets, it was prepared in readiness for analysis by extracting, editing, categorizing and keying into SPSS computer software where it was used for analysis. SPSS was therefore used to produce frequencies, descriptive and inferential statistics which were used to derive conclusions and generalization regarding the population. The data coded data was then analyzed using SPSS for the descriptive statistics, mean differences, regression and analysis of variance.

3.6.1 Regression model

The study used a regression model to bring out the relationship between financial performance of commercial banks in Kenya (dependent variable) and the non-performing loans (independent variables) that is, the size, age, cost and collateral of non-performing loans. The model took the form of;

$$y = a + bx$$

The researcher used regression analysis to determine the effect of non-performing loans on the financial performance of commercial banks in Kenya. In order to conduct the regression analysis, the following model was used;

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e;$$

Where;

Y – Represented the financial performance of commercial banks in Kenya. The performance was measured using return on assets;

α = a constant

X_1 – Represented size as a determinant of non-performing loan and performance;

X_2 – Represented age as a determinant of non-performing loan and performance;

X_3 – Represented cost as a determinant of non-performing loan and performance;

X_4 – Represented collateral as a determinant of non-performing loan and performance;

e – was the error term that represented the total variance that was not unexplained by the variables above.

3.7.2 Test of significance

The study used ANOVA test from regression analysis to test the overall significance of the models in predicting relationship between the independent variables and the dependent variable at 95% confidence level.

CHAPTER FOUR:

DATA ANALYSIS AND PRESENTATION

4.0 Introduction

This chapter presents the research findings, data analysis and interpretation. The findings are presented under the influence of the size of nonperforming loans on return on assets of commercial banks, relationship between age of non-performing loans and return on assets of commercial banks, relationship between collateral of non-performing loans with respect to return on assets of commercial banks, and cost of non-performing loans on the return on assets of the commercial banks. Both descriptive and inferential statistics have been used to represent the data and to show significant differences and the links between the nonperforming loan size, age, collateral and cost on the return on assets of commercial banks in Kenya over the 5 year study period.

4.1 Response rate

The target population of the study was 42 commercial banks in Kenya. The study used a population study where the entire population was studied; therefore the response rate was 100%. As per table 4.1, all the commercial banks in Kenya published and reported their financials to the Central Bank of Kenya (CBK Prudential Guideline 2013). Collated reports of the same were incorporated in the annual banking industry performances which were published by CBK annually during the study period. According to Mugenda and Mugenda (2009), a response rate of 70% and over is excellent. The high response rate in this study is attributed to the data collection technique which was secondary data in published financials and CBK annual bank supervision report. Being a highly regulated industry, and according to CBK (2013), commercial banks must

publish their full year financial reports by 31st March of the following year as per prudential guideline of 2013.

Table 4.1 Response rate

	Frequency	Percentage
Respondent	42	100%
Non-respondent	00	00%

4.2 Validity

The study considered data from published audited financial reports from all the commercial banks in Kenya that is collated and incorporated in the annual banks' supervisory reports that are published every year. The baking sector being a highly regulated industry by the CBK and having strict requirements in the financial reporting according to International Financial Reporting Standards, prudential guideline and regulatory policies issued by the CBK, is subjected to allot to quality and accuracy check before such data are published. The financial reports are as well given opinion by auditor that are certified and licensed by the Institute of Certified Public Accounts-Kenya. The above measures make the information gathered a true state of the financial performance of commercial banks in Kenya and therefore the data gathered was valid and reliable.

4.3 Descriptive statistical analysis

The study adopted a descriptive statistical analysis of the financial performance of commercial banks in Kenya, size of non-performing loans of commercial banks in Kenya, age of non-performing loans, cost and collateral of non-performing loans.

4.3.1   The financial performance of commercial banks in Kenya

The study sought to establish the financial performance of commercial of the 42 banks in Kenya.
The financial performance of commercial banks in Kenya was important to the study as it was
the dependent variable and affected by the nonperforming loan components such the size, age,
cost and collateral. It is also affected by other factors not related to nonperforming loans. The
commercial banks performance was measured in terms of return on assets as shown in table 4.2

Table 4.2 Financial performance of commercial banks in Kenya

Year	Total assets (Kes trillion)	Pre-tax profit (Kes billion)	Return on assets (ROA)	Percentage change of ROA
2016	3.6	147.4	3.3%	13.8%
2015	3.4	134.0	2.9%.	(14.7%)
2014	3.2	141.1	3.4%.	(27.7%)
2013	2.7	125.8	4.7%.	0.0%
2012	2.3	107.9	4.7%	6.7%
2011	2.0	89.5	4.4%	~

Source: Survey data 2017

From table 4.2, the commercial banks in Kenya registered growth in assets from Ksh 2.0 trillion
in 2011 to Ksh 2.3 trillion, to Ksh 2.7 trillion, to Ksh3.2 trillion, to Ksh 3.2 trillion, to Ksh 3.4
trillion and to Ksh 3.6 trillion in 2012, 2013, 2014, 2015 and 2016 respectively. During the
period, the pretax profit increased from Ksh 89.5 billion to Ksh 107.9 billion, Ksh 141.1 billion ,
followed by a decrease to Ksh 134.0 billion and an increase to Ksh 147.4 billion in
2011,2012,2013,2014,2015 and 2016 respectively. The ratios of the commercial banks
profitability relative to the assets were 4.4% in 2011, then 4.7% in 2012. There was no change in
the return on assets in 2013 compared to 2012. This was followed by a decrease in the return on
assets in 2014 to 3.4%. In 2015, the return on assets decreased to 2.9%. In 2016, there was an

increase of the return on assets to 3.3%. From table 4.1, there has been a general decrease in the return on assets over the study period. CBK (2015) noted that the banking sector registered declined performance in 2015 with profit before tax decreasing by 5.03 per cent from Ksh. 141.1 billion in December 2014. During the study period, the assets of commercial banks in Kenya increased from Ksh 2.0 trillion in 2011 to Ksh 3.6 trillion in 2016. The pre-tax profits increase from Ksh 89.5 billion in 2011 to Ksh147.4 billion in 2016. However, the return on assets decreased from 4.4% to 3.3% in 2011 and 2016 respectively. The return on assets is a measure of efficiency on how the management generates income using the assets of commercial banks during the study period. From table 4.1, such efficiency has been on the decline from a 4.4% in 2011 to a 3.3% in 2016 indicating an increase in the asset base of commercial banks from Ksh 2.0 trillion in 2011 to Ksh 3.6 trillion in 2016 that is not matched with proportionate increase in return on assets.

4.3.2 Size of nonperforming loans of commercial banks in Kenya

The study sought to identify the influence of the size on non-performing loans on the return on assets of commercial banks. The size of nonperforming loan was of great interest as it as well affects other factors such as cost that have an impact on the financial performance of commercial banks in Kenya. From the study, there was an increase in the size of nonperforming loans in Kenya over the study period was shown in table 4.3

Table 4.3 Size of nonperforming loans

Year	NPL size (Ksh billion)	Increase in NPL	Goss loans (Ksh billion)	NPLsize to Gross loan
2016	214	45.6%	2,293	9.3%
2015	147	36.1%	2,165	6.8%
2014	108	31.7%	1,940	5.6%
2013	82	32.2%	1,578	5.2%
2012	62	17.0%	1,330	4.7%
2011	53		1,190	4.5%

Source: Survey data 2017

From table 4.3, the size of nonperforming loans have almost tripled over the study period from an increment of 17.0% in 2012, 32.2% in 2013, to 31.7% in 2014 to 36.1% in 2015 and to an increment of 45.58% in 2016. The ratio of the size of nonperforming loan to gross loan within the commercial banks have as well been on the upward trend from 4.5% in 2011, 4.7% in 2012, 5.2% in 2013, 5.6% in 2014, 6.8% in 2014 and 9.3% in 2016. Eyup (2017) stated that non-performing loans reaching substantial amount may lead to bank bankruptcies of banks and economic slowdown in the entire economy of a nation. CBK (2016) in their financial sector stability report of 2015, noted that commercial banks in Kenya recorded increased credit risks, with Non-Performing Loans (NPLs) rising faster than historical trends and credit to private sector slowdown to about 14 per cent of gross domestic product in Kenya. The increased risk or growth in nonperforming loans affects the financial performance within commercial banks in Kenya. As the size of nonperforming loans increases from 4.5% of the gross loan book value in 2011, to 4.7% in 2012, to 5.2% in 2013, to 5.6% in 2014, to 6.8% in 2015 and 9.3% in 2016, the return on assets of commercial banks generally decreased from 4.4% in 2011 with stagnant return of 4.7% in 2012 and 2013, to 3.4% in 2014, to 2.9% in 2015 to 3.3% in 2016. Generally indicating a decline of from 4.4% in 2011 to 3.3% in 2016.

As commercial banks in Kenya grew in loan book value over the study period from Ksh 1.19 trillion in 2011 to Ksh 2.293 trillion in 2016 as shown in table 4.2, the growth rate of NPL to gross loan book grew from Ksh 53 billion to Ksh 214 billion in 2016 as in table 4.3. This is in tandem with other researches such as Naomi & Nagib (2017) who noted that loan sizes and loan policies influence default of loans to a great extent, Al-Kunari (2010) who used panel data and identity firm size as a factor influencing non-performing loans and the overall financial performance of the commercial banks and Klein (2013), who observed that non-performing loans will effect profitability of banks which is their main profit source. CBK (2015) noted that the banking sector registered declined performance in 2015 with profit before tax decreasing by 5.03 per cent from Ksh. 141.1 billion in December 2014, during this period, the nonperforming loans grew by 36.1% from Ksh 108 billion to 147 billion as show in table 4.3 therefore eroding the commercial banks return on assets as increases in NPL has associated provisioning expenses. CBK (2016) noted that the growth in NPL was attributed to among other factors; delayed payments from public and private entities and poor weather conditions. The growth in size of nonperforming loan comes with repercussion such as lost opportunity cost to invest the defaulted amount in other almost risk free and high rewarding ventures such was overnight lending to other commercial banks and investment in Treasury bill and bonds. Peterson (2014) in his study of the effect of credit risk management practices on loan performance in microfinance institutions in Nairobi, Kenya noted that only Ksh. 0.10855 will not be repaid back on time by the clients for every one shilling of loan advanced by micro financial institutions in Nairobi. Over the study period as the size of nonperforming loans increases, the return on assets, which is a measure of efficiency on how the management generate income using the assets, decreased

from 4.4% to 3.3% in 2011 and 2016 respectively as shown in table 4.2 with size of nonperforming loans to gross loans increasing from 4.5% in 2011 to 9.3% in 2016.

4.3.3 Age of non-performing loans of commercial banks in Kenya

The age of a non-performing loan was of interest to the study from the 3rd stage of loan classification as per CBK Prudential Guideline 2013, that is, the 'Substandard' stage where actual expense in specific provision is established against a loss that is identified in an individual loan. The age of a facility was monitored by movement of loan facilities through the various loan classification stages that is, substandard loans-past due for more than 90 days but less than 180 days. The study merged doubtful (past due 180-360 days) and loss loans (past due more than 360 days) since the impact on provisioning percentages are the same and owing to CBK (2013) prudential guideline which states that a loan that is past due for more than 360 days may however retain a doubtful classification if the same was backed by realizable security. The study found an increment in the value of loans that were classified as substandard or doubtful and loss over the study period as shown in table 4.4

Table 4.4. Age of nonperforming loans

Year	Substandard (Ksh billion)	Percentage increase	Doubtful &Loss (Ksh billion)	Percentage increase	Total Provision (Ksh billion)	Percentage change
2011	11		42		29	
2012	16	45%	44	5%	27	(7%)
2013	25	56%	56	27%	32	18.5%
2014	28	12%	80	43%	42	31.3%
2015	45	61%	103	29%	50	19.0%
2016	55	22%	159	54%	74	48%

Source: Survey data 2017

From table 4.4, the substandard loans increased by 45% in 2012, 56% in 2013, 12% in 2014, 61% in 2015 and 22% in 2016. This had an overall impact on the performance on the

commercial banks as these loans are provided for at 20% net of realizable value of securities and interest in suspense account as per prudential guideline (CBK 2013). The nonperforming loans in the doubtful and loss category increased by 5% in 2012, 27% in 2013, 43% in 2014, 29% in 2015 and 54% in 2016 moving from Kes 42 billion in 2011 to Ksh 159 billion in 2016. Commercial banks are required to make ledger provisions net of realizable security and interest in suspense of 20% of the substandard loan book value, 50% of the doubtful loan book value and 100% of the value of loan categorized as loss as per the CBK prudential guideline of 2013. As the non-performing loans age, the value of provisions made by commercial banks to withstand any financial pressure that may be associated with the same increases therefore reducing the return on assets(profitability) for commercial banks.

From table 4.4, the value of provisions expense incurred by commercial banks increases from Ksh 29 billion in 2011 to Ksh 74 billion in 2016, during the period, the return on assets decreased from 4.4% in 2011 to 3.3% in 2016. The provisions associated with growth in NPLs grew as the age of NPL increases. In 2011, the NPL in substandard category was Ksh 11 billion while doubtful and loss category were Ksh 42 billion, the corresponding provision was Ksh 29 billion. In 2012, substandard loans increase by 45% while the doubtful and loss category increased by 5%, consequently the provisions decreased by 7% while the return on assets grew from 4.4% to 4.7%. The increase in size of the NPL in the doubtful and loss category has an associated positive increase in the provisions and negative decrease on the return on assets. In 2013, the substandard loans increased by 56% while the doubtful and loss increased by 27%, the associated provisions expense increased by 18.5% while the return on asserts stagnated at 4.7%. in 2014, the substandard loan increase by 12% as the doubtful and loss category increased by

43%, consequently, the specific provisions increased by 31.3% and the return on assets decreased to 3.4% from 4.4% in 2013. In 2015, the substandard loans increased by 61% , the doubtful and loss category increasing by 29%, the associated increase in provision was 19% while the return on assets decreased to 2.9%. in 2016, the substandard loans increased by 22% with the doubtful and the loss category increasing by 54%, the resultant increase in provision was 48% with the return on assets being at 3.3%. The study findings points at a trend of an increase age of NPL associated with an increase in provision and a decrease in the return on assets for commercial banks in Kenya. Provisions are expenses to the commercial banks and therefore reducing their income. The provisions made are components of expenses incurred by commercial banks. Michael, (2011) states that age of a loan may reflect little resources allocated to monitor lending risks and, thus, may result to a higher NPLs in the future.

Nonperforming loans in the doubtful category would have an impact in the financial performance of the commercial banks for a period of 12 months even if the customers have found a way of resuming repaying the facility. CBK (2013) prudential guidelines require commercial banks to consider a renegotiated loan in the doubtful category with a sustained record of performance under a realistic repayment program that has been maintained for at least 12 months, before such a loan can be reclassified under watch category. In 2015, the nonperforming loans in the substandard category increase by 61% while that doubtful and loss loans increased by 29% as shown in table 4.3. During this period, the commercial banks pretax profit decreased by 5.03% (CBK 2015) and the return on assets decreased to 2.9% from 3.4% in 2014. The decline in profitability in 2015 could be explained by faster growth in expenses was largely attributed to a rise in loan loss provisions and interest expenses. The amount of loan loss

provision made by commercial banks in respect to nonperforming loans rose from Ksh 42 to Ksh 51 billion in 2015 (CBK 2015). Naomi and Nagib (2017) noted that the size of non-performing loans in commercial banks also defines how viable they are. Nonperforming loan serves as is one of the major financial performance determiners of rural banks. Over the same period as shown in table 4.2, the return on assets decreased from 4.4% in 2011, to 3.3 % in 2016.

4.3.4 Collateral of non-performing loans for commercial banks in Kenya

The study sought to indent the relationship between collateral of non-performing loans with respect to financial performance of commercial banks. The collateral used as security for loan facilities was of interest to the study as it influences the amount of loan loss provisions made in respect of nonperforming loans as stated in the CBK Prudential Guideline (2013).

Table 4.5 Collateral of nonperforming loans

Year	Liabilities (Kes billion)	Percentage change	Collateral (Ksh billions)	Percentage change
2011	1,190		14	
2012	1,330	11.7%	20	42.9
2013	1,578	18.6%	29	45.0
2014	1,940	22.9%	43	48.3
2015	2,165	11.6%	66	53.5
2016	2,293	11.1%	95	43.9

Source: Survey data

From table 4.5, the study found that there has been an increase year on year on the value of collateral held by commercial banks for nonperforming loans in Kenya. Collateral value was Ksh 14 billion in 2011 and increased by 42.9%, 45%, 48.3% 53.5% and 43.9% in 2012, 2013, 2014, 2015, and 2016 respectively. Table 4.5 shows that the loan book value has as well been increasing from Ksh 1.19 trillion in 2011 to Ksh 1.33 trillion, to Ksh 1.578 trillion, to Ksh 1.94 trillion, to Ksh 2.165 trillion and Ksh 2.293 trillion in 2012, 2013, 2014, 2015 and 2016

respectively. Kwach (2011) observed that when evaluating loan applications, lenders evaluates a borrower's capital, including savings, investments and other assets that may be used to repay the loan if household income is insufficient. The lender has the right, if one defaults on the loan, to obtain the collateral from in lieu of payment (Bouke, 2014).

Over the study period, the amount of pretax profit also increased with exception of 2015 where the value of collateral increased by 53.5% and the pretax profit reduced by 5.03%. The discounted value of collateral reduces the provision expenses of commercial banks. The quality of collateral used also helps in reducing loan default rate or nonperforming loans. Naomi and Nagib (2017) noted that whenever commercial property prices move up, property-related loans are considered to be less likely to default. Therefore loan loss provisions decline and loan quality improves. According to the CBK (2013) prudential guidelines, the collateral is discounted at the market rate at 20% per annum of the forced sale value for purposes of getting the new loan loss provision. The collateral pledged to banks are used in decision making in lending out loans to customers even at time of financial distress. Bernstein (2012) noted that banks, when continuously faced with the default problem, may continue to lend out on the basis that the client offers adequate collateral. From table 4.5, the loan book value almost doubled from Kes 1.19 trillion in 2011 to Ksh 2.293 trillion. The collateral value also improved from Kes 14 billion in 2011 to Kes 95 billion in 2016. Bernstein (2012) observed that bank has a legitimate expectation to get the money back or else they will put the pledged collateral under the hammer and the financial intermediation process will continue. This in turn helps in improving the financial performance of commercial banks. During the study period, the pretax profit increased from Ksh 89.5 billio, to Ksh 107.9 billion, Ksh 141.1 billion , followed by a decrease to Ksh 134.0 billion

and an increase to Ksh 147.4 billion in 2011,2012,2013,2014,2015 and 2016 respectively as shown in figure 4.2

4.3.5 Cost of non-performing loans of the commercial banks in Kenya

The study sought to find out the effects of cost of non-performing loans on the performance of the commercial banks. This variable was of importance to the study as it determines many aspects in profit and loss of commercial banks such as cost of litigations in realization collateral, auctioneers and debt collectors' fee, statutory loan loss reserve and the loan loss provision for a non performing facility, all of which eats into commercial banks financial performance. The study quantified specific loan loss provision and statutory loan loss reserve as component of the cost of nonperforming loans as shown in table 4.6

Table 4.6 Cost of nonperforming loans

Year	Specific provision (Ksh billion)	Percentage change	Statutory loan loss reserve (Ksh billion)	Percentage change
2011	29		20	
2012	27	-7%	22	10%
2013	32	19%	12	-45%
2014	42	31%	17	42%
2015	51	21%	19	12%
2016	75	47%	21	11%

Source: Survey data 2017

From table 4.6, there has been an increase in specific provision over the study period from a reduction of negative 7% in 2012 to an increment of 19%, 31%, 21% and 47% in 2013, 2014, 2015 and 2016 respectively. Specific provisions are actual costs that effect the profit and loss of commercial banks. Such costs consume the profits made by commercial banks. This was in tandem with Sanderson Abel (2014), who stated that upon realization of the bank that the loan

has become non-performing, they usually make provisions for the loans owed to them as they take efforts to recover the defaulted loans. Naomi and Nagib (2017) stated that costs and provisions consume a large share of the profit that is made by the rural banks which result to performance retardation. Mwangi (2011) notes that nonperforming loan impairs the ability of a bank to meet the withdrawals demands of its depositors which can cause a lot of problems in the banking system sometimes leading to panic withdrawals. He states that the clients of the banks need to understand that non-performing loans becomes a huge cost on the economy when they begin to interfere with the normal financial intermediation role of banks. If the non-performing loans are kept on bank books and are continuously rolled over, the resources are effectively locked up in unprofitable sectors; thus, hindering the economic growth and impairing the economic efficiency (Mwangi 2011).

During the study period, the return on assets for the commercial banks decreases generally from 4.4% in 2011, to 4.7% in 2012, the stagnating at 4.7% in 2013, followed by a decrease to 3.4% in 2014, then 2.9% in 2015 and finally 3.3% in 2016 respectively as shown in table. This was despite the assets value improving over the period from Kes 2.0 trillion in 2011 to Kes 3.6 trillion in 2016 as shown in table 4.2. Bourke, (2014) reports the effect of credit risk on profitability appears clearly negative.

4.4 Inferential statistics

The study did inferential statistics analysis to determine to what extent the non-performing loans affected the financial performance of commercial banks in Kenya over the study period by conducting correlation and regression analysis.

4.4.1 Correlation analysis

The study conducted a correlation analysis at 95% confidence level to determine the relationship between the independent variables (the size of nonperforming loans, age of nonperforming loans, collateral of nonperforming loans and cost of nonperforming loans) with the dependent variable, that is, the financial performance of commercial banks in Kenya as shown in table 4.6. Sekaran, (2015), notes that a correlation relationship is assumed to be linear and the correlation coefficient ranges from 1.0 (perfect negative correlation) to +1.0 (perfect positive relationship).

Table 4.7 Correlation

Correlations						
		Return on Asset	Size of NPL	Age of NPL	Cost of NPL	Collateral
Return on assets	Pearson Correlation	1	-.278*	-.147	-.357*	.243*
	Sig. (1-tailed)		.034	.391	.041	.045
	N	6	6	6	6	6
Size of NPL	Pearson Correlation	-.278*	1	.331	.492	.597
	Sig. (1-tailed)	.034		.261	.000	.000
	N	6	6	6	6	6
Age of NPL	Pearson Correlation	-.147	.331	1	.359	.307
	Sig. (1-tailed)	.391	.261		.242	.277
	N	6	6	6	6	6
Cost of NPL	Pearson Correlation	-.357*	.492	.359	1	.294
	Sig. (1-tailed)	.041	.000	.242		.000
	N	6	6	6	6	6
Collateral	Pearson Correlation	.243*	.597	.307	.294	1
	Sig. (1-tailed)	.045	.000	.277	.000	
	N	6	6	6	6	6

* Correlation is significant at the 0.05 level (1-tailed)

 Source: Survey date 2017

Correlation coefficient was calculated to determine the strength of the relationship between dependent and independent variables (Kothari and Gang, 2014). From table 4.7, each variable

was perfectly related with itself having a coefficient as indicated by respective coefficients on 1. The return on assets was negatively correlated with loan size having a coefficient of -0.278, age of nonperforming loans which had a coefficient of -0.147 and cost of nonperforming loans which had a coefficient of -0.357. The negative coefficients between the financial performance of commercial banks in Kenya with the nonperforming loans sizes, age and cost of nonperforming loans showed the negative impact the variables had on the financial performance. However, the return in assets was positively correlated with the collateral of nonperforming loans having a positive correlation coefficient of 0.243. There was positive significant difference between turn on assets and the collateral at 5% significant level (p=0.243). However, the relationship between the return on assets and size of nonperforming loan and the cost of non-performing loans were negatively significant, p=-0.278 and p=-0.357 respectively. This is in tandem with Klein (2013), who noted that non-performing loans will effect profitability of banks which is their main profit source. The size of NPL had positive coefficients with age, cost and collateral for non-performing loans as indicated by correlation coefficients of 0.311, 0.492 and 0.597 respectively. The age of NPL was positively correlated with size, cost and collateral having coefficients of 0.311, 0.59 and 0.307 respectively. Kemunto (2017) noted a positive correlation between interest rates, loan size, repayment instalments and collateral with the financial performance of banks. Eyup (2017) noted that in correlation between NPL and profitability, negative relationship is determined between non-performing loans decreasing the asset quality and bank profitability.

4.4.2 Regression Analysis

The study carried out regression analysis to get the relationship between the independent variables (size, age, collateral and cost of nonperforming loans) with the dependent variable

(financial performance of commercial banks). The study got the R^2 which stated the extent to which financial performance in commercial banks are affected by the nonperforming loan variables and to what extent other factors not included in our study influence the financial performance of commercial banks in Kenya. The study did analysis of the variance to show that overall regression model was significant and therefore relevant in predicting the relationship between nonperforming loans and the financial performance of commercial banks in Kenya.

Table 4.8 Model Summary

Model	R	R Square	Std. Error of the Estimate
1	0.741[a]	0.586	1.668

Source: Survey data 2017

From table 4.8, the coefficient R Square (R^2) explains the percentage of variation in the dependent variable (financial performance of commercial banks in Kenya) that is explained by the independent variables (size, age, collateral and cost of nonperforming loans). With an R^2 of 0.586, the study showed that only 58.6% of the performance of commercial banks over the study period was determined by the size, age, collateral and cost of nonperforming loans with the remaining 41.4% explained or determined by other factors not included in this study. The R2 0.586 is acceptable as Cooper and Schinder, (2013) noted that as much as a lower value R square of 0.10 to 0.20 is acceptable in social science research.

Table 4.9 ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	215.463	4	53.866	1.936	0.048
	Residual	27.819	1	27.819		
	Total	243.283	5			

Source: Survey data 2017

From table 4.9, the study found an F statistics value of 1.936 which showed that the overall regression model was significant at 95% significance level and therefore relevant in predicting

the relationship between nonperforming loans and the financial performance in commercial banks in Kenya.

Table 4.10 Regression Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	16.41	6.62		0.247	0.000
	Size NPL	-0.173	0.172	-0.477	-0.106	0.004
	Age NPLS	-0.125	1.895	-0.029	-0.066	0.006
	Cost NPL	-0.235	0.438	-0.194	-0.053	0.007
	Collateral	0.463	1.491	-0.194	-0.031	0.003
a. Dependent Variable: Return on Assets						

Source: Survey data 2017

From table 4.10 regressed SPSS table, the regression model of

$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$; becomes

$Y = 16.41 - 0.173 X_1 - 0.125 X_2 + 0.463 X_3 - 0.235 X_4$

Where:

X_1 = size of non-performing loans

X_2 = Age of non-performing loans

X_3 = Collateral for non-performing loans

X_4 = Cost of non-performing loans

The study showed the nonperforming loan was statistically significant in determining the return on assets of commercial banks in Kenya. The study showed that an inverse statistical significance between the size, age and cost of nonperforming loans with the return on assets of commercial banks in Kenya. The size of the non-performing loan had a negative statistical significance to the performance of commercial banks in Kenya with a P-value ($p = 0.004$) that was less than the common alpha of 0.05. With a negative determinant of -0.173 in the regression model of the study, a unit decrease in the size of nonperforming loans would increase the financial performance by 0.173 units. Klein (2013), pointed out that non-performing loans will

effect profitability of banks which is their main profit source. Increase of the non-performing loans decreases bank profitability and decrease of the non-performing loans increases bank profitability (Eyup 2017)

The age of non-performing loan was statistically significant in determining the financial performance of commercial banks with a P-Value of 0.006 that is less than the common alpha of 0.05. A unit decrease in age of nonperforming loan increases the financial performance by 0.125 units. The prudential guideline by CBK (2013) classifies loans based on the days overdue of any particular loan. Michael Pomerleano, (2011) states that age of a loan may reflect little resources allocated to monitor lending risks and, thus, may result to a higher NPLs in the future.

The collateral of non-performing loan had a positive statistical significance to the performance of the commercial banks at alpha =0.05 having got a P-Value of 0.007 that was less than the common alpha in the study. A unit increase in the collateral of nonperforming loan increases the financial performance of commercial banks by 0.463 units. The finding is in agreement with Baker, (2014) who noted that collateral held by commercial banks for the nonperforming loans can be disposed to recover the loan exposure by commercial banks. Lipunga, (2016) noted that that when borrowers default on secured loans, commercial banks recovers the outstanding loans by offering for sale the collateral offered. Naomi (2017) noted that weakness in due diligence processes in ascertaining collateral causes bank losses. The quality of collateral held by commercial banks determines the how much commercial banks will collect from sale of the same in case of recovery of nonperforming loans that may affect the financial performance of commercial banks.

The study also showed a negative statistical significance between cost of nonperforming loan and the financial performance of commercial banks having a P-Value of 0.003 that was less than the common alpha of 0.05 in and a unit decrease in cost of nonperforming loan increase the financial performance by 0.235 units. Abel (2014), noted that non-performing loans have the effect of eroding the bank's profitability which can happen in two ways; first, non-performing loans incur heavy disposal expenses, that is, making provisions for credit losses and postponing the final disposal of non-performing loans would cause additional losses if the collateral value of underlying asset declines. Secondly, holding non-performing loans for a long time without disposing them would incur costs other than the amount of disposal of non-performing loans. That is to say, by continuing to hold non-performing loans, or assets that do not generate returns, banks would lose returns that they would have earned if they had collected the loans.

The size, age and cost of non-performing loans had inverse relationship with the financial performance of commercial banks. However, the collateral value of non-performing loans had positive significance with the financial performance of commercial banks.

CHAPTER FIVE:

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter contains the summary of findings from the study, conclusions drawn from the study and the recommendations for policy and practice as well as recommendations for further research

5.2 Summary of the study

The general objective of the study was to investigate the effects of non-performing loans on the financial performance of commercial banks in Kenya.   From the study findings based on elements of nonperforming loans which formed the specific objectives, and independent variables used in the study, the study established the following equation:

Y= 16.41 - 0.173 size -0.125 age +0.463 collateral -0.235 cost + e.

With an R^2 of 58.6, the study established that non-performing loans affects 58.6% of the financial performance of commercial banks in Kenya. There was significant negative relationship between financial performance of commercial banks with nonperforming loan size, age and cost while the collateral had a positive significant relationship as summarized per specific objective and discussed below.

5.2.1 Size of nonperforming loan and financial performance of commercial banks in Kenya

The study showed that as the size of nonperforming loans grew, the financial performance of commercial banks declined. This revealed that the size of non-performing loans had statistical significance on the performance of commercial banks in Kenya. The study showed a negative

relationship between the size of non-performing loans and the return on assets for commercial banks. The study clearly showed an inverse statistical significance on the relationship between the size of nonperforming loans for commercial banks in Kenya and their financial performance. The study demonstrated as the size of nonperforming loans increases, the financial performance of commercial banks decreases.

5.2.2 Age of nonperforming loans and financial performance of commercial banks in Kenya

The study showed that the age of non-performing loan had an impact on the financial performance of commercial banks in Kenya. It showed that the age of non-performing loan was inversely related to the financial performance of commercial banks. The study revealed that as the non-performing loans age/ move to substandard to doubtful and loss category, the financial perforce of commercial banks decreases. The study demonstrated that aging nonperforming loans was affecting the financial performance of commercial banks in Kenya.

5.2.3 Collateral of non-performing loans and financial performance of commercial banks in Kenya

The study showed that the collateral used to secure a nonperforming loan had an impact on the financial performance of commercial banks. As the value of collateral increases the financial performance also increases. The study revealed that the collateral value for nonperforming loans had a positive relationship with the financial performance of commercial banks in Kenya. The study clearly demonstrated that the value of collateral held by commercial banks securing nonperforming loans had a positive impact on the financial performance of commercial banks in Kenya over the study period.

5.2.4 Cost of non-performing loans and financial performance of commercial banks in Kenya

The study showed that the cost of nonperforming loans had an impact of the financial performance of commercial banks in Kenya. As the cost of nonperforming loans increases, the performance of commercial banks decreases. The study revealed a negative relationship between the cost of nonperforming loans and the return on assets for commercial banks in Kenya.

5.3 Conclusion

The study concludes by attaining the general objective of the study and states that there is an overall inverse relationship between the nonperforming loans and the financial performance of commercial banks in Kenya over the 5 year study period. The study found specific variable on nonperforming loans such as size, age and cost as having impact in reducing the financial performance of commercial banks in Kenya. The study therefore concludes as follows as per the specific objectives of the study;

The size of nonperforming loan has a direct negative impact on the financial performance of commercial banks in Kenya. The size of nonperforming loan proportionate to the loan book value held by commercial banks determines the return on assets for commercial banks in Kenya. The study concludes that the size of nonperforming loan was the third component of NPL that affected financial performance of commercial banks the most negatively after age and cost of NPL.

The study concludes that the age of nonperforming loan had a significant negative impact on the financial performance of commercial banks in Kenya. The study concludes that as

nonperforming loans ages, the impact of the same on the financial performance increase in an inverse relationship. The study concludes that age of nonperforming loan as the highest negative impact on the financial performance of commercial banks in Kenya followed by cost of nonperforming loans and lastly the size of nonperforming loans.

The study also concludes that the collateral (quality) value have a positive impact in the financial performance of commercial banks. The study showed that collateral helps motivate loan repayment and also reduces costs such as provisions. The study therefore concludes that for effective and efficient return on assets, the commercial banks need to keep the size of nonperforming loans as low as possible, the age of non-performing loans needs to be monitored with recovery efforts being instituted as early as such loans shows signs of financial distress in repayment terms. The study concludes that the quality of collateral used in securing banks loans needs to be kept at high standard since the same form the secondary source of loan repayment in case of realization of such collateral to settle outstanding loans. Commercial banks should therefore not compromise on the quality of collaterals held for various loans.

5.4 Recommendations

The study recommend loan policies, practices and monitoring mechanism that will ensure reduce transition of loans from watch to substandard category and or eliminate movement of loans from substandard to doubtful as such movements have commercial implication on the overall financial performance of commercial banks in Kenya.   This in acknowledging the coming into effect of IFRS 9 that require provision to be made on a 12 month expected credit file upon issuing a loan

facility and lifetime expected credit life provisioning upon increase in the credit risk of a loan facility.

The study recommends issuance of short term credit facilities in appreciation of the expected credit life loan provisioning that is coming into effect by the adoption of IFRS 9 on 01/01/2018. The study recommends loan facilities to customers less likely default rate since the default rate affects probability of default that is a major factor in calculating provisions in IFRS 9. The study also recommend a proper and working relationship management of loan facilities and a monitoring mechanisms and actions on early warning signs of nonperforming loans with appropriate corrective actions.

5.4.1 Suggestions further research

The study recommends further research in the following areas: Impact of the bank amendment act (2016) on the size, age, cost and collateral held for nonperforming loans and financial performance of commercial banks in Kenya. Further, the study recommends further research on the impact of the International Financial Reporting Standards (IFRS) 9 on the financial performance of commercial banks in Kenya after it is implementation on 01/01/2018.

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Appendix I: List of Commercial Banks in Kenya.

1. African Banking Corporation Limited

2. Bank of Africa Kenya Limited

3. Bank of Baroda (K) Limited

4. Bank of India

5. Barclays Bank of Kenya Limited

6. CfC Stanbic Bank Limited

7. Charterhouse Bank Limited (Under Statutory Management)

8. Chase Bank (K) Limited (In Receivership)

9. Citibank N.A Kenya

10. Commercial Bank of Africa Limited

11. Consolidated Bank of Kenya Limited

12. Co-operative Bank of Kenya Limited

13. Credit Bank Limited

14. Development Bank of Kenya Limited

15. Diamond Trust Bank Kenya Limited

16. Ecobank Kenya Limited

17. Spire Bank Ltd

18. Equity Bank Kenya Limited

19. Family Bank Limited

20. Fidelity Commercial Bank Limited

21. First Community Bank Limited

22. Guaranty Trust Bank (K) Limited

23. Giro Commercial Bank Limited

24. Guardian Bank Limited

25. Gulf African Bank Limited

26. Habib Bank A.G Zurich

27. Habib Bank Limited

28. Imperial Bank – (In Receivership)

29. I & M Bank Limited

30. Jamii Bora Bank Limited

31. KCB Bank Kenya Limited

32. Middle East Bank (K) Limited

33. National Bank of Kenya Limited

34. NIC Bank Limited

35. M-Oriental Bank Limited

36. Paramount Bank Limited

37. Prime Bank Limited

38. Sidian Bank Limited

39. Standard Chartered Bank Kenya Limited

40. Trans-National Bank Limited

41. UBA Kenya Bank Limited

42. Victoria Commercial Bank Limited

43. HFC Limited