

THE EFFECT OF USE OF FINANCIAL STATEMENTS IN  
MAKING LENDING DECISIONS ON LEVEL OF NON-  
PERFORMING LOANS AMONG COMMERCIAL BANKS IN  
KENYA

BY

DENIS MBUVI MUSYOKA

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## **DECLARATION**

I hereby declare that this research project is my own work and has not been presented elsewhere in part or the entire work for award of degree.

Sign: .....Date.....

Denis Mbuvi Musyoka

D61/68596/2013

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

Sign: ..... Date: .....

Dr. Winnie Nyamute

Department of Finance and Accounting,

School of Business, University of Nairobi.

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## **DEDICATION**

I dedicate this project work to my late grandmother Mwende, for her selflessness in raising us. You went hungry so that we could have something to eat. You taught us the values of love, hard work, resilience and honesty. You send us to school so that, in your words "we will not be like you". God bless you.

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## **LIST OF ABBREVIATIONS**

FS	- Financial Statements
CAR	- Corporate Annual Report
NPL	- Non Performing Loans
IMF	- International Monetary Fund
FASB	- Financial Accounting Standard Board
MFB	- Micro-finance Banks
MRP	- Money Remittance Providers
CRB	- Credit Reference Bureaus
CBK	- Central Bank of Kenya
SME	- Small and Micro Enterprises
GDP	- Gross Domestic Product
IEG	- Independent Evaluation Group
EMH	- Efficient Market Hypothesis
LPM	- Loan Portfolio Movement
CEMAC	- Central African Economic and Monetary Community

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## **ABSTRACT**

NPLs have the potential to curtail the performance and sustainability of a commercial bank. In developed countries, financial statements are important in making lending decisions, which in turn affect the levels of NPLs. In Kenya, there's little evidence on the utilization of financial statement information in arriving at lending decisions and whether this affects the level of NPLs. This study aimed at determining the effect use of financial statement in making lending decisions has on the level of NPLs among Kenyan banks. The study collected data on perceptions of importance of financial statements in lending decisions of Kenya bank officers, the characteristics of banks, use of financial statements in the banks and their levels of NPLs from a total of 37 out of the 42 commercial banks registered in Kenya. Descriptive statistics were used to characterize banks staff respondents and the banks they worked for. Ordinary least squares regression model was use to analyze the data for the effect of financial statement use in making lending decisions on the level of NPL. The study findings indicate that key bank staffs in lending sections view financial statements as not very useful in making lending decisions. The effect of use of financial statement information in decision making was not statistically significant. However, tier 3 and tier 4 banks have significantly higher levels of NPL than tier 1. The study recommends that accounting and banking experts implement measures to help SMEs raise the reliability of financial statements in order to improve their utilization in lending decisions.

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.1 Background of the study**

Commercial banks act as major component of economic development of any country in the world. How well developed a country's financial system is, determines the level of economic development of the country concerned. Suffice to say therefore that the stability of a country's banking sector acts as the nerve center for economic development of that country. One of the key functions of commercial banks is mobilizing deposits from those with surplus funds and on-lending the funds in form of loans and advances to entities with fund deficits either for production or consumption. This facilitates industries such as agribusiness, manufacturing, service industry as well as private persons and governments to carry on with their businesses. In recent years however, banks have taken a cautious approach in extending loans due to increase in levels of non-performing assets in the industry (Sontakke and Tiwari, 2013).

The key role banks occupy in any economy as financial intermediaries calls for all stakeholders in the industry to understand their operations (Dell'ariccia & Marquez 2006). Studies have shown that there has not been many research works carried out about the information needs that lenders require in their operations. (Allen & Cote 2005, Billings & Morton 2002). One such area that has had little research on is on relevance of financial statement information to lenders. This is so because information from financial statements plays an important role and especially in market-based economies. The data

from this information is essential for lenders of funds as well as the investors because first it makes it possible for owners of capital and lenders to estimate return from their investment portfolios and additionally, it also enables them to monitor the use of capital once committed to a particular venture (Beyer *et al.* 2010). It is imperative for decision makers such as business analysts, credit analysts and investment analysts to analyze a companies' financial information as an important tool for making decision as to whether the company's financial performance meets their decision threshold. One such important tool used is computation and analysis of financial ratios to gauge the financial strength of a company (Kwok 2002; Delen *et al.* 2013). In recent times, strong emphasis on the need for information to be transparent has provoked thoughts to further understand the creditors' use of financial statement information. Yap (1997) in his study on the need for cash flow statements concluded that financial statements take a central role in a creditor's decision to lend or not.

### **1.1.1 Financial Statements Usage**

An entity's financial statements (FS) act as important tools that provide vital information that helps its users in making different business decisions. The usefulness of the information derived from these financial statements by its user determines whether the accounting information is of good quality or not. It is for this reason that has given rise to early studies on the usefulness of information from financial statements.

Corporate Annual Report (CAR) information has many users among them; investors, creditors and different government agencies such as the regulators and tax authorities. A

common perception among many people has been that CAR information is produced for usage primarily by the shareholders. This is however not the case as other groups such as venture capitalists, financial analysts and others also use CAR information (Chang *et al.*, 1983; Vergoossen, 1993) and so do creditors such as banks and other categories of lenders (McCaslin and Stanga, 1986; Danos *et al.*, 1989). Arnold and Izer (1984), Day (1986), Gniewosz (1990), and Vergoossen (1993) have also extensively studied this area and assert that investment analysts also use CAR information. Wolk *et al.* (2003) noted also that CAR information is useful when it comes to the market valuation of firms. Some studies have however downplayed the usefulness of CAR information in lending decisions. Magness (2003), for example, argues that they do not include environmental values neither do they provide valuable information to external users in absence of effective reporting guidelines. Chen and Hsu (2005) also did a study in Hong Kong in which they concluded that users of CAR information prefer that financial statement information is supplemented by additional, preferably non-financial information as it is inadequate on its own. However, in spite of these dissenting views, CAR information has been and still is widely being used in making different business decisions.

In his study, Nichols (1997) found out that quality concerns of financial reporting have resulted to financial statements being less useful in decision making among lenders in Vietnam which was in contrast to previous studies that had showed that information from financial statements play a significant role in decision making among lending institutions in developed countries. In USA, commercial banks consider a company's financial statements to be the major source of information for making lending decisions (Stanga &

Benjamin, 1978). Information communicated by financial statements has the ability to change the decisions of a commercial bank as to whether to lend or decline a loan proposal (Danos *et al*, 1989). A study by the Independent Evaluation Group (IEG) demonstrated that use of operating cash flow has a close relationship with credit risk among companies with high long-term rates and low business risks (IEG, 2010).

### **1.1.2 Non-Performing Loans (NPLs)**

The definition of non-performing loans differs from one country to another. What is considered to be a non-performing loan in one country may not necessarily be so in another country. These different definitions have however given rise to some common grounds on this issue. Consequently, the International Monetary Fund has come up with a definition in its Compilation Guide on Financial Soundness Indicators that has come to be widely accepted as what constitutes an NPL account. Thus, NPLs is defined as: "An account whose repayment of either interest due, principal portion or both are overdue by ninety (90) days or more, or interest charged equivalent to ninety days or more has been restructured, capitalized or customer has negotiated with the lender to delay payment. An account will also be categorized as NPL due to other instances such as borrower filing for bankruptcy rendering the possibility of collecting the loan improbable." (IMF, 2005).

Sharon (2007) underpins the important contribution made by loans in the development of an economy. However, she also notes that its non-payment can also lead to huge losses by banks in particular and country in general. People establish businesses with the

principal objective of making profits (Rawlin *et al.* 2012). The principle of wealth maximization is still the key motivation for any business to exist. For this reason, assets acquired in the course of business should generate income for the business. Since loans constitute the main assets for all the lending institutions, there is need for banks to put in place efficient mechanisms to manage loan book portfolios so as to generate revenues among lending institutions (Daniel and Wandera, 2013).

### **1.1.3 Use of Financial Statements and Level of NPLs**

There are many users of financial statements information including shareholders of a company, management, tax authorities as well as bank credit officers. Although it is largely accepted that financial statements prepared largely to help external, primarily investors and creditors in their business decisions, (FASB, 1978), there has not been adequate empirical work that that has been carried out to examine how this information is useful in processing lending decision and how or whether this has effect on the levels of non-performing loans.

Danos *et al.*, (1989) discuss how lenders grow in confidence on a loan proposal from the initial contact with the customer and how their confidence is likely to increase or diminish as more and more information is processed. A lender makes use of a customer's background information and highlights of their financial statements in the decision process. There is plenty of information that one can use when making a decision to lend. The role played by these different information types vary from country to country and

from institution to another. Lenders in USA regard a borrower's credit history, business financial reporting, cash from business operations, types and state of non current assets, and income from other sources other than core business as the most important (Catanach & Kemp, 1999). A study done in Hong Kong found that banks first pay key attention to notes accompanying financial statements (FS) while cash flow analysis takes the next concern (Kwok, 2002; Marian *et al*, 2002).

In Australia, the three financial statements i.e cash flow, balance sheet and income statements are analyzed for three distinct purposes. Whereas cash flow statement is analyzed to gauge the repayment ability of a borrowing entity, balance sheet is analyzed as for assessment and monitoring roles and the income statement is used to understand an enterprise's business operations (Jones, 1998; Kitindi *et al*, 2007). Although these studies seem to concur that FS are widely used in making lending decisions, the studies fail to determine the effect use of these financial statements has on non-performing banks. This is what this study seeks to determine.

#### **1.1.4 Commercial Banks in Kenya**

Commercial Banks and Mortgage Finance Institutions are licensed and regulated pursuant to the provisions of the Banking Act and the Regulations and Prudential Guidelines issued thereunder. As at 31st December 2015, the banking sector comprised of the Central Bank of Kenya, as the regulatory authority, 43 banking institutions (42 commercial banks and 1 mortgage finance company), 8 representative offices of foreign

banks, 12 Micro-finance Banks (MFBs), 3 credit reference bureaus (CRBs), 15 Money Remittance Providers (MRPs) and 80 foreign exchange (forex) bureaus. The government, through the Central bank uses banking sector as a key partner in implementation monetary policy of the government. One major role played by commercial banks is enabling credit creation. The ability of businesses and the members of the public in general to access credit facilities, and the funds available for banks to lend are highly guided by the CBK through prudential guidelines and legislation.

Credit risk is listed top of the list as a major risk by 95 per cent of the banks in Kenya (CBK, 2011). Given that market risks can be hedged against using various techniques, credit risk has been singled out as the main risk that poses a management challenge to financial institutions (Gonzalez-Paramo, 2010). According to the results of the risk management survey by the Central Bank of Kenya, the sector largely operates under the traditional model with collateral being the most popular credit risk mitigation technique (CBK, 2011). Data from CBK shows that non-performing loans (NPLs) increased by 36 per cent to Ksh. 147.3 billion in December 2015 from Ksh. 108.3 billion in December 2014. Similarly, the ratio of gross NPLs to gross loans increased from 5.6 per cent in December 2014 to 6.8 per cent in December 2015 . Clearly this calls for further investigations as to what causes NPLs in order to come up with mitigating factors to minimize NPLs in the banking industry.

It is a common practice among all commercial banks in Kenya to ask for audited financial statements from customers as one of requisite documents to process loan

requests for limited liability companies, sole proprietorships and partnerships. However, majority of Small and Micro Enterprises (SMEs) in Kenya do not keep proper books of accounts and therefore face challenges when applying for credit facilities from banks. Some banks also have a policy of not lending to start-up businesses which have no historical financial performance. Many customers have therefore implored upon the banks to "start financing ideas" and discontinue the obsession with historical financial statements. This study therefore will inform loan decision makers on whether use of financial statements has impact on level of non-performing loans, hence determine if indeed they are important in loan processing.

## **1.2 Research Problem**

The importance of managing bad loans by lending institutions cannot be over-emphasized. The problem of bad loans is a common phenomenon in most countries which makes banks' ability to make loans and grow greatly compromised (Pettersson and Wadman, 2004). Prudent management of loan-book portfolio results to increased profitability by the banks and enhances the confidence of the people including investors and depositors in the sector. On a similar note, inability to manage credit risk well has been cited as the major threat to a lending institution's survival (MacDonald, 2006). Kroszner (2002), opines that there is a close relationship between non-performing loans banking crises. Sultana (2002) supports this as he links the Japanese financial crisis to non-performing loans. According to him, Japanese banks still struggle and suffer under the weight of thousands of billions of Yen of bad loans that occurred as a result of

collapse in asset prices a decade ago in the country's financial system

Evidence shows that both large as well as small banks use financial statement variables in making lending decisions (Cole *et al.* 2004), (Barret 1990). However, though many researchers have been able to prove that use of financial statements is important in making lending decisions, the studies done have not validated FS importance by measuring whether use or non-use of financial statements has impact on NPLs. Majority of the studies done have been on the global determinants of NPLs which have been studied by different countries by different scholars such as Mileris (2012), Tomak (2013), Ahmed and Bashir (2013) and Shingjerji (2013).

Studies carried out previously have indicated that information from financial statements play an important role in making lending decisions among banks in developed countries. Krueger and Tornell (1999) attribute the credit crunch in Mexico after the 1995 crisis partially to the bad loans. Since banks are more likely to be exposed to moral hazard and adverse selection when advancing loans to borrowers, credit assessment of loan is inevitable. This should be done with a clear mind that there is great potential that most borrowers default.

Studies done recently in Kenya also seem to agree with past researches done elsewhere. Muriithi (2013) found that non-performing loans are one of the major causes of the economic stagnation problems. Matu (2001) showed that the high levels of non-performing loans put pressure on the banks to retain high lending rates in an attempt to

minimize losses associated with these loans. Kiayai (2003) showed a combination of different techniques enticing defaulting customers yield better results. Kioko (2008) and Ngare (2008) focused on credit risk management techniques in commercial banks. Otieno (2013) did a study focusing on the credit policies of commercial banks and its effects on NPLs. As the above studies show, none of these researchers have looked deeper into the actual inputs that lead to making a lending decision. One such key input in making lending decision is analysis of financial statements and it is the basis of this study. This study would answer the question: does the use of financial statements in making lending decisions have any effect on the level of NPLs?

### **1.3 Research Objective**

The purpose of this study was to determine the effect of use of financial statement information in making lending decisions on the level of non-performing loans among Commercial Banks in Kenya.

### **1.4 Value of the Study**

The findings of this study will be of significant importance to commercial banks in formulating their loan appraisal tool as they will be able to appreciate the value and place of financial statements in the credit process. The study also helps auditors understand the importance and weight accorded to their audited reports by external users such as banks and hence encourage them to give true reflection of financial positions of entities they

audit. Additionally, the study findings are useful to professional trainers and training schools in coming up with their course contents for credit risk management practitioners as they would be able to know how much weight to give to financial data analysis, interpretation and use.

Future researchers and scholars will be equally benefit from this study, as it has contributed to the pool of knowledge into the use of financial statement information in decision making and its effect on performance of loans among lending institutions and therefore contribute to academic reference materials. In addition, the findings of this study can be used as basis for future research.

## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

Chapter 3 reviews theoretical and empirical literature relevant to the topic under study. While the theoretical review synthesizes the concept of financial statements, the empirical review on the other hand synthesizes previous finding on variables that have are pertinent to the study.

#### **2.2 Theoretical Review**

Theories are formed in order to help describe, understand and project the future of a given phenomenon of interest so as to test and increase the level of understanding on the phenomenon given relevant assumptions. This section will discuss theories that will help understand the concepts being studied in this research.

##### **2.2.1 Single Person Decision Theory**

This theory is based on the thought that even if financial statements are not correct in theory, they can made more useful. The utility of financial statements should extend beyond investors and creditors and should also find use by other stakeholders that require such information to improve on their decision making.

While relevance and reliability of financial statements are important determinants of the quality and usefulness of financial statements, a trade-off exists between these two. One cannot increase one without compromising on the other. It is therefore argued that financial statement preparation to try to strike a balance between the two, such that both relevance and reliability meet an acceptable threshold. Many scholars are proponents of this theory and include Raiffa (1968), Demski (1972), Sterling (1979), Ijiri (1983), Solomons (1989) and Laffond (1989). Others include Staubus (1999), Cartney(2004), Henderson (2005), Godfrey *et al.*(2006) and Scott (2009).

### **2.2.2 Information Theory**

According to Derban *et al.* (2005) credit borrowers are supposed to be scrutinized by lenders by conduct of credit assessments. The gathering of reliable information from potential credit seekers is important in conducting credit assessment as suggested by proponents of symmetric information theory. Although qualitative and quantitative techniques can be useful in making credit assessment of potential borrowers, qualitative methods are thought to be less reliable due to its subjectivity. To reduce costs subjectivity and bias in the, a potential approach is that of using qualitative models that assign numbers whose sum is compared to a threshold (Derban *et al*, 2005).

Rating systems become useful if they are successful in detecting changes in the magnitudes of credit loan loss. Quantitative models enable one to numerically determine the variables that explain the level of risk of default, to evaluate the relative importance of these variables, to improve the price to attach to default risk, to screen high risk

borrowers and to compute the margins required to protect from losses that might arise in future. Subjective decisions should be avoided at all time when making the decisions to lend or not and this can be aided by reliance on a rating and weighting mechanism as explained information theory.

### **2.2.3 Signaling Theory**

Dainelli *et al.* (2013) found that financial reports are one of the most important methods that enable parties to communicate reliably. So as to meet stakeholder needs, companies should have a signaling mechanism that informs their associates. People behave differently to different sets of information. The party sending (e.g. company) has a choice of if and how to signal the other party, (e.g. creditor), while it is the latter's choice to decide on the manner he/she will use the information.

Additionally, existence of information asymmetry between two parties can be lowered by signaling (Dainelli *et al.* 2013; Morris 1987). The party with greater access to information signals to the others. Beyer *et al.* (2010) argues that the information asymmetry affects lenders ability to make decisions for fear of overpricing or underpricing a firm's profits. This can result to market failure and bad debts and therefore eventually cause cash liquidity constraints (Mirtalaei *et al.* 2012). If lenders (e.g. banks) lack access to information on the financial position of credit seekers, then they have to charge a higher cost on the loans.

### **2.2.4 Efficient Market Theory (EMH)**

EMH holds that markets respond to available information, e.g. financial statements affect the stock markets (Abdel-khalik, 1972). This reaction affects both the characteristics and relevance of accounting data. Since the theory and accounting information are related by the fact that markets react to accounting data, accounting procedures provide a good base for lending decisions.

EMH theory shows that credit institutions utilize available information in their lending decisions. In addition, under EMH, information is not free and therefore, marginal cost of information need to be considered and whether certain information is useful given their cost of access. High value information tend to be free access information. Creditors lend by first using high value and less cost information, then the next set of information that is second in value relative to cost, and this continues until the marginal cost of the information is equal to its value at which point the creditors do not acquire any further information, because at this stage the cost of acquiring such information is higher than its value. Lenders view financial statements as communicating important information whose value is less than its costs.

### **2.3 Determinants of Non-Performing Loans**

Many researchers have made studies to understand the causes of bad loans in banks. Gorter and Bloem (2002) found that bad loans are mainly a result of wrong economic decisions made by individuals and inevitable bad luck such as weather, unpredictable

prices etc.

### **2.3.1 Financial Statements Usage**

Lending decisions of banks are partly determined by financial variables (Cole *et al* 2004), (Barret 1990). Creditors compute and analyze ratios from accounting statements to determine the financial strength of a company (Kwok 2002; Delen *et al.* 2013). Yap (1997) found that financial information represent important roles when creditors make lending. Dainelli *et al.* (2013) say that financial reports represent a reliable mode of communication between two entities. However, information asymmetry may inhibit decision making ability of fund providers as it may lead to overpricing or underpricing of a company's profitability leading to failure in the market, bad debts consequently cash flow constraints (Beyer *et al.* 2010), (Mirtalaei *et al.* 2012).

### **2.3.2 Moral Hazard**

The moral hazard of too-big-to-fail banks is one way that explains bank-specific characteristics for non-performing loans (Louzis *et al.*, 2011). It is a policy concern when too-big-to-fail banks decides to take excess risk taking because market discipline is not imposed creditors who have an expectation on government protection in case of a bank's failure (Stern and Feldman, 2004). As a result, large commercial banks can raise their leverage to a very extent and may give loans to low quality creditors (Louzis *et al.*, 2011).

### **2.3.3 Change in Macroeconomic Environment**

Plenty of empirical evidence supporting the inverse association between growth in real GDP and NPLs exist (Salas and Suarina, 2002; Rajan & Dhal, 2003; Fofack, 2005; and Jimenez and Saurina, 2005). The explanation put forward for this is that strong positive growth in real GDP leads to increased income which improves the debt servicing capacity of borrowers which in turn contribute to low levels of NPLs. Conversely, when there's an economic recession, NPLs rise.

Nishimura, Kazuhito and Yukiko (2001) while studying NPLs in Japan found that some of the credit made to companies in the bubble era turned non-performing when the bubble burst. The explanation put forward is that the problem of banks' non-performing loans is as a result of political, economic, social, technological, legal and environmental (PESTLE) factors across countries (2003, Bhide, *et.al.*, 2002, Das and Ghosh).

### **2.3.4 Diversion of Funds**

While studying causes of NPLs in Tanzanian banks, Richard (2011) found that the utilization of money acquired through borrowing on uses that were not agreed upon with the banks at the time of borrowing is an important factor for increased NPLs. A majority (61%) of the borrowers contacted in his study indicated diversion of borrowed money for other uses rather than those specified in the agreement as the leading cause of NPLs.

### **2.3.5 Bank Credit Policies**

Otieno, (2013) researched the effect of lending policies on NPLs among commercial banks in Kenya. His findings indicated that majority of the banks in Kenya, being locally owned have customized the lending policies to fit the local market and to gain a competitive edge. He however found this to impact the levels of NPLs to a large extent. His findings were in agreement with those of Swaren, (1990) the common source of risk for NPL is the strategy of lending imprudently.

### **2.3.6 Weak Loan Portfolio Management**

For a bank's risk of NPL exposure to be minimized, the loan portfolio and the lending procedures need to be properly managed. Loan portfolio management (LPM) is the practice of carefully managing and controlling the risks that characterize the lending business. Data from liquidated banks from Nigeria exposed the challenges that arise from the failure to recover loans as a main source of risk (Owojori *et al*, 2011).

## **2.4 Empirical Literature Review**

There are clear differences in lending strategies of small versus big banks. According to Cole, Goldberg, and White (2004) large banks rely on information from financial statements while small banks rely on preexisting relationships with customers. Cowen and Page (1982) says that non-financial factors are a characteristic of small bank lending. Others who have contributed with similar findings include; Whiteman (1998), Cole

(1998), Berger and Udell (1995, 2002), Elyasiani and Goldberg (2004), Ebben (2004) and Berger *et al.* (2006). Barret (1990) however seems to disagree with the other writers on this topic and argues that in addition to non-financial information, small banks in practice also ask for financial details such as personal and business data as part of their loan applications.

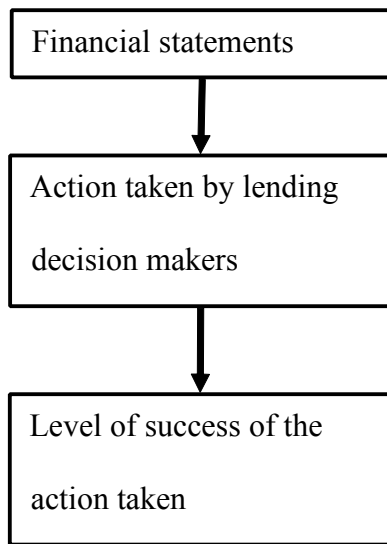
Financial accounting is the source of financial information that plays a crucial role in support of business decision making Wild (2008) and Fellingham (2005). Ijiri and Jaedicke (1966) argues that the importance of financial reports in business decision making depends on factors such as how timely, reliable, relevant or material the information is presented. Dzinkowski (2010) has also written on this topic. For financial reports to be useful in decision making and to demonstrate management's stewardship of there is need to use different accounting standards (Gjesdal, 1981). Reporting entities must adhere to the requirements of the laws and accounting standards while compiling financial statements. In addition, there is need to ensure that the statements are actually useful to the decision making needs of diverse stakeholders (Paul, 2008).

The usefulness of accounting information in lending decisions in low income countries is not common. Quite often these statements do not meet the needs of stakeholder in decision making. As a result, Abu-Nassar & Rutherford, (1996), Dang & Marriott, (2006; 2008) all assert that they do not find financial statements as being important in lending and other decisions. Djiogap and Ngomsi (2012) investigated the reasons for bank long-term loan defaults in six countries from African covering the years between the years

2001-2010. They found negative significant impacts of CAR on the levels of non-performing loans. This is a justification for bank diversification and strong bank capitalization to be able to withstand banks are better able to withstand potential default. Kroszner (2002) found NPLs to be related to banking crises. Sultana (2002) linked Japanese financial crisis to NPLs and argued that Japanese banks suffered due to the burden massive bad loans arising from collapse of asset prices in the past decade.

## **2.5 Summary of Literature Review**

Empirical reviews from different researchers show that financial statements is significantly used and relevant in making lending decisions. However, there are few reviews done in Kenya and within the region to demonstrate the effects use of financial statements in making lending decisions have on level of NPLs in commercial banks. Chapter 3 provided a review existing literature on use of financial statements in making lending decisions from the global and African perspectives. It has also presented a number of relevant studies done to support the study. This paper seeks to investigate whether the use of FS information in making lending decisions has any effect on level of NPLs, looking specifically on Kenyan banks. Figure 1 is a presentation of a conceptual framework that guides the study.



**Figure 1: Conceptual framework**

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Introduction**

This Chapter explains the research strategy taken, population of interest, strategy on how the data was collected, converted to digital format and finally analyzed. It also expounds on the methods which were used to determine the effect of use of financial statement information in making decisions regarding lending on the levels of NPLs among the registered commercial banks operating in Kenya.

#### **3.2 Research Design**

This study used descriptive statistics as one of the important methods to help in understanding the perceptions of lending bank officers in regard to the place of financial statements in the lending decision process and to understand how these statements are actually used in the banks. Descriptive statistics help to meet a variety of research objectives like understanding operations and characteristics of the subjects under investigation, estimation of the percentage of a population that are typical of the identified characteristics and also as a method to detect the association between a number of variables or factors (Ngechu, 2004).

### **3.3 Population and Sample**

Study population was composed of all commercial banks registered in Kenya. In total, all the 42 commercial banks in the country were contacted for data collection. This implies that the study carried out a census of all banks registered in Kenya and that no sampling strategy was used. Although concerted effort was made to get the data from the population under study, data was successfully collected from a total of 37 banks representing a response rate of about 88%.

### **3.4 Data Collection Methods**

Raw data for this study was sourced using questionnaires given to the targeted respondents in the 42 banks. The questionnaires were dropped and picked later after they were self-filled by the credit officer of the banks targeted. In each commercial bank, a credit official was identified and a questionnaire was submitted to the officer, who then filled it and the questionnaire was later collected from the bank. The questionnaires consisted of two parts: part 1 addressed the profile of the respondents and the banks, and part 2 focused on the effect of financial statements in making lending decisions on the level of non-performing loans. Secondary data from publicly available sources such as publications, bank websites and the CBK website were also relied on in the study. These datasets included total loans and NPL levels at specific dates.

#### **3.4.1 Validity of Data Collection Instruments**

Validity of a tool means the extent to which an instrument measures the construct that is being studied (Mugenda and Mugenda, 2003). This study employed content validity

approach as it attempts to capture the extent to which the population under study can be truly reflected by the contents that the tools eventually capture. Prior to data analysis, the tools of data capture were verified to ensure they were complete and carry consistent content.

### **3.4.2 Reliability of Data Collection Instruments**

Reliability of a tool refers to the extent of which the tool returns consist results when used under similar circumstances (Mugenda and Mugenda, 1999). This study conducted a pre-test of the questionnaire on 3 commercial banks prior to actual distribution of the questionnaire for data collection. This was aimed at detecting questions that required correction such as to get rid of ambiguous questions.

### **3.5 Data Analysis**

Once the questionnaires were collected, a CSPro database was designed and the data in the questionnaires were entered into the database. The SPSS statistical package version 20 was then used for analysis (Kasomo, 2006). Quantitative data were analyzed by use of a combination of descriptive statistics particularly frequency distributions tables and percentages. A regression model was also run to test the effect of financial statement use on NPLs. The results were then presented in tables and graphs produced using Ms-Excel 2013.

### 3.5.1 The Analytical Model

The study used an ordinary least squares multiple regression model to assess whether using financial statements variables in lending decisions affects the level of NPLs of commercial banks in Kenya. The level of NPLs and was treated as a as a response variable and this was measured as the proportion of NPLs to total loans lend by a commercial bank. The explanatory variables included in the model included a dummy variable for whether financial statements were used in making loan decisions, the type of majority borrowers of the bank and the tier that the bank belonged to. The model took the following form:

$$Y = \beta_0 + \beta_i X_i + \varepsilon$$

Where;

$Y$ : level of NPLs as a dependent variable that is given by the proportion of NPLs.

$\beta_0$ : is a constant value that shows the levels of NPLs if all other variables were set equal to zero.

$B_i$  : represent the coefficients to be estimated and represent the change on dependent variable given a unit change in the explanatory variable.

$X_i$  : is a vector of explanatory variables which include lending decisions and use of financial Statements in making those decisions, the tier of the bank, and the type of major bank borrowers in the banks' loan portfolio.

$\varepsilon$  : is an error term that captures the effects of all the errors of measurement

### **3.5.2 Diagnostic Tests**

Diagnostic tests help determine whether the results returned by the model are reliable or whether they suffer bias due to specification error. The diagnostic tests used in this study include the ‘goodness of fit’ test that shows the magnitude to which the explanatory variables in the model explain the variability in the dependent variable. This study used correlation coefficient ( $r$ ), coefficient of determination ( $R^2$ ) and analysis of variance (ANOVA) F-test as diagnostic tests of the analytical model. The type of relation between the explained and explanatory variables is shown by Correlation while R-square shows the strength of the relationship. ANOVA model analysis includes interpretation of the F-statistic accompanying ANOVA output to decide whether the independent variables in the model significantly affect NPLs. The statistical test of significance were conducted at 95% confidence level.

## **CHAPTER FOUR**

### **DATA ANALYSIS, RESULTS AND DISCUSSION**

#### **4.1 Introduction**

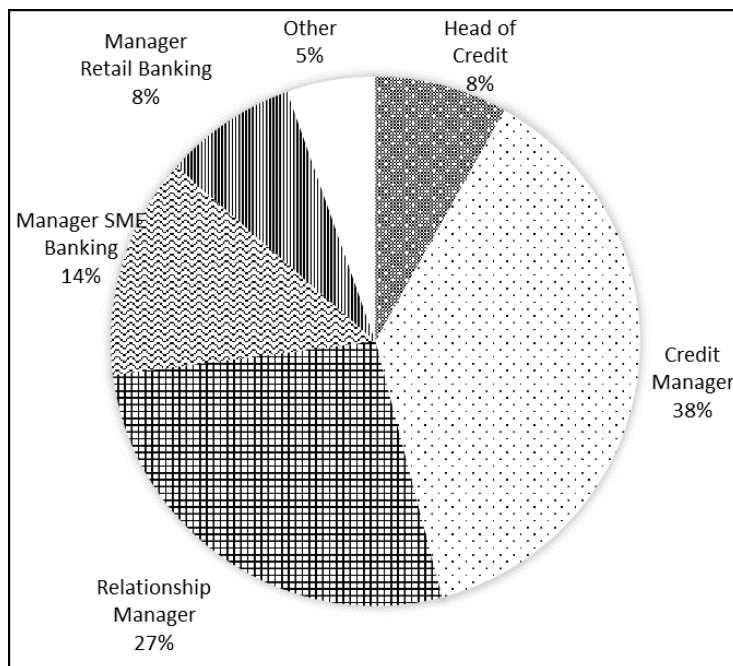
The chapter presents the findings and results of this study. It starts off with descriptive statistics for the characteristics of bank officers from whom the data was collected from. This is followed by descriptive statistics aimed at understanding the characteristics of the banks contacted for the study. Finally, the results on the effect of financial statement information on the level of NPLs is presented.

#### **4.2 Descriptive Analysis**

The study used CSPro database for data entry. This allows for minimization of data entry errors since the programming of the database ensures that only data of expected type can only be entered. The data was then exported to SPSS statistical package and analyzed using descriptive statistics and mainly frequency distribution. Descriptive statistics output was presented using charts to improve on visualization generated using Ms-Excel. A regression model was also run to test for the effect of financial statement use on the level of NPLs and this was presented in a table format.

## 4.2.1 Characteristics of Respondents

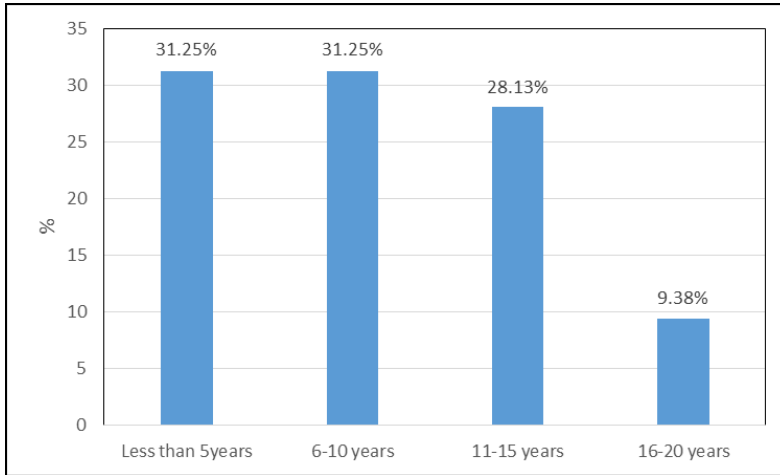
This study used data provided by bank officers from 37 commercial banks in Kenya. The data covered characteristics and perceptions of bank officers to financial statement information use and NPL. Figure 2 presents the distribution of the professional position of the bank officials who provided the data for the study. The results indicate that the highest proportion of the respondents were credit managers and relationship managers. The others were managers in SME banking, retail banking and head of credit



**Figure 2: Position of bank official within the bank**

Figure 2 shows that a most respondents had more than 6 years of experience in the current position in a commercial bank. Only about 31% of the respondents had 5 years experience or less. The results in Figure 2 above and Figure 3 below indicate that the

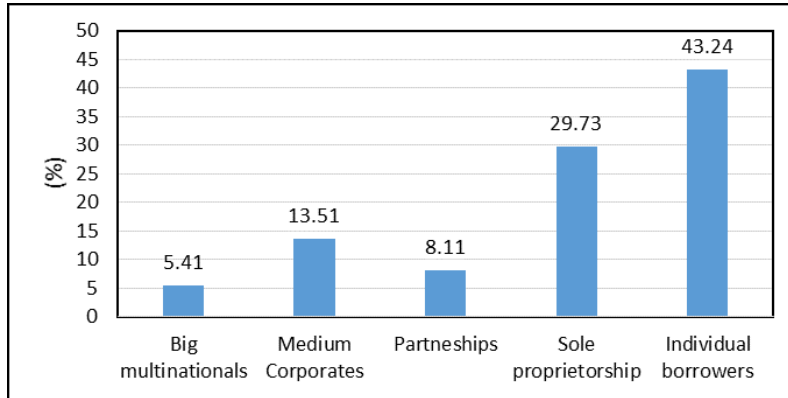
respondents were suitable for the study because by virtue of their positions within the banks and the number of years of experience in those positions, they were well informed about matters of credit within the banks contacted.



**Figure 3: Years of experience in the current position**

#### **4.2.2 Respondent Perceptions Regarding Credit Risk**

Figure 4 indicate that the highest proportion of respondents reported that individual borrowers represent the clients that carry the highest credit risk, followed by sole proprietorships, medium corporates and partnerships in that order. Big multinationals carry the lowest credit risk.



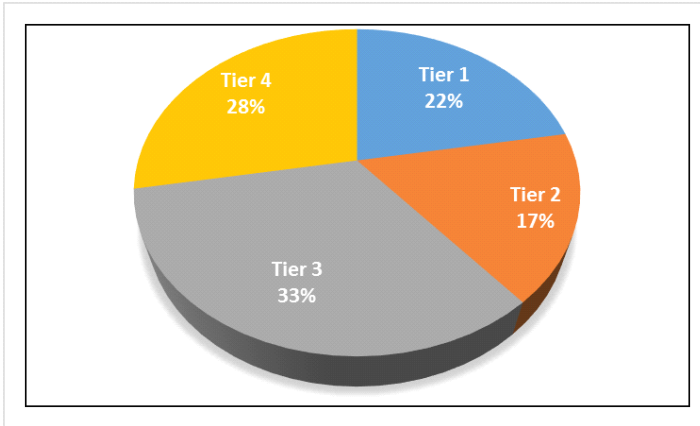
**Figure 4: Credit risk of bank clients**

Appendix 1 presents respondent perceptions of the importance of statement of comprehensive income, the statement of financial position and cash flow statement in credit decisions. A surprising finding is that a majority of the respondents think that financial statement are less important (38%) or not important at all (50%) in lending to SMEs. In addition, a majority of the respondents think that NPL levels are not affected by use of financial statements in lending decisions. On the a comparison of the importance of the three financial statements in making lending decisions, a higher proportion of respondents thought that cash flow statement was the most important followed by balance sheet and income statement as the least important.

### **4.2.3 Characteristics of Banks**

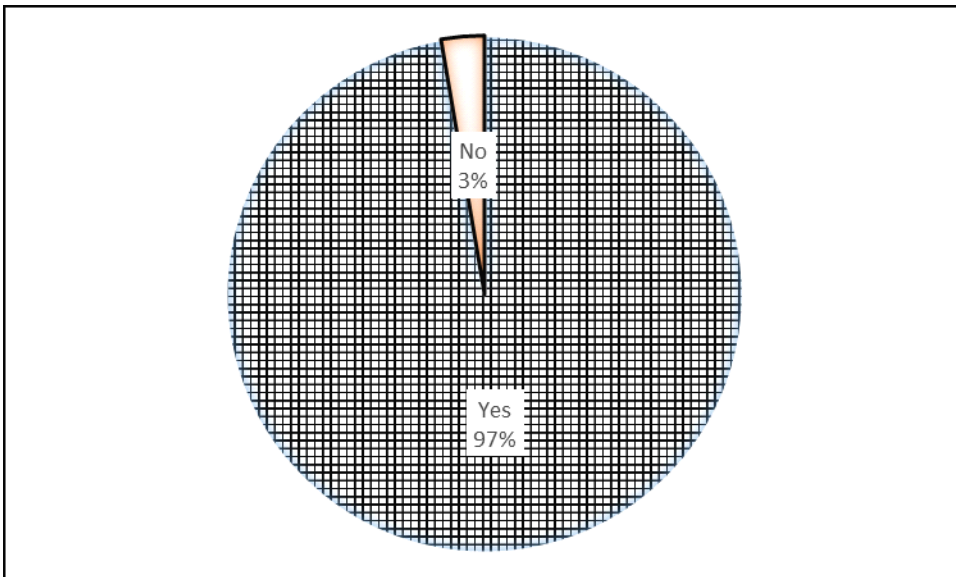
Out of the 37 banks that the dataset covered, the highest proportion was classified as tier 3 banks, 28% as tier 4 and the others tier 1 and tier 2 (Figure 5). This shows that the data

is representative of the Kenya banking industry where the highest proportion of banks are in tier 4 and tier 3.



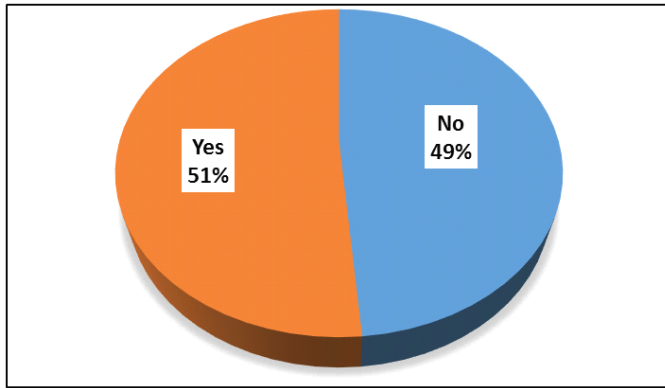
**Figure 5: Classification of commercial banks**

Figure 6 reports the proportion of the banks that use financial statements to approve loans. All most all the 37 banks use some financial statement information to approve loans.



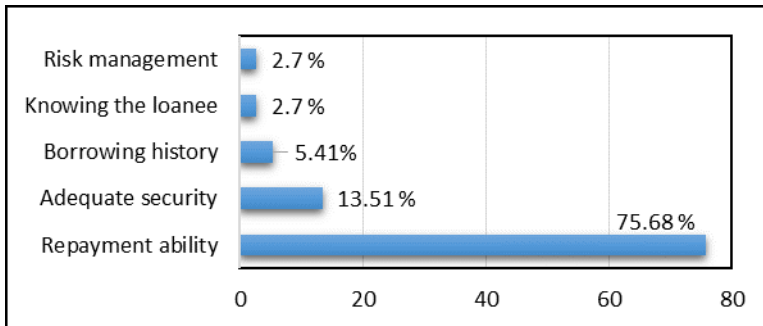
**Figure 6: Proportion of banks that use financial statements to approve loans**

Although almost all the banks use financial statement information to approve loans, about half use financial statements to approve all loans that the banks lend (Figure 7 ). This means that commercial banks do not apply financial information to all loan products or to all types of clients.



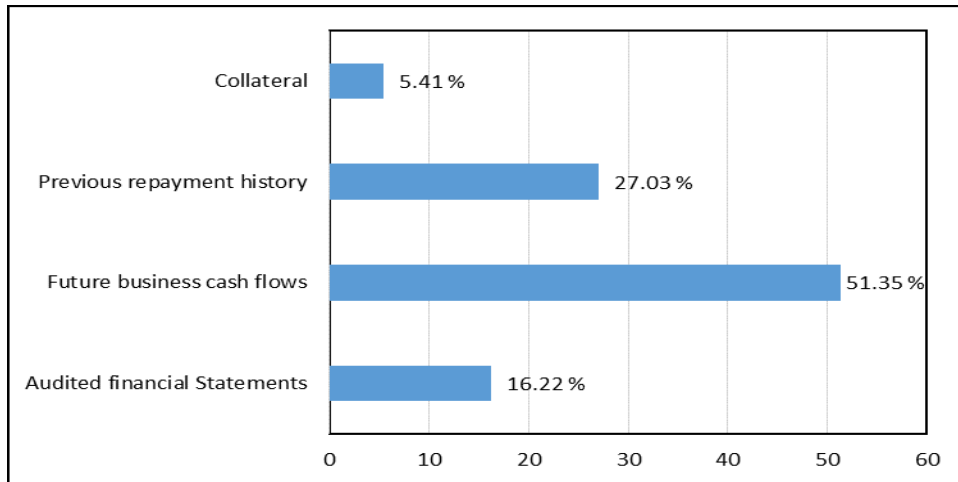
**Figure 7: Proportion of banks that use financial statements to approve all loans**

A majority of the banks (76%) use repayment ability as the guiding principle in loan appraisal. Other appraisal principles such as security, borrowing history, knowing the loanee and risk management appeared as of less importance in loan appraisal (Figure 8).



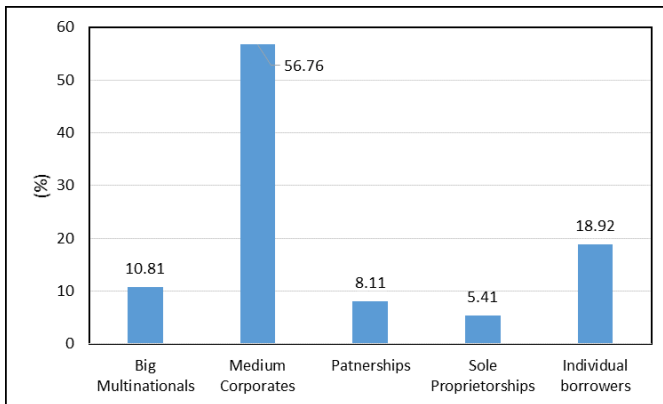
**Figure 8: Guiding principles in loan appraisals**

Figure 9 shows that the most important factor that banks consider in deciding to lend or not is future business cash flows. Another important factor is previous repayment history. Audited financial statements and collateral play a role but are not considered as the most important in lending decisions.



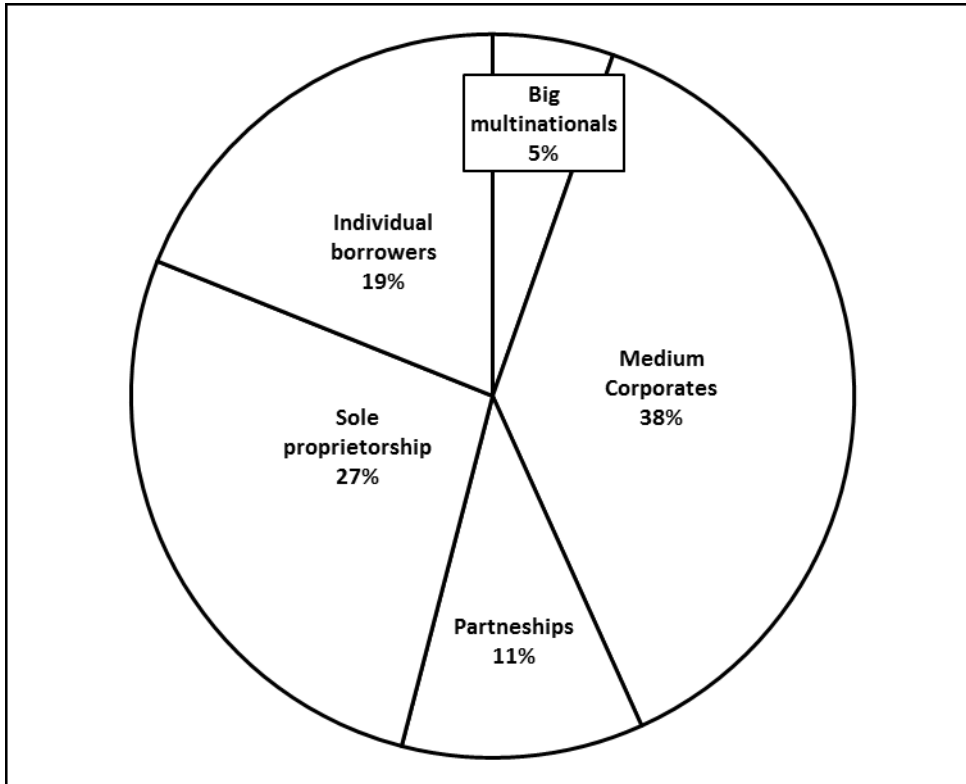
**Figure 9: Important factors in deciding whether to lend or not**

Figure 10 shows that the bulk of borrowers in the banks (57%) in this study are the medium corporates followed by individual borrowers (19%) and big multinationals accounting for only about 11%. Partnerships and sole proprietorships represent a minority in terms of borrowing clients, each accounting for less than 10%.



**Figure 10: Majority type of borrowers in the bank**

The chart in Figure 11 shows the results of classification of the banks' clients by profitability status. Results indicate that medium corporates are the most profitable of all bank clients. This is closely followed by sole proprietorships, individual borrowers and then partnerships. However, big multinationals are the least profitable to lend to of all the clients.



**Figure 11: the most profitable clients**

### **4.3 Regression Analysis**

Table 2 presents results of the regression model for the effects of use of financial statements in lending decisions on bank levels of NPLs. For the regression model, the dependent variable is the level of NPL, while the independent variables are use of financial statements (0=no, 1=yes), major type of borrower (big multinational, medium corporates, partnership and individual borrower) and classification of bank tier (tier 1-4).

Model results indicate that the overall regression model was statistically significant at the 1% significance level, meaning that all the model coefficients are not 0. The adjusted R-squared value is 0.4639 and this means that the independent variables included in the

model account for up to 46.39% of the variability in the level of the NPLs. The standard errors give an indication of the amount of variation in the coefficient across observations, and in the model results are generally low.

The use of financial information has no major effect on the level of NPL. However, results indicate that tier 3 and tier 4 are statistically significant at 1% significance level and have positive coefficients. This means that tier 3 and tier 4 banks have significantly higher levels of NPL when compared to the reference group of tier 1.

Major borrowers classified as medium corporates and partnerships are statistically significant at the 5% significance level and have negative coefficients. This means that banks that have medium corporates and partnerships as the major borrowers have lower levels of NPLs compared to those having big multinationals as major borrowers.

**Table 1: Regression model results**

<b>Dependent variable</b>	<b>Coefficient</b>	<b>95% Interval</b>	<b>Conf.</b>
Use of financial statements in loan approval	-0.10 (0.30)	-0.72, 0.52	
Bank tier (reference=tier 1)			
Tier 2	0.41 (0.37)	-0.34, 1.16	
Tier 3	1.27*** (0.39)	0.48,2.06	
Tier 4	1.89*** (0.41)	1.05,2.74	
Major type of borrower (reference group=big multinationals)			
Medium Corporates	-0.99** (0.43)	-1.88, -0.10	
Partnerships	-1.44** (0.56)	-2.59, -0.28	
Sole Proprietorships	-1.06 (0.62)	-2.33, 0.22	
Individual borrowers	-0.63 (0.43)	-1.50, 0.25	
Constant	2.02*** (0.51)	0.97,3.07	
F-statistic	$F(8,27)=4.79, p=0.0010$		

**Notes:**

1. n=36
2. Adj. R-squared=0.4639
3. \*\*\* and \*\* indicate statistically significant at 1% and 5% level respectively
4. Standard errors in brackets

## 4.4 Correlation Analysis

Table 2 presents the results of the correlation analysis between the levels of bank NPLs, financial statements use in lending decisions, the tier of the bank and the major type of bank borrowers. Results show that there is a significant relationship between use of financial statements and the tier of the bank. Tier 1, 2 and 3 banks seem to use financial statements in lending decisions compared to tier 4, which rarely use financial statements in making lending decisions. However, the relationship between the two is weak with no clear pattern among the majority type of borrowers.

**Table 2: Correlation analysis between independent variables**

Use	Tier				Majority borrowers in the bank					
	1	2	3	4	Multinati onals	Mediu m compa nies	Partners hips	Sole proprietor ships	Individ uals	
financial statements	No (%)	5.8	11.	29.	52.	0.00	77.78	5.56	5.56	11.11
		8	76	41	94					
	Yes (%)	36. 84	21. 05	36. 84	5.2 6	21.05	36.84	10.53	5.26	26.32
Pearson chi2	11.83, p=0.008				7.93, p=0.094					

Correlation results between use of financial statements and levels of NPLs and type of borrower are presented in Table 3. Results indicate that there is a significant association between use of financial statement in lending and the level of NPLs, with those banks using financial statements tending to have lower levels of NPLs compared to those that do not use. However, there was no statistically significant association between use of financial statements and type of borrower.

**Table 3: Correlation analysis between NPLs and independent variables**

Use financial statements	Levels of NPLs				Chi2
	5%	6-10%	10-15%	Above 15%	
No (%)	16.67	27.78	50.00	5.56	20.1178, P= 0.017
Yes (%)	36.84	47.37	10.53	5.26	
<b>Major borrower</b>					
Big Multinationals (%)	25	25	25	25	6.1146. P = 0.910
Medium Corporates (%)	23.81	38.1	33.33	4.76	
Partnerships (%)	33.33	33.33	33.33	0	
Sole Proprietorships (%)	0	50	50	0	
Individual borrowers (%)	42.86	42.86	14.29	0	

## 4.5 Interpretation of Findings and Discussion

The study findings indicate that contrary to expectation in the literature on the usefulness of financial statement information, bank lending staff respondents indicated that financial statements were not very useful in making lending decisions. Although financial

statement were generally used, not all banks use financial statements to approve all types of loans or for all types of clients. This suggests that bank staff may be finding the information from financial statement not to be reliable due to poor quality given that a high proportion of borrowers are small SMEs and individuals who might not have capacity to produce quality financial statements. This finding also shows that there are more reliable factors that banks, especially small banks consider other than financial statements, such as past repayment record and potential for future business cash flow. This finding is in agreement with previous studies such as Cole, Goldberg, and White (2004) who found that while large banks rely on financial statement, small banks rely on past relationship in making lending decisions. This highlights the important role of quality customer care to ensure repeat borrowers that have good repayment history.

In terms of loan business, the study found that big corporate clients are the least profitable while medium corporates, sole proprietorships are the most profitable. This is because although, big corporate clients carry less credit risk, they are able to negotiate cheaper interest rates than the medium corporates and sole proprietorships. The later types of borrowers carry the greatest risk to lend to, but are also charged rates that are very high, hence the high level of profitability associated with them. However, with the recent introduction of legislation to cap interest rates charged by the commercial banks to not more than 14% of the treasury bill rates, this could change as there will be no incentive to lend to high risk groups that are not yet established in their businesses.

The regression model for the effect of use of financial statement information in decision making, the study found no significant effect. However, tier 3 and tier 4 banks have significantly higher levels of NPL than tier 1. This could be because tier 3 and tier 4 banks lend mostly to individuals and sole proprietorships, which carry higher risk than medium corporate and big corporates, thus raising their overall levels of NPLs. In addition, banks that have medium corporates and partnerships as the major borrowers have lower levels of NPLs compared to those having big multinationals as major borrowers. This finding is contrary to expectation, since big multinational borrowers carry the lowest risk and low return. The data is scanty on the portfolio of clients of these banks and was therefore limited in exploring further this finding. The data had only 4 banks having their main borrower as big multinationals and this could have affected this finding.

Correlation results showed a significant relationship between use of financial statements and the tier of the bank. Lower tier banks tended to use financial statements compared to higher tier banks. This suggests that a higher proportion of tier 3 and 4 banks use financial statements less often than tier 1 and 2 banks, and this could be an indicator of the different types of clients that these banks target. While tier 1 and 2 banks are the main established banks that target big established corporates, tier 3 and 4 are not yet well established in the target and target emerging businesses and individuals that usually have less reliable financial statements if any.

In addition, correlation results indicate that contrary to the perception of key lending officers in commercial banks where a higher proportion of them viewed financial statements as not useful, there was a significant association between use of financial statements in the use of financial statements and the levels of NPLs. Banks that used financial statements in making lending decisions tended to have lower levels of NPLs. This suggests that regardless of the importance of financial statements may be hampered by the perceptions of the bank staff, yet in reality help in lowering the levels of NPLs.

## **CHAPTER 5**

### **SUMMARY, CONCLUSION, AND RECOMMENDATION**

#### **5.1 Introduction**

This chapter gives discussions and conclusions derived from the study and this is followed by recommendations that are aimed at improving the levels of NPL in the banking industry in Kenya.

#### **5.2 Summary of Findings**

The objectives of the study was to determine the effect of use of financial statement information in making lending decisions on the level of NPLs among Kenyan banks. The study collected data on perceptions of importance of financial statements in lending decisions of Kenya bank officers, the characteristics of banks, use of financial statements in the banks and their levels of NPLs. The data was entered into a CSPro database and transferred to SPSS statistical package for analysis. Descriptive statistics were used to characterize banks staff respondents and the banks they worked for. Ordinary least squares regression model was use to analyze the data for the effect of financial statement use in making lending decisions on the level of NPL.

Results from descriptive statistics indicated that the bank staff who provided the data had sufficient experience in the bank and occupied positions that generally gave them the opportunity to be knowledgeable about credit operations of their banks. This allowed

them to provide reliable data for the study and this gives confidence in the reliability of the findings from the study.

The study findings indicate that key bank staff in lending sections find financial statements not very useful in making lending decisions. In terms of loan business, the study found that big corporate clients are the least profitable while medium corporates, sole proprietorships are the most profitable. The effect of use of financial statement information in decision making was not statistically significant. However, tier 3 and tier 4 banks have significantly higher levels of NPL than tier 1. In addition, banks that have medium corporates and partnerships as the major borrowers have lower levels of NPLs compared to those having big multinationals as major borrowers.

### **5.3 Conclusions**

The study found that lending officials in Kenya commercial banks do not value financial statement information in lending, especially to SME clients. However, financial statements were generally still useful in making lending decisions for certain clients and for specific types of loans. This selectivity in decisions to use or not to use financial statements may be due to their experiences with quality or reliability of the financial statements submitted for loan appraisal.

The use of financial statements information in decision making has no major effect on the levels of NPLs. However, tier 3 and tier 4 banks have significantly higher levels of NPL than tier 1.

## **5.4 Limitations**

This study was limited in terms of the data on the loan portfolios of commercial banks and its effects on the use of financial statement use and profitability. This was because the study used data sourced by questionnaire from key credit officers of commercial banks. However, a richer dataset on loan portfolios and borrower type could be obtained from the credit records of the bank rather than use of officers' perception and recollection of what happens in their banks.

Secondly, the study was also limited in terms of study population as it focused only on the 42 commercial banks and did not include the registered micro-finance institutions and other informal lending institutions to test the variable.

There was also a limitation in terms of the period of the study. The three-year period used is not adequate to draw conclusions of the effect of the variable under study over a longer period of time.

In addition, the timing of this study could have effect on the outcome as it was done when the banking sector in Kenya is undergoing a small crises owing to collapse of three banks in the last one year and coming to effect of new legislation governing interest rates. These new industry developments may have affected respondents' responses in one way or the other.

## **5.5 Recommendations**

Based on the findings from this study, it is recommended that banks institute appropriate mechanisms that ensure borrowers become repeat customers, since their repayment history will have been established. This ensures that financial statements are not the main factor in loan appraisal. In addition, banks can offer training services as part of business development of borrowers on the importance of quality financial statements, which can improve its usage in loan appraisal.

### **5.5.1 Policy Recommendation**

Given that financial statements are not as important in determining repayment ability of borrowers, banks can also explore the potential in financing startups that have potential for future cash flow that can repay the loan. This calls for use of other factors other than financial statement in loan appraisal. This study makes a policy recommendation that banking and accounting sector experts need to come up with strategies to assist SMEs to improve on the quality and reliability of their financial statements in order to improve on their usefulness in lending decisions.

### **5.5.2 Suggestions for Further Research**

In terms of future research, this study was limited in terms of the data on the loan portfolios of commercial banks and its effects on the use of financial statement use and profitability. It is therefore recommended that future studies collect actual data on loan portfolios from actual bank records as opposed to recall and recollection of bank staff as to what happens in their banks in order to get the whole picture on the importance of

financial statements and other indicators that can be used in cases where financial statements are not available or are not reliable.

There is also need to expand the study population to include micro-finance institutions and other informal lending institutions who base their loan appraisals on somewhat different parameters to see the effectiveness of their appraisal tools and whether use of financial statements is part of those tools and the role they play.

Thirdly, there is need to increase study period to study the effect of the independent variable over a longer period and thus arrive at a more reliable conclusion.

Finally, this study was conducted at a time when the banking sector was undergoing serious turmoil with closure of three banks within a span of less than a year and coming into effect of new banking legislation. It would be good to conduct a similar study during a different business environment and compare the results with those of this study.

## REFERENCES

- Abdel-khalik, A.R. (1972). The Efficient Market Hypothesis and Accounting Data: A Point of View. *Accounting Review*. 47(4), 791-793.
- Abu-Nassar, M., & Rutherford, B. A. (1996). External users of financial reports in less developed countries: The case of Jordan.
- Ahmed Fawad and BashirTaqadus (2013): Explanatory Power of Macroeconomic Variables as
- Allen, M. F. & Cote, J. (2005). Creditors' Use of Operating Cash Flows: An Experimental Study. *Journal of Managerial Issues*. 17(2), 198-211.
- Barrett, G. 1990. "What bankers want to know before granting a small business loan?", *Journal of Accountancy*, Vol. 169, No. 4, pp. 47-54.
- Berger, A., and Udell G. 1995. "Relationship lending and lines of credit in small firm finance", *Journal of Business*, Vol. 68, pp. 351-382.
- Berger, A., and Udell, G. 2002. "Small business credit availability and relationship lending: the importance of bank organizational structure", *Royal Economic Society*, Vol. 112, pp. 32-53.
- Berger, A., and Udell, G. 2006. "A more complete conceptual framework for SME finance", *Journal of Banking and Finance*, Vol. 30, pp. 2945-2966
- Billings, B. K. & Morton, R. M. (2002). The Relation Between SFAS No. 95 Cash Flows From Operations and Credit Risk. *Journal of Business Finance & Accounting*. 29(5/6), 787-805.
- Buys, P.W., 2008. In pursuit of a foundational accountancy philosophy. *Koers*, 73(3): 489-509.
- Cartney, S.M., 2004. The use of usefulness: An examination of the user needs approach to the financial reporting conceptual framework *The Journal of Applied Accounting Research* 7(2): 15-21.
- Catanach, A. H., & Kemp, R. S. (1999). The information needs of bank lending officers. *Commercial Lending Review*, 14(3), 76-78.
- Central Bank of Kenya (2011) *Risk Management Survey for the Banking Sector*. Nairobi. Central Bank of Kenya
- Cole, R. 1998. "The importance of relationships to the availability of credit", *Journal of*

*Banking and Finance*, Vol. 22, pp. 959-977.

- Cole, R., Goldberg L., and White, L. 2004. "Cookie Cutter vs. Character: The micro structure of small business lending by large and small banks", *Journal of Financial and Quantitative Analysis*, Vol. 39 No. 2, pp. 227-251.
- Cowen, S., and Page A. 1982. "A note on the use of selected nonfinancial ratio variables to predict small-business loan performance", *Decision Sciences*, Vol. 13, pp. 82-87.
- Dainelli, F., Bini, L. & Giunta, F. (2013) Signaling strategies in annual reports: Evidence from the disclosure of performance indicators. *Advances in Accounting*. 29(2), 267-277.
- Dang, D. S., Marriott, N., & Marriott, P. (2006). Users' perceptions and uses of financial reports of small and medium companies (SMCs) in transitional economies: Qualitative evidence from Vietnam. *Qualitative Research in Accounting and Management*, 3(3), 218-235.
- Dang, D. S., Marriott, N., & Marriott, P. (2008). The banks' uses of smaller companies' financial information in the emerging economy of Vietnam: A user's oriented model. In M. Tsamenyi, & S. Uddin (Eds.), *Corporate governance in less developed and emerging economies* (Vol. 8, pp. 519-548). Emerald Group Publishing Limited.
- Danos, P., Holt, D., & Imhoff, E. (1989). The use of accounting information in bank lending decisions. *Accounting, Organizations, and Society*, 14(3), 235-247.
- Dechow, P. M. (1994). Accounting earnings and cash flows as measures of firm performance: The role of accounting accruals. *Journal of Economics & Accounting*. 18(1), 3-42.
- Delen, D., Kuzey, C. & Uyar, A. (2013). Measuring firm performance using financial ratios: A decision tree approach. *Expert Systems with Applications*. 40(10), 3970-3983.
- Dell'ariccia, G. & Marquez, R. (2006). Lending Booms and Lending Standards. *Journal of Finance*. 61(5), 2511-2546.
- Demski, J., 1972. *Information analysis*. Reading MA: Addison-Wesley.
- Determinants of Non-Performing Loans: Evidence Form Pakistan, *World Applied Sciences Journal*, 22 (2): 243-255, ISSN 1818-4952

- Djiogap Fouopi and Ngomsi Augustin(2012): *Determinants of Bank Long-Term Lending Behavior in the Central African Economic and Monetary Community (CEMAC), Review of Economics & Finance*; 1923-7529-2012-02-107-08, Domestic Sector, Business, Finance & Economics In Emerging Economies Vol. 2, No. 1,
- Dzinkowski, R., 2010. More financial transparency please, . Strategic Finance, January: 44-47.
- Ebben, J. 2004. "Think global, borrow local", Inc.com.
- Elyasiani, E., and Goldberg R. 2004. "Relationship lending: a survey of the literature", *Journal of Economics and Business*, Vol. 56, pp. 315-330.
- Fellingham, G.A., 2005. Information economics and management accounting: A brief personal perspective *Journal of Management Accounting Research*, 17: 145-152.
- Financial Accounting Standards Board, *Statement of Financial Accounting Concepts No. 1: Objectives of Financial Reporting by Business Enterprises* ( Stamford, CT: FASB, 1978 ).
- Fofack H (2005), Non-Performing Loans in Sub-Saharan Africa: Causal Analysis and Macroeconomic Implications, World Bank Policy Research Working Paper No. WP 3769.
- Richard E (2011). Factors That Cause Non- Performing Loans in Commercial Banks in Tanzania and Strategies to Resolve Them. *Journal of Management Policy and Practice* 12(7) 2011.
- Frederic S.M.(2007): *The Economic of Money, Banking and Financial Market*, (8th ed.). Pearson International.
- Gjesdal, A., 1981. Accounting for stewardship. *Journal of Accounting Research*, 19: 208-231.
- Godfrey, J., A. Hodgson, S. Holme and A. Tarca, 2006. Accounting theory 6th Edn., Australia (GHHT): John Wiley & Sons.
- Gonzalez-Paramo, J.M (2010) *The Challenges of Credit Risk Management-lessons learnt from the crisis*. Speech delivered during Risk Europe 2010 in Frankfurt am Main, on 26th May 2010.
- Gorter and bloem (2002) Non-Performing loans are mainly caused by an inevitable number of wrong economic decisions by individuals IMF working paper 2003.No. 10(3). 35

- Henderson, B.C.a.K., S.E. , 2005. An examination of the role of ethics in tax compliance decisions. *The Journal of the American Taxation Association*, 8(3): 39-72.
- Ijiri, Y. and R.K. Jaedicke, 1966. Reliability and objectivity of accounting measurements. *The Accounting Review*, 41(3): 474-483.
- Ijiri, Y., 1983. On the accountability-based conceptual framework of accounting. *Journal of Accounting and Public Policy*, 2(2): 75-81.
- IMF, Annual report 2005
- Independent Evaluation Group [IEG]. (2010). *An evaluation of World Bank support, 2002-08: Gender and development*. World Bank, IFC, MIGA. Retrieved from [http://ieg.worldbank.org/Data/reports/gender\\_eval.pdf](http://ieg.worldbank.org/Data/reports/gender_eval.pdf)
- Jimenez, G. and Saurina J. (2005). *“Credit cycles, credit risk, and prudential regulation.”* Banco de Espana, January.
- Jones, S. (1998). An evaluation of user ratings of cash vs. accrual based financial reports in Australia. *Managerial Finance*, 24(11), 16-28.
- K. Daniel Kipyego and Wandera Moses (2013): *Effects of Credit Information Sharing on Nonperforming Loans*. *European Scientific Journal*, Vol.9, No.13 ISSN: 1857 – 7881
- Kiayai,T.K: (2003), “Bad debts restructuring techniques and non-performing loans of commercial banks in Kenya” unpublished MBA Project , University of Nairobi.
- Kioko, K.T.(2008). A Survey of Credit risk management techniques of unsecured bank loans of commercial banks in Kenya, unpublished MBA Project, University of Nairobi.
- Kitindi, E. G., Magembe, B. A. S., & Sethibe, A. (2007). Lending decision making and financial information: The usefulness of corporate annual reports to lenders in Botswana. *The International Journal of Applied Economics and Finance*, 1(2), 55-66.
- Kroszner, P., (2002), Non-performing loans, monetary policy and deflation: The Industrial Country Experience.Economic and Social Research Institute cabinet office, Government of Japan.
- Krueger, Anne, and Aaron, T. (1999). The role of bank restructuring in recovering from crises: Mexico 14995-1998. NBER working paper no. 7042cambridge, mass:

- National Bureau of Economic Research, March.
- Kwok, H. (2002). The effect of cash flow statement format on lenders' decisions. *The International Journal of Accounting*, 37(3), 347-362.
- Laffond, J.J., 1989. The economics of uncertainty and information. Cambridge: MIT Press.
- Louzis D. P, Vouldis A. T, and Metaxas V. L (2011). Macroeconomic and bank-specific determinants of non-performing loans in Greece: A comparative study of mortgage, business and consumer loan portfolios. *Journal of Banking & Finance*,36(4), 1012-1027
- Marian, Y. J. W. T., Lui, G., & Lew, A. Y. (2002). The expectations-performance gap in financial reporting from the perspective of Hong Kong bank loan officers. *Pacific Accounting Review*, 14(1), 1-22.
- Matu (2001) “ The Applicability of Financial Crisis Predictive models to Bank Failures” unpublished MBA Project, University of Nairobi.
- Mileris Ricardas(2012): *Macroeconomic Determinants of Loan Portfolio Credit Risk in Banks,Inzinerineekonomika- Journal of Engineering Economics*, 23(5), 496-504
- Mirtalaei, M., Saberi, M., Hussain, O., Ashjari, B. & Hussain, F. (2012). A trust-based bio-inspired approach for credit lending decisions. *Computing*. 94(7), 541-577.
- Morris, R. (1987). Signalling, Agency Theory and Accounting Policy Choice. *Accounting & Business Research*. 18(69), 47-56.
- Mugenda, O.M and Mugenda, A.G (2003) *Research Methods, Quantitative & Qualitative Approaches*, Acts Press, Nairobi
- N. Sontakke Ravindra and Tiwari Chandan (2013): *Trend Analysis of Nonperforming Asset in Scheduled Commercial Banks in India*; International Journal of Application or Innovation in Engineering &Management (IJAIEM); ISSN 2319 – 4847
- Ngare, E.M. (2008). Survey of Credit risk management Practice by Commercial banks in Kenya, unpublished MBA Project, University of Nairobi.
- Nichols, L. M. (1997). An investigation of the effect of reporting changes proposed by the AICPA on lending decisions. *Journal of Applied Business Research*, 13(2), 47-53.

- Nishimura, K., Kazuhito, I. And Yukiko, O (2001). The Disposal of Non-Performing Loans and Its Potential Influence. <http://www5.cao.go.jp/keizai3/2001/0628furyousaiken-e.pdf> Journal of Management Policy and Practice vol. 12(7) 2011 57
- Owojori *et al* (2011) *The challenges of risk management in Nigerian Banks in the post consolidation era*
- Paul, S., 2008. Generally accepted accounting principles (gaap). What does it mean? Legal Zoom.
- Petersson Jessica and Wadman Isac (2004): *Non Performing Loans - The Markets of Italy and Sweden, Published Thesis (MSc)*
- Raiffa, H., 1968. Decision analysis: Introductory lecture on choices under uncertainty. Reading MA: Addison-Wisley.
- Rajan, R. and S.C. Dahl. 2003. "Non-performing Loans and Terms of Credit of Public Sector Banks in India: An Empirical Assessment." Occasional Papers, 24:3 Reserve Bank of India.
- Rawlin Rajveer , M. Shwetha M., Sharan and Pradeep B. L. (2012): *Modeling the NPA of Midsized Indian Nationalized Bank as Function of Advances*; European Journal of Business and Management, Vol 4, No.5,
- S.S. Macdonald/Timothy W. (2006): *Management of Banking*; 6th edition
- Sala, V.&Saurina, J. (2002), Credit Risk in Two Institutional regimes: Spanish Commercial and savings Banks. *Journal of Financial services Research*, 22(3). 38
- Salas V and Saurina J (2002), „Credit risk in two institutional regimes: Spanish Commercial and Savings banks“. *Journal of Financial Services Research*, 22(3), 203-224.
- Scott, W.R., 2009. Financial accounting theory. 5th Edn., Toronto: Toronto (SWR): Pearson Prentice Hall International Inc.
- Sharon G. (2007): *Monetary And Financial Stability: Issues For Caricom Economies in the*
- Sharpe, W. F. (2008). Princeton Lectures in Finance: Investors and Markets: Portfolio Choices, Asset Prices, and Investment Advice. Princeton, USA: Princeton University Press.

- Shingjerji Ali (2013): *Impact of Bank Specific Variables on the Nonperforming loans ratio in Albanian Banking System, Journal of Finance and Accounting*. Vol.4, No.7.
- Solomons, D., 1989. Guidelines for financial reporting standards. London: Institute of Chartered Accountants in England and Wales.
- Stanga, K. G., & Benjamin, J. J. (1978). Information needs of bankers. *Management Accounting*, 59, 17-21.
- Staubus, G.J., 1999. The decision-usefulness theory of accounting: A limited history. New York and London: Garland Publishing, Inc.
- Sterling, R.R., 1979. Towards a science of accounting. Houston, Texas: Scholars Book Company.
- Stern G, Feldman R (2004), Too Big to Fail: The Hazards of Bank Bailouts, The Brookings Institution, Washington, DC.
- Sultana, W. (2002). Banking Crisis in Japan. Prediction of Non-Performing Loans, Japan Society, New York.
- Tomak Serpil(2013) *Determinants of Commercial Banks 'lending Behavior: Evidence From Turkey*: Journal Of Empirical Research, 3(8):933-943.
- Whiteman, L. 1998. "Small banks say one-on-one beats credit scoring models", *American Banker*, October 8, pp. 13.
- Wild, J.J., 2008. Financial accounting: Information for decisions. Boston: McGraw-Hill Irwin.
- Yap, C. (1997). Users' perceptions of the need for cash flow statements--Australian evidence. *European Accounting Review*. 6(4), 653-672.

# APPENDICES

## APPENDIX 1: QUESTIONNAIRE

### Section A: General Information

1. Name of your organization? (optional) .....

2. What is your Position in the bank?

Head of SMEs [ ]    Head of Asset finance [ ]    Head of Mortgage [ ]  
Head of Personal Banking [ ]    Head of Credit [ ] Other .....

3. What is your work experience in years in your current position?

Less than 5years [ ]  
6-10 years [ ]  
11-20 years [ ]  
Over 20 years [ ]

4. Describe the ownership of your bank?

Locally owned [ ]  
Foreign owned [ ]  
Joint venture [ ]

### Section B:

5. Does your bank use information from Financial statement in making lending decisions?

Yes [ ]    No [ ]

6. What principles guide your bank in loan appraisal?

Repayment ability [ ]    Adequate security [ ]    Borrowing history [ ]  
Competitive pricing [ ]    Knowing the loanee [ ]    Risk management [ ]

7. Who are the majority borrowers in your bank?

Loyal customers [ ] Walk in customers [ ] Corporate bodies [ ]  
Government [ ]  
Societies [ ] Groups/Welfares [ ] Others [ ] .....

8. Does the nature of your customer influence the quality of loan portfolio in your bank?

Yes [ ] No [ ] I don't know [ ]

If Yes in the above, who is the safest borrower, and why? .....

9. Who are the most profitable borrowers for your bank?

Retail customers [ ] Corporate customers [ ] Corporate/ institutions [ ]

Government/Parastatals [ ] NGOs [ ]

10. What is the average turnaround time in your bank for loan processing?

Same day [ ] 1-2 days [ ] 3-5days [ ] 5-7days [ ]

11. What is the average loan portfolio at risk (PAR) for your bank?

Below 5% [ ] 6-10% [ ] 10-15% [ ] Above15% [ ] Not aware [ ]

12. What are the effects of use of financial statements on level of NPLs?

Reduce levels of NPLs [ ] Has no effect on level of NPLs [ ]

13. What are the effects of central bank lending rates?

Lead to high interest rates for the bank [ ] Increases interbank lending [ ]

Reduces amount for lending to customers [ ] Leads to increased/reduced NPLs [ ]

All of the above [ ] None of the above [ ]

14. Which is the most preferred type of credit facilities in your bank by customers?

Secured facilities [ ] Unsecured facilities [ ]

15. Do you think use of financial statements in making lending decisions is beneficial to

your bank's credit department/

Very beneficial [ ] Beneficial at times [ ] Not beneficial [ ]

16. What percent of the total loan portfolio constitutes the non-performing loans in your bank?

Below 5% [ ] 6-10% [ ] 10-15% [ ] Above15% [ ] Not aware [ ]

17. Rate on a scale of 1 to 5 the extent to which use of financial statements influence loan portfolio performance in your bank based on the criteria listed on the first (left) column of the matrix below. The numbers represents the following: 1- not at all, 2- To a less extent, 3- to a moderate extent, 4-to a great extent and 5- to a very great extent.

	<b>Not at all</b>	<b>To a less extent</b>	<b>To a moderate extend</b>	<b>To a great extend</b>	<b>To a very great extent</b>
Information from FS is useful for making lending decisions					
Information from FS is not useful when lending to big corporates					
Information from FS is not useful when lending to SMEs					
NPL levels are high where FS information is not used in making lending decision					
FS information has no effect on the level of NPLs					
Repayment ability is determined by previous financial performance of the borrower					
Only income statement is useful in making lending decisions					

Only Balance sheet information is useful in making lending decisions					
Only statement of cash flows is important in making lending decisions					
The three FS i.e. Income statement, Balance sheet and statement of cash flows are all important in equal measure					
Lack of proper information on the borrower influences repayment ability					
High interest rates have an influence on NPLs					
Prevailing economic conditions influence the levels of NPLs					
Inadequate credit appraisal skills among loan officers lead to high levels of NPLs					

## **APPENDIX II: LIST OF COMMERCIAL BANKS IN KENYA**

1. African Banking Corporation Ltd
2. Bank of Africa (K) Ltd
3. Bank of Baroda (K) Ltd
4. Bank of India Ltd
5. Barclays Bank of Kenya Ltd
6. Chase Bank Ltd
7. CharterHouse Bank Ltd (under statutory management)
8. Citibank, N.A.
9. Commercial Bank of Africa Ltd
10. Consolidated Bank of Kenya Ltd
11. Co-operative Bank of Kenya Ltd
12. CFC Stanbic Bank Ltd
13. Credit Bank Ltd
14. Development Bank of Kenya Ltd
15. Diamond Trust Bank Ltd
16. Ecobank Kenya Ltd
17. Spire Bank Ltd
18. Equity Bank Ltd
19. Family Bank Ltd
20. Fidelity Commercial Bank Ltd
21. First Community Bank Ltd
22. Giro Commercial Bank Ltd
23. GT (K) Bank Ltd
24. Guardian Bank Ltd
25. Gulf African Bank (K) Ltd
26. Habib Bank A.G. Zurich
27. Habib Bank Ltd
28. Imperial Bank Ltd (In Receivership)
29. I& M Bank Ltd

30. Jamii Bora Bank Ltd
31. Kenya Commercial Bank Ltd
32. Middle East Bank (K) Ltd
33. National Bank of Kenya Ltd
34. NIC Bank Ltd
35. M Oriental Bank Ltd
36. Paramount Universal Bank Ltd
37. Prime Bank Ltd
38. Sedian Bank Ltd
39. Standard Chartered Bank (K) Ltd
40. Trans-National Bank Ltd
41. UBA Bank (K) Ltd
42. Victoria Commercial Bank Ltd

### **APPENDIX III: RESPONDENT PERCEPTIONS OF FINANCIAL STATEMENTS IN CREDIT DECISIONS**

<b>Statement</b>	<b>Not at all (%)</b>	<b>To a less extent (%)</b>	<b>To a moderate extent (%)</b>	<b>To a great extent (%)</b>	<b>To a very great extent (%)</b>
Information from financial statement is not useful when lending to SMEs	50.0	38.9	5.6	0	5.6
NPL levels are high where FS are not used in making lending decisions	24.3	10.8	18.9	29.7	16.2
FS information has no effect on level of NPLs	32.4	40.5	21.6	2.7	2.7
Repayment ability is determined by previous financial performance of the borrower	32.3	8.1	24.3	24.3	10.8
Cash flow information is more useful when making lending decisions than both income and balance sheet statements	10.8	5.4	13.5	35.1	35.1
Balance sheet information is more useful when making lending decisions than both income statement and cash flow information	35.1	51.4	13.5	0	0
Income statement information is more useful when making lending decisions than both balance sheet and cash flow statement	37.8	27	18.9	16.2	0
The three financial statement are important	2.7	2.7	21.6	35.1	37.8