

**THE EFFECT OF CREDIT REFERENCE BUREAU ON ACCESS
TO LOANS IN KENYA**

BY

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DECLARATION

I declare that this project as my original work has not been presented for award of a degree in any other university.

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DEDICATION

This work is dedicated to those who helped me carry out this research and to the almighty God for the wisdom and gift of life that has made me realize and see the conclusion of this research. To all scholars with interest in the Credit Reference Bureau, I believe they will find this work worthwhile and contributing to new knowledge.

ABSTRACT

With the adoption of the CRB regulation in 2008, the banks have been mandated to share credit information with the licensed CRBs in order to set up a database for all borrowers and enable checks and balances in the credit market. A lot of information has been gathered and CRBs are still trying to enlist other sources of information. The purpose of this was to determine the effect of credit reference bureaus on access to loans in Kenya. The study used a descriptive research design where the target population was the 43 registered commercial banks in Kenya. The managers in the finance, strategy and business development were sampled. The study used questionnaires to collect data. The questionnaires were self-administered. The data was analyzed both quantitatively and qualitatively. The study also used regression analysis to determine the relationship between the number of loans awarded and the number of loans applied, the CRB reports and loans denied. The results revealed that the credit information sharing increase in confidence of commercial banks while giving loans unlike before the CRB became operational. The study established that more and more commercial banks and other lending institutions have turned to CRB for credit information to minimize the credit risk. The study however, found that the banks did not use the negative CRB reports as the only basis by which to deny the applicants loans. This was evident when the CRB report was used as much as the loan applications. The results revealed that loans awarded were slightly less than the loans applied. This was however, equal to the number of loans denied. The study recommended that all the lending institutions should adopt the use of CRB report as a means of assessing the credit worthiness of the borrowers thereby minimising the risk of bad debts. The study further recommended that the government and the lending institutions should educate the borrowers of the importance of credit bureaus such as the reduction of the price of borrowing. Lastly, the study recommended that the Government needs to look into what regulatory impediments to licensing of more CRBs that may hinder the sustainability of the reference bureaus in Kenya.

TABLE OF CONTENTS

| | |
|---|-----|
| DECLARATION | ii |
| ACKNOWLEDGEMENT | iii |
| DEDICATION..... | iii |
| ABSTRACT..... | v |
| TABLE OF CONTENTS..... | vii |
| LIST OF TABLES..... | ix |
| LIST OF ABBREVIATIONS..... | x |
| CHAPTER ONE..... | 1 |
| INTRODUCTION..... | 1 |
| 1.1 Background of the Study..... | 1 |
| 1.1.1 Credit Reference Bureau | 2 |
| 1.1.2 Access to Loans | 4 |
| 1.1.3 Relationship between CRBs and Access to Loans..... | 5 |
| 1.1.4 Credit Referencing and Loan accessibility in Kenya..... | 7 |
| 1.1.5 Commercial Banks in Kenya..... | 7 |
| 1.2 Research Problem | 9 |
| 1.3 Research Objective | 10 |
| 1.4 Value of the Study | 10 |
| CHAPTER TWO..... | 12 |
| LITERATURE REVIEW..... | 12 |

| | |
|--|----|
| 2.1 Introduction | 12 |
| 2.2 Theoretical Framework | 14 |
| 2.2.1 The Moral Hazard & Adverse Selection Problem | 14 |
| 2.2.2 Credit Risk Management..... | 14 |
| 2.2.3 Credit information sharing Theory..... | 17 |
| 2.2.4 Credit Rating..... | 17 |
| 2.3 Empirical Literature..... | 19 |
| 2.4 Summary of Empirical Literature..... | 24 |
| CHAPTER THREE | 25 |
| RESEARCH METHODOLOGY | 25 |
| 3.1 Introduction | 25 |
| 3.2 Research Design | 25 |
| 3.3 Population..... | 25 |
| 3.4 Sample Design..... | 26 |
| 3.5 Data Collection | 26 |
| 3.6 Data Analysis..... | 26 |
| CHAPTER FOUR | 28 |
| DATA ANALYSIS, RESULTS AND DISCUSSION..... | 28 |
| 4.1 Introduction | 28 |
| 4.2 Data Presentation and Analysis of the Result..... | 28 |
| 4.3 Loans Advanced..... | 28 |

| | |
|---|----|
| 4.4 Usefulness of Credit Reference Bureau | 29 |
| 4.5 Effect of Credit Reference Bureau on Access to Loan | 30 |
| 4.6 Procedures to Accessing Loans | 33 |
| 4.7 Credit Scoring..... | 36 |
| 4.8 Regression Analysis | 39 |
| CHAPTER FIVE..... | 42 |
| SUMMARY, CONCLUSION AND RECOMMENDATIONS | 42 |
| 5.1 Summary | 42 |
| 5.2 Conclusion..... | 44 |
| 5.3 Policy Recommendation | 45 |
| 5.4 Limitations of Study | 45 |
| 5.5 Suggestion for Further Research | 46 |
| REFERENCES..... | 47 |
| APPENDICES..... | 55 |
| APPENDIX I: QUESTIONNAIRE..... | 55 |
| APPENDIX II – LIST OF COMMERCIAL BANKS IN KENYA..... | 59 |

LIST OF TABLES

Table 4.1: Effect of Credit Reference Bureau on Access to Loans

Table 4.2: Loan Application Procedures

Table 4.3: Credit Scoring Rated

Table 4.4: Model Summary

Table 4.5: Analysis of Variance (ANOVA)

Table 4.6: Coefficients

LIST OF ABBREVIATIONS

| | | |
|--------|---|--|
| BBK | : | Barclays Bank of Kenya |
| CBK | : | Central Bank of Kenya |
| CBR | : | Central Bank Rate |
| CRB | : | Credit Reference Bureau |
| CRBA | : | Credit Reference Bureau Africa |
| KBA | : | Kenya Bankers Association |
| KCB | : | Kenya Commercial Bank |
| PCB | : | Private Credit Bureau |
| PCR | : | Public Credit Reference |
| SACCOs | : | Savings and Credit Cooperative Society |

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

While the commercial banks have faced difficulties over the years for a multitude of reasons, the major cause of serious financial problems continues to be directly related to credit standards for borrowers, poor portfolio risk management or lack of attention to changes in the economic circumstances and competitive climate (Central Bank Annual Supervision Report, 2000). The nature of the banks business naturally exposes these businesses to risk of default from borrowers otherwise known as credit risk. Credit risk is the possibility of loss of arising from non payment of interest and the principle or lack of non realisation of securities on the loans. The decision therefore to offer credit should be based on a thorough evaluation of the risk conditions of the lending and the characteristics of the borrower. Adverse selection problems with regard to prospective borrowers has been a major challenge facing loan screening in Kenya.

In 2001, the banking sector had in excess of Ksh.215 Billion in net loans, being 51% of total net assets of the Kenyan's banking sector as at 31st December, 2001. The non-performing loans at the time was 30% of total loans (CBK Annual Report, 2004). The average non performing loans to total loans between 2002 and 2003 was 28%. The decrease of non-performing loans during the period 2001-2003 is mainly attributed to the collapse of some financial institutions (e.g. Trust bank in 2001) and the write-offs made by some banks so as to clean their balance sheets (CBK 2003). Many forums especially the Basel committee agreements have come up with prudent ways in which

banks can operate and reduce the credit risk which has been a major concern globally. These concerns have raised the tempo to have far reaching structures that can be depended upon to limit the credit risk and still make banks be able to provide more lending avenues to borrowers. It is on this background that this study seeks to establish whether the formation of Credit Reference Bureaus has positively enabled borrowers to obtain lending with ease due to their historical information content held by banks and shared through the CRBs.

1.1.1 Credit Reference Bureau

Credit Reference Bureaus compliment the role played by lending institutions by extending financial services within an economy. Within a legal framework, CRBs are mandated to collect, manage and disseminate borrower's information for lenders in order for the lenders to have accurate information when decisions are being made on credit worthiness of an applicant. Information gathered includes credit accounts, loans bankruptcies and late payments and this information can be obtained from any source such as banks, SACCOs and utility companies. The information content gathered by CRBs has to be reliable, relevant and comprehensive data on the repayment habits and current data of loan applicants and generally for any individuals who have at one time or another used the financial system to transact. Information for CRBs can be obtained from any reliable source, they consolidate and package information into individual credit reports and distribute it to creditors at a fee under the credit information sharing (C.I.S.) platform. The data base created from all the information gathered is securely held by the CRBs under close scrutiny as per the licence

agreement requirements because the nature of the information which is sensitive (CBK, 2008).

The biggest winners under a fully fledged CRB are the individual borrowers and households. This is because the credit history allows borrowers to be able to negotiate terms with lending institutions based on a favourable history thereby making lending markets more competitive and hence affordable since the banks need not impose the risk premium in their loans. Credit bureaus make credit accessible to more people and also enables lenders reduce risk and fraud. Credit risk is reduced by limiting the asymmetrical information challenges and enables the public to be aware of the benefits of having a positive credit history. The positive credit history is accessible through a credit score report (CBK, 2010).

Negative credit history on the other hand brings about black listing of a borrower. Being black listed means an individual is a high risk borrower and extra precaution is taken by lenders when dealing with a black listed borrower. The period of being black listed depends on the agreed legislation in any country but the principle has been that this information will hold for some time even after rehabilitation of the debt. Being blacklisted and consequently successful rehabilitation does not make one unable to access the credit market but it flags out a high risk borrower and consequently the more information on the borrower will be checked before any lending can occur (O'Sullivan and Sheffrin, 2003).

Customers are obligated to query information contained in their credit report and any disputes can be resolved under the stipulated laws governing the credit bureau. The law also requires the CRBs to furnish a borrower with a free credit report every year and that the bank should advise a borrower if they intend to send adverse information to the CRBs, that is list you as a defaulter (KBA)

1.1.2 Access to Loans

Accessibility to loans is the ability of borrowers to access financial services of borrowed capital. Measuring financial access can be through the number of bank accounts, number of bank branches and number of firms with line of credit (World Bank, 2006). The factors that determine accessibility of loans may change over time, it is the norm to segment the market into banked and unbanked which helps classify current and future state of users. Access frontier is one such segmentation method which enumerates the proportion of the population that has access to finance and may change from time to time. Estimating and measuring financial access is difficult due to lack of relevant data but a simple use of number of loan accounts and deposits has been used widely in approximating access to finance (Demirgüç-Kunt, Beck and Honohan, 2008).

Capital or loans may be provided by a number of financial intermediaries who form part of the financial system. Globally, we have the formal and informal providers of capital and based on existing legal framework for both to thrive in an economy. Formal market comprises of financial institutions that are governed by banking regulations and supervision and informal normally operate outside the structure of

government regulation (Ledgerwood, 1998). Both markets have thrived due to unequitable resource accessibility and as the world becomes a global village sharing the increased challenges of poverty, the informal market has had an increase in number of customers (Demirgüç-Kunt, Beck and Honohan, 2008). There is work to be done to increase financial inclusion for all especially in the growing economies.

1.1.3 Relationship between CRBs and Access to Loans

Formation of CRBs portended the reduction of credit risk of borrowers and the ability of borrowers to manage access to affordable finances due to favourable credit history. Unconventional means to access finance in the formal market has been the use of current borrower financial status such as banking period with a financial institution, holder of certain ownership documents such as land titles and log books, or payslips for the employed. As the global informal sector records high activity in terms of membership and in their loan portfolios, such methods are no longer viable means of assessing financial viability by lenders thus the need to include historical information from a varied source in order to rate borrowers on a similar basis.

Globally, there has been a growing demand for CRBs as the major determinant in assessing credit worth of loan applicants. In Many European countries lenders communicate data concerning their customers' creditworthiness to one another or can access databases that help them assess credit applicants. The quality and quantity of data available however varies greatly and so do the information sharing mechanism. Often lenders agree to communicate via private credit bureaus (PCBs) or through public credit registers (PCRs). PCBs are usually formed due to demand for reliable

information in the market while PCR's are formed in order to supervise the banking sector. Due to the European Union existence, there is political goodwill riding about having a unified credit bureau system (Jappelli and Pagano, 1999). The process of consolidation in the industry will accelerate if deregulation of the consumer credit market will increase the volume of lending in Europe. Across the world, there are 195 credit registers and credit bureaus.

In Africa, there has been an acute lack of access to finance (Beck et al. 2011). Cull (2009) observed that expanding access to financial services was the key strategy to reduce poverty in developing countries. He found out that for stronger policies to be developed, there was need to have national and household information on accessibility of finances at the national level. The major impediment in Africa for its populace to access credit has been the ability of borrowers to secure collateral to aid in their loan applications. Consequently, most people would rather borrow from the informal avenues where the constraints are lesser demanding in terms of requirements. Still, there is a huge percentage of young people who cannot raise the minimum requirements for credit due to the financial hurdles. Cull (2009) found out that with the coming in of the CRBs in Africa, we have had positive response from governments and private institutions that the move has been positive.

There is therefore need to investigate how effective the formation of CRBs in Kenya has been in creating an enabling environment for loan accessibility especially on the strength that a majority of the population are the youth and may not have accumulated enough wealth to own collateral.

1.1.4 Credit Referencing and Loan accessibility in Kenya

Kenya adopted the Banking (Credit Reference Bureau) Regulation 2008 and consequently licensed two CRBs namely Credit Reference Bureau Africa Limited in February, 2010 and Metropol Credit Reference Bureau Limited in April 2011. There is a rigorous process in order for an institution can be licensed by the Central Bank. We therefore have the PCR as it is only through the CBK that one can operate under. This has been seen as a key component of financial sector reforms.

Accessing bank loans in Kenya is characterized by furnishing collateral such as a land title deed or log book and a certain down payment of the loan applied for. In addition, it is only the main stream banks that have been obligated into information sharing under the CRBs. This means that a majority of borrowers who deal with the Micro Finance Institutions (MFIs) are left out on this process thus giving the banks a competitive edge over MFIs. Anderson (2007) noted that MFIs provide the financial access to the poorest who are the majority.

1.1.5 Commercial Banks in Kenya

In Kenya, the Banking Sector is composed of the Central Bank of Kenya, as the regulatory authority and the regulated; Commercial Banks, Non-Bank Financial Institutions and Forex Bureaus (CBK, 2010). As at 31st December 2011 the banking sector comprised 45 institutions, 43 of which were commercial banks and 2 mortgage finance companies, and 120 Foreign Exchange Bureaus. Commercial banks and mortgage finance companies are licensed and regulated under the

Banking Act, Cap 488 and Prudential Regulations issued there under. Foreign Exchange Bureaus are licensed and regulated under the Central Bank of Kenya (CBK) Act, Cap 491 and Foreign Exchange Bureaus Guidelines issued there under. Out of the 43 commercial bank institutions, 33 are locally owned and 12 are foreign owned. The locally owned financial institutions comprised 3 banks with significant government shareholding and 28 privately owned commercial banks. The foreign owned financial institutions comprised 8 locally incorporated foreign banks and 4 branches of foreign incorporated banks. Of the 42 private banking institutions in the sector, 71% are locally owned and the remaining 29% are foreign owned (CBK, 2009).

Due to the nature of their business, commercial banks expose themselves to the risks of default from borrowers. Prudent credit risk assessment and creation of adequate provisions for bad and doubtful debts can cushion the banks risk and void possible banking crisis. However, despite the implications of nonperforming assets for banking crisis, for investment and economic growth, and for anticipating future banking and financial crises, very few studies have been done on the effect of interest rate spread on the level of non-performing assets in Sub-Saharan Africa (Caprio and Klingebiel, 2002). The CBK publishes information on Kenya's commercial banks and non-banking financial institutions, interest rates and other publications and guidelines. The banks have come together under the Kenya Bankers Association (KBA), which serves as a lobby for the banks' interests and addresses issues affecting its members (Kenya Bankers Association, 2010). Players in this sector have experienced increased competition over the last few years resulting from increased innovations among the players and new entrants into the market.

1.2 Research Problem

With the adoption of the CRB regulation in 2008, the banks have been mandated to share credit information with the licensed CRBs in order to set up a database for all borrowers and enable checks and balances in the credit market. A lot of information has been gathered and CRBs are still trying to enlist other sources of information. Higher Education Loans Board (HELB) used the services of CRBA and in the process 68,000 defaulters were black listed (www.helb.co.ke). In 2012, phase 11 of the Credit Information Sharing (CIS) platform started work on extending CIS to other credit providers such as MFIs, utilities and SACCOs and also broaden the information shared to include the positive data. In Kenya's general Election held in March 2013, most political parties engaged the CRBs information in order to comply with the Leadership and Integrity Act 2012 of their members. By June 2013, banks have accessed 1.8 Million reports from the two licensed credit reference bureau in Kenya (CRB Africa and Metropol).

With all these developments, there is need to verify whether a borrower has the ability, upon presenting a positive credit report, to actually negotiate for a better rate on loan repayments. It is also critical to look at whether the CRBs has captured the minds of the general public into saving and consequently having a safe history that could lead to ease on borrowing. In May 2013, CBK reduced the Central Bank rate to 8.5% and the six big banks by market share cut their minimum (base) lending rate to about an average of 17% from an average of 25%. The lenders in their defence said that it reflected the true cost of lending to borrowers. It is with this background that the study will seek to unravel the fact behind CRBs essence in the credit market in

order to determine whether CRBs have indeed made access to loans much more easier.

Through this study, the policy makers and the banks will be able to assess how effective loan accessibility has been with the inception of the CRBs, how much of credible information is used to rate a creditworthy borrower and how much influence does it have when an applicant makes out a loan application and has a good credit standing. Thus the study specifically seeks to address just how much credit information is effective in creating better chances for applicants and the level of influence it has on the loan application process. The research was guided by the question: Is there a relationship between Credit Reference Bureaus and access to loan in Kenya?

1.3 Research Objective

To determine the relationship between the Credit Reference Bureaus and loan accessibility in Kenya.

1.4 Value of the Study

The study is expected to benefit borrowers who will get insight in to the importance of obtaining favourable credit history and using this to negotiate for better interest rates in Kenya.

The study will also impact on the policies of credit granting institutions especially the banks and Microcredit institutions. The study will be useful to these institutions as it will highlight measures to be put to increase and control credit distribution to the borrowers.

The study will contribute to the existing body of knowledge of financial sector reforms in Kenya. It will also stimulate prospective researchers to replicate the study in other sectors of the economy.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Literature review is the analysis of the existing knowledge on a particular line of study. This chapter reviews the theories of Credit Referencing and access to Loan It focuses on the existing studies done on the subject matter by other scholars and provides some knowledge on the research area through the empirical evidence to establish the relationship between the Credit Reference Bureaus and access to loan.

2.2 Theoretical Framework

Several theories have been put forward which have implications on credit risk management.

2.2.1 The Moral Hazard & Adverse Selection Problem

A moral hazard is where one party is responsible for the interests of another, but has an incentive to put his or her own interests first. Financial Institutions before the advent of credit referencing lacked access to trustworthy information about borrowers, there were no records of the borrowers' earnings or financial status particularly within the informal sector who make the majority of microfinance beneficiaries. In addition there were no credit institutions that provide lenders with repayment history of individuals. This situation leads to asymmetric information (Todaro *et al.*, 2003). Asymmetric information signifies that some people are in the possession of information that other people lack. In credit markets it means that the

borrower has better information than the lender about the risk of the project he or she is about to undertake. Asymmetric information generally leads to the problems of adverse selection and moral hazard. In developing countries, the problem of asymmetric information, adverse selection and moral hazard are much larger problems than in developed countries. (Varian, 2002)

In credit markets, adverse selection occurs before a loan agreement has taken place. It arises when the “bad” borrowers (also known as the borrowers with high credit risk) are applying for credit more intensively than the “good” borrowers, which leads to a higher probability that the loan will be granted to a high-risk borrower. Asymmetric information about the risk of the projects leads to those loan givers cannot adjust the interest rate according to the risk of each borrower; they have to offer the same interest rate to everyone. As the interest rate increase, good borrowers get even fewer and the profit of the lender decreases. (Stiglitz *et al.*, 1981).

Moral hazard occurs after the loan has been granted and it means that the borrower provides the lender with false information about his assets, liability, capacity to repay etc. This absence of perfect information implies that the lender cannot observe the behaviour of the borrower neither verifies his or her profits, which becomes a problem if the borrower does not fulfil the repayments established in the loan contract. (Varian, 2002). To reduce the risks associated with asymmetric information, lenders often require collaterals in form of fixed assets (often property such as land, house etc.). (Stiglitz *et al.*, 1981) In developing countries, one major problem is that the property rights often are poorly defined and fixed assets are not worth enough to function as collateral. A large part of the inhabitants in developing countries live in rural areas

with scarce physical capital. Since they do not have formal collaterals to offer, they are often excluded from the formal financial market. (Besley, 1995).

In microfinance, one way of reducing the risk with moral hazard and adverse selection is through the so-called social collateral. Social collateral is when loans are given to a group where each group member is liable for the repayment. The best effect is according to Morduch (1999) achieved when the group members choose each other. They can then both exclude high-risk borrowers and monitor each other, since they have better information than the MFI's about the characteristics and behaviour of the individuals who wishes to receive credits. In that way the problem of imperfect information is decreased notably and the risk of the bank associated by granting a loan without traditional guarantees (fixed assets) is reduced.

2.2.2 Credit Risk Management

Credit risk is defined as the potential that a borrower or counterparty will fail to meet its obligations in accordance with agreed terms. The goal of credit risk management is to maximise a bank's risk-adjusted rate of return by maintaining credit risk exposure within acceptable parameters. Banks need to manage the credit risk inherent in the entire portfolio as well as the risk in individual credits or transactions. Banks also consider the relationships between credit risk and other risks. The effective management of credit risk is a critical component of a comprehensive approach to risk management and essential to the long-term success of any banking organisation (Basel committee, 1999)

The Basel Committee has set out practices that sort to address key areas such as how to establish a credit risk environment, processes of sound credit granting, maintaining a credible monitoring and measurement mechanisms, and controls. A comprehensive credit risk process ought to address these four key areas. The key corner stone of credit risk management is credit monitoring. According to the Demirguc-Khunt and Huzinga (1999), the overwhelming concern on bank credit risk management is two-fold. First, the Newtonian reaction against bank losses, a realization that after the losses have occurred that the losses are unbearable. Secondly, recent development in the field of financing commercial paper, securitization, and other non-bank competition has pushed banks to find viable loan borrowers. Banks can tap increasingly sophisticated measuring techniques in approaching risk management issues (Gill, 1989).

The reason why banks gather information on borrowers is to assess the probability of borrower default and pricing the loan accordingly. Most information gathered is at the loan application stage but banks should seek more information from third parties like credit rating agencies and CRB's (Simson and Hempel, 1999). There have been major developments in risk determination process through use of relative simple methods and complex methods through use of computerized models such as simulation (Montes-Negret, 1998; CBK Annual Supervision Report, 2000). Common practice worldwide has proposed four major credit risk management phases.

The conservative credit risk management model proposes banks lending being skewed to blue chip companies and individuals whose creditworthiness is unquestionable. Risk was minimal because these companies ended up paying their loans since their

default rate was low. This model favoured government owned companies and foreign owned companies. The basis was that these institutions were stable, competent managers were employed in these institutions and the institutions were well capitalized. This model worked well in before the 1980s (Central Bank Annual Report, 1976).

In the 1980s there was the lenient credit risk management model that emphasized on cash ratio as a measure of liquidity, statutory capital and profitability as a measure of financial performance. Focus was in the government owned institutions whose capital ratios and liquidity ratios were used to assess the soundness of the financial institutions. In the 1990s, a lot of mismanagement of these government institutions led to stringent credit risk management practices being implemented whereby corporate governance was the key focus. Also key improvements in financial awareness meant move from government institutions to private owned institutions whose financial growth and management was strong (Central Bank Annual Supervision Report, 1999).

Customized Global Credit Risk Management Standards came into being in the 2000s where credit risk guidelines were controlled at the global level. Emphasis was on Capital adequacy of individual banks in line with Basle requirements and minimum capital requirements. An additional variable management was introduced recognizing the importance of management capability in running financial institutions (Central Bank Annual Supervision Report, 2005). CAMPPARI was applied during this era for credit analysis and borrowers were subjected to stringent credit analysis system to analyze their character, ability to repay their loans, margin of the venture that the loan was to finance, purpose for the loan emphasizing on viability, amount of the loan

relative to the venture, repayments and insurance to caution risk defaulting on the loan (Checkley and Dickinson, 2001). Liquidity continued to be assessed using statutory standards and cash ratio (Central Bank Annual Report, 2005).

2.2.3 Credit information sharing Theory

Financial institutions have been facing credit default ever since early ages, credit information sharing has not been widely studied until recent 30 years. Early literature on credit information sharing uses traditional actuarial methods of credit referencing, whose major difficulty lies in their complete dependence on historical data. Up to now, there are three main approaches to analyzing credit referencing: structural approach, reduced form approach and incomplete information approach (Crosbie *et al.*; 2003).

Merton (1974) firstly builds a model based on the capital structure of the firm, which becomes the basis of the structural approach. In his approach, the company defaults at the bond maturity time T if its assets value falls below some fixed barrier at time T . thus the default time t is a discrete random variable which picks T if the company defaults and infinity if the company does not default. As a result, the equity of the firm becomes a contingent claim of the assets of the firm's assets value.

His basis of argument is that in many financial institutions a system where records are kept for a very short time and immediately erased upon late repayment would exert very little discipline on borrowers and correspondingly provide very little information on their track record to lenders. Akarloff argues that this information asymmetry gives firms which publish complete information on their activities are therefore better

perceived by their creditors and, therefore, can obtain more favourable financial terms.

2.2.4 Credit Rating

Nakamura and Roszbach, (2010) research found out that a bank credit ratings are measures of borrower's creditworthiness, i.e., probability of default through vouching of borrower's transaction accounts. It follows that banks are uniquely suited to measuring the risks of their borrowers and thus the use of internal credit ratings as the best available measure of the risk of the bank loan portfolio. Worldwide, banks use the ratings of credit bureaus as acceptable measures of borrower's probability of default and that bank regulators accept them as such. If banks collect private information about the borrowers they monitor, as economic theory depicts, in addition to the public information that a credit bureau possesses, and if credit ratings summarize the information included in them, then bank credit ratings should be able to forecast future changes in credit bureau ratings.

Information evaluated include qualitative and quantitative which could be non-public information collected by credit rating agencies to come up with a credit score of an individual or company. People with high scores are offered credit on more favourable terms. People who default on their loans experience a decline in their scores and, therefore, lose access to credit on favourable terms. People who run up debt also experience a decline in their credit scores and have to pay higher interest rates on new loans. While credit scores play an important role in the allocation of consumer credit

they have not been adequately studied in the consumption smoothing literature. Bessis, (1998).

Jiménez, and Saurina, (2002), found out that the process of evaluating an applicant for a loan to individuals is much more simple and standardized than in case of loans to companies. The bank has less information at the credit application stage at its disposal (information about average salary, length of employment) so further information are needed. The bank can obtain information about historical payment willingness and about current outstanding loans from credit agency or from its experience with the borrower. Decision about granting the loan is usually made after use of scoring. Both for applications of legal entities and individuals, the output of the credit analysis is the classing of applicant into the appropriate risk group (internal ratings) and so to decide whether the credit provides or not. In case of companies, the bank has (or will have in the future) the possibility to use external rating (i.e. information from external rating agencies).

2.3 Empirical Literature

Numerous studies have looked at the implication of credit reference on loan accessibility. Although the literature is not unanimous in its conclusion there is evidence supporting the claim of the positive role CRBs have played in making loan accessibility and demand grow.

A study by Munene, (2012), on the perceived impact of credit reference bureaus in accessing finance by small and medium enterprises (smes) in Kenya, found that Credit bureaus could alleviate a firm financing constraints by providing information on individuals borrowing and bill paying habits. It enabled the lenders assess credit worthiness, the ability to pay back a loan, and this affects the interest rate and other terms of a loan. The Central Bank of Kenya (CBK) is processing licences for new credit reference bureaus to step up sharing of borrowers' information among banks. Perennial defaulters had been the cause of high lending rates (Rukwaro, 2001). Walsh, (2003) warns that having only one half of the picture (negative information) runs the risk of it becoming the only deciding factor - a blacklist with the potential of restricting access to credit. Milton, (2004) indicated that originally, the credit approval decision was made using a purely judgmental approach by merely inspecting the application form details of the applicant and commonly focused on the values of the 5 Cs of a customer.

Jappeli and Pagano (2002) conducted a study on information sharing lending and defaults with the objective of finding out whether information sharing through CRBs can indeed reduce the adverse selection and moral hazard challenges on lending rates and loan defaults. The research was from a cross country perspective ranging from the U.S., Europe and Asia. Through the use of questionnaires to gather qualitative information on the ability of credit bureaus and public credit registers, the study found out that bank lending was about twice the countries where information was shared irrespective of the information shared and also through use of descriptive evidence revealed that where countries shared information there were lower credit risk. The

study also notes that the pervasiveness and intensity of information sharing exchange and the impact on lending policies of banks and the conduct of borrowers is worth being researched especially in developing countries such as Kenya.

Credit screening which is the main activity revolving around CRBs has been studied by many researchers in determining the asymmetric information theory. Derban, Binner and Mullineux (2005) recommended that borrowers should be screened especially by banking institutions in form of credit assessment. Collection of reliable information from prospective borrowers becomes critical in accomplishing effective screening as indicated by symmetric information theory. Qualitative and quantitative techniques can be used in assessing the borrowers although one major challenge of using qualitative models is their subjective nature. However according to Derban, Binner and Mullineux (2005), borrowers attributes assessed through qualitative models can be assigned numbers with the sum of the values compared to a threshold. This technique minimizes processing costs, reduces subjective judgments and possible biases. The rating systems will be important if it indicates changes in expected level of credit loan loss. Brown Bridge concluded that quantitative models make it possible to numerically establish which factors are important in explaining default risk, evaluating the relative degree of importance of the factors, improving the pricing of default risk, screening out bad loan applicants and calculating any reserve needed to meet expected future loan losses.

Djankov, McLiesh & Shleifer (2005) conducted a cross country determinants of private credit using data from 129 countries and 25 years of data. They identified that

the power of information in lending is a powerful tool since when lenders know more about borrowers and their credit history they are not as concerned about the “lemons” problem of financing and therefore are willing to extend more credit. Through use of regression and time series dimension of data, the study found that those lower costs for good credit risks motivate those borrowers to be more careful with repayment. This effectively meant that CRBs enable lenders to identify risky clients and thus tend to give more borrowing whilst cover the banks against credit risk.

Blacklisting of bad borrowers has been studied at length and a lot of literature exists in the use of credit reference reports as part of banks lending practice. Walsh (2003) warned about the use of only negative information as the only deciding factor on loan application. More recent research has concentrated on credit score as a more comprehensive tool for credit screening. Credit score tools have emerged and are being used in the entire life cycle of credit as a decision support tool and with increasing competition, electronic sale channels and recent saving, credit and cooperative regulations have been important catalysts for the application of semi- automated scoring systems.

Evidence also exists that support the theory that information sharing reduces moral hazard. Doblas-Madrid and Minetti (2009) find that if lenders enter credit information sharing institution, their borrowers improve their repayment performance and delinquent payments on leases and loans decrease. Brown and Zehnder (2007) find empirical evidence that the lending market would collapse in the absence of an information sharing institution and reputational banking. However, their study also

showed that establishing a credit registry encouraged borrowers to repay their loans by allowing lenders to identify borrowers with a good payment history. The study showed that an information sharing institution positively impacted the credit market by showing that through documented credit history, borrower perspective towards loan repayment is influenced positively and also reduces the information content monopoly a lender may have on a borrower and this opens up reduction in costs charged to borrowers.

Castelar Pinheiro and Cabral (2001) in a study of the Brazil market report that in Brazil the whole postdated check market operates without collateral, without personal guarantees, and without legal sanctions of any type. Its only foundation is its information-sharing mechanism: a “black list” of people issuing checks without funds. This mechanism alone also explains why the interest rate charged by factoring companies that operate in this market is much lower than that charged by credit card companies. In Chile, credit bureau known as DICOM has been very effective in securing faster repayments by borrowers as delinquency limits credit provision.

Mahembe et al (2011) carried out a study on access to credit and support by Small and Medium enterprises (SME's) in South Africa. The study was commissioned by the National Credit Regulator to assess the matters affecting the consumer credit industry. The findings of the study were that the major impediment to credit for the SME's was lack of financial education amongst small business owners and the need for mentorship programmes. The second impediment to credit access was the collateral required upon loan application and credit histories. Whereas this means CRB's are

effective in updating of negative information of borrowers, positive information is not used to evaluate a borrowers' credit worth and major sources of information may not be available apart from the main credit avenues. The study resolved that for these challenges to be mitigated, access to financial information amongst small business owners was paramount. Secondly, comparable findings by World Bank Enterprise survey of 2008 where 31% of micro and 39% of small firms cited unacceptable collateral as a reason for low loan uptake and recommended relaxed loan application requirements and use of historic positive information from varied sources to decide on credit worth. The other recommendation of the study was that the product design for the SME's was inappropriate and there was need to redesign the service delivery such that the owners of capital are well linked to the SME's in a well orchestrated market opportunities.

2.4 Summary of Empirical Literature

There is a healthy appetite for borrowing and lending currently enjoyed across the country. The benefit is that lenders when equipped with more borrower information then they are able to better evaluate potential borrower and offer loans at competitive rates based on risk assessment per individual. There is therefore need to assess the impact the CRBs have on borrower appetite for loans in Kenya.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter outlines the methodology that would be used in gathering the data and reporting the results. It aims at explaining the methods and tools to be used in data collection and analysis. The data will be tested for reliability and validity to the subject under.

3.2 Research Design

Descriptive research determines and reports the way things are in a survey as an attempt to collect data from members of a population in order to determine the current status of that population with respect to one or more variables. Thus descriptive survey is an appropriate method as it seeks to ascertain the association between impact of the CRBs in Kenya with regard to access to loans.

3.3 Population

Target population in statistics is the specific population to be examined in order to obtain information from. According to Mugenda and Mugenda (2003), a population is a well defined set of people, elements or events that are being investigated. In Kenya, there are currently 43 licensed commercial banks and they were the target population. A census study was done since the sample size would be too close to the population size to be representative.

3.4 Sample Design

Roscoe (1975) proposes a rule of thumb for determining a sample size and says that a size of 30 to 500 is appropriate for most researches, since it's not possible to access the whole population of interest due to the large number involved, the target was managers within finance, strategy and business development of the 43 banks. The period of study was between January 2006 to December 2012.

3.5 Data Collection

A self administered questionnaire was used to collect data. The objective of the questions was to establish the relationship between the Credit Reference Bureau and loan accessibility. The key questions were both closed-ended questions and open ended questions. The study used a five point Likert scale to ask respondents to express their opinion on given statements, where 1 represent strongly disagree, and 5 strongly agree.

3.6 Data Analysis

Data collected was both qualitative and quantitative. Quantitative analysis was done by establishing the measure of time series analysis. Qualitative analysis was done through major themes to be identified, tallying responses to identify frequency of issues raised through the regression model.

The regression model will be as follows:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e$$

where:

$Y =$ Loan Issued

Where

$X_1 =$ Loans applied

$X_2 =$ CRB reports accessed

$X_3 =$ Loans declined

$a =$ Regression Constant

$b_1 . b_3 =$ Coefficient of the factors

$\varepsilon =$ Error term

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter provides a summary of the data analysis, presentation of the results of the study and the discussion of the results of the study.

4.2 Data Presentation and Analysis of the Result

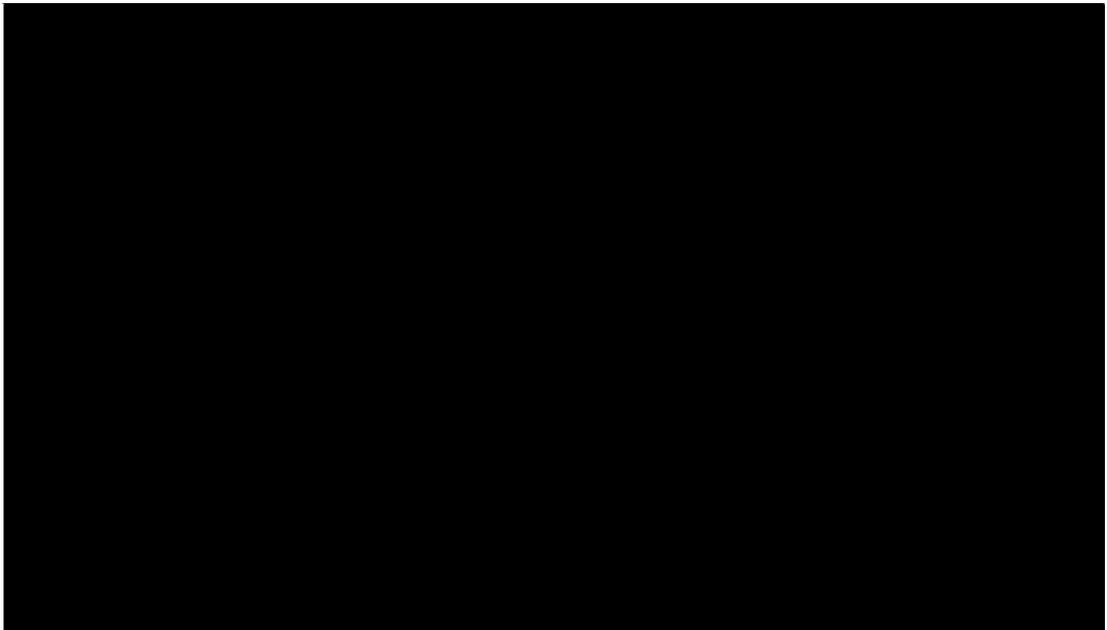
The data was obtained from a number of local banks. These include; the amount of loans offered in various years in the sampled banks from their reports which had the variables of the study for the period between years 2006 to 2012. The data pertaining to number of loans applied for, loans granted, number of CRB reports obtained and loans denied were obtained from the specific banks. The analysis of this study has been done by use of SPSS as follows:

4.3 Loans Advanced

The study sought to determine the amounts of loans issued per year, the number of individuals who qualified for the loans, the number of CRB reports accessed and the number of declined loan applications due to negative CRB reports. According to the findings of the study presented in Figure 4.1, show that the numbers of loans issued grow steadily from year 2006 when the total loans issued was about 7,500 to 2012 when the loans issued was about 24,500. The results further show that the numbers of CRB reports accessed was the same as the number of loans issued though the years. The results however show that there was slight difference between the number of loans issued and the number of individuals qualifying for the loans. The results show

that the number of declined loans applications due to negative CRB reports was negligible. This means that the negative CRB reports did not have a significant effect on the loan approvals. The findings of the study agree with Walsh (2003) who noted that negative information alone should not be used to deprive the loan applicants the loans.

Figure 4.1: Loans Advanced



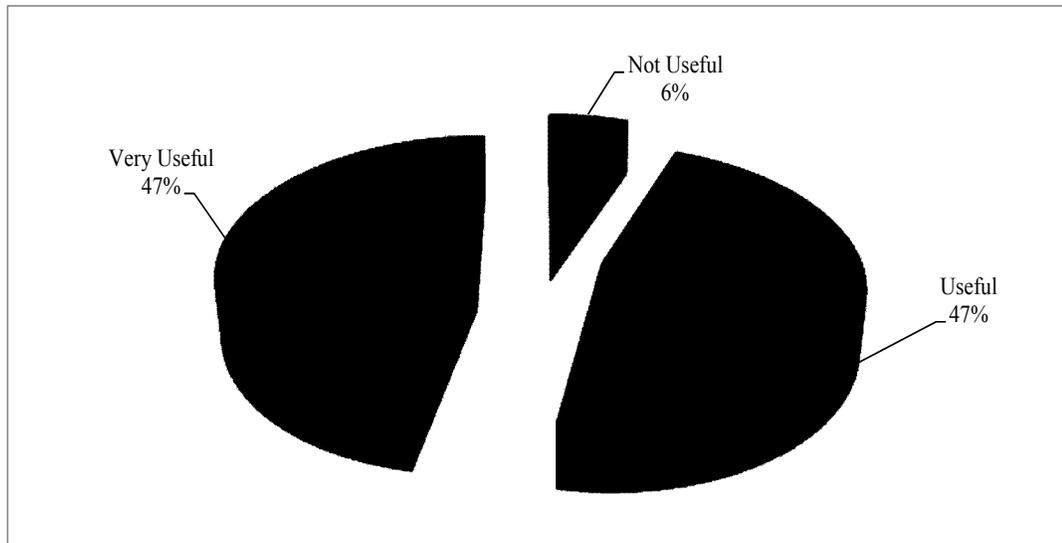
Source: Research Data (2014)

4.4 Usefulness of Credit Reference Bureau

The study sought to determine the usefulness of the information provided by the credit reference bureau by the respondent institutions in making the credit decision. The findings in Figure 4.2 show that according to majority of the respondents, the credit reference information was useful. The results show that 47% of the respondents

indicated that the information was very useful while 47% stated that the information was useful. The results may be interpreted to mean that the credit reference information was useful for the banks in making credit decision.

Figure 4.2: Usefulness of Credit Reference Bureau



Source: Research Data (2014)

4.5 Effect of Credit Reference Bureau on Access to Loan

The respondents were asked to rate the effect of credit reference bureau on the access to loans in Kenya. This was on a scale of no extent at all, low extent, moderate, great extent and very great extent. The study takes the score 0 to 1.0 to represent no extent at all, score 1.1 to 2.0 to represent low extent, score 2.1 to 3.0 to represent moderate extent, score 3.1 to 4.0 represent great extent and score 4.1 to 5.0 to represent to very great extent. The findings in Table 4.1 show that according to most respondents indicated that to a great extent the CRB acts as a deterrent to loan defaulting (mean score 3.56). The study findings further show that majority of the respondents

indicated that to a very great extent, the credit information sharing played a pivotal role in reducing the information asymmetry that exists between banks and borrowers (mean score 4.35). The results show that respondents indicated that due to the credit reference, the banks are to a very great extent are able to get credit information on the prospective borrowers that facilitate the assessment of credit requests to mitigate risks of bad debts (mean score 4.68). The study revealed that most respondents indicated that to a great extent lack of credit information has in the past led to banks factoring a risk premium in the pricing of the credit (mean score 3.24). The findings revealed that most of the respondents stated that to a great extent the credit information is not the only one that contributes to the high cost of credit (mean score 3.94). The results show that majority of the respondents indicated that to a great extent, the credit information sharing from CRB rewards and promotes good credit track record (mean score 3.82). The findings show that respondents indicated that to a very great extent, the credit bureaus reduce the borrowing cost by forcing creditors to be more competitive for good borrowers (mean score 4.15). The study also show that most respondents stated that to a great extent, credit bureaus reduce the moral hazard by developing a credit culture where borrowers become aware that credit market becomes aware of their credit history and rewards or punishes them accordingly. The results of the study show that there were no variances in some responses (standard deviation < 1) while others had variances (standard deviation > 1). The findings of the study may mean that according to the respondents, the credit reference bureau has enhanced access to loan by the applicants. The study findings that the sharing of credit information was important in reducing information asymmetry agree with those of Munene (2012) who argued that credit bureaus could alleviate a firm's financing constraints by

providing information on individual borrowing and bill paying habits. The study findings also agree with Rukwaro (2001) who noted that lack of information was the main cause of high lending rates. The findings also agree with the views of Binner and Mullineux (2005) and Djankov, McLiesh & Shleifer (2005) that the collection of reliable information from prospective borrowers becomes critical in accomplishing effective screening as indicated by symmetric information theory which makes the banks to know who among the borrowers is more risky. These findings equally agree with Jappeli and Pagano (2002) who found in their study that sharing of information reduced the adverse selection and moral hazard challenges on loan lending rates and loan defaulters thereby making it easier for the lenders to give loans to borrowers who will pay.

Table 4.1: Effect of Credit Reference Bureau on Access to Loan

| | N | Mean | Std. Deviation |
|---|----|------|----------------|
| CRB acts as a deterrent to loan defaulting | 34 | 3.56 | .705 |
| Credit information sharing plays a pivotal role in reducing the information asymmetry that exists between banks and borrowers | 34 | 4.35 | .646 |
| Banks are able to get credit information on prospective borrowers that will facilitate assessment of credit requests to mitigate risks of bad debts | 34 | 4.68 | .475 |
| Lack of credit information has in the past led to banks factoring a risk premium in the pricing of credit | 34 | 3.24 | 1.156 |

| | | | |
|--|----|------|-------|
| Credit information is not the only one that contributes to high cost of borrowing; there are other factors that contribute to this high cost of credit | 34 | 3.94 | .851 |
| Credit information sharing from CRB rewards and promotes good credit track record | 33 | 3.82 | 1.236 |
| Credit bureaus reduce the borrowing cost by forcing creditors to be more competitive for good borrowers | 33 | 4.15 | 1.034 |
| Credit bureaus reduce the moral hazard by developing a credit culture where they operate as borrowers become aware that credit market becomes aware of their credit history and rewards or punishes them accordingly | 33 | 3.70 | 1.237 |

Source: Research Data (2014)

4.6 Procedures to Accessing Loans

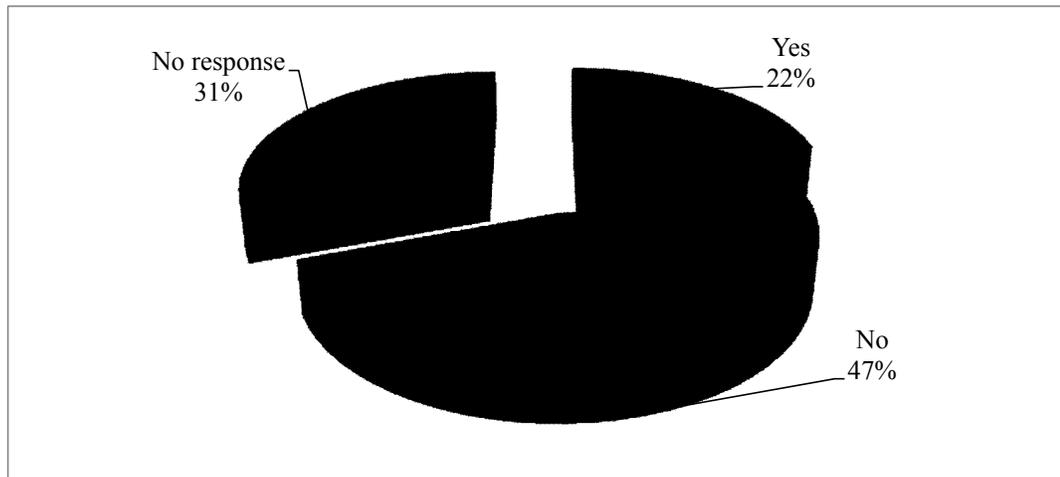
In this section the study sought to determine the procedures in the accessing of the loans. The findings of the study are presented in the subsequent sections.

4.6.1 CRB Report First Step

Respondents were asked to state whether accessing a CRB report was the first task in loan processing. The study findings in Figure 4.3 show that most of the respondents (47%) indicated that CRB report was not the first task in loan processing. However, 22% of the respondents indicated that indeed, CRB report was where to start in the loan processing process. The findings may mean that according to the respondents,

most of the lending institutions did not consider CRB report as the starting point in the loan processing.

Figure 4.3: CRB Report First Step



Source: Research Data (2014)

4.6.2 Loan Application Procedures

The respondents were asked to rate the effect of credit reference on loan application procedures in the organizations. The results in Table 4.2 show that respondents indicated that negative report mean a decline in the loan application only to moderate extent (mean score 2.62). The results of the study further show that respondents indicated that to a moderate extent for a loan application with negative report there was only one major step (mean score 2.18). Also rated the same was the statement that the CRB has shortened the loan application procedures (mean score respondents indicated that to a great extent the CRB report had reduced screening procedures in the banks. The results of the study show that there were no variances in the responses (standard deviation < 1) except for the responses on negative report mean decline in

loan application (standard deviation > 1). The findings of the study that the negative reporting only made the bank to decline loan application to some extent confirm the views of Walsh (2003) that the negative information as the only decline factor of loan application. The study findings which showed that respondents indicated that the negative report was used only to a moderate extent, an indication that the organization used other methods also to evaluate the applicants agree with Walsh (2003) who warned of the danger of using the negative report alone as a deciding factor as risky as it may result in the restriction of the access to credit (2.03). The study findings revealed that majority of the respondents indicated that to a great extent, the CRB process has helped to move subjectively in the loan application process (mean score 3.27). The findings show that respondents indicated that to a great extent, positive CRB report portends a shorter loan application process (mean score 3.28). The study established that according to respondents, the bank credit standards changes to a great extent since CRB inception in 2008. Finally the respondents indicated that to a great extent, the CRB report reduced the screening procedures in the banks. The findings of the study revealed that majority of the.

Table 4.2: Loan Application Procedures

| | N | Mean | Std. Deviation |
|---|----|------|----------------|
| Does a negative report mean a declined loan application | 34 | 2.62 | 1.101 |
| For a loan there is only one major step for an applicant with a negative CRB report | 34 | 2.18 | .834 |
| Has the CRB process helped move any subjectivity in the | 33 | 3.27 | .839 |

| | | | |
|--|----|------|------|
| process | | | |
| A positive CRB report portends a shorter application process (confidence in applicant) | 32 | 3.28 | .851 |
| CRB has shortened the loan application procedure | 33 | 2.03 | .883 |
| Has your bank credit standards changed since CRB inception in 2008 | 34 | 3.85 | .857 |
| Has the CRB report reduced screening procedures at your bank | 33 | 3.03 | .684 |

Source: Research Data (2014)

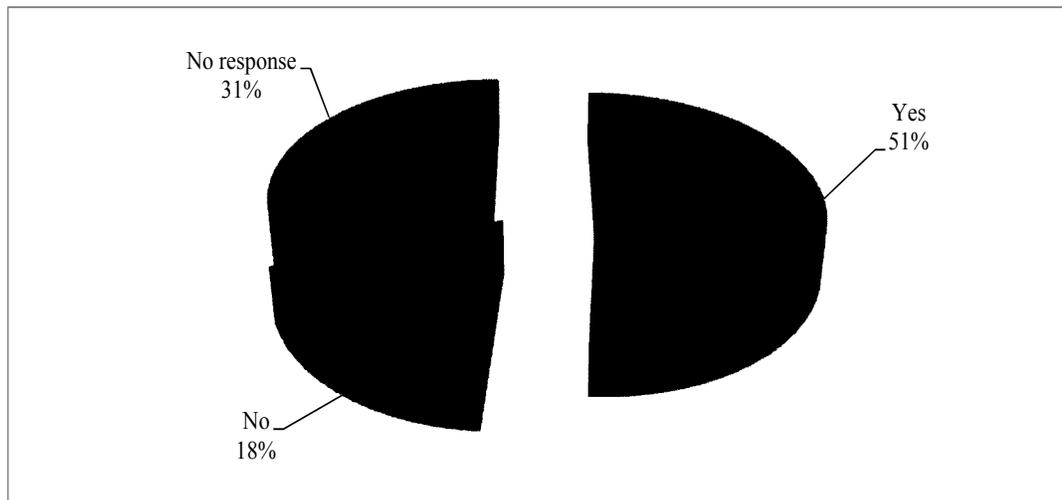
4.7 Credit Scoring

In this section the study sought to establish the use of credit scoring by the banks in Kenya. The findings of the study are presented in the sections that will follow.

4.7.1 Used Credit Scoring as Loan Screening Procedure

The respondents were asked to state whether they used credit scoring procedures in their banks. The study findings in Figure 4.4 show that most of the respondents (51%) indicated that their organizations indeed used credit scoring as a loan screening procedure. The results however, show that only 18% of the respondents stated that they never use credit scoring to screen loans. The findings therefore mean that most of the respondent banks used credit scoring to screen the loans.

Figure 4.4: Used Credit Scoring as Loan Screening Procedure



Source: Research Data (2014)

4.7.2 Credit Scoring Rated

The respondents were asked to rate how the credit scoring influenced the access to loans on a scale of no extent and very great extent. According to the findings of the study in Table 4.3, respondents indicated that to a great extent the credit score had standardized the loan screening procedures (mean score 3.94). The study findings also show that respondents indicated that to a great extent, the credit scoring brought about similar loan request decisions (mean score 3.65). However, credit scoring had enhanced loan approval procedures to be more automated only to moderate extent (mean score 2.94). The results show that according to most of the respondents, to a great extent, a good credit score mean less underwriting needs (mean score 3.33). The respondents also indicated that to a great extent, the credit scoring was a risk based pricing model (mean score 3.79). Finally the results of the study showed that the respondents indicated that the credit scoring had to a great extent increased access to

the credit (mean score 3.61). The results of the study show that there were no variances in the responses (standard deviation < 1) except for the responses on good credit score mean less under writing needed and credit scoring is a risk based pricing model (standard deviation > 1). The findings of the study agree with Walsh (2003) that the credit score is today being used in the entire life cycle of the credit as a decision support tool. The findings of the study that good credit score mean less under writing needed agree with Doblaz-Madrid and Minetti (2009) who noted that sharing of credit information encouraged borrowers to repay their loans so as to appear in the good books and this minimises the losses incurred by the lending institutions due to bad loans.

Table 4.3: Credit Scoring Rated

| | N | Mean | Std. Deviation |
|---|----|------|----------------|
| Has the credit score standardized loan screening procedures | 34 | 3.94 | .694 |
| Has credit scoring brought about similar loan request decisions | 34 | 3.65 | .646 |
| Has credit scoring enhanced loan approval procedures to be more automated | 34 | 2.94 | .736 |
| Does a good credit score mean less under writing needed | 33 | 3.33 | 1.051 |
| Credit scoring is a risk based pricing model | 33 | 3.79 | 1.023 |
| Credit scoring has increased access to credit | 33 | 3.61 | .998 |

Source: Research Data (2014)

4.8 Regression Analysis

In this section the study presents the regression results. Regressions were to determine the relationship between Loan applied for, CRB reports accessed, Loan denied and the loan issued. The model is represented by:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + \varepsilon$$

Table 4.4 illustrates the model summary used in this study and indicates the Adjusted R Squared value which gives the most useful measure of the success of the model. It shows that the independent variables which include loan applied for, CRB reports accessed, loans denied explain 29.5% of the variance in loans accessed.

Table 4.4: Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .569 ^a | .323 | .295 | .591 |

a. Predictors: (Constant), Loan applied for, CRB reports accessed, Loan denied

b. Dependent Variable: Loan issued

Table 4.5 illustrates the Analysis of Variance (ANOVA) which assesses the overall significance of the model. The regression results show that the significance value (*p-value*) of F statistics is less than 0.05 (it is actually 0.047). This implies that the independent variables (Loan applied for, CRB reports accessed, Loan denied) do explain the variation in the dependent variable (loan issued). Therefore the model is significant.

Table 4.5 Analysis of Variance (ANOVA)

| Model | Sum of Squares | Df | Mean Square | F | Sig. |
|--------------|----------------|----|-------------|-------|-------------------|
| 1 Regression | 0.01 | 4 | 0.002 | 0.456 | .047 ^a |
| Residual | 0.183 | 35 | 0.005 | | |
| Total | 0.193 | 39 | | | |

a. Predictors: (Constant), Loan applied for, CRB reports accessed, Loan denied

b. Dependent Variable: Loan issued

Using the values of the coefficients (b) from the regression coefficient, the established regression equation takes the form of:

$$\text{Loan issued} = -0.028 + 1.756 \text{loan applied} + 3.933 \text{CRB report} - 1.73 \text{Loan denied}$$

The study shows that all the independent variables have positive relationship with the dependent variable (loan issued) except loan denied which has a negative relationship. The results show that applying for loan results into a 1.756 change in access to loan. The findings further show that CRB report results into a 3.933 change in access to loan while loan denied cause a change of -1.73 in loan issued. These findings of the study therefore imply that loan application and CRB report positively influence loan issued. The findings further imply that denial of loan negatively influences the loan issued. The results show that all the variables are statistically significant as the p-values are less than 0.05 ($p < 0.05$).

Table 4.6: Coefficients

| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|-------|--------------|-----------------------------|------------|---------------------------|--------|-------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | -0.028 | 0.013 | | -2.18 | 0.036 |
| | Loan applied | 1.756 | 0 | 0.077 | 0.293 | 0.041 |
| | CRB reports | 3.933 | 0 | 0.196 | 0.403 | 0.29 |
| | Loan denied | -1.73 | 0 | -0.066 | -0.263 | 0.044 |

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

The study established that the numbers of loans issued grow steadily from year 2006 when the total loans issued was about 7,500 to 2012 when the loans issued was about 24,500. The results further revealed that the numbers of CRB reports accessed was the same as the number of loans issued though the years. However, there was slight difference between the number of loans issued and the number of individuals qualifying for the loans. The results show that the number of declined loans applications due to negative CRB reports was negligible. The study findings revealed that according to majority of the respondents (94%), the credit reference information was useful. The results showed that most respondents indicated that CRB acts as a deterrent to loan defaulting to a great extent (mean score 3.56). It was revealed that credit information sharing played a pivotal role in reducing the information asymmetry that exists between banks and borrowers (mean score 4.35).

The respondents indicated that due to the credit reference, the banks are able to get credit information on the prospective borrowers that facilitate the assessment of credit requests to mitigate risks of bad debts (mean score 4.68). Most of the respondents indicated that lack of credit information has in the past led to banks factoring a risk premium in the pricing of the credit (mean score 3.24). The findings revealed that most of the respondents stated that credit information is not the only one that

contributes to the high cost of credit (mean score 3.94). Majority of the respondents indicated that to a great extent, the credit information sharing from CRB rewards and promotes good credit track record (mean score 3.82). The findings revealed that respondents indicated that the credit bureaus reduce the borrowing cost by forcing creditors to be more competitive for good borrowers (mean score 4.15). The study also established that most respondents stated that credit bureaus reduced the moral hazard by developing a credit culture where they operate as borrowers become aware that credit market becomes aware of their credit history and rewards or punishes them accordingly.

The study established that according to most of the respondents (47%), the CRB report was not the first task in loan processing. However, 22% of the respondents indicated that CRB report was where to start in the loan processing process. The results further revealed that according to most respondents negative report mean a decline in the loan application only to moderate extent (mean score 2.62). The respondents also indicated that for a loan application with negative report there was only one major step only to a moderate extent (mean score 2.18). Respondents also stated that to a moderate extent, the CRB has shortened the loan application procedures (mean score 2.03). The results revealed that respondents indicated CRB process has helped to move subjectively in the loan application process (mean score 3.27). The findings showed that respondents indicated that positive CRB report portends a shorter loan application process (mean score 3.28). According to the responses, the bank credit standards changes since CRB inception in 2008. Respondents stated the CRB report reduced the screening procedures in the banks and that the CRB report had reduced screening procedures the banks.

The study findings revealed that most of the respondents (51%) indicated that their organizations used credit scoring as a loan screening procedure. The results showed that most respondents stated that the credit score had standardized the loan screening procedures (mean score 3.94). The findings further revealed that the credit scoring brought about similar loan request decisions (mean score 3.65). However, credit scoring had enhanced loan approval procedures to be more automated only to moderate extent (mean score 2.94). The results showed that according to most of the respondents, a good credit score mean less underwriting needs (mean score 3.33). The respondents also indicated that the credit scoring was a risk based pricing model (mean score 3.79). The study established that the credit scoring had to a great extent increased access to the credit (mean score 3.61). The regression analysis results revealed that though not strong enough the credit reference bureaus influenced the number of loans given.

5.2 Conclusion

The results revealed that the credit information sharing increase in confidence of commercial banks while giving loans unlike before the CRB became operational.

The study established that more and more commercial banks and other lending institutions have turned to CRB for credit information to minimize the credit risk. This was evident when the CRB report was used as much as the loan applications.

The results revealed that loans awarded were slightly less than the loans applied. This was however, equal to the number of loans denied.

The study therefore concludes that the CRB have influenced access to loans as the lending institutions have turned to the bureau for credit worthiness of the borrowers.

5.3 Policy Recommendation

The study established most commercial banks are using CRB reports to evaluate credit worthiness of the borrowers. The study recommends that all the lending institutions should adopt the use of CRB report as a means of accessing the credit worthiness of the borrowers thereby minimising the risk of bad debts.

The study also established that the use of CRB by the lending institutions have increased the commitment of the borrowers to repayment of loans as they want to have good records. The study therefore recommends that the government and the lending institutions should educate the borrowers of the importance of credit bureaus such as the reduction of the price of borrowing.

Lastly, as regards the regulations, the Government needs to look into what regulatory impediments to licensing of more CRBs that may hinder the sustainability of the reference bureaus in Kenya.

5.4 Limitations of Study

First it was not possible to obtain 100% of the required data. Most data on loans for various banks was not available. Some banks that were visited also refused to disclose data on their records on the loans they have handled. Their fear was that they may release sensitive information to their competitors, especially in the current times of

stiff competition. In addition some banks were lacking categorized data as per year and those data pertaining to declined loans resulting from lack of good CRB reports.

5.5 Suggestion for Further Research

Further research can be done on the effect positive information gathered by CRBs would have on credit scoring and access to credit. Currently, CRBs only share negative information of borrowers. This had a legal basis and the Bankers association of Kenya is pursuing the legal hurdle to ensure the CRBs can be allowed to channel all information about borrowers to lenders.

There is also need to research on how effective CRBs have been on gathering information on the Jua-Kali sector or non-formal sector. The current political, social and economic pillars towards Kenya Vision 2030 have made tremendous efforts towards empowering youths, women and physically challenged members of our society. This means many opportunities are created in the non-formal sector. Many of the individuals may not manage to bank in the main sector banks thus may be disadvantaged when trying to access loans.

REFERENCES

- Anderson R., (2007). *The Credit Scoring Toolkit: Theory and Practice for Retail Credit Risk Management and Decision Automation*. Oxford University Press: New York
- Bank Committee of Banking Supervision (2005). *International Convergence of Capital Measurements and Standards: A revised Framework*, Bank of International Settlements, Basel, Switzerland
- Beck, T., Jonghe O., & Schepens G.(2011). *Bank Competition: Cross-Country heterogeneity*.
- Bernanke (2008) 'New Developments in Supervisory Training', *Industrial and Commercial Training*, Vol. 27, No. 1, pp. 26–32.California.
- Bessis, J (1998), 'Risk Management in Banking', Wiley, Chichester
- Brown, M. & Zehnder C. (2007). *The Emergence of Information Sharing in Credit Markets*. Swiss National Bank Working Paper.
- Campbell, (2006).Organizational structure, environment and performance: The role of strategic choice. *Sociology*, 6, 1–22.
- Castelar Pinheiro & Cabral (2001). *7 steps to fixing your credit report*.
Bankrate.com

CBK (2010). Kenya Licenses the First Credit Reference Bureau - Credit Reference Bureau Africa Limited (CRB Africa). *Press release*

Central Bank of Kenya, (2000), Bank Supervision Report, Nairobi

Central Bank of Kenya, (2004), Inflation, Monthly Economic Review, Nairobi

Central Bank of Kenya: <http://www.centralbank.go.ke>

Checkley, K. & Dickinson, K. (2001). Business Lending.

Conford A. (2000). "The Basel Committee's Proposals for Revised Capital Standards: *Rationale, Design and Possible Incidence, G-24 Discussion Paper Series*", United Nations, No.3, May.

Cooper, D.R & Schindler, P.S (2003). *Business research methods*, New Delhi. Tata Mc Graw-Hill publishing company Limited.

Crosbie et al ;(2003). *Strategy Implementation: The Role of Structure and Process*.

St Paul, MN: West Publishing Company. Grant, R. M. (1998). *Contemporary Strategy Analysis: Concepts, Techniques, Applications*. Oxford: Blackwell Publishers.

Cull Robert, Asli Demirgüç-Kunt, Jonathan Morduch (2009), *Does regulatory supervision curtail microfinance profitability and outreach?* Financial Access Initiative, Working Paper Series.

David. et al, (1999). 'Rooted in Supervision, Branching into Management: Continuity and Change in the Role of First-Line Manager', *Journal of Management Studies*, Vol. 42, No. 3, pp. 471–506.

Demirgüç-Kunt, A., Beck, T., & Honohan, P. (2008). *Finance for All?: Policies and Pitfalls in Expanding Access*. Washington, D.C

Derban, W.K., Binner, J.M. & Mullineux, A. (2005). Loan repayment performance in community development finance institutions in the UK, *Small Business Economics*, 25, 319-32.

Devanay, S.A & Lytton, R.A (1995). Household Insolvency: A review of Household Debt Repayment, Delinquency and Bankruptcy. *Financial Services Review*, 4(2):137 - 156.

Djankov S., McLiesh C. & Shleifer A. (2005). *Private Credit in 129 Countries*, NBER Working Paper 11078 (Cambridge, Massachusetts: National Bureau for Economic Research).

Doblas - Madrid & Minetti, R. (2009). Sharing Information in the Credit Market:
Contract-Level Evidence from U.S. Firms. Michigan State University -
Department of Economics

Higher Education Loans Board. www.helb.co.ke

Infotrak Harris Poll in Partnership with COFEK on Bank Interest Rates:
<http://www.infotrakresearch.com>

Jappeli and Pagano (2002). Control and organizational order. *Accounting, Organizations and Society*, 13(1), 25–36.

Jappelli, T. & Pagano, M., (2002) Information sharing, lending and defaults:
Cross-country evidence, *Journal of Banking and Finance*

Jensen & Meckling (1976)..*Accounting for Management Control*. (2nd edn).
London: Chapman & Hall.

Jensen M.C. & W. H. Meckling (1976); “Theory of the Firm: Managerial Behaviour,
Agency Costs and Ownership Structure” *Journal of Financial Economics*.

Jiménez, G and Saurina, J (2002), ‘Loan Characteristics and Credit Risk’, Bank of
Spain.

Kane, E.J. & Rice, T. (1998). Bank Runs and Banking Policies. Lessons for African Policymaker, *Journal of African Economies*, 10 (Supplement 1): 36-71

Kenya Bankers Association: <http://www.kba.co.ke>

Keriri-Wachira, W.N. (2011). Competitive advantage of the use of CRB by Commercial Banks in Kenya. Unpublished MBA project, School of Business: University of Nairobi

Kithinji, A., & Waweru.N.M. (2007). Merger Restructuring and Financial Performance of Commercial banks in Kenya. *Economic, Management and Financial Markets Journal*, 2 (4), 9-39

Ledgerwood, J. (1998). *Microfinance Handbook. An Institutional and Financial Perspective (Sustainable Banking with the Poor. Washington D.C., The World Bank*

Mahembe E., Chiumya C., and Mbewe P. (2011). Literature Review on Small and Medium Enterprises' Access to Credit and Support in South Africa. Report to the National Credit Regulator, presented in December 2011.

Merton (1974). British management accounting research: Whence and whither: Opinions and recollections. *British Accounting Review*, 33, 263–91.

- Michael, (1994). Contemporary Strategy Analysis: Concepts, Techniques, Applications. Oxford: Blackwell Publishers.
- Mishkin A.K. (1998). "The Economics of Money, Banking and Financial Markets" Addition – Wesley 5th Edition.
- Mugenda, O. & Mugenda, A. (2003). Research methods: Quantitative and qualitative approaches. 2nd. Rev. ed. Nairobi: Act press.
- Mugenda, O.M. & Mugenda A.G. (1999). Research Methods Quantitative and Qualitative Approaches. Nairobi: Kenya Acts press.
- Mwangi M. K. (2007). Factors influencing financial innovation in Kenya's securities Market : Unpublished MBA project, School of Business: University of Nairobi.
- Nakamura, L. & Roszbach, K. (2010). Credit Rating and Bank Monitoring, FRB of Philadelphia Working Paper No. 10-21
- Olokoyo, F.O. (2011). Determinants of Commercial Banks' Lending Behaviour in Nigeria, International Journal of Financial Research. Sciedu Press.
- O'Sullivan, A. & Sheffrin, S.M (2003). Business and Economics. Prentice Hall.

- Payle D. (1997). "Bank Risk Management", Working Paper No.272, University of Bologna.
- Pinheiro, A. C. & Cabral C. (1998). "Credit Markets in Brazil: The Role of Judicial Enforcement and Other Institutions", Ensaio BNDES.
- Roberts, J. & Scapens, R. (1985). Accounting systems and systems of accountability Understanding accounting practices in their organizational Context. *Accounting, Organizations and Society*, 10(4), 443–56.
- Roscoe, J. T. (1975). *Fundamental research statistics for the behavioral sciences*, New York: Holt.
- Rukwaro, M.W. (2001), *Credit rationing by Micro Finance Institutions and its Influence on the operations of Small and Micro Enterprises*. MBA Project, University of Nairobi.
- Shaw, E. (1973). *Financial Deepening in Economic Development*. New York: Oxford University Press.
- Simonson D.N. and Hempel G.H. (1999), *Bank Management, text and Cases*, Fifth edition, John Wesley and Sons Inc., New

Stiglitz J. (1981), 'Principles of financial regulation: a dynamic portfolio approach.'
The World Bank Research Observer, Vol. 16(1). Washington D.C.

Walsh C.E. (2003). Monetary Theory and Policy. Boston, MIT Press,
International Edition.

APPENDICES

APPENDIX I: QUESTIONNAIRE

THE EFFECT OF CREDIT REFERENCE BUREAU ON ACCESS TO LOANS IN KENYA

This set of questions is intended to get The Effect of Credit Reference Bureau On Access To Loans in Kenya: With your honest answers, the interested stakeholders will have the right information to plan the way forward. You are hereby guaranteed that the information you give will be treated with utter confidentiality.

Section A: General Information

1. Name of Bank.....
2. Position held at the Bank.....

SECTION B: Loans advanced

1. Please provide the amount as per below column for each year.

| Year | Number of Loans issued | Number of Individuals qualifying for loans | Number of CRB reports accessed | Number of declined loan applications due to negative CRB reports |
|------|------------------------|--|--------------------------------|--|
| 2006 | | | | |
| 2007 | | | | |
| 2008 | | | | |
| 2009 | | | | |
| 2010 | | | | |
| 2011 | | | | |
| 2012 | | | | |

2. How useful are the information provided by credit reference bureau in making credit decision?

Not Useful { } Useful { } Very Useful { }

3. Rate The Effect of Credit Reference Bureau On Access to Loans in Kenya using the scale of 1-5 with No extent at all =1, Low extent =2, Moderate =3, Great extent =4, Very great extent =5

| Descriptions | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
| -CRB acts a deterrent to loan defaulting. | | | | | |
| -Credit information sharing plays a pivotal role in reducing the information asymmetry that exists between banks and borrowers. | | | | | |
| - The major benefit that the banks receive from CRB is that they are able to get credit information on prospective borrowers that will facilitate assessment of credit requests to mitigate risks of bad debts | | | | | |
| -Lack of credit information has in the past led to banks factoring a risk premium in the pricing of credit | | | | | |
| -Credit information is not the only factor that contributes to high cost of borrowing; there are other structural rigidities that contribute to this high cost of credit | | | | | |
| -Credit information sharing from CRB rewards and promotes good credit track record. | | | | | |
| -Credit bureaus reduce the borrowing cost by forcing creditors to be more competitive for good borrowers. Those lower costs for good credit risks motivate those borrowers to be more careful with repayment | | | | | |

| | | | | | |
|--|--|--|--|--|--|
| - Credit bureaus reduce moral hazard by developing a credit culture where they operate as borrowers become aware that credit market becomes aware of their credit history and rewards or punishes them accordingly | | | | | |
|--|--|--|--|--|--|

SECTION C: Procedure to Accessing Loans

1. Is accessing a CRB report the first task in loan processing?

Yes { } No { }

2. Rate the loan application procedure on the Effect of Credit Reference Bureau on Access to Loans using the scale of 1-5 with No extent at all =1, Low extent =2, Moderate =3, Great extent =4, Very great extent =5

| Descriptions | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
| - Does a negative report mean a declined loan application | | | | | |
| - For a loan application, there is only one major step for an applicant with a negative CRB report | | | | | |
| - Has the CRB process helped remove any subjectivity in the process | | | | | |
| -A positive CRB report portends a shorter application process(confidence in applicant) | | | | | |
| -CRB has shortened the loan application procedure | | | | | |
| -Has your bank credit standards changed since CRB inception in 2008 | | | | | |
| -Has the CRB report reduced screening procedures at your bank | | | | | |

SECTION D: Credit Scoring

1. Is credit scoring used as a loan screening procedure at your bank?

APPENDIX II – LIST OF COMMERCIAL BANKS IN KENYA

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