THE EFFECTIVENESS OF CREDIT REFERENCE
BUREAU (CRB) ON THE PROVISION OF CREDIT BY
COMMERCIAL BANKS IN KENYA

BY

IRENE N. MURIMI

UNITED STATES INTERNATIONAL UNIVERSITY-
AFRICA

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A Research Project Report Submitted to the Chandaria School of Business in Partial Fulfillment of the Requirement for the Degree of Masters in Business Administration (MBA)

UNITED STATES INTERNATIONAL UNIVERSITY - AFRICA

SUMMER 2017
STUDENT’S DECLARATION

I, the undersigned, declare that this is my original work and has not been submitted to any other college, institution or university other than the United States International University in Nairobi for academic credit.

Signed: ___________________________    Date: ______________________

Irene Murimi (ID: 644072)

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

Signed: ___________________________    Date: ______________________

Dr. Amos Njuguna

Signed: ___________________________    Date: ______________________

Dean, Chandaria School Of Business
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ABSTRACT

The purpose of this study was to access the effectiveness of Credit Reference Bureaus on provision of credit among selected commercial banks in Kenya. The specific objective was to carry out an indepth analysis of the functionality of Credit Reference Bureaus, to investigate why Credit Reference bureaus encourage sharing of borrowers information, and to investigate the effect of Credit Reference Bureau on non-performance loans in the lending market.

The target population was 300 comprising of branch managers, credit analysts, credit administrators and loan officers working within the banks. The sample size was determined using simple random sampling method and this helps to reduce biases or prejudices in selecting samples A sample of 30% was selected resulting into 90 respondents out of which 79 responded. Primary data was collected by administering close-ended questionnaires, using a five point a likert scale to the respondents, which were self-administered through drop and pick method. Responses to the questionnaires were examined, processed and tabulated into meaningful data. Frequency tables and percentages were used to present the findings in an easily understandable format. A regression relationship was generated to show the extent to which the dependent variable was affected by each of the independent variables.

The first objective sought to establish functionality of Credit Reference Bureaus. The study established that to a great extent, credit bureau keeps a credit history record of the borrower, credit bureaus collect, organize and consolidate information from many lenders, who associate with the bureau by providing access to their databases, upon the request of a user, credit reference bureaus provide credit reports that contain particular individuals’ credit history. The second objective sought to establish how Credit Reference Bureaus influenced sharing of borrowers’ information. The findings revealed that to a great extent sharing credit information is critical in facilitating better assessment of risks associated with prospective borrowers, and information asymmetry has caused difficulty in differentiating good and bad credit risks. Also to a great extent, lack of information has contributed towards adverse selection or moral hazard problems in lending activity of the bank, while banks lack data needed to screen credit applications and to monitor borrowers.
The third objective sought to establish how Credit Reference Bureaus influenced non-performance loans. The study found out that all the respondents were aware of non-performing loans in the bank. The study found out that most of the respondents indicated that it took 1-2 months to process the loans before the adoption of CRB. The study also found out that the majority of the respondents indicated that it takes between 2-7 days to process a loan after the adoption of CRB. Majority indicated that the bank was requesting for credit reports for all credit applications, the researcher sought to find out how credit reports help identify, and monitor risks, while CRB decreased default rates as borrowers aim to protect their “reputation collateral” by fulfilling their obligations in a sensible manner, and financial institutions use information from Credit reports for risk identification through risk mapping and/or scenario analysis.

The study concludes that Credit reference bureaus compile credit information, public record data, and identity, makes this information available to the bank in the form of a credit report of individuals and organizations. The study also concludes that Credit Reference Bureaus create a mechanism that facilitates credit information sharing at an affordable rate. The study also concludes that the main factors that lead to credit risk include lending to borrowers with questionable characters, serial loan defaulters, high interest rates that make it hard for some to pay management and legal framework.

The study recommended that the government should license more bureaus to increase the availability of information among the banks and as well as individuals recommended that there be put strong control systems to monitor the use of CRBs in Kenya. Moreover, banks need to sensitize consumers to the importance and functionality of Credit Reference Bureaus in a bid to make consumers from all financial back grounds be keen on meeting their loan obligations and be eager to share truthfully credit information pertaining to their loan instruments. The study recommends that the government should be even more involved in the lending markets ensuring mandatory compliance to settlement of debts as constitutionally required of the integrity section of the Kenyan law. There is a need to therefore undertake further studies to establish the challenges facing CRB performance.
ACKNOWLEDGEMENT

I wish to express my deepest appreciation to everyone who supported me throughout the course of this MBA project. Foremost, I would like to thank God Almighty for without His grace and favour, this research project would not have become a reality. I extend my special gratitude to my supervisor, Dr. Amos Njuguna, for his encouragement, constructive criticism and friendly advice. I also express my warm gratitude to my friends and family, especially my mother, for always believing in me.
DEDICATION

I dedicate this research project to my dearest mother, who was and will always be my role model. Thank you for the sacrifices you made so that I could get the best education. I appreciate you and may you rest easy with the Angels.
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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Problem

In Kenya, commercial banks play an important role in mobilizing financial resources for investment by extending credit to various businesses and investors. Therefore, the main tasks of commercial banks is to offer loans, and their main source of risk is credit risk, that is, the uncertainty associated with borrowers’ repayment of these loans. Therefore, commercial banks are very important for economic growth (Kamau, 2009). Several sectors of the economy depend on commercial banks for their growth. These sectors include Manufacturing, Mining, and Agriculture. The banking sector in Kenya is an ingredient that brings the country’s economy together (Oloo, 2009).

The banking industry has in the past been faced with the challenges of obtaining comprehensive information on clients’ payment history for use during the credit assessment process. This has led to a high rate of Non-performing loans (NPL’s) coupled by defaulters moving from one bank to the other to secure credit facilities. To address this issue, the Central Bank of Kenya (CBK) facilitated development of Credit Information Sharing (CIS) mechanism through establishment of Credit Reference Bureau (CRB) (Alloyo, 2013). Credit Reference Bureau is an institution that is either publically or privately-owned entity that consolidates information on borrowers from lenders. The Banking (Credit Reference Bureau) Regulations, 2008 became effective in February 2009. The Regulations required all licensed banks to share information on NPLs through a CRB licensed by Central Bank of Kenya (CBK) (CBK,2012)). The Banking (Credit Reference Bureau) Regulations, 2008 provides that the information to be shared among the banks is any customer information concerning their customers’ NPL’s as well any other adverse information relating to a customer (negative information) (CBK,2013).

In Kenya too, access to credit had in the past been complicated due to stringent conditions imposed by commercial banks. In order to make banks more confident, and reward good borrowers, the Credit Information Sharing mechanism was launched in Kenya following the gazetting of the Banking (Credit Reference Bureau) Regulations 2008 on 11th July 2010 (Kithinji, 2010). The Regulations were issued pursuant to an amendment to the Banking Act passed in 2006 that made it mandatory for the Deposit Protection Fund and institutions licensed under the Banking Act to share information on Non-Performing
Loans through credit reference bureaus licensed by the Central Bank of Kenya. In addition, the amendment to the law also provides for sharing of information on Performing Loans (CBK, 2013).

In the 1980's and early 1990's, several countries in both developed and developing economies experienced numerous banking crisis calling for a major restructuring of the banking systems. Kenya has experienced banking problems since 1986 ending in major bank failures (37 failed banks as at 1998) following the crises of; 1986 to 1989, 1993/1994 and 1998 (Kithinji and Waweru, 2007). The Kenyan banking sector in the 1980’s and 1990’s was characterized and weighed down by accumulations of Non-Performing Loans portfolio.

The catalysts in these scenarios were “Serial defaulters”, who borrowed from various banks with no intention of repaying the loans. Undoubtedly these defaulters thrived in the “information asymmetry” environment that prevailed due to lack of a Credit Information Sharing mechanism (Byeongyong & Weiss, 2005). Commercial banks knew neither the past behavior that characterized potential borrowers, nor the intentions of credit applicants. Presently, several developed countries including the USA are experiencing banking crisis due to asymmetry in information. For example the Citibank group alone, has wrote off more than $39 billion in losses related to NPLs in 2008 (Aburime, 2008; Cornett, Guo, Khaksari, & Tehranian, 2009). Credit Reference Bureaus are a typical response to information asymmetry problems between lenders and borrowers.

In all economies, developing and developed ones, the ease of access to credit is an imperative factor in accelerating investments, job creation and transformation of small businesses into brand enterprises. Credit Reference Bureaus are meant to ease access to credit. Kithinji and Waweru (2007) further observed that Credit bureaus have long existed and are considered an integral part of the credit approval processes in a majority of developed economies such as those in North and South America, Australia, Europe and Asia. Countries like New Zealand and Hong Kong have adopted credit bureaus since the 1980s while bureaus in the United States of America go back to the 1960s.

The early CRB entities in the USA often specialized on the credit information of the local business people. The high mobility of the entrepreneurs forced the creation of National
Association of Mercantile Agencies (NAMA) in 1906 to process the credit information between different CRBs and in diverse geographical entities (Gitman, 2007). Other countries in the developed world that were among the earliest to embrace CRB entities include Germany (1934), France (1946) and Italy, Spain and Belgium by mid 1960s (Lewis, 2012).

In Africa, the West African countries particularly the French colonies were the earliest adopters of the CRB system (Alloyo, 2013). Traditionally, in many African countries, access to credit was mainly the reserve of corporate bodies, leaving out individuals and small enterprises even though they constituted a huge mass of consumers and whose micro-investments could have a great bearing on the whole economy (CBK, 2013). Thus, in Africa, CRBs were introduced in countries like Egypt, Nigeria and Libya among others to enable individuals and small enterprises to get credit facilities in banks. In East Africa, a Credit Reference Bureau (CRB) managed by Compuscan was introduced and launched in Uganda on 3rd December 2008 with an aim of availing information about borrowers to lenders. Compuscan collected information on individuals and business from various sources including financial institutions, non-bank lenders, telecoms, courts and many others (Morris & Turner, 2006). The information was then merged and analyzed to form a comprehensive credit history record for each borrower and was sold to lenders and other companies in the form of credit reports and other formats (CBK, 2013).

In 2008, Central Bank of Kenya facilitated and supported introduction of Credit Reference Bureau. Credit Reference Bureau (CRB) is an institutional framework introduced to support a well-functioning financial system by providing rapid access to accurate and reliable information, on potential borrowers, individuals or firms. Therefore, it is recognized as a key component of financial sector reforms in almost all developing and emerging economies.

Borrowers with bad credit who have been operating in isolation have exploited the information asymmetry to create multiple bad debts in the banking industry in Kenya, distorting the lending business in the credit market thus adversely affecting bank performance, threatening banking sector stability and curtailing growth of the credit to the private sector due to the high interest charged on facilities to compensate on the credit risk (Athanasoglou et al., 2008).
Currently three CRB’s have been licensed by the CBK, namely Credit info CRB Limited, CRB Africa Limited and Metropol CRB Limited. This was the culmination of many years of deliberations between the Kenya Bankers Association (KBA), the Central Bank of Kenya (CBK), the Ministry of Finance and the Office of the Attorney General aimed at finding an amicable solution to various challenges that faced the lending environment in Kenya (Kithinji, 2010).

Credit bureaus are supposed to act as social accountability mechanisms that guide people’s sense of right and wrong behaviour, work to reward good behaviour while punishing bad behaviour and protects against deliberate default (Alloyo, 2013). The uptake of the CRB services has been on the rise in the Kenyan banking sector. For example, it is noted (Omari, 2012) that, by the end of the first quarter of 2011, the commercial banks had submitted over 760,000 records. On the other hand, it is indicated (Central Bank of Kenya [CBK], 2014) that, as at 31st December 2013, a total of 3.5 million and 55,094 credit reports had been requested by banks and customers respectively from two licensed CRBs since 2010. The amendments and examinations of the regulatory environment around the CRBs continues. This has led to the revised Credit Reference Bureau Regulations, 2013 which resulted in the incorporation of the Banking Act and the Microfinance Act to enable both the commercial banks and microfinance institutions to share the positive and negative credit information. This sharing of the positive and negative credit information is referred to as full file (Gichimu, 2013).

Banks are increasingly facing credit risk or counterparty risk in various financial instruments other than loans, including acceptances, interbank transactions, trade financing, foreign exchange transactions, financial futures, swaps, bonds, equities, options, and in the extension of commitments and guarantees, and the settlement of transactions (Greenidge & Grosvenor, 2010). This study the effectiveness of credit reference bureau (CRB) on the provision of credit by commercial banks in Kenya: a case of Kenya commercial bank.

1.2 Statement of the Problem

The banking industry in Kenya has overtime grown its income, mainly from interest earned on loans granted. This interest income has been through the waves of highs and
laws because of prevailing credit risk factors, the key threat being non-performing loans. In the past three decades there have been a number of financial crises that have seen the collapse of a multitude of commercial banks in Kenya (Kalani & Waweru, 2009).

While the Kenyan commercial banks have faced difficulties over the years for a multitude of reasons, the major cause of default to loan facilities continues to be directly related to failure of understanding the credit standards of borrowers and poor credit risk management (CBK, 2013). The credit decision ought to be based on a thorough evaluation of the risk conditions of the lending market and the characteristics of the borrower which is done by accessing credit reports from the licensed CRBs.

Many studies have illustrated the relationship between Credit Reference Bureau and credit provision. Barron & Staten (2003) found that historical information collected by a Credit Reference Bureau had powerful default predictive power. A study by Barron and Staten (2009) showed that lenders could significantly reduce their default rate by including more comprehensive borrower information in their default prediction models. Bikker & Metzemakers (2005) found out that default rate decreases when more information is available on borrowers.

In spite of the above findings and conclusions, there is limited information and research regarding its effectiveness and as a model of credit information sharing in the Kenyan Credit Market. Therefore these provide a case for the researcher to examine the impact of CRB in commercial banks in Kenya because it is considered as a strong innovation and revolutionary institution (Kamau, 2009).

This study therefore builds on this work and aims to fill the knowledge gap by helping to determine the impact of the credit reference bureaus on provision of credit among selected commercial banks in Nairobi, Kenya. Moreover, past researches have also not shown the extent to which Credit Information Sharing, CRB Procedures and Policies have been effective in provision of credit in lending markets. This coupled with the various highlights above-mentioned in the background motivated the researcher to develop an interest in this particular research topic.
1.3 General Objective
The objective of the study is to determine the effectiveness of Credit Reference Bureau on provision of credit in commercial banks in Kenya with a special focus on Kenya commercial banks.

1.4 Specific Objectives
The following specific objectives were used for the purpose of this study:

1.4.1 To determine the functionality of Credit Reference Bureaus.
1.4.2 To determine whether Credit Reference bureaus encourage sharing of borrowers information
1.4.3 To investigate the effect of Credit Reference Bureau on non-performance loans in the lending market.

1.5 Significance of the Study
The findings will be beneficial to the banking industry as a whole and especially to the following key stakeholders in the sector:

1.5.1 Financial and non-financial institutions
This research will acts as a framework, a road map and a basis of making sound decisions towards sustainable growth and efficiency in sectors such as Kenya Power and Lightning Company (KPLC), water companies, City and County Councils, Higher Education Loans Board (HELB), Deposit Taking Micro-Finance (DTM), Savings and credit corporations (SACCOs).
All the above named sectors stand to benefit weather directly or indirectly from access to credible information in lending markets.

1.5.2 Commercial Banks Management
The findings of this study would be of importance to the management of commercial banks in Kenya as they would understand how Credit Reference Bureaus impacts on the credit risk management in their bank; this would enhance proper utilization of CRBs in order to reduce the credit risk in their banks.
1.5.3 Policy makers
The findings of this study would provide policy measures since it will enlighten policy makers on how credit reference bureaus have impacted on credit risk management among selected commercial banks in Kenya.

1.5.4 Central Bank of Kenya
Central Bank of Kenya can use the results of the study to examine various areas that require improvements and amendments on CRB

1.5.5 Scholars and Academics
The findings of the study can be used to aid further studies in the field of applications of Credit Reference Bureaus. CRBs are still pretty new in the Kenyan markets as compared to other financial instruments and therefore the room for growth and further studies is still pretty huge.

1.6 Scope of the Study
The study sought to establish the impact of credit reference bureaus on provision of credit among selected commercial banks in Kenya. The study aimed at carrying an in depth analysis of Credit Reference Bureaus, investigating the reason behind sharing of borrowers information and investigating the effects of CRBs of non-performing loans in lending markets.

The study was conducted over period of 5 months and it focused its evaluation on 3 commercial banks in Nairobi. The respondents comprised senior employees of the selected commercial banks in their finance and credit departments. The researcher selected Nairobi because of its proximity to the campus, time and budgetary constraints as well as the fact that all these commercial banks are headquartered in Nairobi hence the information collected from these banks would by and large be a representation of their branches countrywide.

1.7 Definition of Terms
1.7.1 Credit Information System
Credit Information Sharing (CIS) is a process where credit providers (such as banks, microfinance institutions, saccos, etc.) exchange information on their outstanding loans
and advances through licensed Credit Reference Bureaus (CRBs) (Cornett, Guo, Khaksari & Tehranian, 2009).

1.7.2 Central Bank of Kenya
The Central Bank of Kenya (CBK) is an independent public institution that works to ensure stability in prices and promote economic growth (Echeboka et al., 2014).

1.7.3 Credit Reference Bureau
A credit reference bureau (CRB) is a company licenced by central bank of Kenya to collect, store and collate credit information on individuals and companies from different sources and provide the information in form of a credit report upon the request of a lender (Baye, 2010; Byeongyong & Weiss, 2005).

1.7.4 Deposit taking Micro-finance
Deposit Taking Microfinance is a financial service for poor and low-income clients offered by different types of service providers. The term is often used more narrowly to refer to loans and other services from providers that identify themselves as ‘microfinance institutions’ (Barron & Staten, 2003).

1.7.5 Financial Institutions
A financial institution (FI) is a company engaged in the business of dealing with monetary transactions, such as deposits, loans, investments and currency exchange (Central Bank of Kenya, 2012).

1.7.6 Credit
Credit: is the trust which allows one party to provide resources to another party where that second party does not reimburse the first party immediately (thereby generating a debt), but instead arranges either to repay or return those resources (or other materials of equal value) at a later date. The resources provided may be financial (e.g. granting a loan), or they may consist of goods or services (e.g. consumer credit) (Gitahi, 2013). Bank (KCB) is a banking institution with over 210 branches spread across Kenya, Tanzania, Sudan, Uganda, and Rwanda (World Bank, 2010).
1.7.7 Non-Performing Loans
Non-performing loan (NPL) is the sum of borrowed money upon which the debtor has not made his scheduled payments for at least 90 days (Oloo, 2009). A nonperforming loan is either in default or close to being in default (Lewis, 2007).

1.7.8 Non-Performing Asset
Non-performing asset (NPA) is defined as a credit facility in respect of which the interest and/or installment of Bond finance principal has remained 'past due' for a specified period of time. NPA is used by financial institutions that refer to loans that are in jeopardy of default (Kithinji & Waweru, 2007).

1.7.9 Portfolio at Risk
Loan portfolio at risk (PAR) is defined as the value of the outstanding balance of all loans in arrears (principal). The Loan Portfolio at Risk is generally expressed as a percentage rate of the total loan portfolio currently outstanding. This is the total outstanding balance of overdue loans (Bikker & Metzemakers, 2005; Gitman, 2007).

1.7.10 Public Credit Registry
A public credit registry is one of the two main types of credit reporting institutions. One of the main differences in comparison with credit bureaus—the other main type of credit reporting institution—is that credit registries tend to be public entities. They are usually managed by central banks or bank supervision agencies (Bikker & Metzemakers, 2005; Gitman, 2007).

1.7.11 Savings and Credit Co-operative
Savings and Credit Co-operative (SACCO) is a type of co-operative whose objective is to pool savings for the members and in turn provide them with credit facilities (Sharafeldin, 2008). Other objectives of SACCOs are to encourage thrift amongst the members and also to encourage them on the proper management of money and proper investments practices (Luoto et al., 2007).

1.7.12 Turn-Around Time
Turn-Around Time refers to the entire sequence of steps, from the time a loan application is received (or a loan offer is accepted) to the time loan is closed, the loan proceeds are disbursed, and the aggregate amount (principal plus interest) is placed on the lender’s books as an asset (Athanasoglou et al., 2008; Waweru & Kalani, 2009).
1.8 Chapter Summary
This first chapter provides a general overview of this study. The introduction highlights the background of the study with regards to previous studies conducted outside Kenya and locally on the factors affecting loan provision in commercial banks. The chapter also presented the problem statement, identified the existing knowledge gap on factors affecting loan provision in commercial banks, as well as the purpose of the study. The research questions are also outlined as well as the significance of the study, scope of the study and definition of terms.

The second chapter provides the literature review based on the research questions which focus on previous studies similar to this study as well as their findings and conclusions. Chapter three follows with the methodology that was used in this study, detailing the research design, population, sampling design, data collection methods, research procedures and data analysis methods. Chapter four presents the findings and results using graphs and tables. Chapter five concludes the study with a summary of the findings, discussions, conclusions and recommendations.
CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter will review the related literature of previous studies, theories and current matters in reference to Credit Reference Bureaus and their relation to effective provision of loans by commercial banks in Kenya; with a particular inclination towards the Kenya Commercial Bank (KCB). Specifically, the chapter covers an in-depth analysis of credit reference bureau, determines the effectiveness of credit reference bureau in aiding the application of loans, and finally determines the effectiveness of credit reference bureau in reducing the level of non-performing loans.

2.2 Functionality of Credit Reference Bureau

According to Oloo (2009), a credit reference bureau is an organization that assembles credit information, public record data, and identity information, and makes this material available to lenders in the form of a credit report. Other information shared include: proven frauds and forgeries; cheque kiting; false declarations and statements; receiverships, bankruptcies and liquidations; credit default and late payments; use of false securities; and misapplication of borrowed funds (Lewis, 2007). The information gathered by CRBs is thus deemed reliable, relevant and comprehensive as it is an all-inclusive indication of an individual’s or company’s payment history. Credit bureaus obtain data from creditors and other sources, consolidate and package information into individual reports, and distribute it to creditors. With the above in mind, the main functions of Credit Reference Bureaus are:

2.2.1 CRBS and Credit Information Sharing

Credit information sharing institutions provide information on the past payment behavior of individual borrowers. Furthermore, they collect, organize and consolidate information from many lenders who associate with the bureau by providing access to their databases. Such information is updated frequently, usually every month. Then, at the request of a user, bureaus provide credit reports that contain particular individuals’ credit history (Hahm & Lee, 2008).

The individual information collected by CRBs is made available on request to customers of the credit bureau for the purposes of credit risk assessment, credit scoring or for other purposes such as employment consideration or leasing an apartment. It is therefore safe to
say, CRB plays three key duties: firstly, they enable lenders to lend to more to better risk clients and effectively lower the loan spread that is needed to cover expected losses of credit to good payers. Secondly, credit bureaus potentially reduce borrowing costs by forcing creditors to competitively fight over individuals with good credit ratings. Lowering cost of credit associated with good credit ratings stimulates an active economy. Last but not least, credit bureaus reduce moral hazard (Sullivan & Sheffrin, 2003).

Additionally, credit information sharing mechanisms create a pool of information that can be organized into a database. This database can be accessed by all relevant parties in a business decision. This ultimately creates positive externalities to all bureau subscribers. The greater the pool of information, the greater the positive externalities created. The positive externalities are related to a vital uniqueness of credit information: it is an excludable public good in the sense that it is non-rival. That is, the fact that a lender knows information about a certain individual does not prohibit the use of the same information by other lenders (Greenidge & Grosvenor, 2010).

By reducing informational problems and imposing discipline on borrowers, information sharing generates social benefits like interest rates reduction, credit expansion and better credit allocation (Waweru & Kalani, 2013). However, these benefits are not distributed evenly across groups. Sharing information benefits good payers and those individuals who apply for credit for the first time, while high-risk clients are negatively affected.

Since the initiation of the Credit Information Sharing (CIS) mechanism in July 2010, all the licensed commercial banks in Kenya and institutions under the Deposit Protection Fund Board had continued to submit mostly negative credit information of their customers to the licensed CRBs within the required timeframes. However, in November 2012 the CBK revised the Banking (Credit Reference Bureau) Regulations under the Banking Act and the Microfinance Act. These new regulations necessitated banks to share full-file credit information, both negative and positive credit information, (CBK, 2013). The Credit Reference Bureau Act was therefore enacted to enable financial institutions to share credit information that will aid in adequate pricing of loans.

Currently in Kenya, there are three licensed credit reference Bureaus; Credit Reference Bureau Africa Ltd, which is the largest of its kind in Africa, Metropol Credit Reference
Bureau and Compuscan Kenya Limited (CBK, 2012). The banking Act in 2006 and 2007, made it compulsory for commercial banks and Microfinance deposit taking institutions to share information concerning non-performing loans and any other adverse information to CRBs (Kithinji, 2010). The most prominent function of a credit bureau is to assist banks share information about borrowers for business decision making especially when it concerns granting of credit. The bureaus also keep a credit history record of the borrower and usually assign a score related to an individual’s credit history. A good credit scores can ease access to credit which could be a competitive advantage for SMEs to access credit without the restrictive collateral requirements (Hahm & Lee, 2008).

2.2.2 CRBS and Coordination of Lenders

Coordination of lenders to share information about their clients’ past behavior alleviates problems associated with information symmetry. This is the function of credit bureaus and public registries of credit information (Waweru & Kalani, 2009). These institutions provide information on individuals past payment behavior and gather, organize and consolidate information from many lenders. Ultimately, at the request of a user, bureaus provide credit reports that contain particular individuals’ credit history. The database of the sharing mechanism is the sum of all associates databases. Hence, access to such a database alleviates adverse selection problems. Moreover, as borrowers realize that there is an institution monitoring their behavior, they have an incentive to pay back their loans, mitigating moral hazard (Oloo, 2009). Consequently, information sharing results in lower outstanding payments, lower interest rates, and a better allocation of limited resources.

Databases that are created through a conglomerate sharing of information by lenders help alleviate adverse selection problem. Moreover, as borrowers come to terms with the fact that there is an institution that monitors their behavior, they have an incentive to pay back loans, thus reducing moral hazard (Jappelli & Pagano, 2002). Essentially, the information sharing mechanisms allow the formation of borrowers’ reputation. Therefore, CRBs can be conceptualized as information brokers because they create a market for such information. Credit bureaus are needed mainly because of moral hazard from borrowers and from bureaus’ potential associates. However, if there were a reliable way for borrowers to provide their full past records to potential lenders, credit bureaus would be deemed redundant (Hahm & Lee, 2008).
However, even if there was a way for borrowers to provide their full past records to potential lenders, potential borrowers would only show lenders the information that is favorable on their behalf. Lenders on the other hand would most likely also fail to exchange information bilaterally between them because they may feel threatened by their competitors. Therefore, third-party bureaus can solve the neutrality problem in bilateral agreements. Bureaus are not just neutral to any associate, but they must have the capacity to coerce its associates to report their information truthfully, completely and timely (Sullivan and Sheffrin, 2003).

2.2.3 Benefits Created By CRB Functions

As it has been mentioned above, CRBs facilitate information sharing. Also, CRBs are capable of providing an in-depth report of a potential borrowers past payment behaviors; both positive and negative. Traditionally access to loans was a privilege that was only granted to individuals with massive collateral at punitive rates (Steinwand, 2001). The high cost of credit was due to the tedious and mostly expensive mechanisms that were used in trying to evaluate an individual credit rating or standing. Thus ultimately, with access to a database that avails lenders a massive pool of information on potential borrowers, the cost of credit was considerably lowered (Berger et al., 2005).

With low cost of credit, SMEs have access to unlimited funds that will enhance growth of their businesses. With the growth of SMEs, innovative entrepreneurs are able to expand their capabilities and grow within an industry. The more entrepreneurs produce, the more consumers consume, and the more money circulates with an economy. Moreover, the growth of industries translates to the need of capable and willing hands; ultimately lowering the rates of unemployment (CBK, 2013). Therefore, it is safe to conclude that Credit Reference Bureaus facilitate growth of an economy by lowering cost of credit.

According to Barron and Staten (2003), Credit Reference Bureaus can effectively and efficiently reduce default ratios through a set of combined effects. To begin with, visible credit histories permit appropriate lending activities; lenders can avoid clients that maybe unable to repay therefore effectively identifying clients with good credit profiles. Moreover, lenders are able to potentially increase their lending offers (Kamau, 2009). Secondly, Credit Bureaus work as enforcement tools that continually push clients to continue paying their debts in fear of being included in a list of bad debtors. Lastly, Credit
Bureaus may help reduce cases of fraudulent activities through providing positive identity checks and verifying personal details.

2.3 Credit Reference Bureau and Information Sharing
Credit Bureaus emerged in response to growth in consumer lending markets. Consumer lenders make their profits based on a high volume of small loans at high interest rates. Consumer lenders depend on Credit Bureau data to reduce their transaction costs and assist them with credit scoring. This facilitates an efficient credit processes (CBK, 2013). During the year ended 31st December 2010, the Central Bank of Kenya (CBK) pursued financial reforms geared towards enhancing financial access in an effort to facilitate efficiency and stability in the banking sector. These reforms comprised of roll-out of credit information sharing. Credit Reference Bureaus have a potential of revolutionizing commercial banks Credit Process (CBK, 2010.)

2.3.1 Information Sharing
CBK in collaboration with the Kenya Bankers Association rolled-out the credit information sharing initiative in 2010. This was in accordance with the banking Credit Reference Bureau Regulations 2008 which came into effect in February 2009. Banks were given mandate to share credit information on their customers, which was and still remains critical in facilitating better assessment of the risks associated with prospective borrowers (CBK, 2012).

Economic environments have increasingly become more and more competitive resulting in commercial banks growth in participation in both formal and informal systems for sharing clients’ credit histories. The weakening performance of Microfinance Institutions (MFIs) in competitive environments is due in part to the complex credit processes in these markets (Aburime, 2008). Because growing numbers of MFIs increase the level of asymmetric information between commercial banks, CRB can play a crucial role towards improving credit market performance and, in turn, credit access for the poor (CBK, 2012).

The significance of CRB toward information sharing is well communicated and established in the studies of such authors as Gitman (2007). Credit information systems act as information brokers that increase the transparency of credit markets. However, in many developing countries, CRB are still in their infancy and information sharing
between commercial banks remains staggeringly weak with great room for improvement. Using a pure adverse selection model, Morris & Turner (1996) in their analysis of the factors that lead to endogenous communication between commercial banks in a credit market, found that information sharing is more likely to occur when the mobility of households is high, the pool of borrowers is heterogeneous, the credit market is large and the cost of information exchange is low (Cooper & Schindler, 2014; Echeboka et al., 2014).

Credit information sharing (CIS) is therefore a process where banks and other credit providers submit information about their borrowers to a Credit Reference Bureau (Berger et al., 2005). Pagano and Jappelli (2013) define credit information sharing as the process where banks and other credit providers submit information about their borrowers to a credit reference bureau allowing the information to be shared to other credit providers. This enables commercial banks to obtain information on how borrowers have been servicing their loans. It is also known as credit reporting (CR). CIS enables banks to differentiate between bad and good credit borrowers. This effectively implies that defaulters are not able to gain an easy access to credit. This process in the long run results to better information on borrowers culminating to accessible and cheaper loans.

Under the Banking Act of 2008, banks are required to relay negative information to CRB on a monthly basis. The bureau gets updated on any eventual (positive) changes to the information as they occur. The credit report forms a basis for making lending decision by banks. Information is data that has been processed or transformed so that it presents a meaningful basis of decision making. The quality of information often impacts on the decision. Berger et al, (2008) argues that the credibility of ample information is based three basic categories: time characteristic such as timeliness, currency and frequency which are related to time of collection and review; content characteristic such as accuracy, relevance and conciseness which are related to the scope and content of information and form characteristic which is related to how the information is presented to the recipient. Other qualities include reliability, confidence in source, appropriateness, correct recipient and use of correct channels to transmit the information.

The Banking Regulations of 2008 provides that, the information to be shared among banks is any customer information concerning their customers’ non-performing loans (NPLs) as well any other adverse information relating to a customer (World Bank, 2010).
Information shared includes: on-performing loans; dishonour of cheques other than for technical reasons; Accounts compulsorily closed other than for administrative reasons; Proven cases of frauds and forgeries; Proven cases of cheques kitting; False declarations and statements; Receiverships, bankruptcies and liquidations (Greenidge & Grosvenor, 2010); Credit defaults or late payments on all types of facilities; Tendering of false securities; and Misapplication of borrowed funds.

It is worth noting that sharing of negative credit information does not amount to blacklisting. However, such information is expected to be taken into account by banks while assessing applications for loans and other bank facilities (Fofack, 2005). Furthermore, licensed CRBs are required under the CRB Regulations to hold information on non-performing loans submitted to them by banks for at least 7 years after the date of final settlement of the amount in default (Kithinji, 2010). It should however be noted that customers may consent to their banks sharing positive information on their performing loans. Positive information sharing contributes to the building of information capital that may be used in negotiating for competitive interest rates on credit facilities (Sharafeldin, 2008).

According to Aburime (2008), the data needed to screen credit applications and to monitor borrowers is not freely available to banks. When a bank lacks such information, it faces adverse selection or moral hazard problems in its lending activity. There are three critical models that address and explain the concept of information sharing; adverse selection theory, moral hazard theory, and asymmetric information theory.

According to The CBK (2013), the numbers of CRB Reports requested have been increasing since the year 2010 from 282,722 to 1,021,717 in 2011. In the year 2012 they increased to 1,015,327, In the year 2013 they increased to 1,275,522 and in the year 2014 to 1,674,707. This shows that commercial banks in Kenya embraced the workings of Credit Reference Bureaus.

### 2.3.2 Minimizing Asymmetric Information

According to Waweru and Kalani (2009), asymmetry in information occurs when one party to a transaction has more valuable information that could be deemed critical and essential in making a decision. The imperfect information causes an imbalance in power;
giving room for one party to manipulate the decision to be made for their own benefit. Accurate information is therefore essential for sound economic decision making; when a market experiences an imbalance it may result to market failure.

The theory expounds that in a lending market, the person that possesses more information on a particular item to be transacted (in this case the borrower) is in a position to negotiate optimal terms for the transaction than the other party (in this case, the lender) (Auronen, 2003) and Richard (2011). With efficient credit information sharing this potential loophole in economic and financial decisions is significantly reduced. Credit information sharing promotes room for creation of databases on customers pertaining to both their positive and negative credit histories.

Due to the imbalance in power caused by asymmetry in information, there are two types of risks that are bound to happen; adverse selection, which is a risk exposure that exists before money is lent or invested and moral hazard, which is a risk after a financial transaction (Luoto & Wydick, 2007).

2.3.3 Curbing Adverse selection

Steinwand (2001) defines adverse selection as a process in which undesired results occur when buyers and sellers have access to dissimilar/imperfect information; uneven knowledge causes the price and quantity of a good or a service in a market to shift, resulting in "bad" products or services being selected. Felix and Claudine (2008) state that adverse selection occurs when bad credit risks (firms that have poor investment channels and high inherent risks) become more probable to acquire loans than good credit risks (firms with better investment opportunities and less inherent risks).

Due to asymmetry in information, lenders tend to have a difficult time differentiating between good credit risks and bad credit risks; lenders therefore tend to demand a blanket premium over and above the existing rates as compensation for the risk arising out of the inability to determine individual’s credit worthiness (Fofack, 2005). This causes companies with a good credit payment history to stop borrowing from such lenders because of high rates involved. However, companies with a poor credit history become very enthusiastic to borrow from such lenders because they know for sure that judging by the strength of their cash-flows, they should be charged an even higher interest rate. Consequently, lenders end up with a loan portfolio comprising almost entirely of bad
credit risks that ultimately increases the rate of default. These loan portfolios entirely eliminate low risk customers leading to a missing market and companies or commercial banks end up spending a ginormous amount of resources trying to identify higher risk individuals resulting in higher costs of credit (Japelli & Pagano, 2002).

Through sharing of the credit information, lenders are able to distinguish good borrowers from bad borrowers in a financial market. Pagano and Jappelli (2013) rationalized that information sharing significantly decreases adverse selection by greatly enhancing banks information on credit applicants. Better access to information helps lenders measure borrower risk more accurately and set loan terms and conditions accordingly. Good borrowers with a proven credit history are able to enjoy attractive prices stimulating credit demand. Barron and Staten (2003), illustrate that when banks exchange credit information on defaults, individual borrowers are encouraged to apply more energy in sustaining and growing their projects.

### 2.3.4 Reducing Moral Hazards

In addition to adverse selection, moral hazards are also a result of asymmetric information. A moral hazard is a situation where a party will take risks because the cost that could incur will not be felt by the party taking the risk ultimately entering into a contract in bad faith (Hahm & Lee, 2008). A moral hazard can occur when the actions of one party may change to the detriment of another after a financial transaction. In relation to asymmetric information, moral hazard occurs if one party is insulated from risk and has more information about its actions and intentions than the party paying for the negative consequences of the risk (Luoto et al., 2007).

Auronen (2003) surmises that, in a lenders market moral hazard occurs after the money has been distributed to the borrower. It arises out of the fact that the borrower may have an incentive to breach the loan covenants by investing in ‘immoral projects’ which are unacceptable in the eyes of the borrower; because in as much as they have a high possibility of gain to the borrower, they also have a high possibility of failure which will have the most detrimental effect on the lender. Information asymmetry once again causes moral hazard because of the lender’s lack of knowledge about the borrower’s activities. Moral hazard also occurs as a result of high enforcement costs of the debt covenants (Richard, 2011). In this instance, the lender simply decides that it is not worth the effort
to keep on chasing after borrowers and have them invest the money in stipulated projects – giving them a freeway to invest in high risk ventures.

Credit information sharing reduces the potential effects of moral hazard by assuring there are consequences to a borrower’s future application of credit. Japelli and Pagano (2002), state that, lenders’ information sharing induces borrowers to exert effort because they inadvertently “perform for a larger audience”, that is, if they are delinquent on their contractual obligations, their misconduct will be disclosed to a wide variety of lenders. Thus in this context information sharing mitigates borrowers’ moral hazard.

Credit information sharing undoubtedly plays a pivotal role in reducing information asymmetry that exists between banks and borrowers and therefore continues being instrumental in decision making processes by credit providers in commercial banks (Otwori, 2013).

2.4 Effect of Credit Reference Bureau on non-performance loans in a lending market

Bank credit is the dominant source of finance for business in Kenya; the provision of credit has increasingly been regarded as an important tool for raising income, largely by mobilizing resources to more productive uses (Otwori, 2013). As the economic industry develops, one query that arises is the extent to which credit can be offered by commercial banks. Although Commercial banks have a primary role of providing credit, there is historical evidence of credit rationing even to creditworthy borrowers by commercial banks all over the world. Less than two per cent of Small and Medium Enterprises (SMEs) receive loans from commercial banks in Kenya according to International Centre for Economic Growth. It is certainly unclear, how the rest, who form the majority, meet their working and investment needs (Kamau, 2009).

2.4.1 Commercial Banks Operations in Kenya

Commercial banks function as financial intermediaries. Moreover, commercial banks undertake funds transformation role by attracting funds from government, businesses and repackaging them as financial products such as loans to suit the needs of different borrowers (Cornet, 2012). Commercial banks also lend to large numbers of other intermediaries and clients, creating a sophisticated port of diversity, which in turn reduces risks incurred in loan provision. In determining cost of credit, banks charge a price for the
intermediation services offered under uncertain conditions and set the interest rate levels for deposits and loans. The disparity between the gross costs of borrowing and the net return on lending defines the intermediary costs which include information costs, transaction costs, administration, default and operational costs (Hamn & Lee, 2008).

The banking sector in Kenya has to a large extent been underwritten by physical collateral such as real estate. Borrowers without access to real estate collateral have been constrained in accessing credit. Unfortunately, SMEs and individual entrepreneurs have been in most cases denied the right to access affordable credit due to the perceived higher risk attached on account of lack of physical collateral (Alloyo, 2013).

For many years, Kenyan banks have had to contend with having incomplete information about borrowers’ due to lack of a credible mechanism of accessing information; that in turn translated to higher risk premiums on interest rates (Auronen, 2003). Bank industry players also state that lack of credit reference information leads to a risk of overpricing low risk borrowers and underpricing high risk borrowers. Perpetual defaulters have been the main cause of high lending rates (Richard, 2011). This necessitates a credit information sharing mechanism in a bid to incorporate sharing of data on customers’ credit histories. The information is shared by banks through credit reference bureaus as a way of establishing the credit worthiness of individuals seeking loan services.

2.4.2 Non-Performing Loans in Commercial Banks

In the case where borrowers cannot repay interest and/or installment on a loan after it is due, it is qualified as default loan or non-performing loan because the loan ceases to “perform” or generate income for the issuing bank (Pagano & Japelli, 2013). Commercial banks generally focus on the corporate or wholesale long term lending. However, the loan provision process slows down during periods of poor production of resources in the economy. This poses a challenge for bank’s management to maintain the required liquidity positions. The situation gives rise to non-performing loans.

Therefore, a non-performing loan is a loan where all agreed payments are not being made and are not expected to continue being made while the value of the assets backing up the loan remnants remains inadequate to cover the loan (Aburime, 2008). Simply put a non performing loan is the sum of borrowed money upon which the debtor has not made scheduled payments. A non-performing loan can either be in default or close to being in
default. Once a loan has been classified as non-performing, the chances of it being repaid fully are deemed substantially low. In such cases the banks seize to receive any form of scheduled payments (Adesina, 2012). Non-performing loans are so crucial to any banking facility as they determine the banking industries stability, permanency as well as the profitability. This is because non-performing loans can reduce a bank’s capital resource rendering the bank unable to grow or develop its business resulting in insolvency or liquidation (Bikker & Metzemakers, 2010).

A bank that is riddled with high level of non-performing loans is forced to incur carrying costs on non-income yielding assets that not only diminish profitability but also strike at the capital adequacy of a bank (Baral, 2005). Consequently, the bank faces difficulties in enhancing their capital resources. The probability of banking crises increases if financial risk due to non-performing loans is not eliminated quickly. Non-performing loans crises not only lower living standards but also drastically diminish many achievements gained through economic reforms (Athanasoglou et al., 2008). The effect of non-performing loans varies in different countries and in most cases leads to loss of current revenue, high loan loss provision, erosion of banks capital, financial crisis, high risk premium, high loan price, low rate of investment and low economic growth (Berger et al., 2005).

Kenya for example has felt the adverse effects of non-performing loans. A significant number of banks have been put under receivership and others have gone up to a point of being liquidated. The prominent reason for such occurrences across the board stems from questionable method of extending loan facilities. Just in the past couple of years, Dubai bank was liquidated, Imperial bank collapsed and Chase bank was put under receivership. National Bank of Kenya, which is a beacon of Kenya’s government influence on banking, remains under duress. Having understood the monumental effects of non-performing loans, commercial banks through collaboration with Credit Bureaus carry out credit risk assessment to try and determine credit worthiness of individuals.

2.4.3 Credit Risk Reduction

Barron & Staten (2008) define credit risk as the distribution of financial losses due to unexpected changes in the credit quality of counterparty in a financial agreement. Pagano & Japelli (2013) state that credit risk is the risk that the promised cash flows from loans and securities held by financial institution may not be paid in full. Jordan et al (2004) define credit risk as the possibility of default. When credit is extended to a borrower, the
expectation of the lender is that the terms of agreement will be fulfilled, interest will be paid as due and principal will be repaid as scheduled. Unfortunately, it is not uncommon for events to occur during the life of the debt agreement that make it impossible for the borrower to meet the terms of agreement; thus the need for credit reporting.

Banks and other credit providers use credit reports obtained from credit bureaus as part of the lending decision process. Scoring techniques are used throughout the whole life cycle of a credit as a decision support tool or automated decision algorithm for large customer bases. 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 (Alloyo, 2013).

2.4.4 Credit Rating/Screening among Commercial Banks

Screening borrowers is an activity that has widely been recommended by Sullivan and Sheffrin (2003). This recommendation has been widely practiced in the banking sector in the form of credit assessment by CRB’s. CRB carry out a meticulous screening process based on all the information gathered from different lending facilities and come up with a credit rated score. Credit rating is the opinion of the rating agency on the relative ability and willingness of a consumer of a loan instrument to meet the debt service obligations as agreed upon. Credit rating is therefore an opinion on the future ability and legal obligation of the receiver to make timely payments of principal and interest on a specific fixed income security (Byeongyong & Weiss, 2005). Credit rating can also be defined as an expression, through use of scores, of the opinion about credit quality of the receiver of a loan facility.

Credit ratings facilities (in this case CRB’s) establish a link between risk and return; they provide a yardstick against which to measure the inherent risk in any debt instrument. Thus, the need for credit rating facilities in today’s world cannot be overemphasized (Richard, 2011). Credit rating is an investor service and a rating agency is expected to maintain the highest possible level of analytical competence and integrity. In the long run, the credibility of rating agency has to be built, brick by brick, on the quality of its services provided, continuous research undertaken and consistent efforts made (Cornet, 2012). Credit scores established by these credit rating facilities are of great assistance to the investors in making investment decisions. They also help issuers of debt instruments to price their issues correctly and to reach out to new investors.
A credit bureau score is based on the contents of the credit report at a particular point in time. The designers of a Credit Scoring system, through years of experience, determine which details are best able to predict one’s future ability to repay a loan (Cornet, 2012). Effective credit scoring system requires reporting and reviewing structures to ensure that risks are effectively identified, assessed and that appropriate controls and responses are in place.

It is therefore safe to say that the main function of credit rating agencies is to provide an unbiased opinion as to relative capability of a company’s or individual’s ability to service a debt obligation (Hamm & Lee, 2008). In essence credit rating facilities provide quality information on credit risk that is more authentic, reliable, and easily understandable and cost friendly. Factors that necessitated the need of credit rating facilities are: the increasing levels of default resulting from easy availability of finance, the growth of information technology, globalization of financial markets, increasing role of capital and money markets, lack of government safety measures, the trend towards privatization, and finally securitization of debt (Barron & Staten, 2010).

Good credit rating scores allow borrowers to gain easier access to financial instruments or public debt markets. At the consumer level, banks usually base the terms of a loan as a function of an individual’s credit rating, so the credit rating, the more favorable the terms of a loan offered. Poor credit rating scores translates to unfavorable terms in loan offering or even a flat out rejection (Richard, 2011). At the corporate level, credit rating scores enhance a company’s ability to raise funds needed for development. Investors often base their decision to buy stocks and bonds on a company’s credit rating. Credit rating scores act as a barometer of success. Additionally, companies just like individuals enjoy favorable terms of credit if they have successfully met their loan obligations in the past (Auronen, 2003).

Rating is technically a static study of present and past historic data of a company at a particular point of time. However, there are a number of factors including economic, political, environment, and government policies that have direct bearing on the working of a company or an entrepreneur. Any changes to these factors after the assignment of rating score may defeat the very purpose ability to indicate an individual’s credit worth (Barron & Staten, 2008). Rating grades are not necessarily an accurate representation of a potential borrower or a company’s true image. A potential borrower may be given low
grades because they were passing through unfavorable conditions when rated. Thus, misleading conclusions may be drawn by the investors hampering future growth interests (Barron & Staten, 2008).

Rating does not necessarily indicate wholesome soundness. Rating grades by the rating agencies are only an opinion about the capability of a company’s ability to meet its future interest obligations. Rating scores do not pinpoint towards quality of products or management or staff etc. In other words rating does not give a certificate of the complete soundness of a company; they merely isolate the fact that a company was unable to meet prior past obligations (Barron & Staten, 2008).

2.5 Chapter summary

Therefore, it is safe to conclude that, Credit Bureaus have been quite effective in curbing the prevalence of non-performing loans. Moreover, CRB’s have gone a step further and disburdened the strenuous methodologies and practices that were applied every time a loan was processed at the cost of the consumer. CRB’s have effectively done this by facilitating an avenue of sharing credible information pertaining to all forms of loan payment obligations. This massive information is then critically evaluated, analyzed and finally broken down to easily understandable scores that can be used to evaluate the credit worthiness of an individual at a subsidized price. Thus, CRB’s through information sharing mechanisms have made great strides towards reducing the level of non-preforming loans, reducing the time it takes to apply for a loan and consequently reducing the cost of credit.

The following chapter analyses the research methodology focusing on population, data collection instruments, and methodologies used. The chapter will give clear details of the research and data presentation methodologies used.
CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction
This chapter explored the research methodology and design that was implied in carrying the research. The chapter analyzed the research design, the population of study, sampling techniques, sample size, data collection method, and procedures of data analysis.

3.2 Research Design
The study adopted a descriptive research design to collect, measure, classify, analyze, and interpret data. Descriptive research provides in-depth description of data and characteristics about a population or phenomenon being studied. According to Coopers and Schindler (2004) descriptive studies are more formalized and typically structured with clearly stated hypotheses or investigative questions. Descriptive research design involves obtaining information reflecting the contemporary status of the variable. It aims at describing the available variables in their existence form or condition in a given situation (Gardner, Mangan & Lallana, 2004). This design is most appropriate for research when the researcher wishes to provide an accurate response from individuals involved.

The data was obtained through a questionnaire. The research instrument was analyzed by use of descriptive statistics. The main objective of this study was to evaluate the effectiveness of CRB as a credit information sharing mechanism as adopted by Commercial Banks. Therefore; descriptive research provided an opportunity to describe the given problem or a phenomenon to establish the relationship between the factors. It is specifically investigated functionality of Credit Reference Bureaus, why Credit Reference bureaus encourage sharing of borrowers information and the effect of Credit Reference Bureau on non-performance loans in the lending market.

3.3 Population and Sampling Design

3.3.1 Population
Cooper and Schindler (2014) state that population refers to the gathering of all elements to which the research wishes to make inferences; population should not be guided by convenience but by consistency. Saunders et al., (2012) defines population as the full set
of cases or items from which an appropriate sample is taken for study purposes. A population element, however, is the individual item on which measurement is taken, according to Cooper and Schindler (2014). The target population for this research comprises of all 43 commercial banks in Kenya, licensed by Central Bank of Kenya. The target population comprises of branch managers, credit analysts, credit administrators, and loan officers working within the banks. The target population was approximately 300.

Table 3.1: Target Population

<table>
<thead>
<tr>
<th>Population category</th>
<th>Target population</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Branch managers</td>
<td>43</td>
<td>14</td>
</tr>
<tr>
<td>Credit analysts</td>
<td>60</td>
<td>20</td>
</tr>
<tr>
<td>Credit administrators</td>
<td>43</td>
<td>14</td>
</tr>
<tr>
<td>Loan officers</td>
<td>154</td>
<td>52</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>300</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

3.3.2 Sampling Design

3.3.2.1 Sampling Frame

A sample is a part of the target population that has been procedurally selected to represent the topic of research (Saunders, 2011). While, according to Cooper and Schindler (2014), the sampling frame is a list of elements from which the sample will be collected and it is closely associated to the population. From the sampling frame the required number of subjects, respondents, elements and firms are selected in order to make a sample; it is therefore important that the sampling frame is unbiased, current and accurate (Saunders et al, 2012). The sampling frame for this research comprises of 43 Kenya Commercial Bank Ltd Branches within Nairobi region, Kenya, licensed under Central Bank of Kenya Act.

3.3.2.2 Sampling Technique

A sampling technique explains how cases are to be selected from the population, for observation. Saunders et al. (2012) note that there are two types of sampling techniques, probability sampling, and non-probability sampling. Probability sampling, which includes
random sampling and cluster sampling designs for example, is often preferred as it applies random selection in order for all cases in the population to have an equal probability or chance of being selected. Unlike, non-probability sampling such as purposive and convenience designs, probability sampling reduces sampling bias.

In order for a branch to qualify to be included in the sample under study, the researcher used probability sampling procedure. This method helped reduce biases or prejudices in selecting samples (Saunders, 2011). The study used a computer software to generate random numbers between 1 and N (where n is the sample size and N is the last number in the sampling frame). Stratified random sampling will be used to identify the categories of staff as respondents. Therefore, branch managers, credit analysts, loan officers, and credit administrators in the selected branches were the sample target respondents. Since the study will be based on the assumption that these staff had both past and present knowledge of the core lending activities of their specific banks, they would possess valuable information to the study.

3.3.2.3 Sample Size
A sample is a group of cases consisting of a portion of the target population that the researcher carefully selects for analysis in order to determine facts about that population (Schindler & Cooper, 2014). The sample target respondents are therefore in a better position to provide information, since they have access to credit reports, customer experience, and CRB operations in their daily operations. The sample size depends on the type of research design. In descriptive studies 30% of the accessible population is enough (Morris & Turner, 2006). In this case 30% of 300 will make the sample size of the study about 90 respondents. The sample size will be determined using simple random sampling method. This method helps to reduce biases or prejudices in selecting samples (Saunders, 2011).
### Table 3.2: Sample size

<table>
<thead>
<tr>
<th>Population category</th>
<th>Sample size</th>
<th>Percentage sampled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Branch managers</td>
<td>13</td>
<td>14%</td>
</tr>
<tr>
<td>Credit analysts</td>
<td>18</td>
<td>20%</td>
</tr>
<tr>
<td>Credit administrators</td>
<td>13</td>
<td>14%</td>
</tr>
<tr>
<td>Loans officers</td>
<td>46</td>
<td>52%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>90</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

### 3.4 Data Collection

This research used questionnaires as the main tools for collecting data. The selection of these tools was guided by the nature of data to be collected, time available as well as by the objectives of the study. The overall aim of this study was to evaluate the effectiveness of CRB in the banking industry in Kenya. Primary data was collected through questionnaires given out to the respondents.

The data that was collected was aimed at providing answers to the research questions as to the causes of non-performing loans, percentage component of loan provision and effectiveness of CRB on non-performing loans in commercial banks stated. Questionnaire was used since they were stated to be advantageous on the fact that they enabled the researcher save time, maintain confidentiality, and added access to population, and eradicated interviewer bias (Cooper& Schindler, 2004).

The questionnaire was developed and designed on the basis of the research questions, namely as to the causes of non-performing loans in the target banks, effectiveness of CRB on non-performing loans, loan and advances provision and effect on sharing of information. Data will be analyzed using the SPSS software package and Spreadsheets to come up with appropriate charts and tables for data presentation. The research was therefore considered an appropriate avenue for providing a focal point for the study of CRB in relation to non-performing loans and effect of sharing information.
3.5 Research Procedures

Both qualitative and quantitative data was collected from respondents using Questionnaires. To ensure validity and reliability of data collection instruments, the provisional draft of the questionnaire was pre-tested on a pilot group similar to the sample of the questionnaire used. The respondents targeted for the pre-test will be 10% of the sample size. This means that a total of 9 respondents were involved. The pilot provided and checked on the feasibility of the proposed procedure for coding data and show up flaws and ambiguities. The pilot of this study was based in Nairobi. To further enhance content validity for the questionnaire instrument for evaluating effectiveness of CRB; questionnaire reliability was based on the use of Cronbach Alpha, to measure the reliability of each scale. This was supported by Coefficient Alpha of over 0.6. Nunnally (1967) provided a suggestion based on psychometric test that the minimum acceptable level of reliability is 0.5.

For the study functionality of Credit Reference Bureaus (α=.626), information sharing (α=.779), non-performance loans in the lending market (α=.646), provision of credit in commercial banks (α=.715).

3.6 Data Analysis

Statistical procedures were conducted to determine the effectiveness of CRB in Kenya Commercial Banks. The data was analyzed using Statistical Package for Social Sciences (SPSS). Data analysis was both descriptive and inferential. The former was used to describe the characteristics of the sampled respondents while the latter was employed to draw conclusions in respect to study objectives. The data was presented using tables and figures. Multiple regression analysis was used to establish the relationship between the study variables. The multiple regression equation was:

\[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \varepsilon \]

Whereby \( Y \) = Provision of credit in commercial banks; \( X_1 \) = functionality of Credit Reference Bureaus, \( X_2 \) = Information sharing and \( X_3 \) = non-performance loans in the lending market, while \( \beta_1, \beta_2 \) and \( \beta_3 \) are coefficients of determination and \( \varepsilon \) is the error term. This study generated quantitative reports through tabulations, percentages, and measures of central tendency.

3.7 Chapter Summary

This chapter addresses the research design, target population and sampling techniques, as well as data collection and analysis. The design is descriptive research, and this has been
selected since it unveils in-depth description of the various pieces of data about populations and phenomena. The data was obtained through questionnaire. This instrument of research was selected since it is relatively easy to analyze, easier to administer, and its format is familiar to most of the respondent’s professional activities. The target population was 300, and the sampling size was 90. Data analysis was accomplished through SPSS software. The next chapter presents the results and the findings.
CHAPTER FOUR

4.0 RESULTS AND FINDINGS

4.1 Introduction
This chapter presents the results and findings of the study as set out in the research methodology. The research data was gathered exclusively through questionnaires as the primary research instrument. The questionnaire was designed in line with the research objectives of the study. To enhance the quality of the obtained data, Linkert type questions were used whereby respondents indicated the extent to which the variables were practiced in a five point Linkert scale. The data has then been presented in both quantitative and qualitative forms followed by discussions of the data results. The chapter concludes with a critical evaluation of the findings.

4.1.1 Response Rate
The study targeted 90 respondents in collecting data. Results in table 4.1 below, show that 79% out of 90 target respondents, filled in and returned the questionnaire contributing to an 88% response rate.

Table 4.1: Response Rate

<table>
<thead>
<tr>
<th>Response Rate</th>
<th>Frequency</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responded</td>
<td>79</td>
<td>87.78</td>
</tr>
<tr>
<td>Not responded</td>
<td>11</td>
<td>12.22</td>
</tr>
<tr>
<td>Total</td>
<td>90</td>
<td>100</td>
</tr>
</tbody>
</table>

4.2 General Information
This section presents the findings in line with the demographic information obtained from the analysis.

4.2.1 Respondents Position in the Organization
The researcher sought to find out the respondent’s position in the respective banks. The findings are shown in table 4.2 below. The study found out that of 52% of the respondents were loan officers, 20% were credit administrators, 19% were credit analysts, and 13% were branch managers. This shows that most of the respondents were loan officers and would therefore have an in depth understanding of loan processing.
Table 4.2: Respondents Position in the Organization

<table>
<thead>
<tr>
<th>Grade level</th>
<th>Response</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Branch manager</td>
<td>10</td>
<td>13</td>
</tr>
<tr>
<td>Credit administrator</td>
<td>15</td>
<td>19</td>
</tr>
<tr>
<td>Credit analyst</td>
<td>13</td>
<td>16</td>
</tr>
<tr>
<td>Loan officer</td>
<td>41</td>
<td>52</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>79</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

4.2.2 Respondents Work Experience

The researcher sought to find out how long the respondents had been working in the respective Banks. The findings are shown in table 4.3 below. The study found out that 52% of the respondents had worked in the banks for over 5 years, 25% for 3-5 years, 19% for 1-2 years, and 4% for less than 1 year. This shows that most of the respondents had worked in the banks’ long enough to have an inner knowledge of the banks to answer the questionnaires.

Table 4.3: Respondents Work Experience

<table>
<thead>
<tr>
<th>Years’ work</th>
<th>Response</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 year</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Between 1-2 years</td>
<td>15</td>
<td>19</td>
</tr>
<tr>
<td>Between 3-5 years</td>
<td>20</td>
<td>25</td>
</tr>
<tr>
<td>Over 5 years</td>
<td>41</td>
<td>52</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>79</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

4.2.3 Duration Worked in the Current Position

The researcher sought to find out how long the respondents had worked in their respective position. The findings are shown in table 4.4 below. The study found out that 62% of the respondents had worked in their position for over 5 years, 22% for 3-5 years, 14% for 1-2 years, and 3% for less than 1 year. This shows that most of the respondents had worked in the respective position for a time long enough to have the relevant knowledge.
Table 4.4: Duration Worked in the Current Position

<table>
<thead>
<tr>
<th>Years' work</th>
<th>Response</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 year</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Between 1-2 years</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>Between 3-5 years</td>
<td>17</td>
<td>22</td>
</tr>
<tr>
<td>Over 5 years</td>
<td>49</td>
<td>62</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>79</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

4.3 Functionality of Credit Reference Bureaus

The first objective sought to establish functionality of Credit Reference Bureaus. Respondents were required to indicate their level of agreement with the set statement using a scale of 1-5. Where 1-very low extent; 2-low extent; 3-Neutral 4-Great extent 5-very great extent

4.3.1 Descriptive on functionality of CRBs

The study established that to a great extent, credit bureau keeps a credit history record of the borrower (4.25), Credit bureaus collect, organize and consolidate information from many lenders, who associate with the bureau by providing access to their databases (4.18), upon the request of a user, credit reference bureaus provide credit reports that contain particular individuals’ credit history (4.14). It was also established that most of the respondents were neutral about Credit bureaus basically enabling the bank share information about borrowers for business decision making (3.57). To a low extent, most respondents noted that Credit Reference Bureaus provide the necessary infrastructure to ensure information integrity, security and up-to-date information on borrowers (2.82), Credit Reference Bureaus reduce information differences between borrowers and the bank through a system that enables information sharing (2.80). It was also noted that Credit Reference Bureaus reduce over-indebtedness and risky multiple borrowing that often result in loan default (2.75), and Credit Reference Bureaus increase the number of borrowers as more people become eligible for financial services (2.61). Respondents also noted that to some low extent Credit Reference Bureaus work as enforcement tools that push clients to continue paying debt (2.51). It was also noted that to a very low extent dwindling results on bank profits was due lower costs of credits (1.72), and data submitted to Credit Reference Bureaus is not fully credible (1.65). It was also noted that
to a very low extent Credit Reference Bureaus lack rigidly enforced legislations (1.23) as indicated in Table 4.5

Table 4.5: Functionality of CRB

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Functions of Credit Reference Bureaus</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credit bureaus basically enable the bank share information about borrowers for business decision making.</td>
<td>3.57</td>
<td>1.15</td>
</tr>
<tr>
<td>The credit bureau keeps a credit history record of the borrower</td>
<td>4.25</td>
<td>0.928</td>
</tr>
<tr>
<td>Credit bureaus collect, organize and consolidate information from many lenders, who associate with the bureau by providing access to their databases</td>
<td>4.18</td>
<td>1.10</td>
</tr>
<tr>
<td>Upon the request of a user, credit reference bureaus provide credit reports that contain particular individuals’ credit history</td>
<td>4.14</td>
<td>1.07</td>
</tr>
<tr>
<td><strong>Benefits of Credit Reference Bureaus</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Credit Reference Bureaus reduce information differences between borrowers and the bank through a system that enables information sharing.</td>
<td>2.80</td>
<td>1.17</td>
</tr>
<tr>
<td>Credit Reference Bureaus provide the necessary infrastructure to ensure information integrity, security, and up-to-date information on borrowers.</td>
<td>2.82</td>
<td>1.42</td>
</tr>
<tr>
<td>Credit Reference Bureaus reduce over-indebtedness and risky multiple borrowing that often result in loan default.</td>
<td>2.75</td>
<td>1.22</td>
</tr>
<tr>
<td>Credit Reference Bureaus increase the number of borrowers as more people become eligible for financial services.</td>
<td>2.61</td>
<td>1.23</td>
</tr>
<tr>
<td>Credit Reference Bureaus work as enforcement tools that push clients to continue paying debts</td>
<td>2.51</td>
<td>1.02</td>
</tr>
<tr>
<td><strong>Challenges facing Credit Reference Bureaus</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dwindling results on bank profits due lower costs of credits</td>
<td>1.72</td>
<td>1.31</td>
</tr>
<tr>
<td>Data submitted to Credit Reference Bureaus is not fully credible</td>
<td>1.65</td>
<td>1.23</td>
</tr>
<tr>
<td>Credit Reference Bureaus lack rigidly enforced legislations</td>
<td>1.23</td>
<td>1.21</td>
</tr>
</tbody>
</table>

This above information shows Credit Reference Bureaus are fundamental in facilitating the general functions of commercial banks. The scale is such that those variables with a mean close to 4.0 are critical, those with mean close to 3.0 moderately critical while those with 2.0 least critical.
4.4 Credit Reference Bureaus and Sharing Of Borrowers’ Information

The second objective sought to establish how Credit Reference Bureaus influenced sharing of borrowers’ information. Respondents were required to indicate their level of agreement with the set statement using a scale of 1-5. Where 1-very low extent; 2-low extent; 3-Neutral 4-Great extent 5- very great extent

4.4.1 Descriptive on Credit Reference Bureaus and Sharing Of Borrowers’ Information

The findings revealed that to a great extent sharing credit information is critical in facilitating better assessment of risks associated with prospective borrowers (4.57), and information asymmetry has caused difficulty in differentiating good and bad credit risks (4.33). Also to a great extent, lack of information has contributed towards adverse selection or moral hazard problems in lending activity of the bank (4.22) while banks lack data needed to screen credit applications and to monitor borrowers (4.11). It was also noted that credit information sharing has affected adverse effects of asymmetric information in banks (4.01).

Most of the respondents were neutral about some borrowers have an incentive to breach the loan covenants (3.24) and CRB has improves credit market performance and credit access for the poor (3.15). More over to a low extent the weakening performance of the sector was blamed on complex credit processes in the markets (2.91) as indicated in table 4.6
Table 4.6: Descriptive on CRB and sharing Borrowers’ Information

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Credit information sharing has affected adverse effects of asymmetric</td>
<td>4.01</td>
<td>1.14</td>
</tr>
<tr>
<td>information in banks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sharing credit information is critical in facilitating better assessment</td>
<td>4.57</td>
<td>0.756</td>
</tr>
<tr>
<td>of risks associated with prospective borrowers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Weakening performance of the sector is due to complex credit processes</td>
<td>2.91</td>
<td>1.114</td>
</tr>
<tr>
<td>in the markets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CRB improves credit market performance and credit access for the poor</td>
<td>3.15</td>
<td>1.45</td>
</tr>
<tr>
<td>Banks lack data needed to screen credit applications and to monitor</td>
<td>4.11</td>
<td>1.512</td>
</tr>
<tr>
<td>borrowers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lack of information has contributed towards adverse selection or moral</td>
<td>4.22</td>
<td>0.988</td>
</tr>
<tr>
<td>hazard problems in lending activity of the bank.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Information asymmetry has caused difficulty in differentiating good and</td>
<td>4.33</td>
<td>1.17</td>
</tr>
<tr>
<td>bad credit risks</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Some borrowers have an incentive to breach the loan covenants</td>
<td>3.24</td>
<td>1.40</td>
</tr>
</tbody>
</table>

4.5 The Effect of Credit Reference Bureaus on Non-Performance Loans

The third objective sought to establish how Credit Reference Bureaus influenced non-performance loans. Respondents were required to indicate their level of agreement with the set statement using a scale of 1-5. Where 1-very low extent; 2-low extent; 3-Neutral 4-Great extent 5- very great extent

4.5.1 Presence of Non-Performing Loans at Commercial Banks

The researcher sought to find out the presence of non-performing loans at the respondent’s bank. The findings are shown in table 4.7 below. The study found out that all the respondents were aware of non-performing loans in the bank as shown by 100% of the respondents. This shows that non-performing loans are a recurring phenomenon in commercial banks even after the adoption of Credit Reference Bureaus.
Table 4.7: Presence of Non-Performing Loans in commercial banks

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>79</td>
<td>100</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>79</td>
<td>100</td>
</tr>
</tbody>
</table>

4.5.2 Length of Time to Process a Loan before the Adoption of CRB

The researcher sought to find out the length of time it took to process a loan before the adoption of CRB at the respondent’s bank. The findings are shown in table 4.8 below. The study found out that most of the respondents indicated that it took 1-2 months to process the loans before the adoption of CRB as shown by 44%, 20% of the respondents indicated it took between 15-30 days, 15% of the respondents indicated between 2-3 months, 12% of the respondents indicated between 7-14 days, 6% of the respondents indicated 4 months while 3% of the respondents indicated between 2-7 days. This shows that most of the respondents indicated that before the adoption of CRB, it took between 1-2 months to process a loan. This shows that customer vouching and background checks took quite a long time without the presence of CRB.

Table 4.8: Length of Time to Process a Loan before the Adoption of CRB

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 day</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Between 2-7 days</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Between 7-14 days</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Between 15-30 days</td>
<td>16</td>
<td>20</td>
</tr>
<tr>
<td>Between 1-2 months</td>
<td>35</td>
<td>44</td>
</tr>
<tr>
<td>Between 2-3 months</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>4 months</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>TOTAL</td>
<td>79</td>
<td>100</td>
</tr>
</tbody>
</table>

4.5.3 Length of Time to Process a Loan after the Adoption of CRB

The researcher sought to find out the length of time it took to process a loan after the adoption of CRB at the respondent’s bank. The findings are shown in table 4.9 below. The study found out that the majority of the respondents indicated that it takes between 2-7 days to process a loan after the adoption of CRB as shown by 64% of the respondents,
12% of the respondents indicated between 7-14 days, 7% of the respondents indicated between 15-30 days, 6% of the respondents indicated 1 day while 3% of the respondents indicated between 1-2 months. This shows that the adoption of CRB services reduces the amount of time it takes to process a loan.

**Table 4.9: Length of Time to Process a Loan after the Adoption of CRB**

<table>
<thead>
<tr>
<th>Response</th>
<th>Frequency</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 day</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Between 2-7 days</td>
<td>51</td>
<td>64</td>
</tr>
<tr>
<td>Between 7-14 days</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Between 15-30 days</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Between 1-2 months</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Between 2-3 months</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>4 months</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>79</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

**4.5.4 Frequency of requesting for credit reports**

The researcher sought to find out when does the banks requested for credit reports on potential borrower’s credit worthiness from CRB. The results were as indicated in table 4.10. From the table, 75% of the respondents who were the majority indicated that the bank was requesting for credit reports for all credit applications while 10% said that the request was for only some selected credit applications and another 8% indicated that very few applications warranted credit reports. This shows the emphasis to which banks are putting on the credit score information of its potential borrowers.

**Table 4.10: CRB credit reports requests by commercial banks**

<table>
<thead>
<tr>
<th>When credit reports are requested</th>
<th>Response</th>
<th>Percentage %</th>
</tr>
</thead>
<tbody>
<tr>
<td>For all credit applications</td>
<td>59</td>
<td>75</td>
</tr>
<tr>
<td>For some credit applications</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>For very few credit applicants</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>Not sure/ Not at all</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>79</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>
4.5.5 Effect Of Credit Reports on Risk Identification/Monitoring

The researcher sought to find out how credit reports help identify, and monitor risks. The results were as indicated in table 4.11. The findings revealed that to a great extent CRB decreased default rates as borrowers aim to protect their “reputation collateral” by fulfilling their obligations in a sensible manner (4.26), and financial institutions use information from Credit reports for risk identification through risk mapping and/or scenario analysis (4.15). There was uncertainty on whether CRB provides credit reports that include both positive and negative information which help elevate or destroy “reputation collateral” (3.93), and information from Credit reports helps identify defaulters in terms of credit history identifying them as risky clients (3.72) as well as credit reports helping instill culture of financial discipline due to monitoring of borrowers (3.63).

Table 4.11: Credit Reports and Risk Identification

<table>
<thead>
<tr>
<th>Variable</th>
<th>MEAN</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information from Credit reports helps identify defaulters in terms of credit history as risky clients</td>
<td>3.723</td>
<td>0.739</td>
</tr>
<tr>
<td>CRB decreased default rates as borrowers aim to protect their “reputation collateral” by fulfilling their obligations in a sensible manner</td>
<td>4.26</td>
<td>0.436</td>
</tr>
<tr>
<td>CRB provides credit reports that include both positive and negative information which help elevate or destroy “reputation collateral”</td>
<td>3.93</td>
<td>0.537</td>
</tr>
<tr>
<td>Financial institutions use information from Credit reports for risk identification through risk mapping and/or scenario analysis</td>
<td>4.15</td>
<td>0.345</td>
</tr>
<tr>
<td>Credit reports help instill culture of financial discipline due to monitoring of borrowers</td>
<td>3.63</td>
<td>0.517</td>
</tr>
</tbody>
</table>

4.6 Inferential Statistics

4.6.1 Reliability Test

A reliability test was done on the variable using Cronbach Alpha. The desired Cronbach Alpha value should be above 0.5 ($\alpha >0.6$) For the study the value for all of the variables was above 0.6 hence making them very reliable as indicated in table 4.12.
Table 4.12: Reliability Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach's Alpha</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>functionality of Credit Reference Bureaus</td>
<td>.626</td>
<td>12</td>
</tr>
<tr>
<td>Information sharing</td>
<td>.779</td>
<td>8</td>
</tr>
<tr>
<td>non-performance loans in the lending market</td>
<td>.646</td>
<td>5</td>
</tr>
<tr>
<td>Provision of credit in commercial banks</td>
<td>.715</td>
<td>3</td>
</tr>
</tbody>
</table>

4.6.2 Regression Analysis

The research analyzed the relationship between the dependent variable (Provision of credit in commercial banks) against other core factors. The results showed that the R2 value was 0.942 hence 94.2% of the variation in provision of credit in commercial banks was explained by the variations in functionality of Credit Reference Bureaus, Information sharing, non-performance loans in the lending market as illustrated in table 4.13

Table 4.13: Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Change Statistics</th>
<th>df1</th>
<th>df2</th>
<th>Sig. F Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.954a</td>
<td>.942</td>
<td>.885</td>
<td>.27102</td>
<td>.935</td>
<td>62.9605</td>
<td>4a</td>
<td>.015</td>
</tr>
</tbody>
</table>

A. Predictors: (Constant), functionality of Credit Reference Bureaus, Information sharing, non-performance loans in the lending market

An ANOVA analysis was done between provision of credit in the commercial bank, functionality of Credit Reference Bureaus, Information sharing, and non-performance loans in the lending market at 95% confidence level, the F critical was 62.9605 and the P value was (0.015) therefore significant the results are illustrated below in table 4.14

Table 4.14: ANOVAa

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>11.355</td>
<td>4</td>
<td>4.785</td>
<td>62.9605</td>
<td>.015b</td>
</tr>
<tr>
<td>Residual</td>
<td>2.104</td>
<td>75</td>
<td>.076</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>13.455</td>
<td>79</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A. Dependent Variable: Provision of credit in commercial banks
B. Predictors: (Constant), functionality of Credit Reference Bureaus, Information sharing, non-performance loans in the lending market
Table 4.15: Coefficients of Provision of credit in commercial banks

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>1.116</td>
<td>.326</td>
<td>4.311</td>
<td>.035</td>
</tr>
<tr>
<td>functionality of CRB</td>
<td>1.119</td>
<td>.133</td>
<td>.510</td>
<td>.012</td>
</tr>
<tr>
<td>Information sharing</td>
<td>.631</td>
<td>.058</td>
<td>.456</td>
<td>.022</td>
</tr>
<tr>
<td>non-performance loans</td>
<td>-.102</td>
<td>.117</td>
<td>-.099</td>
<td>.093</td>
</tr>
</tbody>
</table>

As per Table 4.15, the equation \( Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 \) becomes:

\[
Y = 1.116 + 1.119X_1 + 0.631X_2 - 0.102X_3
\]

Where \( Y \) is the dependent variable Provision of credit in commercial banks

\( X_1 \) – functionality of Credit Reference Bureaus

\( X_2 \) – Information sharing

\( X_3 \) – non-performance loans in the lending market

The regression equation illustrated in Table 4.15 has established that taking all factors into account (functionality of Credit Reference Bureaus, Information sharing, non-performance loans in the lending market) all other factors held constant provision of credit in commercial banks changes by 1.116, the findings presented also showed that a unit change in functionality of Credit Reference Bureaus resulted into a 1.119 change in provision of credit in commercial banks. A unit change in information sharing resulted into a 0.631 change in provision of credit in commercial banks. It was also established that A unit change in non-performing loans resulted into a 0.102 decline in provision of credit in commercial banks. Only the variables functionality of CRB and Information sharing was significant (p<0.05). This implies that functionality of CRB and information sharing affect provision of credit in commercial banks.

4.7 Chapter Summary

This chapter presented data analysis, results and findings as collected and analysed on the basis of three research questions; primarily based on three tier-one commercial banks. The findings are arranged in thematic areas to enable adequate response to the objectives of the study. The areas covered were background data, an in depth analysis of Credit Reference Bureaus workings, a determination of CRB’s encouragement of sharing borrowers information and an evaluation of credit reference bureau effect on non-
performance loans. The chapter is followed by chapter five, which contains the Discussion, Conclusions and Recommendations.
CHAPTER FIVE

5.0 DISCUSSIONS, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

This chapter is about the discussion of the findings from chapter four, and also it addresses the conclusions and recommendations of the study based on the stated objectives. The objective of this study was to determine the effectiveness of the credit reference bureaus on the provision of credit by commercial banks in Kenya.

5.2 Summary of the Study

The purpose of this study was to access the effectiveness of Credit Reference Bureaus on provision of credit among selected commercial banks in Kenya. The specific objective was to carry out an indepth analysis of the functionality of Credit Reference Bureaus, to investigate why Credit Reference bureaus encourage sharing of borrowers information, and to investigate the effect of Credit Reference Bureau on non-performance loans in the lending market.

The target population was 300 comprising of branch managers, credit analysts, credit administrators and loan officers working within the banks. The sample size was determined using simple random sampling method and this helps to reduce biases or prejudices in selecting samples A sample of 30% was selected resulting into 90 respondents out of which 79 responded. Primary data was collected by administering close-ended questionnaires, using a five point a likert scale to the respondents, which were self-administered through drop and pick method. Responses to the questionnaires were examined, processed and tabulated into meaningful data. Frequency tables and percentages were used to present the findings in an easily understandable format. A regression relationship was generated to show the extent to which the dependent variable was affected by each of the independent variables.

The first objective sought to establish functionality of Credit Reference Bureaus. The study established that to a great extent, credit bureau keeps a credit history record of the borrower, credit bureaus collect, organize and consolidate information from many lenders, who associate with the bureau by providing access to their databases, upon the request of a user, credit reference bureaus provide credit reports that contain particular individuals’ credit history. To a low extent, dwindling results on bank profits was due lower costs of credits, and data submitted to Credit Reference Bureaus is not fully
credible. It was also noted that to a very low extent Credit Reference Bureaus lack rigidly enforced legislations.

The second objective sought to establish how Credit Reference Bureaus influenced sharing of borrowers’ information. The findings revealed that to a great extent sharing credit information is critical in facilitating better assessment of risks associated with prospective borrowers, and information asymmetry has caused difficulty in differentiating good and bad credit risks. Also to a great extent, lack of information has contributed towards adverse selection or moral hazard problems in lending activity of the bank, while banks lack data needed to screen credit applications and to monitor borrowers. It was also noted that credit information sharing has affected adverse effects of asymmetric information in banks. More over to a low extent the weakening performance of the sector was blamed on complex credit processes in the markets.

The third objective sought to establish how Credit Reference Bureaus influenced non-performance loans. The study found out that all the respondents were aware of non-performing loans in the bank as shown by 100% of the respondents. The study found out that most of the respondents indicated that it took 1-2 months to process the loans before the adoption of CRB. The study also found out that the majority of the respondents indicated that it takes between 2-7 days to process a loan after the adoption of CRB. Majority indicated that the bank was requesting for credit reports for all credit applications, The researcher sought to find out how credit reports help identify, and monitor risks, while CRB decreased default rates as borrowers aim to protect their “reputation collateral” by fulfilling their obligations in a sensible manner, and financial institutions use information from Credit reports for risk identification through risk mapping and/or scenario analysis.

5.3 Discussions

5.3.1 Functionality of Credit Reference Bureaus

The study established that to a great extent, credit bureau keeps a credit history record of the borrower, Credit bureaus collect, organize and consolidate information from many lenders, who associate with the bureau by providing access to their databases. According to Oloo (2009), a credit reference bureau is an organization that assembles credit information, public record data, and identity information, and makes this material
available to lenders in the form of a credit report. Other information shared include: proven frauds and forgeries; cheque kiting; false declarations and statements; receiverships, bankruptcies and liquidations; credit default and late payments; use of false securities; and misapplication of borrowed funds (Lewis, 2007).

The findings also revealed that upon the request of a user, credit reference bureaus provide credit reports that contain particular individuals’ credit history. Sullivan and Sheffrin, (2003) also noted that the individual information collected by CRBs is made available on request to customers of the credit bureau for the purposes of credit risk assessment, credit scoring or for other purposes such as employment consideration or leasing an apartment. Pagano and Japelli (2013) also noted that CRB plays three key duties: firstly, they enable lenders to lend to more to better risk clients and effectively lower the loan spread that is needed to cover expected losses of credit to good payers. Secondly, credit bureaus potentially reduce borrowing costs by forcing creditors to competitively fight over individuals with good credit ratings. Lowering cost of credit associated with good credit ratings stimulates an active economy as well as reduce moral hazard.

The findings revealed that most of the respondents were neutral about Credit bureaus basically enabling the bank share information about borrowers for business decision making. This contradicts Hahm and Lee (2008) who noted that credit information sharing institutions provide information on the past payment behavior of individual borrowers. Furthermore, they collect, organize and consolidate information from many lenders who associate with the bureau by providing access to their databases. Such information is updated frequently, usually every month. Then, at the request of a user, bureaus provide credit reports that contain individuals’ credit history.

To a low extent, most respondents noted that Credit Reference Bureaus provide the necessary infrastructure to ensure information integrity, security and up-to-date information on borrowers, credit Reference Bureaus reduce information differences between borrowers and the bank through a system that enables information sharing. However, Greenidge and Grosvenor (2010) noted that credit information sharing mechanisms create a pool of information that can be organized into a database. This database can be accessed by all relevant parties in a business decision. This ultimately creates positive externalities to all bureau subscribers. The greater the pool of
information, the greater the positive externalities created. The positive externalities are related to a vital uniqueness of credit information: it is an excludable public good in the sense that it is non-rival. That is, the fact that a lender knows information about a certain individual does not prohibit the use of the same information by other lenders.

It was also noted that Credit Reference Bureaus reduce over-indebtedness and risky multiple borrowing that often result in loan default, Waweru and Kalani (2013) established that by reducing informational problems and imposing discipline on borrowers, information sharing generates social benefits like interest rates reduction, credit expansion and better credit allocation. However, these benefits are not distributed evenly across groups. Sharing information benefits good payers and those individuals who apply for credit for the first time, while high-risk clients are negatively affected.

5.3.2 Determination of why Credit Reference Bureaus encourage sharing of information

The findings revealed that to a great extent sharing credit information is critical in facilitating better assessment of risks associated with prospective borrowers. The significance of CRB toward information sharing is well communicated and established in the studies of such authors as Gitman (2007). Credit information systems act as information brokers that increase the transparency of credit markets. However, in many developing countries, CRB are still in their infancy and information sharing between commercial banks remains staggeringly weak with great room for improvement. Using a pure adverse selection model, Morris & Turner (1996) in their analysis of the factors that lead to endogenous communication between commercial banks in a credit market, found that information sharing is more likely to occur when the mobility of households is high, the pool of borrowers is heterogeneous, the credit market is large and the cost of information exchange is low (Echeboka et al., 2014).

The findings revealed that information asymmetry has caused difficulty in differentiating good and bad credit risks. Pagano and Jappelli (2013) define credit information sharing as the process where banks and other credit providers submit information about their borrowers to a credit reference bureau allowing the information to be shared to other credit providers. This enables commercial banks to obtain information on how borrowers have been servicing their loans. It is also known as credit reporting (CR). CIS enables banks to differentiate between bad and good credit borrowers. This effectively implies
that defaulters are not able to gain an easy access to credit. This process in the long run results to better information on borrowers culminating to accessible and cheaper loans.

Also to a great extent, lack of information has contributed towards adverse selection or moral hazard problems in lending activity of the bank. According to Waweru and Kalani (2009), asymmetry in information occurs when one party to a transaction has more valuable information that could be deemed critical and essential in making a decision. The imperfect information causes an imbalance in power; giving room for one party to manipulate the decision to be made for their own benefit. Accurate information is therefore essential for sound economic decision making; when a market experiences an imbalance it may result to market failure. It was also noted that credit information sharing has affected adverse effects of asymmetric information in banks. This is indeed a crucial factor considering that Greenidge and Grosvenor (2010) notes that CRB shares vital Information including on-performing loans; dishonor of cheques other than for technical reasons; Accounts compulsorily closed other than for administrative reasons; Proven cases of frauds and forgeries; Proven cases of cheques kitting; False declarations and statements; Receiverships, bankruptcies and liquidations

Most of the respondents were neutral that CRB has improves credit market performance and credit access for the poor. According to Aburime (2008), the data needed to screen credit applications and to monitor borrowers is not freely available to banks. When a bank lucks such information, it faces adverse selection or moral hazard problems in its lending activity. There are three critical models that address and explain the concept of information sharing; adverse selection theory, moral hazard theory, and asymmetric information theory.

More over to a low extent the weakening performance of the sector was blamed on complex credit processes in the markets. This, Berger et al, (2008) argues that the credibility of ample information is based three basic categories: time characteristic such as timeliness, currency and frequency which are related to time of collection and review; content characteristic such as accuracy, relevance and conciseness which are related to the scope and content of information and form characteristic which is related to how the information is presented to the recipient. Other qualities include reliability, confidence in source, appropriateness, correct recipient and use of correct channels to transmit the information. Credit defaults or late payments on all types of facilities; Tendering of false
securities; and Misapplication of borrowed funds. Furthermore, licensed CRBs are required under the CRB Regulations to hold information on non-performing loans submitted to them by banks for at least 7 years after the date of final settlement of the amount in default (Kithinji, 2010). It should however be noted that customers may consent to their banks sharing positive information on their performing loans. Positive information sharing contributes to the building of information capital that may be used in negotiating for competitive interest rates on credit facilities (Sharafeldin, 2008).

5.3.3 Effect of CRB On Non-Performing Loans In The Lending Market

The findings revealed that to a great extent CRB decreased default rates as borrowers aim to protect their “reputation collateral” by fulfilling their obligations in a sensible manner (4.26), Pagano and Jappelli (2013) define credit information sharing as the process where banks and other credit providers submit information about their borrowers to a credit reference bureau allowing the information to be shared to other credit providers. This enables commercial banks to obtain information on how borrowers have been servicing their loans. It is also known as credit reporting (CR). CIS enables banks to differentiate between bad and good credit borrowers. This effectively implies that defaulters are not able to gain an easy access to credit. This process in the long run results to better information on borrowers culminating to accessible and cheaper loans.

Financial institutions use information from Credit reports for risk identification through risk mapping and/or scenario analysis. Screening borrowers is an activity that has widely been recommended by Sullivan and Sheffrin (2003). This recommendation has been widely practiced in the banking sector in the form of credit assessment by CRB’s. CRB carry out a meticulous screening process based on all the information gathered from different lending facilities and come up with a credit rated score. Credit rating is the opinion of the rating agency on the relative ability and willingness of a consumer of a loan instrument to meet the debt service obligations as agreed upon. Credit rating is therefore an opinion on the future ability and legal obligation of the receiver to make timely payments of principal and interest on a specific fixed income security (Byeongyong & Weiss, 2005).

There was uncertainty on whether CRB provides credit reports that include both positive and negative information which help elevate or destroy “reputation collateral”, Hahn
and Lee (2008) established that the most prominent function of a credit bureau is to assist banks share information about borrowers for business decision making especially when it concerns granting of credit. The bureaus also keep a credit history record of the borrower and usually assign a score related to an individual’s credit history. A good credit scores can ease access to credit which could be a competitive advantage for SMEs to access credit without the restrictive collateral requirements.

Information from Credit reports helps identify defaulters in terms of credit history identifying them as risky clients. According to Barron and Staten (2003), Credit Reference Bureaus can effectively and efficiently reduce default ratios through a set of combined effects. To begin with, visible credit histories permit appropriate lending activities; lenders can avoid clients that maybe unable to repay therefore effectively identifying clients with good credit profiles. Moreover, lenders are able to potentially increase their lending offers (Kamau, 2009). Secondly, Credit Bureaus work as enforcement tools that continually push clients to continue paying their debts in fear of being included in a list of bad debtors. Lastly, Credit Bureaus may help reduce cases of fraudulent activities through providing positive identity checks and verifying personal details.

There was a neutral response in regard to credit reports helping instill culture of financial discipline due to monitoring of borrowers. Steinwand (2001) differs that CRBs facilitate information sharing. Also, CRBs are capable of providing an in-depth report of a potential borrowers past payment behaviors; both positive and negative. Traditionally access to loans was a privilege that was only granted to individuals with massive collateral at punitive rates. The high cost of credit was due to the tedious and mostly expensive mechanisms that were used in trying to evaluate an individual credit rating or standing. Thus ultimately, with access to a database that avails lenders a massive pool of information on potential borrowers, the cost of credit was considerably lowered (Berger et al., 2005).

5.4 Conclusions

5.4.1 Functionality of Credit Reference Bureaus

The study concludes that Credit reference bureaus compile credit information, public record data, and identity, makes this information available to the bank in the form of a
credit report of individuals and organizations. The study also concludes that Credit Reference Bureaus create a mechanism that facilitates credit information sharing at an affordable rate. It is further concluded that Credit Reference Bureaus reduce information differences between borrowers and the bank through coordination of lenders. Credit Reference Bureaus are able to create a unity or a common cause that facilitates all financial lending institutions to work in unison. Lastly the study concluded that Credit Reference Bureaus are able to resolve are able to solve the neutrality problems in bilateral agreement through having a mandate to coerce both borrowers and lenders to report information pertaining to loan instrument truthfully, completely and in a timely fashion.

5.4.2 Determination of why Credit Reference Bureaus encourage sharing of information

From the findings, the study concludes that the Credit Information Sharing allows commercial banks to better distinguish between consumers with good credit histories and those with bad credit histories. The credit worth of their customers mitigates the problems associated with adverse selection. Through curbing the negative effects of adverse selection, commercial banks are able to widen their pool of potential borrowers and gradually reduce the existence of loan delinquent’s. The study also concludes that, the prices of loan instruments offered are able to be priced more competitively further expanding their loan assets. The study further states that in as much as Credit Reference Bureaus face a number of challenges; namely that the credibility of the information shared may be questionable, the study concluded that questionable or not, the information shared via Credit Reference Bureaus acts as guiding instrument or a moral police; in that, borrowers are obliged to meet their loan obligations.

5.4.3 Effects of Credit Reference Bureaus on non-performing loans

The study concludes that the main factors that lead to credit risk include lending to borrowers with questionable characters, serial loan defaulters, high interest rates that make it hard for some to pay management and legal framework. These reasons make many borrowers unwilling to honor their obligations hence leading to many non-performing loans commercial banks. The aim of credit reporting among banks is to improve loan performance. The study further concludes that credit reporting and level of loan performance is inversely related. Credit reporting, increases transparency among banks, helps them lend prudently, lowers the risk level to the banks, acts as a borrowers’
discipline against defaulting and it also reduces the borrowing cost. The effect of it therefore has led to reduced non-performing loans.

The study also concludes that, through credit reporting banks are able to exclusively lend to consumers with good credit histories therefore increasing their loan assets and also increase avenues for borrowers with good credit histories to gain a wider access to affordable credit and ample opportunities of increasing their own businesses.

5.5 Recommendations

5.5.1 Recommendations for Improvement

5.5.1.1 An in depth analysis of Functionality of Credit Reference Bureaus

The government should license more bureaus to increase the availability of information among the banks and as well as individuals recommended that there be put strong control systems to monitor the use of CRBs in Kenya. On the other hand, to avoid inaccuracies in credit reporting banks and regulators should device a way of verifying credit scores since at the moment the banks are using unverified data from the bureaus to either grant or deny a customer any credit facility. This has led to a rising number of litigations in court by customers against their bankers for wrongful listings in CRB. The government should also consider allowing credit information systems extended to other non-bank credit providers in order to ensure proper credit information sharing. This is because a lot of people also get access to credit from a whole host of non-banks including, microfinance institutions, SACCOs, other financial sector regulators and utility companies.

5.5.1.2 Credit Reference Bureaus Encourage Sharing Of Information

To make clients appreciate the credit policies and recovery procedures banks need to educate their customers on the importance of meeting their credit obligations to avoid being listed in the credit reference bureaus. Moreover, banks need to sensitize consumers to the importance and functionality of Credit Reference Bureaus in a bid to make consumers from all financial back grounds be keen on meeting their loan obligations and be eager to share truthfully credit information pertaining to their loan instruments.
5.5.1.3 Effects Of Credit Reference Bureaus On Non-Performing Loans

The study recommends that the government should be even more involved in the lending markets ensuring mandatory compliance to settlement of debts as constitutionally required of the integrity section of the Kenyan law. The government should license more bureaus to increase the availability of information among the banks and as well as individuals. In order to enhance the working of Credit Reference Bureaus, regulations should place emphasis on confidentiality of information handled by CRBs and also place severe restrictions on the use and application of such information. Banks and CRBs should not share information with unauthorized third parties. The regulations need to provide for punitive penalties for such breaches by CRBs. The information shared credible.

5.5.2 Recommendations for Further Studies

The study focused on the effectiveness of Credit Reference Bureau on provision of credit in commercial banks in Kenya with a special focus on Kenya commercial banks. With main aim to analyze the functionality of Credit Reference Bureaus, Credit Reference bureaus and sharing of borrower's information and non-performance loans in the lending market. There is a need to therefore undertake a study to establish the challenges facing CRB performance.
REFERENCES


APPENDIX I: QUESTIONNAIRE

Section A: background data

1. Position in the organization
   Branch manager [ ]
   Credit administrator [ ]
   Credit analyst [ ]
   Loan officer [ ]

2. How long have you worked in this organization?
   Less than 1 year [ ]
   Between 1-2 years [ ]
   Between 3-5 years [ ]
   Over 5 years [ ]

3. How long have you been in the current position?
   Less than 1 year [ ]
   Between 1-2 years [ ]
   Between 3-5 years [ ]
   Over 5 years [ ]
SECTION B: Functionality of Credit Reference Bureau

To what extent has the adoption of credit reference bureau influenced the following activities in your institution. Use a scale of 1-5. Where 1-very low extent; 2-low extent; 3-No effect 4-Great extent 5- very great extent

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Functions of Credit Reference Bureaus</strong></td>
<td></td>
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<tr>
<td>4. Credit bureau basically enable the bank share information about borrowers for business decision making</td>
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<tr>
<td>5. Credit bureau collect, organize and consolidate information from many lenders, who associate with the bureau by providing access to their databases.</td>
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<tr>
<td>6. Upon the request of a user, credit reference bureau provide credit reports that contain particular individuals’ credit history.</td>
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<tr>
<td><strong>Objectives of Credit Reference Bureaus</strong></td>
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<tr>
<td>7. Credit Reference Bureaus are aimed at collecting information on clients borrowing status and history from a range of credit sources</td>
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<tr>
<td>8. Credit Reference Bureaus reduce information differences between borrowers and the bank through a system that enables information sharing</td>
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<tr>
<td>9. Credit Reference Bureaus provide the necessary infrastructure to ensure information integrity, security and up-to-date information on borrowers</td>
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<tr>
<td><strong>Advantages of Credit Reference Bureaus</strong></td>
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<td>10. Credit Reference Bureaus have led to a decrease on the rates of default</td>
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<tr>
<td>11. Credit Reference Bureaus increase the number of borrowers as more people become eligible for financial services</td>
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<tr>
<td>12. Credit Reference Bureaus have helped in pricing of loan instruments</td>
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<tr>
<td>13. Credit reference bureaus have helped in gaining insight of potential borrowers’ intent on loan</td>
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</tbody>
</table>
14. Credit reference bureaus have helped banks differentiate between potentially good borrower from bad borrowers

**SECTION C: Credit Reference Bureaus and Sharing of Borrower’s Information**

To what extent has credit reference bureaus affected sharing of borrower’s information in your institution. Use a scale of 1-5. Where 1-very low extent; 2-low extent; 3-No effect 4- Great extent 5- very great extent

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>15 Credit information sharing has affected adverse effects of asymmetric information in banks</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>16 Sharing credit information is critical in facilitating better assessment of risks associated with prospective borrowers</td>
<td></td>
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<tr>
<td>17 Weaking performance of the sector is due to complex credit processes in the markets</td>
<td></td>
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<tr>
<td>18 CRB improves credit market performance and credit access for the poor</td>
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<tr>
<td>19 Banks lack data needed to screen credit applications and to monitor borrowers</td>
<td></td>
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<td></td>
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<tr>
<td>20 Lack of information has contributed towards adverse selection or moral hazard problems in lending activity of the bank.</td>
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<tr>
<td>21 Information asymmetry has caused difficulty in differentiating good and bad credit risks</td>
<td></td>
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<tr>
<td>22 Some borrowers have an incentive to breach the loan covenants</td>
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<td></td>
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</tbody>
</table>
SECTION D: Credit Reference Bureau on Non-Performance Loans in The Lending Market.

23. Are you aware of the existence of non-performing loans in your accounts portfolio?
   a) Yes □
   b) No □

24. How long did it take to process a customer’s loan before introduction of Credit Reference Bureau and credit information sharing?
   1 day □
   Between 2-7 days □
   Between 7-14 days □
   Between 15-30 days □
   Between 1-2 months □
   Others Specify □

25. How long does it take to process a customer’s loan after introduction credit reference bureau and credit information sharing?
   1 day □
   2-7 days □
   7-14 days □
   14 days- 1 month □
   Others specify □
To what extent have CRB influenced Non-performing loans. Use a scale of 1-5. Where 1-very low extent; 2-low extent; 3-No effect 4-Great extent 5- very great extent

<table>
<thead>
<tr>
<th>Variable</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>26. Information from Credit reports helps identify defaulters in terms of credit history as risky clients</td>
<td></td>
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<td>27. CRB decreased default rates as borrowers aim to protect their “reputation collateral” by fulfilling their obligations in a sensible manner</td>
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<td>28. CRB provides credit reports that include both positive and negative information which help elevate or destroy “reputation collateral”</td>
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<td>29. Financial institutions use information from Credit reports for risk identification through risk mapping and/or scenario analysis</td>
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<td>30. Credit reports help instill culture of financial discipline due to monitoring of borrowers</td>
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</tbody>
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**SECTION E: Provision of Credit by Commercial Banks in Kenya**

Kindly rate the following factors on provision of credit by commercial banks in Kenya by CRB. Using a scale of 1-5. Where 1-very low extent; 2-low extent; 3-No effect 4-Great extent 5- very great extent

<table>
<thead>
<tr>
<th>Variable</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
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<th>(5)</th>
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</thead>
<tbody>
<tr>
<td>31. CRB has improved provision of credit by Commercial Banks in Kenya</td>
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<td>32. we have gained more profits as a result of issuance of credit</td>
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<td>33.</td>
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Thank you for taking your time to answer this Questionnaire.