IMPACT OF CREDIT INFORMATION SHARING ON COMMERCIAL BANKS’ LOAN PORTFOLIO: THE CASE OF EQUITY BANK

BY
ONYANGO OKUMU POLYCAP

UNITED STATES INTERNATIONAL UNIVERSITY AFRICA

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A Project Report Submitted to Chandaria School of Business in Partial Fulfillment of the Requirement for the award of the Degree of Masters of Business Administration

(MBA)

UNITED STATES INTERNATIONAL UNIVERSITY AFRICA

SPRING 2015
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: ____________________________

Mr. Onyango O. Polycap (ID 625776)

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

Signed: ____________________ Date: ____________________________

Mr. Sammy Lio

Signed: ____________________ Date: ____________________________

Dean, Chandaria School of Business
DEDICATION

This project is dedicated to my Parents

Mama Mary & Mzee Joackim

Who introduced me to the joy of reading right from birth,

enabling such a study to take place now.
ACKNOWLEDGEMENTS

On the very outset of this report, I would like to extend my sincere and heartfelt obligation towards all the personages who helped me in this endeavor. Without their active guidance, help, cooperation & encouragement, I would not have made headway in the project. I acknowledge with a deep sense of reverence, my gratitude towards my beloved mother Mama Mary (deceased), my Father mzee Joackim and all other members of my family, who have always supported me morally as well as economically.

I am ineffably indebted to Dr. Agunda C. for her conscientious guidance and encouragement to accomplish this assignment. Special thanks to my nephews Eugene & Solomon who supported me throughout the writing of this project.

I am extremely thankful and pay my gratitude to my faculty Mr. Sammy Lio for his invaluable guidance and support. Without his dedication and guidance, this project report would not have been made possible. I extend my gratitude to United States international University for giving me this opportunity to further my studies at the institution. Last but not least, my gratitude goes to all my friends who directly or indirectly helped me to complete this project.
ABSTRACT

Commercial banks play a pivotal role in the economy through efficient allocation of financial resources to production units. This is realized through the intermediation process where they mobilize deposits from surplus units and lend them to deficit entities. Lending is the key activity of banks in Kenya and their main source of income as well hence the need to approach it pragmatically. In many countries, lenders routinely share information on the creditworthiness of their borrowers during the lending process. This may either be through Credit Reference bureaus (CRBs) set up by the lenders themselves or those operated independently by a third party. In Kenya, the banking regulations of 2008 established CRBs and mandated banks to share negative credit information about their borrowers with other banks. This was aimed at improving terms of credit, increasing customer access to credit and reducing borrowers’ over-indebtedness. This study sought to investigate the impact of Credit Information Sharing (CIS) on Equity Bank’s loan portfolio. Specific objectives of the study were to establish the effects of CIS on Equity Bank’s Loan quality, Loan book size and Loan interest rates.

The study employed a descriptive research design. Sixty three participants comprising credit staff of equity bank were considered for the study. Both primary and secondary data was collected and analyzed. Primary data was collected by use of a questionnaire whereas secondary data was extracted from Equity banks’ published financial statements. Data on Credit reference bureaus records was obtained from the Central Bank of Kenya Website. After collection, the data was coded and captured in SPSS Statistical tool for analysis, the findings of which formed the basis for the study conclusions and research specific recommendations.

The study found that credit information sharing has significant positive impact on the quality of credit at Equity Bank. The results of the study indicate that sharing of customer credit information helps reduce non-performing assets at Equity bank. The results of the study also show that CIS is quite useful in the management of non-performing loans.

The findings of this study show that Credit information sharing has minimal effect on Equity bank’s loan book. However, the study found that CIS had significant influence on the bank’s decision to give or not to give loan to a particular customer.
The study also indicated that Credit Information Sharing did not affect the loan interest rates charged to individual customers. The study however established that the savings arising from the use of cheap shared customer credit information were reflected in the general lending rates at Equity Bank.

The findings of this study led to a number of conclusions; Credit information sharing has significant effect on Loan quality at Equity bank, Credit Information Sharing helps in managing non-performing assets, Credit information sharing has nominal effect on the loan volumes at Equity bank, individual customer loan interest rate is not a function of the customer’s credit history and Loan interest rates charged to customers are largely determined by the Central Bank of Kenya base lending rate & other factors such as cost of funds, Loan mount and availability of Loan security.

The study recommends that; The CRB regulations be reviewed to make it mandatory for all lenders including SACCOs, Telecoms, Micro-finance institutions and table-banking entities to submit credit information on borrowers to CRBs for sharing with other lenders, full file information sharing and credit rating should be adopted and that customer credit score should be used as collateral for the loans as opposed to the demand for physical collateral. This study further recommends that borrowers who maintained clean credit history be rewarded by individually being offered lower credit rates.
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<td>Audit command Language- Data analytics software</td>
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<td>APR</td>
<td>Annual percentage Rate</td>
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<td>CBK</td>
<td>Central Bank of Kenya</td>
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CHAPTER ONE

1.0 INTRODUCTION

1.1 Background of the Problem

The past decade has seen tremendous growth in the banking industry in many developing countries like Kenya. Despite this growth, many banks have continued to be plagued by problems arising from poor quality credit. This has led to the rise in cost of credit in form of higher interest rates charged by banks. According to the Kenya Credit Information Sharing Initiative [KCISI] (2013), when there is no credit information sharing, lenders mistake good risks for bad ones and vice versa. This leaves banks with risky loan portfolios forcing interest rates to rise over time. When this happens, there is a strong incentive on the part of borrowers to divert huge chunks of the loan funds to riskier projects with high returns since low risk projects cannot yield enough returns to compensate for the high interests. Unfortunately, most of these risky projects fail leading to defaults.

According to Greuning and Bratanovic (2006) credit risk is the single most cause of bank failures and therefore prudence in its management is critical to the survival of vast majority of banks. To overcome this problem, commercial banks in different parts of the world sought to establish some mechanisms that would enable them to better screen borrowers thus significantly improving the Loan portfolio’s performance. This has been institutionalized in the form of Credit Reference Bureaus (CRBs). Armstrong (2008) observed that the existence of credit registries is associated with increased lending volume, growth of consumer lending, improved access to financing and a more stable banking sector.

Financial Sector Deepening Kenya (2012) defines these bureaus as organizations that compile credit information, identity information & public record data and make such information available to lending institutions in the form of credit reports of organizations and individuals. According to Gaitho (2013), the major benefit that the banks receive from CRB is that they are able to get credit information on prospective borrowers that will facilitate assessment of credit requests to mitigate risks of bad debts. Gaitho (2013) further observes that on the side of the borrower, a good credit record acts as an incentive for competitive pricing of loan facilities. A study by Houston, Lin, and Ma (2010) showed that
credit information sharing significantly reduces adverse selection through improving the pool of borrowers and increasing the bank’s knowledge of its credit applicants. Gaitho (2013) further observed that Credit sharing facilitates reduction in the cost of credit and help in better analysis of pricing risks. He however noted that credit information is not the only factor that contributes to high cost of borrowing as there are other organizational rigors that cause credit costs to rise.

Historically, Credit Reference Bureaus developed from mercantile credit agencies that supported business and trade creditors according to Sinclair (2005). The first of these agencies was The Mercantile Agency in 1841, followed by R.G. Dun and Company founded in 1859. Sinclair (2005) observes that the first individual to focus on debt issuers was Henry Poor who owned a publishing Company that later merged with the Standard Statistics Bureau in 1941. At the time according to Sinclair (2005), the only other suppliers of debt ratings information were Fitch Publishing Company, established in 1924 and Duff and Phelps Credit Rating Co. that specialized in public utilities. Duff and Phelps merged with Fitch in 2000 although Fitch had previously acquired some smaller CRBs such as IBCA in 1992 and Thomson Bank Watch in 2000 (Sinclair, 2005).

A World Bank survey (2009) found out that over 60 countries in the world had Public Credit Registries (PRCs). These PRCs were mainly administered and maintained by either a bank supervisory body or respective central banks. In the same study, it was established that Latin America had the highest number of PCRs at 17. Although most PCRs were found to be in Latin America, other countries in other parts of the world were found to have established PCRs; some even before the onset of the second world war. Germany established theirs in 1934 followed by France in 1946. Belgium, Italy and Spain had theirs in place in the 1960s. In Sub-Saharan Africa, the first countries to adopt PCRs were former French colonies in West Africa which in 1962 formed West African Monetary Union that was responsible for the formation of PCRs in member countries following the example of France (World Bank, 2009). In the Middle East and North Africa, the first PCR was established in Egypt in 1957. It was then followed by Tunisia in 1958, Morocco in 1966 and Jordan in 1966.

According to Tuygen (2010), the development of credit reference bureaus varies widely from country to country and even among continents. For example, most Latin American countries have credit reference bureaus that are as developed and effective as those of
developed countries. In some countries, the credit reference bureaus even cover Micro
finance institutions. The situation is, however, different in Africa according to Tuygen
(2010). He argues that most of the developing countries with the least developed credit
reference bureaus are in Africa. This is however slowly changing as consumer credit
becomes more readily available and the number of financial institutions offering such credit
is also increasing hence the need to have information sharing among the different lending
institutions (Tuygen, 2010)

Under reciprocity agreements, credit bureaus obtain data from creditors and other sources,
consolidate and package information into individual reports, and distribute it to creditors for
a fee (Lewis, 2004). 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
(Sullivan & Sheffrin 2003). CRBs play three roles; first, they enable lenders to lend to more
and better risk clients. Second, credit bureaus reduce the borrowing cost by forcing
creditors to compete for good borrowers and third, CRBs reduce moral hazard by
developing a credit culture where they operate as borrowers become aware that credit
market is becoming aware of their credit history and rewarding or punishing them
accordingly (Sullivan & Sheffrin, 2003).

Recent theoretical research also suggests a threefold effect of lenders exchanging
information on the credit history of borrowers according to Dankwah (2012). First, credit
bureaus improve banks’ knowledge about borrower’s characteristics and permit more
accurate prediction of repayment probability. This permits banks to target and price their
credit better thus reducing adverse selection problems. Second, credit registries lower the
informational fees that lenders collect from their customers. They tend to level the credit
information universe thus forcing creditors to competitively price their loans. Lower
interest rates increase borrowers’ net return and augment their incentive to repay the loan.
Finally, credit registries act as borrowers’ discipline system since borrowers know that loan
defaulting results in severe reputational damage denying him future access to credit. This
mechanism also heightens borrower’s incentive to repay, reducing moral hazard (Dankwah,
2012). In Kenya, Credit information sharing was institutionalized by regulatory agencies
out of the need to reduce bank losses resulting from the problem of Non-Performing Loans,
built information capital, reduce information asymmetry and make credit affordable.
Credit information sharing in Kenya’s banking sector was rolled out in July 2010. This was after the publishing of CRB regulations in the year 2008 by the Central Bank of Kenya. Commercial banks commenced submitting negative credit information on their borrowers to the licensed credit reference bureau in August 2010 according to CBK (2015). Between August 2010 and January 2014 commercial banks were mandated to submit only negative credit information through the licensed CRBs. In 2013 however, the Credit Reference Bureau Regulations were amended to allow all commercial banks and microfinance banks to submit full file credit information (both positive and negative information) to the licensed CRBs effective 28th February 2014. This was aimed at improving the integrity of the credit information sharing framework, make the database more enriched and also provide a formal framework through which third parties could share information with the Credit Reference Bureaus. Since August 2010 to 31st March 2015, commercial banks and microfinance banks have accessed 5,609,725 credit reports whereas individual customers have accessed 96,245 credit reports (CBK, 2015). Under the Credit Reference Bureau Regulations, 2013, individuals are entitled to one free personal credit report per year from any licensed credit reference bureau. Enhanced services are accessible on commercial terms

According to CBK (2015), Credit information sharing mechanism is beneficial to borrowers, lenders and the economy. To lenders, credit information sharing reduces information asymmetry between lenders and prospective borrowers which empowers lenders in their assessment and determination of credit requests. Borrowers, on the other hand, could use their good credit histories to build information capital and negotiate favorable terms of credit, thereby lowering their borrowing costs and enhancing their borrowing capacity. To the economy at large, increased commercial lending boosts economic activity. Similarly, Tuygen (2013) observes that the emergence of credit reference bureaus has significantly revolutionized lending and contributed to the improved loan performance of many banks as well as other financial institutions. He emphasizes that before the introduction of CRBs in Kenya, many borrowers used to borrow from one institution to the other without being identified. This resulted in many banks experiencing huge losses as due to bad loans.

Kenya currently has three registered Credit Reference bureaus following the licensing of Creditinfo Credit Reference Bureau Kenya Limited in May 2015 in addition to Credit Reference Bureau Africa Limited and Metropol Credit Reference Bureau Limited which were licensed in February 2010 and April 2011 respectively.
1.2 Statement of the Problem

World over, Credit Reference Bureaus continue to play a critical role in the financial intermediation process. By facilitating credit information sharing among commercial financial institutions, CRBs have greatly helped in reducing the moral hazard phenomenon common when there is information asymmetry during the lending process (Hansen & Keiding, 2004). In Kenya, CRBs became operational in the year 2010, enabling all commercial banks in the country to share credit information. The main goals of this initiative were to ensure better credit terms to creditworthy customers, use of credit reports as “reputation collateral” hence helping improve access to credit, and reduce over-indebtedness by the borrowers among other benefits. Over one million, five hundred thousand reports from licensed credit reference bureaus in Kenya have since been shared among banks (Gaitho, 2013).

Since the rollout of credit information sharing (CIS) initiative in Kenya, there has been no research effort towards establishing what impact CIS has had on commercial banks’ loan portfolio. Previous study by Sigei (2010) focused on the effectiveness of CRBs in Kenya. Nganga (2011) examined stakeholder perception of credit reference bureau services in Kenya and Kimathi (2014) appraised the effect of CRB on banks’ profitability. The impact of Credit information sharing on banks’ Loan portfolio however has not been subjected to any empirical studies. This study therefore aimed at bridging this gap by establishing the contributions made by CRBs, and the impact CIS has had on commercial banks’ loan book size, lending rates and loan delinquency. In particular, the study, seeks to ascertain whether Credit information sharing has had any effect on loan interest rates charged to borrowers, loan quality and loan book size at Equity bank.

1.3 General Objective

The broad objective of this study was to investigate the impact of credit information sharing on Equity bank’s loan portfolio.

1.4 Specific Objectives

1.4.1 To establish the effect of Credit information sharing on loan quality at Equity bank

1.4.2 To establish the effect of Credit information sharing on Equity bank’s loan book size

1.4.3 To establish whether Credit information sharing has had any impact on Equity bank’s lending rates/interest rates.
1.5 Importance of the Study

1.5.1 To the Banks

The concept of Credit information sharing is relatively new in Kenya. This study therefore provides important insights on the benefits and challenges of CIS to the banks. From the study, banks will be able to identify gaps between their expectations of CIS and the expectations of their customers and the regulator. This will go a long way in assisting banks determine how best they can utilise the shared customers’ credit information.

1.5.2 To Businesses, Investors and Individuals

Individuals, Businesses and other investors are key beneficiaries of this study. For example, the need to maintain a good credit history is highlighted to this group and this will help them in their future personal/business debt management.

1.5.3 To the Government

Following the formulation and subsequent passing of the Banking (CRB) regulations in the year 2008, the government expected to increase access to credit, improve terms of lending and reduce credit delinquency through sharing of credit information among financial institutions. The findings of this study are therefore important in evaluating the success of this initiative. The study provides a basis upon which further policy decisions on CRB operations could be made.

1.5.4 Academicians and Researchers

This study has contributed to existing literature in the area of credit reference bureaus and will undoubtedly inspire prospective researchers to conduct more studies in the area.

1.6 Scope of the Study

This study is a research case study focusing on Equity Bank, Kenya. Due to financial and time constrictions, the study focused on the bank’s head office credit staff currently based at Equity Banks’ head office at Equity center, Upper Hill-Nairobi leaving out all branch credit staff. The study was conducted between the month of March 2015 and April 2015.
1.7 Definition of Terms

1.7.1 Credit Information Sharing (CIS)

According to KCISI (2010), CIS is the mechanisms by which banks and other credit providers make information about their borrowers available to other lenders.

1.7.2 Credit Reference Bureau (CRB)

KCISI (2010) defines Credit Reference Bureau as organization licensed to collect information from credit providers and a variety of other sources (utility companies, public records) and provide comprehensive credit information on an individual, upon request by an authorized user.

1.7.3 Credit Report

Credit Report is a report containing detailed information on a person's credit history, including identifying information, credit accounts and loans, bankruptcies and late payments, and recent inquiries (CIS, 2010)

1.7.4 Credit Score

A measure of credit risk calculated from a credit report using a standardized formula (CIS, 2010)

1.7.5 Portfolio At Risk (PAR)

The measure of outstanding balance of loans not paid on time expressed as a percentage of the outstanding balance of all loans (Brown, 2006)

1.7.6 Non-Performing Loan (NPL)

Loans for which Equity bank determines that it is probable that it will be unable to collect all principal and interest due according to the contractual terms of the loan agreements.(EBL, 2011)
1.8 Chapter Summary

This chapter has essentially dealt with the historical developments of credit information sharing both from a global and local viewpoint. In the chapter, a background understanding of the research area—“Credit information sharing” has been discussed. The chapter has brought to fore the main reasons for carrying out the study. Finally, the chapter discussed the importance of the study and its scope.

In the subsequent chapter, related work and findings by other authors have been discussed in detail while chapter three summaries the research approach used. Chapter four is a summary of the research data and findings and finally the last chapter provides a summary of the discussions on major findings, conclusions and research specific recommendations.
CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Introduction
This chapter presents a review of the literature related to the purpose of the study; “Role of credit information sharing on commercial banks loan Portfolio: the case of equity bank”. The chapter is organized according to the three specific objectives developed in the previous chapter, which include assessing the effect of Credit information sharing (CIS) on banks’ credit quality, bank’s loan book size as well as the impact of CIS on bank’s lending rates. At the end of the chapter, a summary of the review is provided and an overview of the subsequent chapter is also provided.

2.2 Effect of Credit Information Sharing on Loan Quality

2.2.1 The Moral hazard theory
There are cases where a party to a transaction enters a contract in bad faith or provides inaccurate information regarding their liabilities, assets or their credit capacity. Moral hazard refers to risks that such parties possess. The 2008/2009 financial crisis that rocked many financial institutions is a classic example of problems that moral hazard can cause (Myerson, 2011).

As Hansen and Keiding (2004) observed that the problems of moral hazard are common when there is information asymmetry. If financial institutions have full information about their clients borrowing behaviors and credit worthiness, they would deny credit to clients with risky borrowing habits. However, most financial institutions lack access to such kind of information that would allow them to provide adequate protection against borrowings. Unless there are serious consequences for defaulting like inability to get credit in future, the borrower will always have great incentive to default. Since the lenders do have enough information to accurately determine the ability of the borrower to repay the debt on time, the lenders increase interest rates to forestall any default. Eventually, such actions lead to breakdown of the financial market (Alary, 2001).

2.2.2 Adverse selection theory

At the base of this theory are two main assumptions. The first one is that it is difficult for lenders to distinguish between good and bad borrowers. Secondly, that the subjects in loan
contracts have limited liability. This means that the borrower has no responsibility to pay out of pocket if the project returns are less than debt obligations (Stiglitz & Weiss, 1981). This analysis is limited to involuntary default. The assumption made here is that borrowers only repay the loan when they are able to. This limited liability on the side of the borrowers makes them have a preference for risk. The lenders, on the other hand, develop an aversion for risk because they bear all the downsides of risks.

Since all the returns above the loan repaid accrue to the borrowers, when interest rates are raised the profitability of the loan goes down. The most affected group is often the low risk borrowers. This forces them to drop from the application pool leaving only the high risk borrowers. This increases the average riskiness of the application pool. Such composition of application pool is undesirable for lending institutions. They, therefore, reduce the interest rates to lower the average riskiness of the application pool.

2.2.3 Portfolio at Risk (PAR)

Loan portfolio at risk is the part of total loan portfolio currently outstanding. It is expressed as a percentage of the total loan book. Brown (2006) defines PAR as a measure of outstanding balance of loans not paid on time expressed as a percentage of outstanding balance of all loans. Since PAR represents loan portfolio whose payment is overdue, it is used as a measure of the portfolio that is risky. When expressing PAR, the number of days the payment is due are also included. For example PAR 30 means that the repayment is overdue by over 30 days. A PAR 30 that is more than 10% portends trouble for the financial institution.

When there is high delinquency, it becomes hard for the financial institution to maintain financial stability. According to Brown(2006), PAR rates measure the outstanding balance of loans not paid on time against outstanding balance of all total loans. As McIntosh and Wydick (2004) observed, credit information systems are critical in creating a screening effect which improves risk assessment of loan applications by borrowers. This in turn raises the portfolio quality thus leading to a reduction in interest rates.

It can, therefore, be seen that PAR is an important standard for measuring loan delinquency of banks. The numerator and denominator are both outstanding balances. The numerator
denotes the loan balances not paid on time while the denominator represents all the unpaid balance of all loans. PAR can be associated with any lateness degree. However, most banks use PAR 90 with 90 representing the number of days the loan remains unpaid.

2.2.4 Empirical review

Many studies have confirmed that lenders better predict the likelihood of a borrower defaulting if they have comprehensive information about the borrower. A research by Kendell and Staten (2003) found that information on borrower credit history played a crucial role in determining whether the borrower defaults or not. Another study by Barron and Staten (2003) found that the more information lenders have about the credit history of the borrower the less the default rate.

Similar studies carried out in Latin America found a positive correlation between lender information about the borrower and decrease in default rate (Powell, Nataliya, Miller & Giovanni, 2004). A study by Stiglitz and Wise (1981) found that information asymmetry in the credit market plays a major role in increasing the interest rates of loans. This is because of the problem of moral hazard which forces lenders to work with average credit characteristics of the borrowers rather than individual borrowers. This has the effect of lowering the average probability of repayment. When the interest rates are very high, the proportion of high risk borrowers increases in the application pool. This in turn increases the likelihood of defaults.

Efficient management of credit is crucial in the survival of financial institutions. For banks, the effect of credit mismanagement is even greater because of their greater sensitivity to credit risks. Many countries have faced severe financial crises as a result of bank failures resulting from defaults (Hardy, 1998). In late 1980s and early 1990s many countries both developing and developed experienced some form of financial crisis of varying degrees. In Kenya, for example, banking problems started in 1986 culminating in the failure of close to 37 banks in 1998 (Kithinji & Waweru, 2007; Ngugi, 2001). Even developed countries with advanced financial sector like the USA have also suffered severe banking crises. According to Elliot (2008), Citibank alone has had to write off more than $39 billion in losses resulting from defaulting. Such Non-Performing Loans also bedeviled the Kenyan banking sector in the 1980s and 1990s leading to the collapse of many banks. The main causes of the huge volume of Non-Performing loans were serial defaulters. These defaulters exploited
information asymmetry among financial institutions to borrow from different banks without the intention of paying back. In view of this, the CBK (2010) recognizes information sharing as a key component of financial reforms.

Herausgeber (2001) observed that because of the importance of credit information sharing, national governments and international financial organizations have began active analysis and advancement of credit information sharing. Credit information sharing is not only critical for the stability of the banking sector but also the development of small and medium enterprises. For example Herausgeber (2001) states that one of the reasons why small and medium sized businesses have difficulty accessing credit from financial institutions is because banks have very little information about them and, therefore have difficulties knowing the level of risk they pose. Banks therefore use a lot of resources finding out relevant information that will help them make lending decisions. These operational costs pass on to other borrowers in form higher interest rates. Having complete credit information on the customers enables banks to classify borrowers in terms of their credit worthiness and charge interest rates according to that credit score. Generally, credit score ranges from 1 to 5 or A to E depending on the country. 1s or As have excellent credit score while “5”s or “E”s have the poorest score. Since the first category is most likely to repay their loan, they are charged lower interest rates compared to those with poor scores.

According to Gatenga (2007), one of the features that financial institutions look for before giving out a loan is the chances of recovery. In achieving this, a background check of the borrower is done to find out if they have honored past loan obligations. This makes it important because there is a relationship between the past and future performance in loan repayment. Though this information is available in various financial institutions, CRBs have made it easy to access such information. Kalberg and Udeu (2008) pointed out that information exchange from multiple sources improves the precision of the signal about the quality of the credit seeker.

A majority of studies that investigate the determinants of problem loans try to answer the question of credit default at firm level (Bonfirm, 2009). Berger and Deyong (1997), reviewed studies on the causes of bank failure and found out that many failures occur because institutions have higher proportions of non-performing loans prior to failure, and that asset quality displays a statistically significant predictor of insolvency. Additionally,
they explored a sample of US commercial banks during the period from 1985 to 1994 and found out that decreases in information sharing lead to an increase in future problem loans. Podpiera and Well (2008) also provided an empirical evidence of a negative relationship between information sharing and future problem loans in Czech banking industry within the period from 1994 to 2005.

Louizies et al. (2012), exploring the drivers of NPLs in Greeks’ financial institutions during 2003-2009 found that information sharing and an increase in future NPLs are negatively associated. Petersen (1994) studied the relationship between information sharing and mitigation credit risks. Peterson stated that the data needed to the application and to monitor borrowing were not freely available to banks. When banks do not have such information, it faces problems in its lending activities. Similarly, Pagano et al. (1993) suggest that mitigation of credit risks is the core of business in the banking business. They stated that besides the information being shared, there is also need to have appropriate risks management mitigation strategy to reduce risks of loan defaulters.

2.3 Effect of Credit Information Sharing on Commercial Banks’ Loan Book Size

2.3.1 Credit Rationing Theory

Even though associated with Stiglitz and Weiss (1981), credit rationing theory was first introduced by Freimer and Gordon (1965). According to this theory, unsatisfied agents are borrowers. Due to information asymmetry, most lenders cannot distinguish between low and high quality borrowers. This leads to credit rationing. However, De Meza and Webb (1987) countered this theory arguing that rather than information asymmetry leading to credit rationing, it actually leads to excess credit. According to Allen and Santomero (1998) financial institutions perform much better than other investors because of their superior and more efficient screening and monitoring of borrowers. This is because they specialize in gathering and storing private information of borrowers (Freixas & Rochet, 1999). Even with this private and hugely important information at their disposal, bankers and firms have an imperfect relationship. Due to this information asymmetry suffered by financial institutions, evolution of prices (interest rates) cannot effectively clear the credit market. In such a scenario, non-walrassian equilibrium arises with a fringe of unsatisfied agents.
Another common form of credit rationing is equilibrium rationing. This occurs when the market fully adjusts to all information available publicly and when the demand for loans offered at a particular interest rate is more than the supply. According to Stiglitz and Wess (1981), credit rationing occurs when banks charge uniform interest rate to all borrowers. This is as a result of their inability to distinguish between good and bad borrowers because of the expenses involved. These two explanations are quite simplistic because the assumptions made do not occur in the real world. For example, even though banks cannot accurately distinguish borrowers, they can achieve this to a certain degree. Furthermore, the types of borrowers banks deal with are more than two.

Lastly, banks charge different interest rates to different customers. Those that have good credit score often get credit at lower interest rates compared to those with poor credit score. However, credit rationing still occurs because banks cannot accurately distinguish borrowers because of the impossibility of perfect screening.

2.3.2 Empirical Review

There is growing empirical evidence supporting the hypothesis that increased information sharing helps in better management of credit risks hence in increased lending. An analysis of credit reference bureaus data confirms the fact that credit reporting significantly reduces the selection costs of lenders by enabling them to have a more accurate prediction of individual loan defaults (Kallberg & Udell, 2003; Barron & Staten, 2003; Powell et al., 2004). According to Gallindo and Miller (2001), there is a positive relationship between information sharing and access to credit. The paper analyzes the level of effects that credit information registries have on the ability of firms to access credit using both firm level financial data and aggregate measure of firm’s access to credit. Through the use of online surveys, the project was able to collect data pertaining public registries in 34 countries and on private registries in close to 30 countries. Of the 81 countries that were sent surveys of public registries, 59 responded. These included 34 that had public credit registries. When balance sheet data of 18 companies in the 23 countries surveyed were examined, it was found that there is a strong positive correlation between index of information sharing and credit access. In addition, it was found that well-performing credit reporting systems reduced sensitivity of investment cash flow. In both cases, empirical results showed that credit registries played a major role in increasing the effectiveness of financial intermediation as evidenced by the significant increase in access to credit. The average
debt/capital ratio for most firms was shown to positively correlate with the quality of the credit registries. In addition, better credit registries reduced financial constraints of the firms.

A survey by Jappeli and Pagano (2002) in 43 countries shows that bank lending to the private sector is more, and the rate of default lower in those countries that have well established and efficient credit registries. However, having only one half of the picture (negative information) runs the risk of it becoming the only deciding factor - a blacklist with the potential of restricting access to credit according to Walsh (2003). Previously, credit rating emphasized on determining the risk that customers would not meet their credit obligations and thus run into arrears. Lately, credit scoring has advanced to loss and exposure risk as well (Erik & Choi, 2008).

Aduda et al. (2002) performed another study that sought to establish the relationship between credit scoring and access to credit with regards to SMEs in Kenya. This was done through a census survey of 43 commercial banks registered and operational under Kenya Banking Act. The findings of the study supported the conclusion that there was a relationship between credit scoring by Kenyan banks and access to credit. It is on the basis of these findings that the authors recommended the need for banks to use various credit assessment methods before availing loans to SME applicants.

Damiano and Massimo (2006) measured the perception of interest rate and information sharing concept. They stated that banks change the higher interest rate to borrowers who are more likely to be defaulters. The lenders may also write stipulations on the borrowers called loan covenant that are included in the loan to agreements. According to Smith (1998), the application of CRBs concept is enforced through public credit registers and private bureaus where lenders remit information about the borrower. Besides, Smith adds that truthfulness in the information given to CRB is always enforced by threatening deviants that they will be excluded from accessing their data.

Credit bureaus improve banks’ knowledge about applicants’ characteristics and permit more accurate prediction of repayment probability. This helps lenders to target and price their loans better easing adverse selection problems. However according to Trivelli et al. (1999) the type of information shared in CRB is usually negative information rather than
positive information. Similarly, the use of CRB extends to sharing of information extracted from other sources such as criminal records, tax records etcetera.

Jappelli and Pagano (1999), suggests a threefold effect of financial institutions sharing borrowers’ credit history information. First, they postulate that credit bureaus improve banks’ knowledge about loan applicants’ characteristics and allow more precise prediction of their repayment probability. This allows lenders to target and price their loans better, easing adverse selection problems according to Jappelli and Pagano (1999). The study suggests that the benefit of credit reference bureaus is greatest where each bank deals with by a large pool of customers whom it has no previous information. Second, credit bureaus reduce the informational rents that banks otherwise extort from their customers. They tend to level the informational playing field within the credit market and force lenders to price loans more competitively (Jappelli and Pagano, 1999). Lower interest rates may increase borrowers’ net return and augment their incentive to borrow more. Third, credit bureaus work as a borrower discipline device according to Jappelli and Pagano (1999).

Adverse selection model developed by Pagano and Jappelli (1993) suggests that information sharing leads to increased lending. The study cautions however that in markets where banks are monopolies, lending may dip since the exchange of information increases the banks’ possibility of price discrimination between safe and risky borrowers and the increase in lending to safe borrowers does not fully compensate for the reduction in risky types. When credit markets are contestable, lending activity is more likely to increase (Pagano and Jappelli, 1993).

Padilla and Pagano (1996) notes that Moral hazard models also indicates that information sharing should reduce default rates and interest rates and increase lending, either because credit bureaus foster competition by reducing informational rents (Padilla and Pagano, 1996) or because they discipline borrowers (Padilla and Pagano, 1997). In extreme cases, information exchange may make lending feasible in markets where no credit would be extended otherwise according to Padilla and Pagano (1996). Theoretical models show that information sharing may increase lending and reduce defaults (Japelli and Pagano, 1999). The same models, however, also suggest that where credit is more abundant lenders have a stronger incentive to set up a credit bureau.
2.4 Impact of Credit Information Sharing on Equity Banks’ Loan Interest Rates

2.4.1 Determinants Of Cost of Credit
The main determinant of the cost of credit is the price of intermediation service offered under uncertainty and sets both the interest rates of loans and deposits. The intermediary cost is the disparity between the borrowing cost and net return on lending. It includes costs of administration, information, transaction, operation and default (Ngugi, 2001). Other determinants of interest rates are usually bank-specific. These factors include the size of the bank based on its assets, the risk of credit measured in terms of non-performing loans to total loan ratio, return on average assets, liquidity risk and operating costs (Were and Wambua, 2013). In summary, the cost of credit is determined not just by factors specific to the lending institution but also by the following factors;

2.4.2 Credit Default Costs
This is the costs which lending institutions incur when collecting debts and other monies owed to them by defaulting borrowers. A high percentage of non-performing loans increases borrowing costs. As Klein (1992) observed, when there is sufficient information sharing, borrowers are unlikely to default because they will be aware that in case of a default, that information will become available to all lending institutions through CRBs.

2.4.3 Administration and Transaction Costs
These are costs that relate to credit intermediary costs. These include the costs of loan processing as well as operation and administration costs. When credit reports are well organized and managed, banks are able to quickly and accurately know the credit worthiness of borrowers hence reduced loan processing time and related processing costs.

2.4.4 Liquidity Risk
Liquidity risk is computed as the ratio of a bank’s liquid assets to its total assets. This ratio varies from bank to bank. When a bank has high liquidity, its liquidity risk is low. This leads to lower spreads. However, if the bank has low liquidity, it experiences high liquidity risk and might be forced to borrow emergency funds at a high cost. This leads to higher spreads.

2.4.5 Empirical Review
A study by Sinare (2008) established that Credit Reference Bureaus are information brokers that provide creditors with reliable, relevant and comprehensive data on the repayment
habits and the current debt of their credit applicants. According to Lewis (2004), most creditors prefer hard collateral-based credit but would still extend cash flow-based credits if they can use cheap and reliable system to share information on the character and ability of borrowers to pay.

Paydaycash (2010) also postulates that there is need to establish Credit registries due to the existence of information asymmetry between lenders and borrowers. When creditors compete for same customers, multiple borrowing and over-indebtedness certainly increases loan non-payment rates unless the creditors have access to databanks that capture relevant customer details. Kenya bankers Association (2010) notes that without full file information sharing, lenders mistake good risks for bad, and vice versa. Their Loan portfolio, therefore, will consist of more risky loans and, over time, higher interest rates. Higher rates create incentives to divert loan funds to riskier projects, as lower-risk projects will not yield the return to compensate for the costs of the loan. Most risky projects will fail, leading to defaults. Credit pricing will then reflect default rates, driving the cost of lending even higher.

Kenya bankers Association (2010) however asserts that in cases where comprehensive information is shared, the ability to screen risky borrowers improves the portfolio’s performance and allows lenders to offer lower rates to less-risky borrowers. Risk based pricing, determined from consumers’ risk profiles using credit reports is known to alter the price of credit for many economies, allowing for more nuanced pricing. To this extent, then, better risk assessment translates to the desired macroeconomic outcome of lower rates (Kenya bankers Association, 2010). Credit Registries contribute considerably in reducing the costs of screening loan applications by enabling the lenders to easily recognize prospective customers who have defaulted in other lending institutions.

A study by Armstrong (2008), using information gathered from several countries worldwide shows that the presence of credit records centers is associated with growth in lending volume, improvement in consumer lending, better access to financing and a more stable banking sector. In addition, Hansen et al (2004) established that many borrowers make much effort repaying their loans, but do not get rewarded for their efforts because this good repayment history is not available to the creditors that they approach for new loans. When borrowers fail to repay their loans, creditors pass on the nonpayment cost to other customers through higher interest rates among other charges. Credit reporting, therefore,
allows banks to better differentiate between good borrowers and the bad ones. According to Angulin and Scapens (2000), it is difficult to have accurate information on the financial ability of prospective borrowers and even more difficult to have accurate information on their credit history. This makes it exceptionally hard for the creditors to evaluate the credit worth of would-be borrowers and their capacity to pay the loans.

Kenyan banks have for long had to contend with having incomplete information about borrowers’ credit history that translated to higher risk premiums on interest rates. Lending institutions have long complained that lack of credit reference information leads to a risk of overpricing low risk borrowers and under-pricing high risk borrowers. Rukwaro (2001) stated that perennial defaulters have been the cause of high lending rates. Negative reports obtained from CRBs would be used as a basis for denying habitual defaulters’ access to bank loans hence reduce borrowing costs to good borrowers. Credit bureaus enable banks and other lending institutions to lend to more borrowers that have low probability of defaulting. This is done at a lower interest rate which motivates them to make timely repayments (Djankov, McLiesh & Shleifer, 2005). Fulton (2004) showed that the credit approval decision was originally made using a purely judgmental approach by simply inspecting the application form details of the applicant and almost solely focused on the values of the 5 Cs of a customer. These 5Cs include Character; measures the borrower’s integrity and honesty, Capacity; measures the borrower’s ability to repay and is based on factors like employment status and Circumstances; measures the circumstances at the borrowing time like market conditions (Bessis, 2003)

Crowley (2007) defined interest rate as the price a borrower pays for use of money borrowed from financial institutions. According to (Chand, 2002), there are several reasons that lead to high-interest rate spread. These are great operating and fixed cost, high transportation costs, lack of sufficient competition, diseconomies of scale, perceived market risks and the existence of regulatory controls. Besides, they stated that the factors mentioned above lead to high intermediation costs, which cause large spread. These studies further showed that small borrowers with no fixed assets rights have no guarantee to offer. Therefore, they are perceived as borrowers with high risks. Because of this high transaction costs, such borrowers are charged with high-interest rates.
Petersen (1994) studied the relationship of between information sharing and mitigation of credit risks. He stated that the data needed to adequately appraise loan application and monitor borrowing were not freely available to banks. When banks do not have such information, it faces problems in determining lending rate. Similarly, Pagano, et al., (1993), suggest that mitigation of credit risks is the core of business in the banking business. They stated that besides the information being shared, there is also need to have appropriate risks management mitigation strategy to reduce risks of loan defaulters and hence lower lending rates.

Information sharing improves the pool of borrowers, decreases defaults and reduces interest rates according to the adverse selection model developed by Pagano and Jappelli (1993). It can also lead to an increase in lending according to the model. However, when banks are local monopolists, lending may diminish since the exchange of information increases the banks’ possibility of price discrimination between safe and risky borrowers and the increase in lending to safe borrowers does not fully compensate for the reduction in the risky types (Pagano & Jappelli, 1999). In a competitive credit markets, lending activity is will often increase because competition restricts banks’ ability to extract rents from their customers, and information sharing increases banking competition.

Padilla and Pagano (1996) argued that the Moral hazard models does also show that information sharing should reduce default rates and interest rates and increase lending, either because credit bureaus foster competition by reducing informational rents or because they discipline borrowers. They note that in extreme cases, information sharing may make lending possible in markets where no credit would be extended otherwise. In moral hazard models, whenever banks choose to correspond, they bring about a Pareto improvement by raising customers’ welfare along with their own profits. Padilla and Pagano (1997) point out however that disciplinary effect of credit reference registries only arises from the sharing of negative credit information. Information about past defaults generates fear of social stigma. Sharing white information may actually reduce the disciplinary effect of information sharing according to Padilla and Pagano (1997). The comparative benefit of sharing full file information therefore depends on the relative importance of moral hazard and adverse selection problems in the market.

2.5 Chapter Summary

This chapter presented the literature and recent studies in the areas of credit information
sharing (CIS) among commercial banks. The chapter started with a brief introduction then went on to explore the literature on credit information sharing and the impacts this has on banks’ credit management decisions as well as credit delinquency levels. In this chapter, the impact of credit information sharing on banks’ lending rates was discussed at length. Effects of CIS on loan volumes as well as the resultant bad loans have also been discussed.

Having reviewed the relevant literature on the effects of credit information sharing on commercial banks credit decisions, the chapter that follows outlines the research approach and details the methods and procedures that were used in the study.
CHAPTER THREE

3.0 RESEARCH METHODOLOGY

3.1 Introduction

The broad objective of this study was to establish the relationship between Equity banks’ loan book portfolio and credit information sharing. In particular, the study sought to determine how credit information shared by the Credit reference bureaus (CRBs) has impacted on Equity banks’ loan book size, the lending rates and the loan quality over time. This chapter therefore reviews the approach that was used to actualize these objectives and is structured as follows: research design, population and sample, population description and data collection methods. Also detailed in this chapter are the data analysis techniques that were applied as well as the data collection instrument.

3.2 Research Design

Polit and Hungler (1999) described research design as a blueprint, or outline, for conducting a study in such a way that maximum control is exercised over factors that could interfere with the validity of the research results. According to Burns and Grove (2001), designing a study helps researchers to plan and implement the study in a way that will help them obtain the intended results, thus increasing the chances of obtaining information that could be associated with the real situation.

In this study, a descriptive study design was used. This entailed collection of data over a period of time in order to gather a body of quantifiable information in connection with the three variables in chapter one above which were then examined to detect the patterns of association. According to Churchill and Brown (2007), a descriptive research design is usually concerned with determining the rate with which something occurs or the association between variables. Descriptive study according to (Cooper & Schindler, 2001) investigates these variables by answering who, what, where, when and how questions.

The descriptive research design was most preferred for this study because of two major reasons. First, it allows for the description and interpretation of existing relationships and comparison of variables under study. Second, descriptive studies answer questions based on theory. The review of existing theories extensively covered in chapter two formed the theoretical constructs upon which the findings of the study were evaluated.
3.3 Population and Sampling Design

3.3.1 Population
A population according to Mugenda and Mugenda (2003) is an entire group of individuals, events, or objects having in common observable characteristic. Research populations may also be the totality of all subjects that conform to a set of specifications, comprising the entire group of persons that is of interest to the researcher and to whom the research results can be generalized (Polit & Hungler, 1999).

Thietart, et al. (2001), defines a target population as one for which the study results will be generalized through statistical inference while the study population is one that is operationalized in order to have clear criteria to determine the elements included or excluded. In this study, the target population comprised of 179 staff of Equity Bank’s departments of credit risk and credit recovery based at equity banks’ head office where credit decisions are largely made and measured. This population was particularly ideal for the study since these are the individuals involved in the day to day lending business for the bank and thus are quite knowledgeable on the theme of the study. Table 3.1 below shows the distribution of the study population.

Table 3.1 Population Distribution

<table>
<thead>
<tr>
<th>Sample frame</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager</td>
<td>2</td>
</tr>
<tr>
<td>Assistant Managers</td>
<td>91</td>
</tr>
<tr>
<td>Senior officers</td>
<td>86</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>179</strong></td>
</tr>
</tbody>
</table>

3.3.2 Sampling Design
Researchers rarely study the whole population since it could be too costly or the population could be dynamic such that individuals making up the population change over time (Adèr & Hand, 2008). Sampling is therefore often used where a subset of individual units from the target population is considered for the study. Sampling presents several benefits to the researcher including lowering the cost of the study and hastening data collection process. Sampling also ensures homogeneity, accuracy and improved quality of the data.
3.3.2.1 Sampling Frame

According to Cooper and Schindler (2008), a sample frame is a list of elements from which the sample is actually drawn and is closely related to the population. The list could of geographical areas, institutions, individuals, or other units (Churchill & Brown, 2007).

The sample was drawn from the target population which in this case is the 179 staff of equity bank’s departments of credit risk and credit recovery. In this study the sample frame comprised top management, middle level management and lower level management members of the target population.

3.3.2.2 Sampling Technique

A stratified random sampling (probability sample) technique was used to identify sample elements in this study. This is because a stratified proportionate random sampling technique produces estimates of overall population parameters with greater precision and ensures a more representative sample is derived from a relatively homogeneous population (Ngechu, 2004). After selecting the target population, a sample from the same was chosen. The basis for selecting a sample was determined by the size of the relevant department. The population was further divided into different strata, in this case the various management levels and sectors. Finally all the elements in each stratum stood an equal chance of being selected to be part of the study.

3.3.2.3 Sample Size

A sample size according to Thietart et al. (2001) is the set of elements from which data is collected. The sample size ensures that the researcher has adequate time and resources in piloting and planning the means of collecting data. The sample size of the study was determined using the Yamane (1967) formulae at 95% confidence level, confidence interval of 0.1 and p=.5 i.e. \( n = \frac{Z^2Pq}{e^2} \) where;

\( n = \) sample size

\( Z = \) Area under a normal curve in this case at 95% confidence level

\( e = \) required precision

The sample size for this study was 63 further distributed as follows;
Table 3.2 Sample Distribution

<table>
<thead>
<tr>
<th>Credit Staff Rank</th>
<th>Population</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Assistant Managers</td>
<td>91</td>
<td>32</td>
</tr>
<tr>
<td>Senior officers</td>
<td>86</td>
<td>30</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>179</strong></td>
<td><strong>63</strong></td>
</tr>
</tbody>
</table>

3.4 Data Collection Methods

To achieve the objectives of the study, the researcher used both primary and secondary data. Primary data was collected by use of a structured questionnaire written in English and prepared based on research’s specific objectives. A structured questionnaire approach was preferred to ensure uniformity is achieved in the responses. Secondary data was extracted from Equity Bank’s published financial statement. Data on Credit Reference Bureaus entries was obtained from Central Bank of Kenya web portal. Primary data collected was both qualitative and quantitative whereas the secondary data was exclusively quantitative. The study respondents were served with the questionnaire through drop and pick methods.

The study questionnaire was divided into four parts; the first part of the questionnaire collected demographic information of the respondents. The remaining three sections collected information on the three research objectives respectively. A 5-point bipolar Likert scale (1 – “strongly agree” to 5 – “strongly disagree”) was used to collect and measure research responses. Using the likert scale the study measured the respondents’ level of agreement/disagreement with the various issues asked concerning the study objectives. Questions in each part of the questionnaire were largely close ended apart from the closing question which was open-ended to allow the respondents to freely express their views.

3.5 Research Procedures

A pilot study comprising 10 percent of the sample size was first conducted. The pilot study was conducted in line with the essentials of a pilot test as articulated by Cooper and Schindler (2008) who defined a pilot test as a tool used to identify weaknesses in the research strategy and data collection tool. Kumar (2005) further stated that pilot tests are important in establishing the feasibility of intended studies. Two days were used to carry out the pilot study; collecting data and redesigning the data collection tools and research approach on the basis of the feedback received from the pilot sample.
Participants in the pilot study were asked to highlight any unclear or repeated questions, semantic issues, questions flow as well as indicate biases depicted in the research tool. The pilot sample was distributed as shown in the table below.

**Table 3.3 Pilot Sample**

<table>
<thead>
<tr>
<th>Credit Staff Rank</th>
<th>Sample Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assistant Managers</td>
<td>3</td>
</tr>
<tr>
<td>Senior officers</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>

The redesigned questionnaire together with a cover letter was then distributed to the respondents selected from the sample population excluding those who participated in the pilot study. The cover letter served to explain the purpose of the study to the participants.

The researcher was assisted in data collection and recording by two research assistants. The assistants were first trained on the objectives of the study and the various aspects of the data collection tools. The study took four months to complete beginning January 2015. The researcher personally presented questionnaires to respondents on the first week of April 2015. To ensure quality control, the researcher discussed the contents of the questionnaire with the respondents to ensure they understood well the kind of information required from them. Further, the researcher organized respondents in groups with a designated contact person to help in collecting all the filled-up questionnaires for subsequent collection by the researcher. In order to achieve a high response rate, the researcher kept reminding respondents on a daily basis to fill-up the questionnaire.

**3.6 Data Analysis Methods**

After collecting the relevant data for the study, the data was cleaned and captured in SPSS Statistical tool and then edited further before the actual analysis. The collected information was statistically analyzed using the SPSS software and Microsoft Excel spreadsheet program. The descriptive method of data analysis was used. This approach helped the researcher explain the results of the study in details. With the aid of SPSS and MS Excel tools, frequencies, percentages and coefficient measures were generated to analyze the respondents’ views of the different aspects of the study as detailed in the data collection tools. Tables and figures were used to present the data in a visually appealing way.
3.7 Chapter Summary

Chapter three essentially defined the approach the researcher used to perform this study. In the chapter, the researcher defined his target population and described the sampling techniques and sample sizes. Similarly, data collection methods and the instruments used were discussed in this chapter at length. The chapter further discussed the methods used to conduct the research and highlighted the research procedures adopted in the study. The chapter ended with a detailed review of the data analysis methods employed to make conclusive remarks on the study.

In the subsequent chapter, collected research data has been analyzed and presented in a systematic way based on the research questions and the specific research objectives.
CHAPTER FOUR

4.0 RESULTS AND FINDINGS

4.1 Introduction

This chapter presents an analysis of the research study data collected from the field. The purpose of this study was to investigate the impact of credit information sharing on Equity bank’s loan book size, loan asset quality and bank’s lending rates. The chapter begins with an analysis of the study response rate. The next section covers the background information of the respondents. Subsequent sections present findings on the three key objectives of the study.

4.2 Response Rate

Sixty three questionnaires were given to the respondents. However, sixty one responded, representing a response rate of 97%. The results are indicated on the following Table.

Table 4.1 Response Rate

<table>
<thead>
<tr>
<th>Job Rank</th>
<th>Target Population</th>
<th>Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Assistant Manager</td>
<td>32</td>
<td>18</td>
</tr>
<tr>
<td>Senior Credit officer</td>
<td>30</td>
<td>42</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>63</strong></td>
<td><strong>60</strong></td>
</tr>
</tbody>
</table>

4.3 Background information

This section provides background information with regards to the respondents’ age, gender, level of education, occupation, number of working years as well as monthly income. These aspects were put into consideration because of the meaningful contribution they offer to the study as the variables help in the provision of the logic behind the responses given by the respective respondents.
4. 3.1 Distribution of Respondents by Department/Section & Job rank

Table 4.2 below details a summary of the respondent’s job rank and the respective sections to which they are attached. The results of the study show that 52 percent of the total respondents were drawn from Credit recovery section, 36 percent were from Credit risk section, while the remaining 12 percent from other sections within the Credit Department of Equity bank including credit administration, Security & documentation unit etc. Further, the respondents were distributed as per their job ranks. Managers accounted for 18% of the respondents, assistant managers 13%, while the remaining 69% of the respondents were Senior Credit officers.

Table 4.2 Respondents Departments/Sections & Ranks

<table>
<thead>
<tr>
<th>Job Rank</th>
<th>Credit Recovery</th>
<th>Credit Risk</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Assistant Manager</td>
<td>8</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>Senior Credit officer</td>
<td>26</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>34</strong></td>
<td><strong>19</strong></td>
<td><strong>8</strong></td>
</tr>
</tbody>
</table>

4.3.2 Months of Service with Equity Bank

Table 4.3 provides the results of the respondents with regards to the duration they have worked with Equity bank. About one third of the respondents (35%) have been working with Equity bank for more than 3yrs, 11% one year and the remaining 54% less than one year.

Table 4.3 Distribution of Respondents by Months Worked at Equity Bank

<table>
<thead>
<tr>
<th>Months of Service with Equity Bank</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>0- 6</td>
<td>16</td>
<td>26%</td>
</tr>
<tr>
<td>7-12</td>
<td>17</td>
<td>28%</td>
</tr>
<tr>
<td>13-24</td>
<td>2</td>
<td>3%</td>
</tr>
<tr>
<td>25-36</td>
<td>5</td>
<td>8%</td>
</tr>
<tr>
<td>Over 36</td>
<td>21</td>
<td>35%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>61</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
4.3.3 Distribution of Respondents by Credit Sector

Table 4.4 shows a summary of the credit sectors the respondents work with. Respondents were drawn from different credit sectors based on strength of the sectors. 21 of the respondents were from the Consumer sector, 29 from SME /Cooperate sector and 6 from Asset Finance sector. The remaining 4 respondents were from Agriculture and Group Lending sectors. The distribution of respondents across all credit sectors was aimed at ensuring that the effect CIS on all credit sectors is captured.

<table>
<thead>
<tr>
<th>Credit Sector</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agriculture</td>
<td>4</td>
<td>7%</td>
</tr>
<tr>
<td>Asset Finance</td>
<td>6</td>
<td>10%</td>
</tr>
<tr>
<td>Consumer</td>
<td>21</td>
<td>34%</td>
</tr>
<tr>
<td>Group Lending</td>
<td>1</td>
<td>2%</td>
</tr>
<tr>
<td>SME /Cooperate</td>
<td>29</td>
<td>47%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>61</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

4.3.4 Decision Making Authority

The study sought to establish the influence the respondents had on lending decisions. Table 4.5 presents a summary of the respondents’ decision making authority levels. According to the study findings, majority of the respondents had a significant decision-making influence. Specifically, 80% of the respondents had significant decision-making influence, 10% held final decision making authority, 7% had minimal influence on credit related decision. The remaining 3% had no decision making authority at all.

<table>
<thead>
<tr>
<th>Decision Making Authority</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final decision-making authority</td>
<td>6</td>
<td>10%</td>
</tr>
<tr>
<td>Significant decision-making authority</td>
<td>49</td>
<td>80%</td>
</tr>
<tr>
<td>Minimal decision-making or influence</td>
<td>4</td>
<td>7%</td>
</tr>
<tr>
<td>No input</td>
<td>2</td>
<td>3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>61</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>
4.4 Effect of Credit Information Sharing on Loan/Asset Quality

The study sought to establish the relationship between credit information sharing as measured by the number of CRB entries generated and non-performing loans at Equity bank. A simple linear regression model of the form $y_t = \beta_0 + \beta_2 x_2 + \mu_t$ was used where:

$y_t = $ Equity bank’s non-performing loans
$\beta_2 = $ Cumulative number of CRB entries
$\mu_t = $ the error term.

The model summary on the relationship between Credit Information Sharing and non-performing loans at Equity bank is presented in table 4.6 below.

**Table 4.6 Model Summary-Effect of CIS on NPLs**

<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>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.922$^a$</td>
<td>.851</td>
<td>.826</td>
<td>5.95062</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Cumulative No of CRB Entries

The R squared value in Table 4.6 (a) above is 0.851 implying that about 85.1% of nonperforming loans levels is explained by Credit Information Sharing. The remaining 14.9% is explained by other factors. The standard error term is 5.95062.

The ANOVA analysis results on the relationship between Credit Information Sharing and non-performing loans at Equity bank is presented in table 4.7 below.

**Table 4.7 ANOVA : Relationship Between Credit Information Sharing and NPLs**

<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>48896815.898</td>
<td>1</td>
<td>48896815.898</td>
<td>34.237</td>
<td>.001$^b$</td>
</tr>
<tr>
<td>1 Residual</td>
<td>8569045.977</td>
<td>6</td>
<td>1428174.329</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>57465861.875</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: non performing loans
b. Predictors: (Constant), Cumulative No of CRB entries

31
The ANOVA results in table 4.6 above reveal that the effect of credit information sharing on the quality of loans at Equity bank is significant since the value of sig (0.001) is lesser than 0.05.

Table 4.7 below presents the coefficient analysis results on the relationship between credit information sharing on the quality of loans at Equity bank.

**Table 4.7 Coefficient Analysis of the Relationship Between Credit Information Sharing and NPLs**

<table>
<thead>
<tr>
<th></th>
<th>Standard Coefficients</th>
<th>Standard Error</th>
<th>t Stat</th>
<th>P-value</th>
<th>Lower 95%</th>
<th>Upper 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>2530.9988</td>
<td>547.20556</td>
<td>4.625316</td>
<td>0.0359527</td>
<td>1192.0350</td>
<td>3869.963</td>
</tr>
<tr>
<td>Cumulative No. of CRB Entries</td>
<td>0.0011173</td>
<td>0.0001909</td>
<td>5.8512637</td>
<td>0.0010998</td>
<td>0.0006500</td>
<td>0.001585</td>
</tr>
</tbody>
</table>

Since the significant (p-value) = 0.3595 is greater than 0.05, conclude that at 95% significance level, credit information sharing has a significantly positive effect on loan asset quality at equity bank.

**4.4.2 Factors Affecting Loan/Asset Quality**

The study further reviewed key factors that affect credit quality and sought to establish the contribution of the individual factors in determining the quality of a loan asset. From the study, it was established that the single most important factor that determines the quality of a loan asset is the loan appraisal process. 98% of the respondents stated that loan appraisal process highly contributed to the quality of the loan asset while the remaining 2% agreed that it somewhat contributed to the loan asset quality. Credit policies and Loan recovery procedures were the other factors that respondents cited as contributing significantly to loan assets quality. 57% noted that Credit policies highly contributed to loan quality, 41% felt that credit policies somewhat contributed whereas 2% were unsure whether credit policies played any role in determining loan quality. On the contribution of Loan recovery procedures on loan quality, 54% of the respondents felt that indeed Loan recovery procedures highly contributed and 34% stated that it somewhat contributed. However 10% of the respondents indicated that Loan recovery procedures had no role in determining loan quality whereas 2% were indifferent. Respondents also cited management decisions as a
contributor to loan assets quality. Interest rates levels were cited to somewhat affect the quality of Loan assets with 59% of the respondents stating that interest rates indeed had some impact on the Loan-assets quality.

Figure 4.1: Factors Affecting Loan/Asset Quality

4.4.3 Use of CRB Reports in Lending Decisions

To understand whether credit information sharing had any impact on loan asset quality at Equity bank, the study sought to establish whether the bank utilized CRB reports as a source of customer credit information. Respondents were asked to state how often CRB reports were used in loan appraisal process at Equity bank; to which an overwhelming 98% stated that CRB reports were always used. The remaining 2% indicated that CRB reports where often used to appraise loan applications. This effectively implies that it is mandatory to review customer credit report from CRBs as part of credit appraisal process at equity bank.
Figure 4.2: Use of CRB Reports in Credit Appraisal

4.4.4 Usefulness of CRB Reports in Loan Appraisal Process

The study findings revealed that the CRB reports were very useful in the credit appraisal process, with an overwhelming 97% of those polled stating that they were very useful and 3% indicated that they were somewhat useful. None of the respondents said that the CRB reports were not useful.

Figure 4.3: Usefulness of CRB reports in loan appraisal process

4.4.4.1 Usefulness of CRB Reports in Establishing Customer Character & Reducing Loan Defaulting

Figure 4.5 below shows the responses received from the respondents when asked to comment on how useful CRB reports were in establishing customer character and reducing cases of loan default. 61% of the respondents said they strongly believed that CIS helped in determining borrowers’ character, 30% agreed, 5% were undecided whereas 3% and 2% disagreed and strongly disagreed respectively.
When asked whether CRB reports helped establish customer ability to repay loan, 21% strongly agreed, 48% agreed while 18% stated that they did not know. 11% of the respondents disagreed while 2% strongly disagreed.

On whether CIS helped prevent loan defaulting, 43% agreed, 13% were undecided, 3% disagreed while 39% strongly disagreed. Finally, respondents were asked to state whether they agreed with the assertion that generally, CIS helped establish how risky a customer is hence reducing the risk on non-performing loans; to which 39% of the respondents agreed, 56% strongly disagreed while 5% were undecided.

**Figure 4.4** Use of CRB reports in preventing loan defaulting & establishing customer character

### 4.4.5 Use of CIS in Managing Non-Performing Assets

On whether CIS helped in managing non-performing loans, 82% of the respondents agreed while 18% disagreed. Those who agreed stated that loan defaulters were unable to get credit elsewhere hence being forced to clear their loans with Equity bank. That way, CIS helped manage non-performing loans.
Respondents were further asked to state whether CIS has helped reduce non-performing loans. Most of the respondents strongly agreed that CIS has helped reduce non-performing loans at Equity bank. 62% percent strongly agreed, 36% somewhat agreed. Only a paltry 2% felt that CIS did not help in reducing non-performing assets.

The following simple linear regression model was used to investigate the effect of credit information sharing on Equity bank’s loan book size:

\[ y_i = \beta_0 + \beta_1 x_i + \mu_i \]

Where: \( y_i = \) The Loan book size.

\( \beta_1 = \) Cumulative number of CRB entries
\[ \mu_i \] = the error term.

The model summary on the relationship between Credit Information Sharing and Equity banks’ Loan book size is presented in table 4.9 below.

**Table 4.8 Model Summary-Effect of CIS on Loan Book Size**

<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>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.856a</td>
<td>.633</td>
<td>.589</td>
<td>1.50787</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Cumulative No of CRB Entries

The R squared value in Table 4.9 above is 0.633 implying that about 63.3% of Loan volumes is explained by Credit Information Sharing. The remaining 36.7% is explained by other factors. The standard error term is 1.50787.

The ANOVA analysis results on the relationship between Credit Information Sharing and Equity bank’s Loan book size is presented in table 4.10 below.

**Table 4.9 ANOVA: Relationship Between CIS and Loan Book Size**

<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>1</td>
<td>Regression</td>
<td>37.502</td>
<td>1</td>
<td>37.502</td>
<td>16.494</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>13.642</td>
<td>6</td>
<td>2.274</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>51.144</td>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: loan book size

b. Predictors: (Constant), Cumulative No of CRB Entries

Coefficient analysis was further performed on the secondary data to establish the kind of relationship that existed between CIS and Equity bank’s Loan book size. Table 4.8 below presents the coefficient analysis results on the relationship between credit information sharing on the quality of loans at Equity bank.
Table 4.10 Coefficient Analysis of The Relationship Between Credit Information Sharing and Equity Bank’s Loan Book Size.

<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></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>4.278</td>
<td>.690</td>
<td>6.196</td>
</tr>
<tr>
<td></td>
<td>Cumulative No of CRB Entries</td>
<td>9.785E-007</td>
<td>.000</td>
<td>.856</td>
</tr>
</tbody>
</table>

a. Dependent Variable: loan book size

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t Stat</th>
<th>P-value</th>
<th>Lower 95%</th>
<th>Upper 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>4.27723441</td>
<td>0.69055953</td>
<td>6.19386</td>
<td>0.00081</td>
<td>2.587496</td>
</tr>
<tr>
<td>Cumulative No. of CRB Entries</td>
<td>9.78275E-0</td>
<td>2.40984E-07</td>
<td>4.05951</td>
<td>0.00465</td>
<td>3.886E-0</td>
</tr>
</tbody>
</table>

Since the significant (p-value) = 0.00465 is lesser than 0.05, conclude that at 95% significance level, credit information sharing has insignificantly positive effect on loan book size

4.5.1 Effect of CIS on Lending Decisions

Respondents were provided with a list statements relating to aspects of CIS that could affect lending decisions. For instance, respondents were asked to give their opinion on whether CIS had any bearing on the decision to lend or not to lend. It was found that most respondents believed that CIS had a significant bearing on whether to give a loan to a customer or not. This was depicted by the results of the study which had 28% of the respondents strongly disagreeing with the assertion that CRB reports had little bearing on the decision to lend or not to lend. Similarly 49% strongly disagreed, 10% were undecided and another 10% agreed. Only 3% strongly believed that CIS did not influence lending decisions.

On whether use of CRB reports resulted in reducing customer loan application amounts/credit margins, respondents were largely divided with 25% of them agreeing, 33%
were undecided, 2% strongly agreed while 25% and 16% disagreed and strongly disagreed respectively.

In terms of CIS reducing demand for physical collateral hence improving credit access, 23% agreed that indeed CIS has enhanced access to credit. Another 8% strongly agreed. However a large percentage of the respondents disagreed that CIS has enhanced access to credit with 21% strongly disagreeing and another 28% disagreeing. The remaining 20% of the respondents were unsure whether CIS has enhanced access to credit. Finally, a considerable 43% of the respondents believed that CIS has greatly simplified loan appraisal process resulting in more loan volumes and another 18% strongly agreed with the same. 15% of the respondents did not know whether CIS simplified the loan appraisal process resulting in increased loan volumes. 15% and 11% however disagreed and strongly disagreed respectively with the idea that CIS has simplified loan appraisal process hence increasing loan volumes to customers.

![Figure 4.7 Impact of CIS on Loan Volumes](image)

Figure 4.7 Impact of CIS on Loan Volumes

When the question on whether CIS has helped improve access to credit by Equity bank’s customers was put to the respondents, a majority of them at 59% responded in the affirmative, 21% said No while the remaining 20% were uncertain whether or not CIS has improved access to credit.
4.5 Effect of Credit Information Sharing on Equity Bank’s Loan Interest Rates

Linear regression model of the form $y_i = \beta_0 + \beta_3 x_3 + \mu_i$ was considered to test the effect of credit information sharing on Equity bank’s interest rates;

Where: $y_i$ = Equity bank’s lending rates/interest rates.

$\beta_3$ = Cumulative number of CRB entries

$\mu_i$ = the error term.

The model summary on the relationship between Credit Information Sharing and non-performing loans at Equity bank is presented in table 4.6 below.

<table>
<thead>
<tr>
<th>Model</th>
<th>$R$</th>
<th>$R^2$</th>
<th>Adjusted $R^2$</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.892a</td>
<td>.595</td>
<td>.561</td>
<td>4.810304</td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), Cumulative No of CRB Entries

The $R$ squared value in Table 4.11 above is 0.561 implying that 56.1% of lending rates at Equity bank is explained by Credit Information Sharing. The remaining 14.9 % is explained by other factors. The standard error term is 4.810304.

The ANOVA analysis results on the relationship between Credit Information Sharing and loan interest rates at Equity bank are presented in table 4.12 below.
Table 4.12 ANOVA: Relationship Between CIS and Loan Interest Rates

<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>539274729.181</td>
<td>1</td>
<td>539274729.181</td>
<td>23.306</td>
<td>.063b</td>
</tr>
<tr>
<td>Residual</td>
<td>138834143.694</td>
<td>6</td>
<td>23139023.949</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>678108872.875</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: interest rates

b. Predictors: (Constant), Cumulative No of CRB Entries

The ANOVA results in table 4.12 above show that the effect of credit information sharing on loan interest rates at Equity bank is insignificant since the value of sig (0.063) is greater than 0.05.

Table 4.13 below presents the coefficient analysis results on the relationship between credit information sharing on the quality of loans at Equity bank.

Table 4.13 Coefficient Analysis Of The Relationship Between CIS and Interest Rates

<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></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>8257.946</td>
<td>2202.584</td>
<td>.992</td>
<td>3.749</td>
</tr>
<tr>
<td>1</td>
<td>Cumulative No of CRB Entries</td>
<td>.004</td>
<td>.001</td>
<td>4.828</td>
</tr>
</tbody>
</table>

a. Dependent Variable: interest rates

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t Stat</th>
<th>P-value</th>
<th>Lower 95%</th>
<th>Upper 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>8257.946</td>
<td>2202.583649</td>
<td>3.749209</td>
<td>0.009518633</td>
<td>2868.4177</td>
</tr>
<tr>
<td>Cumulative No. of CRB Entries</td>
<td>0.003711</td>
<td>0.000768632</td>
<td>4.827614</td>
<td>0.002917343</td>
<td>0.00182988</td>
</tr>
</tbody>
</table>
Since the significant (p-value) = 0. is 0.02917343 is less than 0.05, we conclude that at 95% significance level, credit information sharing has a insignificantly positive effect on loan interest rates at Equity bank.

Further analysis showed that the interest rates at Equity bank largely reflected the movement of the CBK’s risk free treasury bills rate particularly the upward movements. During the year 2007-2008 for instance, interest rates on the risk free treasury bills increased marginally by 3% from 8.63% to 8.90% then declined steadily to a low of about 7.88% by the end of the year 2010. Interest rates at Equity bank however rose steadily by 18% over the same period from 11.31% in the year 2007 to a high of 13.35% by Dec.2010 despite the decrease in CBR rates in the year 2009 and 2010. When the government tightened the monetary policy increasing the CBR to about 17% in December 2011, this was instantly followed by a corresponding increase in interest rates at Equity bank to a high of 20.1%. In the year 2012-2013, CBR decreased by 45% to 8.83%. This only caused a 21% decrease in interest rates at Equity Bank.

![Effective interest rates & CBR](image)

**Figure 4.9 Equity Bank’s Effective Lending Rates and CBR Movements**
4.6.2 Factors affecting Loan interest rates

To establish whether Credit information sharing determined the interest rates charged to a customer’s loan facility, six key factors that determine loan interest rates were summarized and presented to the respondents. These factors included Loan amount, Customer CRB rating, Relationship with the customer, Availability of loan security, cost of funds and preset interest rates. Respondents were asked to comment on how each factor contributed to the determination of the lending rates. Fig. 4.9 below details the responses received.

![Determinants of lending rates chart](chart.png)

**Figure 4.10 Factors Affecting Loan Interest Rates**

According to the study 30% of the respondents believed that the amount of money o borrowed highly contributed to the interest rates charged to the customer. 44% stated that loan amount somewhat contributed whereas 23% stated that the size of the loan had no bearing on the interest rates charged. 3% of the respondents were indifferent.

A considerable number of respondents believed that customer credit rating did not have any bearing on the interest rates charged to him/her. In particular 46% stated that customer credit rating did not affect loan interest rates. 31% were of the view that credit rating of a customer somewhat determined loan interest rates charged to him. Only 16% strongly believed that customer credit rating impacted on interest rate charged to him on borrowing. 7% were uncertain on whether customer credit rating was considered in determining a rate of interest to be charged to his/her loan facility.
Relationship with the customer did not account much for the interest rates charged to a customer. Of the 61 responses received from the study, only 11% strongly believed relationship with the customer affected the rate of interest charged to his/her loan facility. 38% believed that somehow relationship with the customer had a bearing on his/her loan interest rates. However a large number at 44% stated that rapport with the customer did not affect in any way rates of interests charged to a credit facility given to him. 7% of the respondents were indifferent.

On whether availability of loan security determined individual loan interest rates, 23% of the respondents stated that it highly contributed, 39% were of the opinion that it somewhat contributed while the remaining 34% believed availability of loan security did not affect individual loans interest rates. The remaining 3% were not sure whether availability of loan security affected loan interest rates or not. Cost of fund had a significant bearing on interest rates charged to borrowers according to the findings of the study with 48% of the respondents stating that it accounted for the interest rates charged to borrowers. Another 26% also agreed that cost of funds somewhat affected rates on interests charged to customers. However 21% were of different opinion stating that cost of fund did not affect that rates of interests charged to individual borrowers. 5% were indifferent.

Finally, over half of the respondents at 51% believed that pre-determined interest rate highly accounted for the rates of interest charged to customer loans with an additional 33% stating that pre-determined rates somewhat determined the actual interest rate charged. Only 15% believed that pre-determined rates had no effect on the actual loan interest rates charged. The other 2% of the respondents were uncertain.

The results above were further analyzed to determine to what extent/proportion each of the factors above affected interest rate decisions. The analysis established that pre-set interest rate was most considered when determining interest rate to charge. It accounted for 20% of the interest rate decisions. This was closely followed by cost of funds at 19%, Loan mount at 17% and Availability of Loan security at 16%. Customer credit rating and Relationship with customer were the least considered factors at 14% each.

4.6.3 Effect of CIS on Lending Rates

When asked whether savings arising from the use of cheap CRB credit reports in loan appraisals were reflected in the interest rates charged to customer loans, 16% strongly
agreed, another 34% agreed while 20% were indifferent. On the contrary, 23% felt that the savings were not factored in loan interest rates and another 7% strongly believed that the savings aren’t shared with the customer in form of cheap loans.

![Savings arising from CIS translates to low cost of credit?](image)

**Figure 4.11** Responses on Whether Savings from CIS are Factored in Loan Interest Rates.

Respondents were asked to state whether they would recommend lower interest rates to customers with good credit ratings to which 80% of the respondents agreed while 20% said they wouldn’t.

![Figure 4.12 Recommendation for lower interest rates](image)

**Figure 4.12** Recommendation for lower interest rates

### 4.7 Chapter summary

Chapter four detailed the results and findings of the study based on the specific objectives of the study. These were presented in form of pie charts, tables, figures as well as graphs. In the next chapter, exhaustive discussion on the results and finding are presented followed by summary of the study and relevant recommendations.
CHAPTER FIVE

5.0 DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter is divided in four parts namely summary of the study, discussion, conclusions, and finally the recommendations section. The summary section provides a snapshot of the key elements of the study; that is, study objectives, methodology and the findings. The subsequent section deals with exhaustive discussions of the key findings of the study in relation to the specific study objectives. Conclusions sections presents deductions/inferences drawn from the findings and results of this study as detailed in chapter four. The chapter ends by making recommendations for improvement on the various aspects of CIS and recommendations for further studies.

5.2 Summary

This study considered the impact of Credit information-sharing system on the commercial banks’ loan portfolios of in Kenya. The main purpose of the study was to investigate the impact of credit information sharing on Equity bank’s loan portfolio. Specific objectives of the study included establishing the effect of Credit information sharing on Equity bank’s Loan asset quality, establishing the effect of CIS on Equity Bank’s loan volumes and to examine the effect of CIS on Equity bank’s lending rates.

The study adopted a descriptive research design. The study targeted Equity Bank’s credit risk and credit recovery departments staff based at equity banks’ head office where most credit decisions are made. The study used both primary and secondary data. Primary data was using a questionnaire where a sample population of 63 participants was considered. Secondary data comprised information extracted from the published annual financial statements of Equity bank and Credit Reference bureau statistical data obtained from the Central bank of Kenya. The two sets of data were analyzed and compared to give holistic interpretations of the study findings. The collected data was edited for consistency, accuracy, and completeness and then recorded in Microsoft excel to enable the responses to be statistically analyzed. The data was then analyzed using SPSS software and presented through different measures that included percentages and frequencies. The study further
employed a simple regression model to study the relationship between each of the dependent variable and independent variable.

The study found that credit information sharing affects the quality of credit at Equity Bank to a great extent. Further, study respondents were of the view that CIS helped Equity bank determine customer ability to repay the loan and also lend prudently. The study found that it was important to review a customer’s CRB report during the loan appraisal process, a practice that has led to the decline in non-performing loans (NPL). This was corroborated by declining volumes of NPLs after the year 2010 according to the secondary data analyzed. It is however not clear from the study whether CIS deterred customers from defaulting in loan repayments since the participants were significantly divided on this issue.

The study established that Credit information sharing has minimal effect on Equity bank’s loan book size. Analysis of the research data found no significant relationship between CIS and Equity Bank’s loan book size.

Credit Information Sharing did not affect the interest rates charged to individual customer loan facility at Equity bank according to the findings of this study. However, the study established that the savings arising from the use of cheap shared customer credit information were reflected in the Bank’s general lending rates or preset 32 interest rates.

5.3 Discussion

5.3.1 Effect of Credit Information Sharing on Loan Asset Quality

The results of this study show that credit information sharing has considerable effect on the Loan quality at Equity Bank. Analysis of the secondary data established a significant relationship between credit information sharing and the bank’s non-performing loans. A further look at the secondary data on non-performing loans history at Equity bank provides even a clearer picture of what the impact of CIS has been on Non-perming loans at the bank. There was a sharp decline in non-performing loans (NPL) immediately after the onset of the CRB System in the year 2010, dropping from 7.36% in the year 2009 to 4.65% in 2010 and further to 2.84% in the year 2011. NPLs have since remained low despite a slight rise in the year 2013 which was said to have been caused by banking system migration which made it difficult to track loan performance.
Kithinji and Waweru (2007) noted that non-Performing Loans caused by serial loan defaulters were the reason behind the collapse of many banks in the Kenyan banking sector in the 1980s and 1990s. The defaulters according to Kithinji and Waweru (2007) exploited information asymmetry among financial institutions to borrow from different banks without the intention of paying back. This study found that sharing of borrowers’ credit information helped in determining borrowers’ character hence reduced cases of non-performing loans. 61% of the respondents indicated that they strongly believed that CIS helped in determining borrowers’ character and another 30% also supported the view that credit information helped determine borrowers’ character. Only a paltry 5% were of the contrary view. 72% of the respondents also believed that CRB reports helped determine borrowers’ ability to repay the loan.

A study by Kendell and Staten (2003) found that information on borrower credit history played a crucial role in determining whether the borrower defaults or not. Similarly, Barron and Staten (2003) also found that the more information lenders have about the credit history of the borrower the less the default rate. Similarly this study established that the sharing of customer credit information with Equity bank has helped reduce non-performing assets at Equity bank. Further, a majority of participants at 92% believed that CIS helped the bank to loan prudently.

Contrary to the findings of the study by Brown and Zehnder (2006) where it was observed that public credit reference bureaus motivated borrowers to repay their loans hence reducing the amount of non-performing loans, participants in this study were divided on the whether CIS deterred customers from defaulting in loan repayment. Whether CIS deterred Equity customers from loan defaulting in not certain according to this study and therefore remains a subject for further research.

According to this study CIS is quite useful in the management of non-performing loans. 82% of the respondents felt that CIS helped manage non-performing loans while only 18% felt otherwise. Those who agreed that CIS helped in managing non-performing loan stated that loan defaulters were unable to get credit elsewhere hence being forced to clear their prior loans first; potential defaulters/risky borrowers were asked to provide more security for the loans borrowed among other measures that helped manage NPLs.

5.3.2 Impact of Credit Information Sharing on Equity Bank’s Loan Book Size

According to research by Armstrong (2008) using information gathered from several countries worldwide, the existence of credit registries is associated with increase in lending volume, growth of consumer lending, better access to financing and a more stable banking
sector. This is however not the case at Equity bank according to the findings of this study. The study established that credit information sharing had minimal effect on the loan volumes at equity bank. Asked whether credit information sharing has enhanced loan volumes at Equity bank, study participants gave mixed responses. Whereas a majority of participants (61%) believed that sharing of customer credit information had simplified the lending process hence more loans given to customers a similar number 50% believed that CIS had not enhanced access to credit.

Further analysis of the historical data on loan volumes at Equity bank however showed a dip in average loans per customer in the year 2010 when CRB arrangements became operational followed by steady rise in average loans thereafter implying that at the onset of CIS framework, many customers were caught unawares resulting in negative listing at CRBs hence denial of credit. However with continued use of CIS, the situation has normalized leading to normal growth in loan volumes. The results of the study show that the growth in average loan volume at Equity bank before and after the enactment of CIS framework has remained relatively the same. This growth in loan volumes therefore must be a function of other factors such as the country’s economic growth and not CIS.

Lending institutions use Credit Reference Bureau reports to make lending decisions according to Walsh (2003). He further observes that having only one half of the picture (negative information) runs the risk of it becoming the only deciding factor hence a blacklist of customers with the potential of restricting access to credit. This study similarly found that CIS had a significant bearing on the decision to lend or not to lend. This was proved by the results of the study which had 28% of the respondents strongly disagreeing with the assertion that CRB reports had little bearing on the decision to lend or not to lend. Similarly 49% strongly disagreed, 10% were undecided and another 10% agreed. Only 3% strongly believed that CIS did not influence lending decisions.

**5.3.3 Effect of Credit Information Sharing on Equity Bank’s Lending Rates**

Sharing of customer credit information does not determine the interest rates charged to individual customer’s loan facility according to the findings of this. These findings corroborate the supposition in literature that many borrowers make a lot of effort repaying their loans, but do not get rewarded for their efforts (Hansen and Keiding, 2004). Six key factors that determine the interest charged to a customer loan facility at Equity bank to were considered to in the study establish how CIS compared with the other five factors. These
factors include Loan amount, Customer CRB credit rating, Relationship with the customer, Availability of loan security, cost of funds and pre-set interest rates. The study found that pre-set interest rate was the most considered factor when determining interest rate to charge on a loan application. It accounted for 20% of the interest rate decisions. This was closely followed by cost of funds at 19%, Loan mount at 17% and Availability of Loan security at 16%. Customer credit rating and Relationship with customer were the least considered factors at 14% each. This therefore means that customer CRB credit information has minimal effect on the decision as to how much interest to charge a customer on borrowed funds.

The study however established that the savings arising from the use of cheap shared customer credit information were reflected in the general lending rates. 16% strongly agreed that indeed the savings are factored in the loan interest rates, another 34% agreed while 20% were indifferent. 23% felt that the savings were not factored in loan interest rates and another 7% strongly believed that the savings aren’t shared with the customer in form of cheap loans. This is in line with the Kenya bankers Association (2010), which noted that without Credit information sharing, lenders mistake good risks for bad, and vice versa. Their portfolio, therefore, will consist of more risky loans and, over time, higher interest rates. Kenya bankers Association (2010) however asserts that in cases where comprehensive information is shared, the ability to screen risky borrowers improves the portfolio’s performance and allows lenders to offer lower rates to less-risky borrowers. This proposition was further echoed by Rukwaro (2001), who stated that perennial defaulters have been the cause of high lending rates and as such Credit reports obtained from CRBs would be used as a basis for denying habitual defaulters’ access to bank loans hence reduce borrowing costs to good borrowers.

Lending rates data from Equity banks’ published annual financial statements however do not reflect the views of those interviewed. Interest rates have been rising even after the coming of CIS. Further analysis of the Loan interest rates movement at Equity banks shows that the rates have more to do with the Central bank base lending rates than CIS or any other factor. The movement of Equity bank loan interest rates closely reflects the movement of Central Bank Rates particularly the upward movements. When the government increased the CBR from 9.59% to about 17% in December 2011, interest rates at Equity bank instantly rose from 14.37% to 20.1%. However in the year 2012-2013, when the Central
bank of Kenya drastically reduced CBR by 45% to 8.83%, this only caused a 21% decrease in interest rates at Equity Bank.

In June 2014, Central Bank of Kenya introduced the Kenya Bank’s Reference Rate (KBRR) as a benchmark rate for pricing all floating / variable / flexible interest rate (Kenya shilling denominated) loans or credit facilities (NIC bank, 2015). KBRR has since replaced internally determined rates (base Rates) that banks previously used as a basis for pricing their credit facilities. The study however noted that even with the KBRR, interest rates at Equity bank still remain quite high.

A comparison of the interest rates at Equity bank, the annual percentage rate (APR) for Kenya and the APR for a few selected world economies with similar public credit registries clearly shows how CRBs have failed to bring down the ever rising lending rates in Kenya. Whereas the APR for USA averaged 3.3%, that for UK averaged 0.5% and that for Japan averaged 1.4% for the period 2010-2014 (World Bank, 2014), the APR for Kenya averaged 16.6% while the interest rates at Equity averaged 16.0% over the same period. This implies that while it was expected that CRBs would help bring down lending rates in Kenya by significantly reducing the credit risks as happened in other countries, CRBs seem not to affect loan interest rates in Kenya.

5.4 Conclusions

5.4.1 Effect of Credit Information Sharing on Loan Quality

From the findings of this study it is clear that CIS and level of nonperforming loans are indeed related. The study therefore concludes that credit information sharing has significant effect on Loan quality at Equity bank. The study also concludes that Credit Information Sharing helps Equity bank determine borrowers’ character as well as their ability to repay loans advanced to them.

The study further concludes that credit information sharing helps in managing non-performing assets. The role of CIS in discouraging borrowers from defaulting however remains unknown based on the findings of this study.
5.4.2 Impact of Credit Information Sharing on Equity Bank’s Loan Book Size

This study concludes that Credit information sharing has nominal effect on the loan volumes at Equity bank. The study also concludes that Credit information sharing has significant bearing on the decision to loan or not to loan.

The study further concludes that credit information sharing has increased demand for physical collateral and as such made it hard for some borrowers to access credit.

5.4.3 Effect of Credit Information Sharing on Equity Bank’s Lending Rates

The study concludes that individual customer loan interest rate is not a function of a customer credit history.

The study concludes that loan interest rates charged to customers are largely determined by the Central Bank of Kenya base lending rate. Other factors that determine individual customer lending rates are cost of funds, Loan mount and availability of Loan security.

The Study also concludes that savings arising from the use of cheap shared customer credit information are factored in the Equity bank’s pre-set lending rates and indiscriminately passed on to all borrowers.

5.5 Recommendations

5.5.1 Recommendations for Improvement

5.5.1.1 Effect of Credit Information Sharing on Loan Quality

The study established that many other players in the credit market are still excluded from the CIS framework. This study recommends that policy makers make it mandatory for all lenders including SACCOs, Telecoms, Micro-finance institutions and even table-banking entities to submit credit information on borrowers to CRBs for sharing with other lenders. This would help provide holistic credit information of borrowers hence preventing cases of multiple borrowing and defaulting.

From the findings that CIS does not seem to deter borrowers from defaulting in loan repayments, it is presumed that the populace does not understand the workings of CIS and therefore the study recommends a drive to sensitize the general public on the existence and operations of CRBs and the implications of being negatively listed at CRBs.
5.5.1.2 Impact of Credit Information Sharing on Equity Bank’s Loan Book Size

The study recommends use of positive customer credit file as collateral for the loans as opposed to the demand for physical collateral. This will remarkably improve access to credit to customers without security but who pose minimal credit risk to the bank. Walsh (2003) observed that having only one half of the picture (negative information) runs the risk of it becoming the only deciding factor - a blacklist with the potential of restricting access to credit. The study therefore recommends embracing of the full file information sharing as recommended in the year 2013 and credit rating but not just negative listing information to assess borrowers.

5.5.1.3 Effects of Credit Information Sharing on Lending Rates

Hansen and Keiding (2004) noted that borrowers make a lot of effort repaying their loans, but do not get rewarded for their efforts. This study recommends that borrowers who maintained clean credit history be rewarded by individually being offered lower credit rates. This would dissuade borrowers from defaulting as opposed to generally transferring the savings arising from use of CIS to all the borrowers regardless of the credit risk they posed to the bank individually.

The study appreciates the adoption of full file information sharing that provides more comprehensive view of their customer’s credit worth in the year 2013. However, the study recommends moving to the next level of credit rating as opposed to the current full file information. This will provide a simplified but comprehensive assessment of borrowers’ credit history that would easily provide a basis for apportioning lending rates.

5.5.2 Suggestions for Further Studies

This study focused on the impact of credit information sharing on Equity banks’ loan portfolio. However in order to allow the generalization of findings on the impact of CIS on commercial banks’ loan portfolio in the entire banking sector in Kenya, this study recommends that similar studies be conducted in other banks particularly smaller banks and microfinance institutions in the country.

The study further recommends research to establish the reasons why interest rates remain high in Kenya despite the establishment of CIS framework.
REFERENCES


Appendix I: COVER LETTER

UNITED STATES INTERNATIONAL UNIVERSITY

Telephone: +254.20.3606000| +254.730.116000

Wed. 1st Apr. 2015.

Dear Respondent,

RE: IMPACT OF CREDIT INFORMATION SHARING ON EQUITY BANK’S LOAN PORTFOLIO SURVEY-2015

In partial fulfillment of the requirement for the degree of Masters of Business Administration (MBA) at USIU, I am carrying out a research to establish the impact of CIS on Equity Bank’s asset/Loan portfolio.

Sir/Madam, I would be very grateful if you kindly completed the enclosed questionnaire which will be used to collect data relevant to the study. That would go a long way in helping me successfully conduct this study. You have been randomly selected among many to participate in this study and it is estimated that it will take less than five (5) minutes of your time to complete the questionnaire. If you have any questions or concerns about completing the enclosed questionnaire, please do not hesitate to contact me any time through my contact provided below.

I assure you of the highest level of confidentiality in your participation in this exercise. Your views, comments and expectations will be treated with confidentiality and as such will not be used for any other purpose other than for which they were sought.

Thank you for your cooperation and support.

Yours Sincerely,

Mr. Onyango O.Polycap (Researcher),

Student-USIU, Tel : 0721827107
Appendix II: QUESTIONNAIRE

(A) DEMOGRAPHIC CHARACTERISTICS

1.) Which of the following most closely matches your job title?
   - Manager ( )
   - Assistant Manager ( )
   - Senior Credit officer ( )

2.) Which Department/Section are currently attached to?
   - Credit Risk ( )
   - Credit Recovery ( )
   - Other (please specify) ( ) ………………………

3.) How long have you worked at Equity bank (in months)?
   - 0 – 6 ( )
   - 7 – 12 ( )
   - Over 36 ( )
   - 25 - 36 ( )
   - 13–24 ( )

4.) Which of the below listed credit Sectors do you work with? (Please Tick ✓ at least one)
   - Consumer ( )
   - Agriculture ( )
   - Asset Finance ( )
   - Group Lending ( )
   - Micro-Credit ( )
   - SME /Cooperate ( )

5.) What level of decision-making authority do you have on Credit appraisal or loan recovery process at Equity Bank?
   - Final decision-making authority (Individually or as part of a group) ( )
   - Significant decision-making or influence (individually or as part of a group) ( )
   - Minimal decision-making or influence ( )
   - No input ( )
(B) EFFECT OF CREDIT INFORMATION SHARING ON LOAN/ASSET QUALITY

6.) How often do you use CRB reports in appraising credit/loan applications?
   Always (     )
   Often (     )
   Rarely (     )
   Not at all (     )

7.) In your own opinion, how do the following factors contribute to loan/asset quality?

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<tr>
<th></th>
<th>Highly contributes</th>
<th>Somewhat contributes</th>
<th>Does Not contribute</th>
<th>Don’t know</th>
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<tbody>
<tr>
<td>a</td>
<td>Loan appraisal process</td>
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<tr>
<td>b</td>
<td>Credit policies</td>
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<tr>
<td>c</td>
<td>Loan recovery</td>
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<tr>
<td>d</td>
<td>Level interest rates</td>
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<td>e</td>
<td>Management decisions</td>
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</tbody>
</table>

8.) How useful is the information provided by credit reference bureaus in the loan appraisal process?
   Very Useful (     )
   Somewhat Useful (     )
   Not Useful (     )

9.) To what extent do you agree with the following statements about CRB reports? Using a scale of 1 – 5, please indicate your answer by ticking (√) in the appropriate box.

<table>
<thead>
<tr>
<th></th>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree (2)</th>
<th>Neutral (3)</th>
<th>Disagree (4)</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>CRB reports help in determining Customer/Borrower’s Character</td>
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<tr>
<td>b</td>
<td>CRB reports assist in establishing Customer ability to repay the loan</td>
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</table>
c. CRB reports helps equity bank lend prudently.

d. Credit information sharing acts as a deterrent against defaulting by borrowers.

e. Generally, Shared customer credit information helps determine how risky the customer is hence reducing the banks risk of non-performing loans.

<table>
<thead>
<tr>
<th>Question</th>
<th>Yes</th>
<th>No</th>
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<tbody>
<tr>
<td>10. Does Credit information sharing (CIS) help you in managing non-performing assets?</td>
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<td>11. If your answer in question 10 above is “yes”, briefly explain how CIS helps in the management of non-performing assets?</td>
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<td>12. Thinking about Loan delinquency, do you agree with the assertion that “Credit information sharing helps reduce non-performing assets”?</td>
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<td></td>
<td>Somewhat agree ( )</td>
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<td></td>
<td>Disagree ( )</td>
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<td></td>
<td>Not sure ( )</td>
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</table>

(C) EFFECT OF CREDIT INFORMATION SHARING ON EQUITY BANK’S LOAN BOOK SIZE
13.) To what extent do you agree with the following statements? Using a scale of 1 – 5, please indicate your answer by ticking (✓) in the appropriate box.

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree (2)</th>
<th>Neutral (3)</th>
<th>Disagree (4)</th>
<th>Strongly disagree</th>
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<tr>
<td>a. CRB reports have little bearing on the decision to lend or not to lend.</td>
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<td>b. Use of CRB reports often results in slashing down of borrowers’ credit margins.</td>
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<td>c. Credit Information sharing has overtime reduced the demands for physical collateral and therefore enhancing borrowers’ access to credit</td>
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<td>d. CRB offers equity bank access to a large database that captures relevant aspects of clients’ borrowing behavior, thereby significantly reducing the vetting process and increasing loan volumes.</td>
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14.) In your own opinion, do you think Credit Information Sharing (CIS) has helped improve access to credit by Equity bank’s customers?

Yes (   )
No (   )
Not sure (   )

(D) EFFECT OF CREDIT INFORMATION SHARING ON EQUITY BANK’S LENDING RATES
15.) In your own opinion, how do the following factors contribute to the determination of interest rate charged on a loan facility?

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<th>Highly contributes</th>
<th>Somewhat contributes</th>
<th>Does Not contribute</th>
<th>Don’t know</th>
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<tbody>
<tr>
<td>a</td>
<td>Loan size/amount borrowed</td>
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<tr>
<td>b</td>
<td>Customer credit rating</td>
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<tr>
<td>c</td>
<td>Relationship with the customer</td>
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<td>d</td>
<td>Availability of loan security</td>
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<td>e</td>
<td>Cost of funds</td>
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<td>f</td>
<td>Pre-determined interest rate</td>
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16.) To what extent do you agree with the following two statements about CIS? Please indicate your answer by ticking (√) in the appropriate box corresponding to your personal opinion for each statement.

<table>
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<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
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<tbody>
<tr>
<td>a. Credit bureaus provide(s) a reliable and inexpensive system to exchange information on the character and ability of borrowers to pay hence enhancing credit access</td>
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<td>b. The savings arising from sharing of credit information translates to low cost of credit.</td>
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17.) Would you consider recommending a lower interest rate to be charged to a borrower with a good credit rating?

Yes (   )

No  (   )
### Appendix III: SECONDARY DATA COLLECTION SCHEDULES

#### EQUITY BANK’S LOAN-BOOK SIZE DATA

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<td>Total loans (Ksh millions)</td>
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<tr>
<td>No. of customers/ Account holders (KShs Millions)</td>
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<td>Average Loan per Customer(KShs)</td>
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#### B) EQUITY BANK’S NON-PERFORMING LOANS DATA

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<td>Total loans (Ksh millions)</td>
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#### C) EQUITY BANK’S INTEREST INCOME DATA

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<td>Interest Income-From Loans &amp; Advances to Customers (Ksh millions)</td>
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Appendix III: NO. OF CRB ENTRIES

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