

**THE RELATIONSHIP BETWEEN CREDIT INFORMATION SHARING, LOAN
BOOK SIZE AND NON PERFORMING LOANS OF COMMERCIAL BANKS IN
KENYA**

BY

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DECLARATION

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

Signature ----- Date-----

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

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DEDICATION

I would like to dedicate this project to my friends and family for continuous encouragement in the course of my studies and completion of my research work.

ABSTRACT

Commercial banks share information as a credit risk mitigation measure. Theory predicts that information sharing among lenders attenuates adverse selection and moral hazard, and can therefore increase lending and reduce default rates. The main objective of the research study was therefore to establish the relationship between credit information sharing, loan book size and non-performing loans of commercial banks in Kenya.

The study applied a descriptive research design and the target population was 43 commercial banks. The study applied census survey and 21 commercial banks responded to the questionnaires fielded. Both primary and secondary data were used in the study. The study used multiple linear regression equation and the method of estimation was Ordinary Least Squares (OLS) so as to establish the relationship between credit information sharing, loan book size and non-performing loans.

The study found out that (33%) of the banks have been using CRB between 1-2 years, 24% (3-5) years over 5 years, and 10% were not using CRB. The study found that variation in the non performing loans of commercial banks in Kenya could be accounted to changes in credit information sharing, loan book size and size of the bank. The study revealed that there is a positive relationship between non-performing loans of commercial banks and loan book size, the study further revealed that there was a negative relationship between credit information sharing, size of the bank and non-performing loans. The study recommended that CBK puts into place policies to ensure that it is mandatory to use credit reports for every borrower. CBK should also increase the scope of CRB's to other organizations like Sacco's and other MFI's. Commercial banks should also use the information provided by CRB effectively to lend to potential borrowers.

TABLE OF CONTENTS

DECLARATION	ii
ACKNOWLEDGEMENTS	iii
DEDICATION	iv
ABSTRACT	v
TABLE OF CONTENTS	vi
ABBREVIATIONS	ix
CHAPTER ONE	1
INTRODUCTION	1
1.1 Background of Study	1
1.1.1 Credit Information Sharing	2
1.1.2 Loan Book Size	3
1.1.3 Non Performing Loans	4
1.1.4 Relationship Between Credit Information Sharing and Loan Book Size and Non Performing Loans of Commercial Banks	5
1.1.5 Commercial Banks in Kenya	5
1.2 Research Problem	6
1.3 Objective of the Study	9
1.4 Value of the Study	9
CHAPTER TWO	11
LITERATURE REVIEW	11

2.1 Introduction.....	11
2.2 Theories Underpinning the Study	11
2.2.1 Credit Reporting Theory	11
2.2.2 A Quantitative Theory of Information and Unsecured Credit	12
2.2.3 Information Asymmetry.....	13
2.3 Empirical Evidence	15
2.4 Conclusion/Research Gaps	20
CHAPTER THREE	22
RESEARCH METHODOLOGY.....	22
3.1 Introduction.....	22
3.2 Research Design.....	22
3.3 Population and sampling design	22
3.4 Data Collection and Duration of Study.....	22
3.5 Data Analysis	23
3.6 Data Presentation	23
3.8 Analytical Model	23
CHAPTER FOUR.....	25
DATA ANALYSIS, RESULTS AND DISCUSSION	25
4.1 Introduction.....	25
4.2 Descriptive Statistics.....	25
4.3 Regresssion Analysis	29
4.2 Summary and Interpretation of Findings	32

CHAPTER FIVE33

SUMMARY, CONCLUSION AND RECOMMENDATIONS.....33

5.1 Summary of Findings.....33

5.2 Conclusions.....34

5.3 Limitations of the Study.....34

5.3 Policy Recommendations35

5.5 Suggestion for Further Research.....37

REFERENCES40

APPENDICES44

 Appendix I: Questionnaire.....44

 Appendix II: Licensed commercial banks in Kenya.....46

 Appendix III: List of Banks that responded to the Questionnaire.....48

 Appendix IV: Number of CRB Enquiries per Bank.....49

 Appendix V: Loan Book Size per Bank.....50

 Appendix VI: Loan Provision per Bank.....51

ABBREVIATIONS

CBK-Central Bank of Kenya

CIS-Credit information Sharing

CRB-Credit Reference Bureau

FSD- Financial Sector Deepening

IMF-International Monetary Fund

KBA-Kenya Bankers Association

KCB- Kenya Commercial Bank

KCSIS-Kenya Credit Information Sharing Scheme

MFI- Micro Finance Institution

NPL - Non Performing Loan

SPSS- Statistical Product and Service Solutions

CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Information asymmetry is more pronounced because of the confidentiality rules that prevent banks from revealing details of their customers to anyone, including other banks. Confidentiality is a cardinal principle in banking practice, but it has also proved a drawback in credit risk management from two distinct perspectives. First, it leads to rejection of good credit risk applications because the applicant's credibility built through faithful repayment of loans from other lenders cannot be objectively proven. On the other hand, some bad risk borrowers, knowing that banks operate in silos, have taken advantage of information asymmetry to create multiple bad debts in the industry. These actions by serial defaulters have adversely affected bank performance, threatened sector stability and inhibited growth of credit to the private sector (Aboody et al., 2000).

Theory suggests that information sharing may overcome adverse selection in the credit market (Pagano & Jappeli, 1993) and reduce moral hazard, by raising borrowers' effort to repay loans (Padilla & Pagano, 2000) or by avoiding excessive lending when each borrower may patronize several banks (Bennardo et al., 2007). While information sharing should improve credit allocation, this does not necessarily imply that aggregate credit volume will rise or default ratios will fall. Information sharing may change the composition of households and firms which receive loans, so that its predicted impact on aggregate credit and credit risk is ambiguous.

In many ways the formation of credit information systems in the developing world is a bellwether of financial development: Institutions that facilitate credit information sharing add stability to financial systems. Moreover, in this transformation of the credit relationship from a personalized one to a relationship with a larger market, borrowers stand to gain from competition between lenders. Yet despite their increasing importance, too little is known about the specific effects of credit information systems on credit markets (McIntosh & Wydick, 2007)

1.1.1 Credit Information Sharing

According to FSD Kenya (2012) a credit reference bureau is an organization that compiles credit information, public record data, and identity information, and makes them available to lenders in the form of a credit report of individuals and organizations. According to Central Bank of Kenya (2012) the Credit Information Sharing mechanism was launched in Kenya following the gazettelement of the Banking (Credit Bureau) Regulations, 2008 on 11th July 2010. The CBK has since inception licensed CRB Africa and Metropol East Africa as Credit information service providers. The credit reference bureau Act was enacted to enable financial institutions to share credit information and build information that will enable them adequately price there loans. It was also enacted to enable financial institutions to enhance access to credit by the lower tier clientele base and indirectly reduce the cost of doing business. When a bank evaluates a request for credit, it can either collect information on the applicant first-hand or source this information from other lenders who already dealt with the applicant. Information exchange between lenders can occur voluntarily via “private credit bureaus” or be enforced by regulation via “public credit registries,” and is arguably an important determinant of credit market performance.

According to KCISI, (2011) Kenya's economic reform policies under Vision 2030 have set out a clear commitment to a market economy and private sector led growth. One of the reforms for financial sector development that seeks to improve stability, increase efficiency and expand credit access, is the CIS project, hence the reason why global standards have to be observed in its implementation, to ensure subsequent swift benefit to users. Financial institutions in Kenya have a huge potential of contributing to inclusion through increased lending, which can only be backed by the use of credit reports.

1.1.2 Loan Book Size

Commercial banks play an important role in mobilizing financial resources for investment by extending credit to various businesses and investors. Lending represents the heart of the banking industry and loans are the dominant assets as they generate the largest share of operating income. Loans however expose the banks to the greatest level of risk (Kithinji, 2010). This necessitates a balance of both the risk incidental to high loan book size and with the income generated from the loans.

Pagano and Jappelli (1993) shows that information sharing reduces adverse selection by improving bank's information on credit applicants. In their model, each bank has private information about local credit applicants, but no information about non-local applicants. If banks exchange information about their client's credit worthiness, they can assess also the quality of non-local credit seekers, and lend to them as safely as they do with local clients. The impact of information sharing on aggregate lending in this model is ambiguous. When banks exchange information about borrowers' types, the increase in lending to safe borrowers may fail to compensate for an eventual

reduction in lending to risky types. Information sharing can also create incentives for borrowers to perform in line with banks' interests.

1.1.3 Non Performing Loans

Credit risk management is defined as identification, measurement, monitoring and control of risk arising from the possibility of default in loan repayments (Early, 1996; Coyle, 2000). Pagano and Jappelli (1993) shows that information sharing reduces adverse selection by improving bank's information on credit applicants. In their model, each bank has private information about local credit applicants, but no information about non-local applicants. If banks exchange information about their client's credit worthiness, they can assess also the quality of non-local credit seekers, and lend to them as safely as they do with local clients. The impact of information sharing on aggregate lending in this model is ambiguous. When banks exchange information about borrowers' types, the increase in lending to safe borrowers may fail to compensate for an eventual reduction in lending to risky types. Information sharing can also create incentives for borrowers to perform in line with banks' interests.

Klein (1992) shows that information sharing can motivate borrowers to repay loans, when the legal environment makes it difficult for banks to enforce credit contracts. In this model borrowers repay their loans because they know that defaulters will be blacklisted, reducing external finance in future. Vercammen (1995) and Padilla & Pagano (2000) show that if banks exchange information on defaults, borrowers are motivated to exert more effort in their projects. In both models, default is a signal of bad quality for outside banks and carries the penalty of higher interest rates, or no

future access to credit. Loan defaults and nonperforming loans need to be reduced (Central Bank Supervision Annual Report, 2006; Sandstorm, 2009)

1.1.4 Relationship Between Credit Information Sharing and Loan Book Size and Non Performing Loans of Commercial Banks

Commercial banks share information as a credit risk mitigation measure. Banks that share negative information only suffer from deterioration of the borrower pool and reduced profit, as high credit risk borrowers are more concentrated on this group due to under-pricing of risks. According to Padilla and Pagano, (2000) the ultimate effect of credit information sharing on individual bank performance and profitability is less clear-cut. The improvement in screening ability may lead to reduced default rates and increases in loan amounts. In addition, the disciplinary effect would mitigate moral hazard incentives of borrowers and thereby increase loan repayment rates. The reductions in adverse selection and moral hazard can reinforce bank profitability.

Jappelli and Pagano (2003), highlight that when lenders share information about outstanding loans, the incentive of borrowers to over-borrow from multiple lenders is significantly reduced, and as a result, the repayment probability may increase.

1.1.5 Commercial Banks in Kenya

The study will focus mainly on the licensed commercial banks in Kenya. Currently the banking sector in Kenya is comprised of 44 commercial banks, two mortgage finance companies, 130 foreign exchange bureaus and fifteen micro finance institutions CBK (2012). The companies Act, the Central Bank of Kenya Act Cap 491, the banking Act Cap 488 and the micro finance Act 2006 are the main Acts that govern the banking

industry in Kenya. The Acts are used along with prudential guidelines that are issued by the central bank of Kenya. In 1995 the exchange controls were lifted after liberalization of the banking in Kenya.

The main challenges facing the banking industry in Kenya at that time included global financial crisis that led to reduction in deposits, trade volumes and performance of assets, declining interest margins brought about by CBK's monetary policy interventions, high non performing loan proportions and new regulation especially with the passing of 2010 constitution. In order to avoid the above problems the Central has at equal speed increased its surveillance risk management measures such as introduction of credit bureau mechanism and increase in Core Capital policy to Kshs 1 Billion for commercial bank to operate in the Kenyan Market. The Credit reference mechanism was subsequently operationalized in Kenya on 2nd February 2009 in order to mitigate the threat posed by information asymmetry CBK (2012).

1.2 Research Problem

According to FSD Kenya (2012) credit information sharing refers to the sharing of both positive and negative information of customers to a centralized database a managed by CRB. Theoretical studies have indicated that credit bureaus improve bank knowledge about applicant's borrower characteristics hence permit more accurate prediction of repayment probability. Due to this lenders target and price their loan better hence easing adverse selection problems. Credit information sharing levels the informational playing field within credit markets forcing lenders to price their loans competitively. This leads to lower interest and appetite by customers to increase borrowing as well as augmenting their incentive to perform. Sharing of credit information acts as a

disciplinary device such that every borrower knows the implications of loan default through cut off from access to credit which is far much expensive. This therefore heightens borrower's incentive to repay their loans while reducing moral hazard.

Over the past three decades there have been dramatic changes in the unsecured credit market. First, the availability of unsecured credit has increased both along the extensive and intensive margin. Padilla & Pagano (2000) documents that the fraction of US households with positive credit card limits increased by 17 percentage points between 1989 and 2004, while the average credit limit more than doubled over the same time period. In addition to the increase in availability of credit, Pagano & Jappelli (2002) measure that unsecured debt (utilized credit) as a fraction of disposable income has risen from 2% to 9% from 1980 to 2005. Several researchers have documented the significant rise in Chapter 7 bankruptcies over the same time period. Love and Mylenko (2003) notes explicitly that this increase continued over the entire 1990s; quantitatively, the filing rate per 1000 households went from 2 in 1980 to 9 in 2002. Finally Pagano & Jappelli (2002) also notes that defaults are not only more common but also much larger; median non-mortgage debt-to-income ratio for households filing for bankruptcy doubled from 0.75 to 1.54 over the period 1981-1997.

Since the inception and adoption of credit information sharing mechanism in Kenya in 2008 commercial banks have been able to use the credit reports in appraising its clients for credit purposes. Prior to this concept banks confided with customer information hence the possibility of bad loan customers multi borrowing. The concept has now exposed customers who were hiding in the veil of confidentiality. Sharing of credit

information has deterred serial defaulters from accessing credit whereas making it also easier for the customers with clean CRB reports access credits easily. Another significant expectation of the concept is the fact that information sharing results to reduction in interest rates which is yet to be tested in the Kenya. All registered banks in Kenya are submitting data. Enquiry volumes have increased from 48,000 per month in August 2010 to 88,000 in May 2011. Although the enquiry volumes for the majority of banks are very small (4 banks account for 90% of all enquiries; 9 banks for 97% of all enquiries), all the primary retail banks are doing enquiries. These banks report that the bureau data is of significant benefit, both in avoiding credit risk (Ngugi, 2012).

A number of scholars have dwelt on information sharing e.g Pagano and Japelli (2000) focused on Information sharing in credit markets, role and effects of credit information sharing; Gehrig and Stenbacka (2005) studied information sharing and lending market competition; Hahm and Lee (2008) specialized on Effects of positive information sharing; Ngugi (2012) studied the impact of credit information sharing on credit risk for commercial banks in Kenya; Bonaya (2012) studied the effect of credit information sharing on loan performance of commercial banks in Kenya; Odhiambo (2012) studied the effect of credit information sharing and referencing on the marketing of credit facilities by financial institutions in Mombasa county. Contextually most of the studies have been done in European, Asian and American markets but few studies have been done locally and where they were done locally the methodology adopted was different i.e in Kipyegon (2011) study on the effect of credit information on performance of commercial banks a case study methodology was used and Odhiambo (2012) the study population was financial institutions in Mombasa county. Ngugi(2012) study on the

impact of credit information sharing on credit risk of commercial banks concluded that credit information sharing had a positive impact on credit risk although is not statistically significant hence the question how is it that it is statistically insignificant? The study will determine the significance levels of the relationship between credit information. Not many studies have been conducted to establish the relationship between credit information sharing, loan book size and non-performing loans of commercial banks in Kenya and therefore the need to carry the study hence necessitating the question, what is the relationship between the introduction of credit information sharing and loan book size and non-performing loans?

1.3 Objective of the Study

The objective of the study was to establish the relationship between credit information sharing, loan book size and non-performing loans of commercial banks in Kenya.

1.4 Value of the Study

The study will be of great significance to the government and banking sector regulators and policy makers. The study is expected to expose challenges and weaknesses of credit information sharing mechanism and will enable these parties to mitigate the particular challenges whereas enhancing credit information models existing.

The study will be significant to the management of banks in Kenya. The finds of the survey will enable the bank managers formulate strategies to enhance and facilitate credit information sharing whereas maximizing its loan book size and mitigating the proportion of non performing debts.

The study will contribute to the body of knowledge in the area of credit information sharing. It will reconcile theory to reality while its finding will be used for further studies in the field in future. This will be of great importance to scholars and researched in the field of credit and finance.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Negative information sharing includes simple statements of past defaults or arrears and is also known as black or negative data. Positive information sharing includes detailed reports on applicant's assets liabilities, guarantees, debt maturity structure, pattern of repayments, employment, family history, account balances, number of inquiries, debt ratios, on-time payments, credit limits, account type, loan type, lending institution, interest rates and public record data, etc., and is also known as white or positive data. Maintaining multiple lending relationships creates informational problems for lenders if each potential lender has no clear information about how much credit the borrower has already obtained or will be able to obtain from other lenders. A borrower's default risk, from the viewpoint of a given lender, depends on the overall indebtedness of the borrower when his obligation towards that lender will mature. If this information is unavailable to the lender, however, the borrower has the incentive to over-borrow. Credit reporting (credit information sharing) therefore allows banks to better distinguish between good and bad borrowers.

2.2 Theories Underpinning the Study

2.2.1 Credit Reporting Theory

The basic theory behind a credit reporting system is that it gives a certain degree of transparency that allows for the issuer of credit to better assess risks in lending. The lender can tailor the price of credit according to the consumer's 'creditworthiness' or reputation for repayment of debt (Klein, 1992). The system should incentives

consumers to comply with credit repayment terms and should also improve access to credit for those who already have good reputations for repayment. The consumer is a procurer of credit. Any person who has entered into a credit agreement with one of the above listed credit information providers may become part of the credit reporting system. While the credit bureaus may obtain credit information about consumers without that consumer's consent, credit information cannot then be released by the credit bureaus to a third party without the written consent of that consumer (Lummer & McConnell, 1989).

2.2.2 A Quantitative Theory of Information and Unsecured Credit

Over the past three decades four striking features of aggregates in the unsecured credit market have been documented: (1) rising availability of credit along both the intensive and extensive margins, (2) rising debt accumulation, (3) rising bankruptcy rates and discharge in bankruptcy, and (4) rising dispersion in interest rates across households. We provide a quantitative theory of unsecured credit that is consistent with these facts. Specifically, we show that all four outcomes mentioned above are consistent with improvements in the ability of lenders to observe more components of individual income now than in earlier periods. A novel feature is that we allow for individualized loan pricing under asymmetric information. In addition, the paper makes a methodological contribution: an algorithm to locate equilibrium with asymmetric information, a task that is complicated by the requirements that (i) lenders must use all information revealed by household choices and (ii) off-equilibrium beliefs and prices matter for equilibrium outcomes (Early, 1966).

2.2.3 Information Asymmetry

Information asymmetry describes the condition in which relevant information is not known to all parties involved in an undertaking (Ekumah & Essel, 2003). Information asymmetry causes market to become inefficient and forces market participants to take risk because it is assumed that information which is provided is always inadequate, inaccurate, incomplete and untimely. The asymmetric information literature which looks at the impact of financial structure on economic activity focuses on the differences in information available to different parties in a financial contract. Borrowers have an informational advantage over lenders because borrowers know more about the investment projects they want to undertake than do lenders (Akerlof, 1970).

This informational advantage leads to adverse selection and a classic "lemons" problem first described by Akerlof (1970). A lemons problem occurs in the debt market because lenders have trouble determining whether a lender is a good risk (he has good investment opportunities with low risk) or, alternatively is a bad risk (he has poorer investment projects with high risk), if the lender cannot distinguish between the borrowers of good quality and bad quality (the lemons) he will only make the loan at an interest rate that reflects the average quality of the good and bad borrowers. The result is that high quality borrowers will be paying a higher interest rate than they should because low-quality borrowers pay a lower interest rate than they should. One result of this lemons problem is that some high-quality borrowers may drop out of the market and so profitable investment projects that should be undertaken will not be.'

Stiglitz and Weiss (1981), argues that information asymmetry can lead to credit rationing in which some borrowers are arbitrarily denied loans. This occurs because a

higher interest rate leads to even greater adverse selection: the borrowers with the riskiest investment projects will now be the likeliest to want to take out loans at the higher interest rate. if the lender cannot discriminate who are the borrowers with the riskier investment projects, he may want to cut down the number of loans he makes, which causes the supply of loans to decrease with the higher interest rate rather than decrease.' Thus, even if there is an excess demand for loans, a higher interest rate will not be able to equilibrate the market because additional increases in the interest rate with only decrease the supply of loans and make the excess demand for loans increase even further.

Since the seminal works of Akerlof (1970) and Stiglitz & Weiss (1981), it is evident that asymmetric information problems may seriously undermine efficient allocation of credit. One way to overcome this informational rigidity is to share credit information among lenders. Some countries adopt a formal information sharing mechanism in which public credit registries collect and share data compulsorily reported by lenders. Other countries have developed more voluntary systems in which private credit bureaus act as information brokers. According to He and Wang (2007) a reasonable bank would try to eliminate asymmetric information by incurring search costs to acquire reliable information on the borrower requesting a loan.

Lummer and McConnell (1989) in their extensive examination of loan agreements observed that loan revisions transmitted both positive and negative signals to the market. They found that new agreements did not convey information to the market as such. Revisions in already established agreements transmitted either positive or

negative signals dependent upon whether the revision could be viewed as good or bad news.

2.3 Empirical Evidence

Pagano and Jappeli (1999) research on information sharing and credit; firm level evidence from transition countries in 27 Eastern Europe countries and Soviet, conducted between 1991-2005, suggests a threefold effect of lenders' exchanging information on the credit history of borrowers. First, credit bureaus improve banks' knowledge about applicants' characteristics and permit more accurate prediction of repayment probability. This allows lenders to target and price their loans better, easing adverse selection problems. In this respect the benefit of establishing a credit bureau is greatest where each bank is confronted by a large number of customers on which it has no previous information, i.e. where borrowers are very mobile. Secondly, credit bureaus reduce the informational rents that banks could otherwise extract from their customers. They tend to level the informational playing field within the credit market and force lenders to price loans more competitively. Lower interest rates increase borrowers' net return and augment their incentive to perform. Third, credit bureaus work as a borrower discipline device: every borrower knows that if he defaults his reputation with all other potential lenders is ruined, cutting him off from credit or making it much more expensive. This mechanism also heightens borrowers' incentive to repay, reducing moral hazard.

According to Hahm and Lee (2008) did a case study on economic effects of positive information sharing in south Korea between March and August 2008 and established that when banks compete in consumer credit markets, differing level of credit

information sharing leads to economically significant variations in market share, borrower quality, and profit across banks. Banks with negative information only suffer from reduced profit as high credit risk borrowers are more concentrated on this group. The adverse selection problem and the endogenous deterioration of the borrower pool become even more profound in the pricing regime in which banks with inferior information charge insufficient risk premiums and offer relatively lower lending rates to high risk borrowers due to the information gap. Moreover, the higher the loss given default, the wider the profit gap becomes; this implies that banks with informational disadvantage may suffer more severely in an economic downturn due to worsening adverse selection problems. Overall our finding suggests that banks have strong incentives to voluntarily participate in the positive information sharing mechanism even in the presence of a public credit registry, since even a small difference in discriminatory power stemming from the information gap may lead to a significant fall in profitability as the distribution of borrower quality changes endogenously due to adverse selection problems.

McIntosh and Wydick, (2007) investigated whether information sharing amongst banks affected credit market performance. The study was conducted in transitional countries of Eastern Europe and Soviet between 2002-2005 and found that lenders are quick to expand credit to borrowers who pass the screening test posed by a credit bureau. They also found that screening effects significantly reduce portfolio delinquency and default rates by nearly 4 percentage points. They also find evidence that the increase in credit provided to good borrowers does increase problems with repayment, but that this effect does not overwhelm the improvement in overall repayment that arises from improved borrower screening.

Djankov et al., (2008) studied the effect of credit information sharing on private credit. They used country level data on 129 different jurisdictions around the world for the period 1978-2003, and found that both creditor protection and information sharing have a positive correlation with credit relative to GDP. Although both types of institutions have a complementary role in fostering private credit, they find that the effectiveness of each varies across countries, depending on the legal system's origin. While legal protection of creditors is associated with common law traditions, credit bureaus and public credit registries are more effective in French law tradition countries. The improved assessment of credit risk appears to translate into higher lending.

Kipyegon (2011) studied credit information sharing and bank performance in Kenya. A case study of Kenya Commercial Bank was done whereby a sample population of 50 branches was used. The study established that complete information about the borrower's payment characteristic helps the banks to estimate their chance of recovering the loans is 50% , those who strongly agreed is 36.4%, those who were uncertain are 13.6%. This was therefore interpreted to mean that when bank have information concerning the payment of a borrower, then they can use such past information to calculate on their chances of recovering such loans from them. Therefore it is vital that the bank have at least some information about borrower's past borrowing and repayment habits. The study also established that showed that when the banks gets quality information about the borrower's credit history, it will help the bank to assess its risk princely and also reduce on the otherwise search cost history of the borrower since it will be readily available from credit bureaus. The study further established that as banks share information about the loan applicants, they will be able

to predict the chance of the borrower to repay the loans since the one who have good credit report will certainly continue to keep the good record and the one who have bad report might have the high chance of still defaulting on the payment. It also showed that good and timely report of the borrower will surely enable him or her to get loan at ease and at a lower rate of interest. This is because bank is certain about the repayment of the borrower and therefore charges low rate due to the fact that the rate of default is minimal.

Ngugi (2012) studied the impact of credit information sharing on credit risk for commercial banks in Kenya. The population of the study consisted of all 44 banking institutions registered and operational in Kenya under the banking Act. The study utilized both secondary and primary data. Quantitative data on credit risk for commercial banks was extracted from annual reports, profit and loss accounts, balance sheets and cash flow statements. Data on credit information sharing was obtained through the use of questionnaires that were directed to commercial banks in Kenya. The study recommended that other institutions to be listed in the CRB data base e.g Savings and Credit Co-operative Societies, Higher education Loans Board among others. In addition the study recommended both „Black“ and „White“ information be made mandatory to be shared in order to make the information sharing beneficial to all stakeholders. The study established that that there is a significant difference on the reports requested by banks from credit reference bureaus. The volumes in terms of information shared of nonperforming loans before and after information sharing shows an increase in the period after although when tested by Chi-square shows no significant difference. The comparison of nonperforming loans before and after the roll out of

credit information sharing showed a decrease in non-performing loans. The study concluded that credit information sharing had a positive impact on credit risk although is not statistically significant.

Bonaya (2012) studied the effect of credit information sharing on loan performance of commercial banks in Kenya. The researcher used econometric analysis system to analyze time series empirical data to examine the relationship between credit information sharing and loan performance by establishing correlation coefficients between the aggregate number of credit reports requested by 42 commercial banks and their aggregate loan performance as measured by level of non-performing loans. The study employed descriptive as well as correlation research designs and August 2008 to June 2012 constituted the study period. The study found out that loan performance as measured by loan default rate is negatively related to credit information sharing, lending rate and total loans. Therefore, use of credit information sharing in credit appraisal process was found to be value additive.

Odhiambo (2012) assessed the impact of credit information sharing on the marketing techniques used by the lending institutions as well as identify new methods or approaches both planned or spontaneous, while at the same time assessing the impact of the new practice on borrowing patterns and " the extent to which credit information sharing and referencing has been sensitized to the local study population. The research design was descriptive in nature where both primary and secondary data was collected and used in the study for qualitative analysis. The study used an open-ended

questionnaire that was administered to credit, sales or management staff of the different financial institutions in the county. The study revealed that credit information sharing and referencing, however consequential is not given the weight it was originally thought to possess, by both borrowers and lenders in the lending market. The cost of borrowing, the availability and accessibility of credit and the turnaround time in processing the facilities are given much more considerations by the borrowers and the lenders in a bid to enhance the trade have capitalized on these areas at the expense of any other critical consideration credit information sharing and referencing included.

2.4 Conclusion/Research Gaps

Evidence suggests that information sharing increases the access to credit. The impact on credit risk, however, maybe not so clear due to the noisy proxies used as instruments. Positive information sharing increases prediction precision, moreover, restrictions on individual significant variables reduces the efficiency of credit allocation. Theoretical models show that information sharing may increase lending and reduce defaults. The same models, however, also suggest that where credit is more abundant lenders have a stronger incentive to set up a credit bureau.

Contextually most of the studies have been done in European, Asian and American markets but few studies have been done locally and where they were done locally the methodology adopted was different i.e in Kipyegon (2011) study on the effect of credit information on performance of commercial banks a case study methodology was used and Odhiambo (2012) the study population was financial institution in Mombasa county. Ngugi 2012) study concluded that credit information sharing had a positive

impact on credit risk although is not statistically significant hence the question how is it that it is statistically insignificant? This therefore necessitates a study to establish the expected relationship between credit information sharing and credit risk i.e non-performing loans. Bonaya (2012) study measured loan performance using default rate and did not look at the size of the loan book which is one of the key benefits of the credit information sharing mechanism. This study will therefore seek to establish the relationship between credit information sharing, loan book size and non performing loans which is in tandem with the key objectives of the CRB scheme i.e financial inclusion and improved loan quality. Also the fact that credit information sharing is a new concept in Kenya and is still transforming justifies further research on the expected relationship with the benefits that accrue with the use of credit reports.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This section presents the methods in data collection and analysis and forms the blue print for conducting the research. It covered the research methodology, research design, population of study, data collection and processing methods and data analysis.

3.2 Research Design

This was a census survey of the commercial banks licensed in Kenya. The choice of the survey was due to the need for accuracy and statistically reliable data. This method has also been chosen owing to the fact that all the head offices of all the commercial banks are located in Nairobi hence it would be convenient to undertake a census of all the 43 commercial banks.

3.3 Population and Sampling Design

The population of study consisted of all the licensed commercial banks in Kenya. According to CBK (2012) there are 43 licensed commercial banks in Kenya (Appendix 2). Census survey methodology of all the licensed commercial banks was used in order to increase accuracy and reliability of data collected in this research.

3.4 Data Collection and Duration of Study

The research used both primary and secondary data. Data on loan book size and non performing loans were collected through secondary means. This secondary data was obtained from documents that included financial reports of commercial banks operating in Kenya and annual C.B.K supervision reports. This data was collected and collated

through a data collection form. Data on credit information sharing was obtained through primary means for which a questionnaire were used to collect data. The questionnaire were subjected to credit departments of all the commercial banks under study. The research used credit information sharing, loan book size and non performing loans data for the years 2010, 2011 and 2012.

3.5 Data Analysis

The data to be collected was largely quantitative and hence quantitative analysis techniques such as graphs, charts and statistical techniques was used in data analysis. The descriptive and inferential statistics was used in analysis of relationships, differences, trends and comparisons. Key to the research established the linkage between credit information sharing, loan book size and non-performing loans.

3.6 Data Presentation

Data was presented using tables in order to elaborate and establish the nature of the relationship between credit information sharing and loan book size and non performing loans.

3.8 Analytical Model

The study had one dependent variable, two independent variables and a control variable. The dependent variable was non performing loans whereas credit information sharing and loan book size were the independent variables with size of the bank being the control variable. The study used the analytical model below:-

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3$$

Whereby:-

Y is the Non performing loans

X1 is the credit information sharing

X2 is the loan book size

X3 is the size of the bank

$\beta_0, \beta_1, \beta_2$ and β_3 are the beta factors

This equation was used to test the relationship between credit information sharing, non-performing loans, loan book size and size of the bank.

Credit information sharing was measured by the volume of CRB enquiries made by commercial banks in Kenya. This data was obtained through the data collected through the questionnaire (Appendix 1). The loan book size, non-performing loans and the size of the bank were obtained from the published financial statements of commercial banks and from the annual reports of CBK.

The outstanding loan book size in the financial statements formed the basis of measuring the loan book size whereas the net provisions on loans formed the basis for measuring the level of non-performing loans for banks. The basis of unit analysis to establish the relationship between the variables under study was regression analysis of data for the 43 commercial banks. The size of commercial bank was used as a control variable.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter presents the findings of the relationship between credit information sharing and loan book size and non-performing loans of commercial banks in Kenya. Data collected from the field is presented using tables which are summarized and interpreted. The main measure of the independent variables is the mean score whereas the relationship between the dependent and the independent variables is established using Pearson's correlation. The study distributed 43 questionnaires to the commercial banks in Nairobi. Out of the targeted 43, 21 responded making a response rate of 49%.

4.2 Descriptive Statistics

Table 4.1 Descriptive Statistics for Number of Inquiries from CRB

Bank	Number of Inquiries (From CRB)			Mean Number of Enquiries
	2010	2011	2012	
ABC Bank (Kenya)	316,000	320,000	312,000	316,000
Bank of Africa	275,000	280,000	276,000	277,000
Barclays Bank	240,000	231,320	250,660	240,660
CFC Stanbic Bank	200,000	230,000	272,000	234,000
Chase Bank Kenya	230,300	240,450	258,250	243,000
Consolidated Bank of Kenya	350,000	400,000	603,000	451,000
Diamond Trust Bank	150,250	140,100	201,920	164,090

Ecobank	300,000	310,429	313,001	307,810
Equatorial Commercial Bank	220,000	240,345	262,055	240,800
Equity Bank	260,000	230,120	178,670	222,930
Family Bank	230,000	220,535	243,995	231,510
Imperial Bank Kenya	250,000	230,320	131,680	204,000
K-Rep Bank	920,999	910,200	3,103,801	1,645,000
Kenya Commercial Bank	1,244,851	1,984,500	1,705,649	1,645,000
Middle East Bank Kenya	250,600	240,430	242,260	244,430
National Bank of Kenya	260,100	240,356	237,844	246,100
NIC Bank	280,750	240,000	237,740	252,830
Oriental Commercial Bank	24,000	21,000	23,298	22,766
Prime Bank (Kenya)	20,000	25,666	28,332	24,666
Standard Chartered Kenya	930,000	910,000	1,160,999	1,000,333
Victoria Commercial Bank	38,000	34,000	30,000	34,000
TOTAL	5,105,149	5,071,545	8,148,023	

Table 4.2 Descriptive Statistics for Loan Book Size

Bank	Loan Book Size			Mean
	2011	2011	2012	
ABC Bank (Kenya)	5,288,180	7,073,553	9,789,658	7,073,553
Bank of Africa	14,122,485	29,882,472	11,920,725	18,641,894

Barclays Bank	88,347,000	99,801,000	104,348,000	102,074,500
CFC Stanbic Bank	75,224,630	94,884,596	78,483,828	82,864,351
Chase Bank Kenya	11,131,009	18,243,804	29,742,477	19,705,763
Consolidated Bank of Kenya	6,047,276	9,197,024	10,077,068	8,440,456
Diamond Trust Bank	5,126,068	2,977,210	8,787,243	5,630,174
Ecobank	59,693,275	11380592	13968266	59,693,275
Equatorial Commercial Bank	4,792,435	6,635,194	7,538,422	6,322,017
Equity Bank	72,902,000	104,486,000	122,410,000	99,932,667
Family Bank	10,208,136	16,332,359	17,868,745	14,803,080
Imperial Bank Kenya	11,152,828	14,903,789	19,038,319	15,031,645
K-Rep Bank	5,252,438	6,754,243	6,954,783	6,320,488
Kenya Commercial Bank	137,344,568	179,843,787	187,022,664	168,070,340
Middle East Bank Kenya	22,132,90.00	2,564,178	3,144,797	2,854,488
National Bank of Kenya	20,844,638	28,068,218	28,346,668	25,753,175
NIC Bank	38,340,879	52,025,475	66,381,215	52,249,190
Oriental Commercial Bank	2,450,600	2,798,853	3,452,899	2,900,784
Prime Bank (Kenya)	14,836,692	18,393,706	21,850,662	14,836,692
Standard Chartered Kenya	61,599,405	97,417,343	114,534,987	61,599,405
Victoria Commercial Bank	3,484,944	4,110,436	5,291,220	4,388,082
Total	648,189,486	807,773,832	870,952,646	

Table 4.3 Descriptive Statistics for Loan Provisions

Bank	Loan Provisions("000")			Mean
	2010	2011	2012	
ABC Bank (Kenya)	40,427	11,608	24,219	25,418
Bank of Africa	55,599	45,048	86,301	62,316
Barclays Bank	1,200,000	729000	144,000	691,000
CFC Stanbic Bank	521,441	652,853	635,429	603,241
Chase Bank Kenya	6,686	96,349	143,797	82,277
Consolidated Bank of Kenya	117,589	81,989	167,599	122,392
Diamond Trust Bank	557,854	588,789	984,696	543,779
Ecobank	227,956	40,347	176,715	149,339
Equatorial Commercial Bank	75,432	192,000	155,517	140,983
Equity Bank	1,558,000	1,533,000	1,456,000	1,515,666
Family Bank	388,873	337,173	645,272	457,106
Imperial Bank Kenya	126,303	94,771	136,518	119,197
K-Rep Bank	56,378.00	289,948.00	291,826	212,717
Kenya Commercial Bank	5,724,058	1,922,126	3,120,185	3,588,790
Middle East Bank Kenya	385	8,322	15,391	8,032
National Bank of Kenya	362,653	692,423	725,626	593,567
NIC Bank	316,640	249,166	265,264	277,023
Oriental Commercial Bank	50,112	45,390	3,723	33,075
Prime Bank (Kenya)	154,966	197,691	127901	160,186
Standard Chartered Kenya	1262576	1,319,520	1302800	1,294,965

Victoria Commercial Bank	4,422	15,337	5,692	8,483
TOTAL	12,808,350	9,142,850	10,614,471	

4.3 Regression Analysis

Table 4.4: Commercial bank data

Bank	Non-performing loans	Loan book size	Size of the banks	Credit information sharing
ABC Bank (Kenya)	25418	7383797	7079	316,000
Bank of Africa	62316	11920725	3863	277,000
Barclays Bank	448000	97498666	4897	240,660
CFC Stanbic Bank	603241	318316018	2,364	234,000
Chase Bank Kenya	82277	19705763	2288	243,000
Consolidated Bank of Kenya	122392	8440456	1,402	451,000
Diamond Trust Bank	710446	5630173	1610	164,090
Ecobank	148339	28347377	2921	307,810
Equatorial Commercial Bank	140983	6322017	2613	240,800
Equity Bank	1515667	99932666	2618	222, 930
Family Bank	457106	14803080	8016	231,510
Imperial Bank Kenya	119197	9331645	5394	204,000
K-Rep Bank	212717	4233821	4709	1,645,000
Middle East Bank Kenya	5130	2640755	4757	244,430
National Bank of Kenya	593567	25753174	3337	246,100
NIC Bank	277023	52249189	1694	252,830

Oriental Commercial Bank	33075	2900784	1305	22, 766
Prime Bank (Kenya)	117552	18360353	1797	24,666
Standard Chartered Kenya	439840	91183911	1313	1,000,333
Victoria Commercial Bank	1897	4295533	2489	34000

In this study, a multiple regression analysis was conducted to test the influence among predictor variables. The research used statistical package for social sciences (SPSS V 20) to code, enter and compute the measurements of the multiple regressions

Table 4.5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.914 ^a	.835	.819	.17823

Adjusted R squared is coefficient of determination which tells us the variation in the dependent variable due to changes in the independent variable, from the findings in the above table the value of adjusted R squared was 0.819 an indication that there was variation of 81.9% on non-performing loans due to change in due to changes in credit information sharing, loan book size and size of the bank at 95% confidence interval . This shows that 81.9 % changes in non-performing loans could be accounted to changes in credit information sharing, loan book size and size of the bank. R is the correlation coefficient which shows the relationship between the study variables, from the findings shown in the table above there was a strong positive relationship between the study variables as shown by 0.836.

Table 4.6: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.232	.567		2.231	.000
	Credit Information Sharing	-.321	.107	-.318	-2.411	.031
	Loan Book Size	.117	.115	.138	1.029	.048
	Size Of The Bank	-.135	.124	-.036	-2.285	.016

The established regression equation was

$$Y = 1.232 - 0.321 X_1 + 0.117X_2 - 0.135X_3$$

From the above regression model, holding credit information sharing, loan book size and size of the bank to a constant non-performing loans would be 1.232, its established that a unit increase in credit information sharing would lead to decrease in non-performing loan by a unit of 0.321, also unit increase in loan book size would lead to increase in non-performing loans by a factors of 0.0.117, a unit increase in size of the bank would cause an decrease in Non-performing loans by a factor of 0.135. This clearly shows that there is a positive relationship between non-performing loans and loan book size, the study found that there was a negative relationship between credit information sharing and size of the bank. The study further revealed that the P-value were less than 0.05 in all the variables, which shows that all the independent variable were statistically significant and thus in position to make conclusion for the study .

4.4 Summary and Interpretation of Findings

From the findings on the coefficient of determination, the study found that variation in the non performing loans of commercial banks in Kenya could be accounted to changes in credit information sharing, loan book size and size of the bank. From the findings on the R correlation the study found that there was a strong relationship between non performing loan of commercial bank and credit information sharing, loan book size and size of the bank. From the coefficient result the study revealed that there is a positive relationship between non-performing loans of commercial banks and loan book size, the study further revealed that there was a negative relationship between credit information sharing, size of the bank and non performing loans.

From the above regression model, holding credit information sharing, loan book size and size of the bank to a constant non-performing loans, its established that a unit increase in credit information sharing would lead to decrease in non-performing loan, also unit increase in loan book size would lead to increase in non-performing loans, a unit increase in size of the bank would cause an decrease in non-performing loans. This clearly shows that there is a positive relationship between non-performing loans and loan book size, the study found that there was a negative relationship between credit information sharing and size of the bank. The study further revealed that the P-value were less than 0.05 in all the variables, which shows that all the independent variable were statistically significant and thus in position to make conclusion for the study .

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

From the findings on the coefficient of determination, the study found that variation in the non performing loans of commercial banks in Kenya could be accounted to changes in credit information sharing, loan book size and size of the bank. From the findings on the R correlation the study found that there was a strong relationship between non-performing loans of commercial bank and credit information sharing, loan book size and size of the bank. From the coefficient result the study revealed that there is a positive relationship between non-performing loans of commercial banks and loan book size, the study further revealed that there was a negative relationship between credit information sharing, size of the bank and non-performing loans.

From the holding of credit information sharing, loan book size and size of the bank to a constant its established that a unit increase in credit information sharing would lead to decrease in non-performing loan, also unit increase in loan book size would lead to increase in non-performing loans, a unit increase in size of the bank would cause an decrease in non-performing loan. This clearly shows that there is a positive relationship between non-performing loans and loan book size, the study found that there was a negative relationship between credit information sharing and size of the bank. The study further revealed that the P-value were less than 0.05 in all the variables, which shows that all the independent variable were statistically significant and thus in position to make conclusion for the study .

5.2 Conclusion

The study concludes that credit information sharing among commercial banks lead to decrease in the level of non-performing loans, as it was revealed that there was negative relationship between non-performing loans and credit information sharing. The study also concludes that there is need to increase the size of the banks as it was revealed that increase in size of the banks negatively affects the non-performing loans. The study found that there is positive relationship between loan books size and non-performing loans; there is need for the banks to scrutinize their customer before issuing loans.

5.3 Limitations of the Study

Since the study was dealing with confidential financial information of the banking institutions, cooperation to give the required information had been anticipated as one of the challenges since majority of the respondents were not sure how the information would be utilized. To counter this, the researcher assured the respondents that the information provided was of strict confidence and was to be used for the purpose that was indicated.

The study was directed by two variables, this denied the study to cover a broad perspective and explore further on the relationship between credit information sharing and loan book size and non-performing loans of commercial banks in Kenya, the study suggested further research to be conducted on the relationship between credit information sharing and loan book size and non-performing loans of commercial banks in Kenya.

The credit referencing in Kenya is relatively young and hence people and lenders may not have fully embraced the use of credit information sharing system. Even though the credit referencing regulations were first launched in 2008, the names of loan defaulters were first submitted to CRBs in October 2010 and credit referencing of loan applicants started the same time. Therefore, this shortened the regression data period contrary to the one proposed in research methodology.

Credit information sharing is currently limited to commercial banks and therefore the findings of this study may not benefit other lenders such as micro-finance institutions.

Credit reporting is currently limited to negative information only. The regulations only provide for mandatory reporting of negative information such as loan defaults, bouncing cheque and bankruptcy.

Therefore the findings of this study have been limited to the effect of negative information sharing as opposed to full file reporting. The study reflects Kenyan commercial banks perspective and the relationship between credit information sharing, loan book size and non-performing loans of commercial banks in Kenya.

5.4 Policy Recommendations

The government through the central bank of Kenya should put in place legislation that will make it mandatory for commercial banks to inquire from CRB on potential loan borrowers. Commercial banks should improve their level of information sharing

through communication among banks on borrowers credit information so as to reduce the increase on loan defaulted.

Central bank of Kenya should closely monitor credit referencing bureaus to ensure that the information given to commercial banks is accurate. Commercial banks should use the information provided by CRB effectively to lend to potential borrowers. Only borrowers who have good credit history should be allowed to access the loans. Commercial banks should ensure that the loan borrowers have high collateral to ensure that banks recover the loan from the defaulters.

The study recommends that credit information sharing should be empowered in order to reduce interest rates charged on consumer loans by commercial banks. The study also recommends that the commercial banks in Kenya should base award of loans on the reputational capital of the borrowers which would ensure that the level of loan default is low hence improving the performance of commercial banks.

The study recommends that the commercial banks in Kenya should not approve loans without information sharing in order to decrease the volume of non-performing loans. The study also recommends that in order to increase the volume of lending in commercial banks, information sharing should be increased. The study recommends that commercial banks should a customer monitoring system which would reduce credit track records, risk premiums and search costs imposed on customers by the banks. This would increase the customer base which would enhance performance in the banks.

The study recommends that commercial banks review their lending policy periodically which would improve in reducing the level of Non-performing loans in the banks. The study also recommends that the commercial banks in Kenya should develop an integrated information system to ensure that the customers are informed promptly on their loan status and any other information.

5.5 Suggestion for Further Research

Research can be conducted further on the relationship between credit information sharing and loan book size and non performing loans of commercial banks in Kenya. Further research should be conducted on area of credit information sharing to ensure that there is improved credit information sharing and reduced number of non-performing loans.

The researcher recommends the following areas for future research. This study focused on the effect of credit information sharing on loan performance. However, the study period of four year since the launching of credit information sharing regulations in 2008 may not be long enough. Therefore, the researcher recommends that a similar study be repeated after five years.

This study was limited to use of only three variables namely loan provisions, total loans and credit information sharing as factors that influences non-performing loans. Therefore, the researcher recommends that future researchers consider adding other variables such as GDP, Inflation and Management expertise to the model to assess their

joint impact on non-performing loans. The researcher also recommends that future researcher investigate the impact of credit information sharing on lending interest rate.

The future study should not only focus on commercial banks but on other lending institutions so as to have a broad perspective on the relationship between credit information sharing and loan book size and non-performing loans. Information sharing should be expanded to include MFI's, SACCOs and any other credit granting institutions (including trade credit). This would substantially improve the value of the credit referencing system in respect of prevention of defaults as well as in the prevention of over-indebtedness. It would also enable the credit referencing system to make a positive contribution to financial inclusion.

Further research on the size and profile of the consumer credit market should be conducted, the levels of indebtedness and the threat of debt stress. Current statistics are fairly limited and appear insufficient as a basis for establishing the level of risk or developing a strategic response. The potential threat of debt stress to retail banks and to SACCOs requires special attention.

Further research on areas of information exchange which could expand access to finance and financial inclusion should be conducted. Such research should also look at potential information sets which could be of benefit to lending to the SME sector, an particularly to SMEs which are located outside of the major metropolitan areas. Credit reference bureaus could potentially play a role in creating or expanding access to public

data, such as property ownership, vehicle registration or judgments and summonses. This would have significant systemic benefit and may be achievable at a fairly low cost. A special project could be undertaken to assess the feasibility of such a role and to determine whether this would require public or donor support.

Further research should be conducted on legislations governing credit information sharing. A major constraint in addressing these problems relates to the legislation which governs information sharing, i.e. (a) the limitations in credit bureaus' conditions of registration and (b) restrictions on sharing of bank information with other institutions. Credit reference bureaus' conditions of registration appear to prevent them from servicing parties other than banks. Any legislative restrictions on the sharing of bank data with entities other than banks should be removed, as should the current narrow restrictions on the registered credit reference bureaus. The legislative amendments should be sufficiently extensive to create an enabling framework for the development of information sharing over at least the medium term future.

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APPENDICES

Appendix I: Questionnaire

INSTRUCTIONS

Dear respondent,

This questionnaire is designed to collect data that will help in establishing the relationship between credit information sharing and loan book size and non performing loans of commercial banks in Kenya.

You are kindly requested to answer the following questions to aid the research study.

The data provided by this questionnaire will be treated in strict confidence.

Part A: DEMOGRAPHICS

1. Name of respondent *(optional)*

.....

2. Name of your Bank

3. Department

4. How long have you been using credit reference reports?

a) 1 – 2 years ()

b) 3 – 5 years ()

c) Over 5 years ()

d) Not using ()

Part B

Kindly provide details of the number of CRB enquiries between the years' 2010 to 2012 on the table below.

Measurement Parameter	Year 2010	Year 2011	Year 2012
Number of CRB enquires			

Note: CRB refers to Credit reference Bureaus

Thank you for the feedback

1. DATA COLLECTION FORM

This Data collection form is designed to collect data from secondary sources that will help in establishing the relationship between credit information sharing and loan book size and non-performing loans of commercial banks in Kenya.

Table A Loan Book Size and Non-Performing Loans

	Outstanding Loan book (From Balance Sheet)			Loan Provisions (From Profit & Loss statements)		
	2010	2011	2013	2010	2011	2013
Bank						

Appendix II: Licensed commercial banks in Kenya

1. ABC Bank (Kenya)
2. Bank of Africa
3. Bank of Baroda
4. Bank of India
5. Barclays Bank
6. CFC Stanbic Bank
7. Chase Bank Kenya
8. Charterhouse Bank
9. Citibank
10. Commercial Bank of Africa
11. Consolidated Bank of Kenya
12. Cooperative Bank of Kenya
13. Credit Bank
14. Development Bank of Kenya
15. Diamond Trust Bank
16. Dubai Bank Kenya
17. Ecobank
18. Equatorial Commercial Bank
19. Equity Bank
20. Family Bank
21. Fidelity Commercial Bank Limited
22. Fina Bank
23. First Community Bank
24. Giro Commercial Bank

25. Guardian Bank
26. Gulf African Bank
27. Habib Bank
28. Habib Bank AG Zurich
29. I&M Bank
30. Imperial Bank Kenya
31. Jamii Bora Bank
32. Kenya Commercial Bank
33. K-Rep Bank
34. Middle East Bank Kenya
35. National Bank of Kenya
36. NIC Bank
37. Oriental Commercial Bank
38. Paramount Universal Bank
39. Prime Bank (Kenya)
40. Standard Chartered Kenya
41. Trans National Bank Kenya
42. United Bank for Africa
43. Victoria Commercial Bank

Appendix III: List of Banks that responded to the Questionnaire.

1. ABC Bank (Kenya)
2. Bank of Africa
3. Barclays Bank
4. CFC Stanbic Bank
5. Chase Bank Kenya
6. Consolidated Bank of Kenya
7. Diamond Trust Bank
8. Ecobank
9. Equatorial Commercial Bank
10. Equity Bank
11. Family Bank
12. Imperial Bank Kenya
13. K-Rep Bank
14. Kenya Commercial Bank
15. Middle East Bank Kenya
16. National Bank of Kenya
17. NIC Bank
18. Oriental Commercial Bank
19. Prime Bank (Kenya)
20. Standard Chartered Kenya
21. Victoria Commercial Bank

Appendix IV: Number of CRB enquiries per bank

Bank	Number of Inquiries (From CRB)		
	2010	2011	2012
ABC Bank (Kenya)	316,000	320,000	312,000
Bank of Africa	275,000	280,000	276,000
Barclays Bank	240, 000	231,320	250, 660
CFC Stanbic Bank	200,000	230,000	272,000
Chase Bank Kenya	230,300	240,450	258,250
Consolidated Bank of Kenya	350,000	400,000	603,000
Diamond Trust Bank	150, 250	140,100	201,920
Ecobank	300, 000	310,429	313,001
Equatorial Commercial Bank	220,000	240,345	262,055
Equity Bank	260,000	230, 120	178,670
Family Bank	230,000	220,535	243,995
Imperial Bank Kenya	250,000	230, 320	131,680
K-Rep Bank	920,999	910,200	3,103,801
Kenya Commercial Bank	1,244,851	1,984,500	1,705,649
Middle East Bank Kenya	250, 600	240, 430	242,260
National Bank of Kenya	260,100	240, 356	237,844
NIC Bank	280,750	240,000	237, 740
Oriental Commercial Bank	24,000	21,000	23,298

Prime Bank (Kenya)	20, 000	25,666	28, 332
Standard Chartered Kenya	930,000	910,000	1,160,999
Victoria Commercial Bank	38,000	34,000	30,000

Appendix V: Loan Book per Bank

Bank	Loan Book Size(“000”)		
	2011	2011	2012
ABC Bank (Kenya)	5,288,180	7,073,553	9,789,658
Bank of Africa	14,122,485	29,882,472	11,920,725
Barclays Bank	88,347,000	99,801,000	104,348,000
CFC Stanbic Bank	75,224,630	94,884,596	78,483,828
Chase Bank Kenya	11,131,009	18,243,804	29,742,477
Consolidated Bank	6,047,276	9,197,024	10,077,068
Diamond Trust Bank	5,126,068	2,977,210	8,787,243
Ecobank	59,693,275	11380592	13968266
Equatorial Commercial Bank	4,792,435	6,635,194	7,538,422
Equity Bank	72,902,000	104,486,000	122,410,000
Family Bank	10,208,136	16,332,359	17,868,745
Imperial Bank Kenya	11,152,828	14,903,789	19,038,319
K-Rep Bank	5,252,438	6,754,243	6,954,783
Kenya Commercial Bank	137,344,568	179,843,787	187,022,664
Middle East Bank Kenya	22,132,90.00	2,564,178	3,144,797

National Bank of Kenya	20,844,638	28,068,218	28,346,668
NIC Bank	38,340,879	52,025,475	66,381,215
Oriental Commercial Bank	2,450,600	2,798,853	3,452,899
Prime Bank (Kenya)	14,836,692	18,393,706	21,850,662
Standard Chartered Kenya	61,599,405	97,417,343	114,534,987
Victoria Commercial Bank	3,484,944	4,110,436	5,291,220

Appendix VI: Loan Provisions

Bank	Loan Provisions("000")		
	2010	2011	2012
ABC Bank (Kenya)	40,427	11,608	24,219
Bank of Africa	55,599	45,048	86,301
Barclays Bank	1,200,000	729000	144,000
CFC Stanbic Bank	521,441	652,853	635,429
Chase Bank Kenya	6,686	96,349	143,797
Consolidated Bank of Kenya	117,589	81,989	167,599
Diamond Trust Bank	557,854	588,789	984,696
Ecobank	227,956	40,347	176,715
Equatorial Commercial Bank	75,432	192,000	155,517
Equity Bank	1,558,000	1,533,000	1,456,000
Family Bank	388,873	337,173	645,272
Imperial Bank Kenya	126,303	94,771	136,518

K-Rep Bank	56,378.00	289,948.00	291,826
Kenya Commercial Bank	5,724,058	1,922,126	3,120,185
Middle East Bank Kenya	385	8,322	15,391
National Bank of Kenya	362,653	692,423	725,626
NIC Bank	316,640	249,166	265,264
Oriental Commercial Bank	50,112	45,390	3,723
Prime Bank (Kenya)	154,966	197,691	127901
Standard Chartered Kenya	1262576	1,319,520	1302800
Victoria Commercial Bank	4,422	15,337	5,692