

**CREDIT INFORMATION SHARING AND PERFORMANCE OF
COMMERCIAL BANKS IN KENYA**

BY

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NAKIIRI CAMPUS**

DECLARATION

I the undersigned declare that this research project is my original work and has not been presented to any other university or institution of higher learning for an award.

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DEDICATION

I dedicate this work to my father Mr. Joseph Kerage, whose values of hard work, decency and dignity encouraged me that the sky is the limit, to my mother Mrs. Pricilla Kerage for her diligent prayers, my siblings for their faith and aspirations for me.

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LIST OF ABBREVIATIONS AND ACRONYMS

CBK-	Central Bank of Kenya
CBR-	Central Bank Rate
CRB –	Credit Reference Bureau
CIS-	Credit Information Sharing
GDP-	Gross Domestic Product
KBA-	Kenya Bankers Association
KCPA-	Kenya Credit Providers Association
NPL-	Non-Performing Loan
MSMEs –	Micro Small and Medium Enterprises
ROA-	Return on Assets
ROE-	Return on Equity
SACCO-	Savings and Credit Cooperative Society
SPSS-	Statistical Package for Social Sciences
TL-	Total Loan

OPERATIONAL DEFINITION OF TERMS

Adverse selection:	arises when the lender does not observe some characteristics of the borrower.
Collateral:	Asset forming the security of the loan.
Credit Assessment:	Is the process of determining the probability that a potential borrower can and will fulfill the obligations of a loan agreement or other debt claim.
Credit Risk:	This is the possibility that the actual returns on a loan or debt investment may differ from what the lender expected, the difference of which constitutes a financial loss if not recovered.
Credit History:	Past payment behavior in honoring payment obligations.
Credit Reference Reporting:	A framework structure in which registered Credit Bureaus gathers and store consumer information from credit providers and in turn avail the information to authorized users at a fee, mainly for the purpose of appraising credit allocation.
Credit Risk Management:	The systems, procedures and controls which a company has in place to ensure the efficient collection of customer payments and minimize the risk of non-payment.
Credit Allocation:	Deliberate action by lenders to ration the lending of money, goods and credit services to customers based on the credit history.
Credit Policy:	This embraces all factors that are formulated, approved and used to appraise credit allocation and includes;

lending policy, credit standard policy, credit term policy and collection policy

Credit Scoring:

A statistical approach to assessing credit risk by assigning point values to various criteria thought to be associated with credit risk usually in the score range of 1-10

Default:

Failure by a borrower to honour payment obligations.

Economic Growth:

Expansion of the economy in terms of the production of goods and services.

Moral hazard

when the lender does not observe certain actions by the borrower, which affect the probability of repayment: for instance, the borrower's effort to manage his project and avoid default.

Non-Performing Loans:

Are loans that do not generate income

Performance

financial (profitability) of commercial banks

Private Credit Bureaus:

are credit bureaus that collect, file and distribute data supplied voluntarily by members

Public Credit Registers:

managed by central banks. Their data are compulsorily reported by lenders.

Risk:

Exposure to change or the probability that some future events will occur making the expected and actual outcome to differ.

ABSTRACT

Commercial Banks are in the business of mobilizing and lending financial resources to borrowers. In the process of providing financial services, they assume various kinds of financial risks which affect their performance. Various studies have been done on determinants and measurement of bank performance. However, little research studies have been done on effects of credit information sharing on performance of commercial banks in Kenya. This research study was undertaken to establish how the diffusion of information sharing has affected performance of commercial banks in Kenya. The main objective of this study was to establish the relationship between credit information sharing and performance of commercial banks in Kenya. Specific objectives were: to determine the effect of credit information sharing on non-performing loans portfolio, to evaluate the effect of credit information sharing on volume of lending, to establish the effect of credit information sharing on the level of interest rates and to determine the effect of credit information sharing on operating costs. The target population of this study was all credit managers of all the 43 licensed commercial banks in Kenya. The study adopted census survey of the all the banks licensed under the Banking act (Cap 488 Laws of Kenya). The study used primary data and secondary data. Primary data was collected using questionnaires which were administered using drop and pick method. Secondary data was collected from Central Bank Supervision reports and annual audited reports of commercial banks. Data was analyzed using both descriptive and inferential statistics. The data collected was analyzed using multiple regression analysis. The regression output was obtained using Statistical Package for Social Sciences (SPSS version 18) and computation of financial ratios from the financial statements and hence the interpretation of the study model. The study used both qualitative and quantitative data. Qualitative data was analyzed using interpretive approach which included sorting and coding raw data and use of SPSS. Quantitative data was analysed using multiple regression technique between variables which showed that the variables under study were significant in explaining the relationship between credit information sharing and bank performance. The study found that there are systematic written down steps in the handling of defaulting customers in the commercial banks in Kenya and that most commercial banks utilize information from reference bureaus in appraising the customer credit. The study further revealed that central bank rate is the major factor that affects the pricing of loans in Kenya. The study established that non-performing loans, volume of lending, level of interest rate and operating costs significantly affect the performance of commercial banks in Kenya. The study concluded that there was inadequate information sharing among commercial banks in Kenya and recommends that central bank should roll out CIS mechanism to all financial sectors like SACCOs and NBFs and also improves CIS mechanisms in Kenya by enacting a better legal framework.

CHAPTER ONE

INTRODUCTION

1.1 Background of the study

1.1.1 Historical background of credit information sharing

The idea underlying information sharing is that “the best predictor of future behaviour is past behaviour” (Miller, 2003). In practice, it is an arrangement by which lenders contribute information about their customers to a common pool, which is accessible to all lenders that contribute. This is the work of credit bureaus (Miller, 2003). Consumer credit bureaus emerged in the United States in the late 19th century. Other early adopters include Austria, Sweden, Finland, Canada, Germany, and Australia (Jappelli & Pagano, 2006)

Until World War II, most consumer credit was offered by retailers directly to consumers. A retailer’s credit relationships were often based on personal familiarity with its customers (Hauswald & Marquez, 2006). As the economy grew after World War II, many changes occurred in the consumer credit market. The retail sector expanded, while banks and finance companies took over from retailers as the primary source of consumer credit. Consumers became more mobile, and banks began issuing credit cards which could be used nationwide. This together with the development of computers which could store and process large amounts of data enabled the credit bureaus to efficiently provide credit information to consumer lenders (Waweru & Kalani, 2009).

In Kenya, the banking sector was saddled with a momentous NPLs portfolio before the advent of CIS mechanisms. This invariably led to the collapse of some banks (Degryse & Ongena, 2010). One of the catalysts in this scenario was “Serial defaulters”, who borrowed from various banks with no intention of repaying the loans. Undoubtedly, these defaulters thrived in the “information asymmetry” environment that prevailed due to lack of a CIS mechanism. It’s on this background that the Banking (Credit Reference Bureau) Regulations 2008, that govern licensing, operation and supervision of CRBs by the CBK were gazetted and operationalised on 2009 (Van Donge, 2012).

1.1.2 Importance of credit information sharing to commercial banks

Credit markets present asymmetric information problems. Lenders know neither the past behavior and the characteristics, nor the intentions of credit applicants. This creates a moral hazard problem that causes lenders to make credit decisions based on the average characteristics of borrowers rather than on individual characteristics (Stiglitz & Weiss, 2003). Moral hazard implies a lower average probability of payment, making credit more expensive. Higher interest rates exacerbate another informational problem, adverse selection, because only higher risk borrowers are willing to accept loans at high interest rates (Gehrig & Stenbacka, 2007).

Credit Information Sharing is the exchange of information on client financial histories (Brown, Jappelli, & Pagano, 2009). Sharing of credit information can make an important contribution to the development of the financial system which is an important determinant of economic growth (Doblas-Madrid & Minetti, 2009). Credit scores have immense benefits to both lenders and borrowers. Borrowers are able to negotiate with lenders on better terms. Highly rated borrowers with good credit history can convincingly negotiate for lower interest rates or even waiver of collateral (Bennardo, Pagano, & Piccolo, 2009).

Houston, Lin, Lin, & Ma, (2010) show that information sharing mechanisms reduce adverse selection by improving the pool of borrowers, the knowledge of applicants' characteristics and therefore improve bank efficiency in the allocation of credit. Based on some case studies, Olweny & Shipho, (2011) points out that credit information sharing plays a key role in improving the efficiency of financial institutions by reducing loan processing costs as well as time required to process loan applications. Lin, Ma, & Song, (2012) show that information sharing institutions; through their incentive effects on curtailing imprudent behavior of borrowers are also valuable in addressing moral hazard problems. In addition, they show that information sharing helps reduce average interest rates and information rent that banks can otherwise extract from their clients, reduce or even eliminate the information advantage of larger size banks and therefore should enhance credit market completion (kusa & okoth, 2013)

1.1.3 Status of credit information sharing in Kenya

Credit information sharing is a relatively new concept in Kenya: Banking (credit reference bureau) regulations 2008 that govern licensing, operation and supervision of credit bureaus by Central Bank of Kenya were gazetted and operationalised in 2009 (Ioannidou & Penas, 2010). Lenders can improve their knowledge about new customers through credit reference bureaus. Credit reference bureaus are information brokers that collect, file and distribute the information voluntarily supplied by their members. The Central Bank of Kenya has licensed two Credit Reference Bureaus i.e. Credit Reference Bureau Africa Limited and Metropol Credit Reference Bureau Limited (Haubrich, 2003).

Credit reference bureaus gather information on the payment history and accounts of borrowers. CRBs collect and distribute two major types of data i.e. 'white' and 'black' information. 'Black' information usually refers to negative consumer data, (information about defaults on payments, delays, delinquencies, bankruptcies etc). That is, information with a negative connotation on the payment history and the financial behaviour of the data subject. 'White' information, by contrast, refers to positive consumer data, i.e. information about the financial standing, payments and other details, which do not indicate a default or a late payment (Rambo, 2013). At inception of CIS financial institutions had limited scope on information about their clients that is to be shared but the Central Bank of Kenya has widened the risk assessment mandate of lending institutions in a move that could leave thousands of potential borrowers with poor credit scores and expose them to higher interest rates or deny them (kusa & okoth, 2013).

The progress which was made in the short period since the initiation of the project has been remarkable. From the registration of the first credit bureau in 2010, the level of information sharing increased dramatically. The level of support for information sharing amongst banks and the level of interest amongst SACCOs and MFI's for participating in information sharing is a notable achievement (Ndung'u & Ngugi, 2000).

1.1.4 Performance of commercial banks in Kenya

The banking sector in Kenya was saddled with a momentous NPLs portfolio before the advent of CIS mechanisms. This invariably led to the collapse of some banks (H. Degryse & Ongena, 2010). One of the catalysts in this scenario was “Serial defaulters”, who borrowed from various banks with no intention of repaying the loans. Undoubtedly, these defaulters thrived in the “information asymmetry” environment that prevailed due to lack of a CIS mechanism.

This incidence of bad loans was worrying and put to question the credit models and quality of information employed by credit analyst. Net loans at the level of KShs. 315 billion as at December 31, 2009 accounted for 51% of total net assets of Kenya’s banking sector. At the same date the proportion of non-performing loans to total loans in Kenya was a high of 30%. As at 31st December 2009 NPLs amounted to Shs.94 billion, (Schoenmaker, 2012).

Comparing, the ratio of non-performing loans to total loans (NPLs/TL) in Kenya of 33% to similar African economies at the end of 2008, central banks of those countries (by then) reported that, this ratio (NPLs/TL) is much lower in Zimbabwe (24%), Nigeria (11%), and South Africa (3%) (Central Bank of Kenya Supervision Annual Reports, 2008). It’s on this background that the Banking (Credit Reference Bureau) Regulations 2008, that govern licensing, operation and supervision of CRBs by the CBK were gazetted and operationalised on 2009 (Waweru & Kalani, 2009).

CRBs are institutional solutions to these two ubiquitous problems in lending, adverse selection and moral hazard. CRBs are meant to provide to the credit industry and the market organised information on the performance of borrowers (Van Donge, 2012). In Kenya Commercial banks are licensed and regulated pursuant to the provisions of the Banking Act (Cap 488 Laws of Kenya) and the Regulations and Prudential Guidelines issued by CBK. Currently there are there are 43 licensed commercial banks (CBK, 2013).

1.2 Statement of the Problem

Empirical studies done on the area of credit information sharing regarding its effect on performance of commercial banks have not been conclusive. The idea underlying information sharing is that “the best predictor of future behaviour is past behaviour” (Miller, 2003). Coordination among lenders to share information about their clients’ past behavior alleviates asymmetric information problems. The purpose of credit information sharing is to mitigate the risk of default (Bouckaert & Degryse, 2006).

Jappelli & Pagano, (2006) carried out a cross-country survey on the role and effects of information sharing and found out that information sharing has a first order impact on credit markets that are critical for a well-functioning economy. Other Studies of bank performance have addressed the performance and efficiency of the banks from production and cost function approaches (Brown, Jappelli, & Pagano, 2009). Waweru & Kalani, (2009) undertook a study to determine causes and remedies of commercial bank crises in Kenya and found out that bank crises are caused by political patronage. Lin et al., (2012) carried out a survey on bank competition, credit information sharing and banking efficiency in USA and found a negative relationship between credit information sharing, competition and banking efficiency. Kusa & Okoth, (2013) studied determinants of Financial Performance of Commercial Banks in Kenya.

It is quite clear from the foregoing that very little research studies have been done on the effects of credit information sharing on the performance of commercial banks, yet it is through information sharing that lenders are able to analyze borrowers to minimize default rates, the banks loans portfolio will enlarge and the banks would meet their ultimate goal of stimulating growth and performance in the economy. This study therefore undertakes to carry out research on effects of credit information sharing on the performance of commercial banks in Kenya.

1.3 Objectives of the study

1.3.1 General Objective

The general objective of this study was to assess effects of Credit information sharing on the performance of commercial banks in Kenya.

1.3.2 Specific Objectives

- i. To determine the effect of credit information sharing on banking performance.
- ii. To determine how credit information sharing affects non-performing loans portfolio and bank performance.
- iii. To establish how credit information sharing influences volume of lending and performance of commercial banks in Kenya.
- iv. To establish how credit information sharing influences interest rates and bank performance.
- v. To establish the effect of credit information sharing on operating cost and performance of commercial banks in Kenya.

1.4 Research Questions

In carrying out this study the researcher sought to answer the following key questions;

- i. What are the effects of credit information sharing on performance of commercial banks in Kenya?
- ii. How does credit information sharing affect non-performing loans portfolio and performance of commercial banks in Kenya?
- iii. What is the influence of credit information sharing on the volume of lending and the performance of commercial banks?
- iv. How does credit information sharing influence the interest rates and bank performance?
- v. What is the influence credit information sharing on the operating cost performance of commercial banks in Kenya?

1.5 Significance of the study

Thus the findings of this study will be useful to the following:

The public- it will provide a basis and a framework for receiving efficient services from commercial banks. It will reveal what needs to be done to improve information sharing which will translate into increased access to credit and reduced cost of capital.

Financial institutions- it will provide a framework for better information sharing through credit reference bureaus which will enhance information symmetry, ease adverse selection and counter moral hazard which will significantly reduce the non-performing loans portfolio.

The government will also benefit as this research will propose ways of addressing challenges facing CIS in Kenya. This research can help to make Policy changes to the Banking (Credit Reference Bureau) Regulations 2008 that govern the licensing, operation and supervision of credit reference bureaus by the Central Bank of Kenya. This will be a catalyst for economic growth and development, which is a key pillar of vision 2030.

Scholars who are interested in further research in this field will be able to investigate any research gap in the study not researched or be under researched by the researcher in the course of providing the evidences supporting the research topic and research problems.

1.6 Scope of the study

The study was carried out in the headquarters of all the commercial banks in Kenya, where the headquarters are all based in Nairobi. The target population was the Credit Managers of all commercial banks in Kenya for the study period 2008-2012.

1.7 Limitations of the study

This study focused on the effect of CIS on the performance of commercial banks in Nairobi County, Kenya thus limiting the study to sample of commercial banks located in Nairobi County. Future research on CIS should include all credit providers namely; commercial banks, non-bank financial institutions, hire purchase companies and utility companies on a wider geographical area. Additionally, other credit providers other than commercial banks have not adopted credit information sharing.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section will review literature to capture the effects of information sharing on commercial bank performance,

2.2 Theoretical Review

2.2.1 Portfolio Theory

Modern Portfolio Theory (MPT) proposes how rational investors should use diversification in order to optimize their portfolios. It also discusses how a risky asset should be priced. This does not mean that the early economists ignored financial markets. (Fisher, 1930) had already outlined the basic functions of credit markets for economic activity, specifically as a way of allocating resources over time and had recognized the importance of risk in the process.

In developing their theories of money, (Dimand, 1991), (Davidson, 1990) and Keynes (1936) had already conceived of portfolio selection theory in which uncertainty played an important role. However, for many economists during this early period, financial markets were still regarded as mere casinos rather than markets properly speaking. In their view, asset prices were determined largely by expectations and counter-expectations of capital gains and thus they were held up by their own bootstraps as it were.

Keynes's beauty contest analogy is representative of this attitude. As such, a good amount of ink was spent on the topic of speculative activity (i.e. the purchase/temporary sale of goods or assets for later resale). For instance, in their pioneering work on futures markets, Keynes (1936) and Hicks (1962) argued that the price of a futures contract for delivery of a commodity will be generally below the expected spot price of that commodity (what Keynes called normal backwardation). This, Keynes and Hicks argued, was largely because hedgers shifted their price risk onto speculators in return for a risk premium. Kaldor (1939) went on to analyze the question of whether speculation was successful in stabilizing prices and, in so

doing, expanded Keynes's theory of liquidity preference considerably. Canela & Collazo, (2007) realized that as the fundamentalist notion relied on expectations of the future, then the element of risk must come into play and thus profitable use could be made of the newly developed expected utility theory of John von Neumann and Morgenstern (1944).

Markowitz formulated the theory of optimal portfolio selection in the context of trade-offs between risk and return, focusing on the idea of portfolio diversification as a method of reducing risk and thus began what has become known as Modern Portfolio Theory or simply MPT. As noted, the idea of an optimal portfolio allocation had already been considered by Keynes, Hicks and Kaldor in their theories of money, and thus it was a logical step for Tobin (1958) to add money to Markowitz's story and thus obtain the famous two-fund separation theorem. Effectively, Tobin argued that agents would diversify their savings between a risk-free asset (money) and a single portfolio of risky assets (which would be the same for everyone).

Different attitudes towards risk, Tobin contended, would merely result in different combinations of money and that unique portfolio of risky assets. In case of commercial banks stakeholders like depositors, investors and other creditors all use the quality of the bank's loan portfolio as the primary indicator of creditworthiness. If there are doubts about the quality of the portfolio, it will be hard to mobilize or retain deposits or to qualify for a funding facility with a bank (Bessis, 2002).

This is a very important linkage between credit risk and liquidity risk which yield to market confidence. Commercial banks therefore have to combine portfolio of risky and risk free assets in a well-balanced manner. Risk free assets can comprise treasury bonds and treasury bills while risky assets may range from advancing long term loans to blue chips companies to an overdraft facility extended to an individual or start up business. To cost loan products banks have to assess the inherent risk of lending to their clients. Estimation of the risk premium is done by obtaining information about the client for example through analysis of audited accounts or credit history of the loan applicant.

2.2.2 Credit Referencing Theory

Financial institutions have been facing credit default ever since early ages, credit referencing has not been widely studied until recent 30 years. Early literature (before 1974) on credit referencing uses traditional actuarial methods of credit referencing, whose major difficulty lies in their complete dependence on historical data. Up to now, there are three main quantitative approaches to analyzing credit referencing: structural approach, reduced form approach and incomplete information approach (Crosbie, 2003).

Merton (1974) firstly builds a model based on the capital structure of the firm, which becomes the basis of the structural approach. In his approach, the company defaults at the bond maturity time T if its assets value falls below some fixed barrier at time T . Thus the default time τ is a discrete random variable which picks T if the company defaults and infinity if the company does not default. As a result, the equity of the firm becomes a contingent claim of the assets of the firm's assets value. Black and Cox (1976) extend the definition of default event and generalize Merton's method into the first-passage approach. In Black and Cox (1976), the firm defaults when the history low of the firm assets value falls below some barrier D . Thus, the default event could take place before the maturity date.

2.2.3 Information Asymmetry Theory

In economics and contract theory, information asymmetry deals with the study of decisions in transactions where one party has more or better information than the other. This creates an imbalance of power in transactions which can sometimes cause the transactions to go awry, a kind of market failure in the worst case (Yun, 2009).

Finance theory postulates that information asymmetry can constrain all types of external financing by either limiting availability or increasing costs. Consequently, information asymmetry should affect the acquisition and use of bank lines since short-term bank credit is a primary external source of firm liquidity. Other studies argue that the use of short-term bank credit mitigates capital market frictions through increased monitoring and reduced information asymmetry (Faulkender and Petersen, 2006).

If line acquisition and use mitigate information asymmetry, then firms with line access should have reduced information asymmetry relative to firms without line access and more transparent firms would be expected to more actively use lines of credit for liquidity management.

Existing empirical research suggests that information asymmetry can have an important impact on bank lending and that limitations exist for certain firms in using bank lines as liquidity substitutes (Hardin and Hill, 2010). On a direct basis, information asymmetry impacts a lender's willingness to lend. Additional risk comes with uncertainty in firm level performance and greater variability in investment opportunities.

A large portion of related monitoring costs is likely transferred to borrowers in the form of higher interest rates and data collection costs, which may lead some borrowers to reduce their use of bank lines of credit. Moreover, if monitoring is imperfect and the lenders cannot eliminate information asymmetry, bank credit may be rationed for opaque firms. On an indirect basis, information asymmetry may also influence line of credit availability and use since some sources of repayment are based on access to public capital markets (Hardin and Hill, 2010).

While banks typically use measures of operating cash flow to evaluate debt service and repayment capacity, in many cases access to public debt and equity markets is the primary repayment source for borrowings from bank lines of credit (Faulkender and Petersen, 2006). Firms facing greater information asymmetry are more likely to be constrained in the public capital markets and may have less ability to reduce or pay off their lines of credit drawn as expected. Since information asymmetry problems increase the monitoring costs and risks for lenders, less transparent firms are less likely to obtain and then use lines of credit as an alternative source of liquidity.

2.3 Empirical Literature Review

2.3.1 Performance of commercial banks

A sound and profitable banking sector is able to withstand negative shocks and contribute to the stability of the financial system (Athanasoglou et al. 2005.) Moreover, commercial banks play a significant role in the economic growth of countries. Through their intermediation function banks play a vital role in the efficient allocation of resources of countries by mobilizing resources for productive activities. They transfer funds from those who don't have productive use of it to those with productive venture. In addition to resource allocation good bank performance rewards the shareholders with sufficient return for their investment. When there is return there shall be an investment which, in turn, brings about economic growth.

On the other hand, poor banking performance has a negative repercussion on the economic growth and development. Poor performance can lead to runs, failures and crises. Banking crisis could entail financial crisis which in turn brings the economic meltdown as happened in USA in 2007 (Marshall, 2009.) That is why governments regulate the banking sector through their central banks to foster a sound and healthy banking system which avoid banking crisis and protect the depositors and the economy (Heffernan, 1996; Shekhar and Shekhar, 2007.) Thus, to avoid the crisis due attention was given to banking performance.

A more organized study of bank performance started in the late 1980's (Olweny and Shipho, 2011) with the application of Market Power (MP) and Efficiency Structure (ES) theories (Athanasoglou et al., 2005.) The MP theory states that increased external market forces results into profit. Moreover, the hypothesis suggest that only firms with large market share and well differentiated portfolio can win their competitors and earn monopolistic profit.

On the other hand, the ES theory suggests that enhanced managerial and scale efficiency leads to higher concentration and then to higher profitability. According to Nzongang and Atemnkeng in Olweny and Shipho (2011) balanced portfolio theory also added additional dimension into the study of bank performance. It states that the portfolio composition of the

bank, its profit and the return to the shareholders is the result of the decisions made by the management and the overall policy decisions.

Bank Performance Indicators: Profit is the ultimate goal of commercial banks. All the strategies designed and activities performed thereof are meant to realize this grand objective. However, this does not mean that commercial banks have no other goals. Commercial banks could also have additional social and economic goals. However, the intention of this study is related to the first objective, profitability. To measure the profitability of banks there are variety of ratios used of which Return on Asset, Return on Equity and Net Interest Margin are the major ones (kusa & okoth, 2013).

Return on Equity (ROE): It is a financial ratio that refers to how much profit a company earned compared to the total amount of shareholder equity invested or found on the balance sheet. ROE is what the shareholders look in return for their investment. A business that has a high return on equity is more likely to be one that is capable of generating cash internally. Thus, the higher the ROE the better the company is in terms of profit generation (Khravish, 2011).

$$\text{ROE} = \frac{\text{Net Income}}{\text{Capital}}$$

Return on Asset (ROA): It is a ratio of Income to its total asset Khravish, (2011). It measures the ability of the bank management to generate income by utilizing company assets at their disposal. It indicates the efficiency of the management of a company in generating net income from all the resources of the institution. Bagsorkhi, Delahaye, Patel, Gropp, & Hwu, (2010) state that a higher ROA shows that the company is more efficient in using its resources.

$$\text{ROA} = \frac{\text{Net income}}{\text{Total assets}}$$

2.3.2 Level of interest rates and Bank Performance

The current level of interest rates is a combination of costs like information search costs and risk premium. With good credit track records, the risk premiums and search costs imposed on customers will ideally shrink leading to a reduction in interest rates (Jappelli & Pagano, 2006). When information is shared by an information exchange institution, such as credit bureaus the higher competition drives down interest rates (Brown, Jappelli, & Pagano, 2006).

In a theoretical model of information sharing, Miller, (2003) show that exchange of information on borrower type reduces average interest rates. In a related paper Powell, (2004) show that information sharing among borrowers would lead to lower interest rates. Information-sharing can lower average interest rates in several ways. These dynamics have been borne out both theoretically and empirically. First, without information on borrowers' risk profiles, a lender will mistake good risks for bad, and vice versa. The portfolio, therefore, will consist of more risky loans and, over time, as interest rates adjust to reflect Non-performing loans, higher rates.

Second, higher rates create incentives to engage in riskier projects, as lower-risk projects will not yield the return to compensate for the costs of the loan. Lin et al., (2012) shows that risky projects come to account for a larger share of the portfolio, thereby driving up the average rate. When information is shared, the ability to screen out riskier borrowers improves the portfolio's performance and allows lenders to offer lower rates to less-risky borrowers who would not have borrowed otherwise.

2.3.3 Non-performing loans and Bank Performance

The high level of non-performing loans in the banking industry has been a hindrance to economic stability. According to CBK (2009), the stock of NPLs expanded by 7.8% to Ksh 64.9 billion by march 31st, 2009 from Ksh 58.3 billion in 2008. In the year 2006, the NPLS were Kshs. 56.4 billion from Kshs. 68.6 billion in 2005. (Bank Supervision Annual Report 2006) In 2003 and 2004, the average non-performing loan to total loans for the industry was 25% and 24% respectively (Market Intelligence 2004). NPLs in Kenya stood at Kshs. 107.4

billion at the end of 2001. This represented 38% of total loan of Kshs. 281.7 billion in the banking sector. Kusa & Okoth, (2013). When loans become non-performing, banks liquidity and its earnings are adversely affected.

Overall default decreases marginally after credit bureau introduction (Jappelli & Pagano, 2006). (Barth, Lin, Lin, & Song, 2009) find in a cross-country estimation that information sharing reduces at-risk loans by 3 to 4 percentage points over a base rate of 7.7 percent. (Luoto, McIntosh, & Wydick, 2007) find a significant 3.3 percentage point decrease in the fraction of loans with any late intermediate payments, and also find that the trend on delinquency turns significantly negative when the bureau comes into use.

Moral hazard implies that information sharing should reduce default rates and interest rates and increase lending, either because credit bureaus foster competition by reducing informational rents (Giannetti, Jentzsch, & Spagnolo, 2010) or because they discipline borrowers (Giannetti, Jentzsch, & Spagnolo, 2010). In extreme cases, information exchange may make lending feasible in markets where no credit would be extended otherwise.

Kithinji (2010) studied the relationship between the credit risk management and profitability of commercial banks in Kenya. She identified credit risk management policies for commercial banks as conservative, stringent, lenient and customized and globally standardized credit risk management policies. Data on the amount of credit, level of nonperforming loans and profits were collected for the period 2004 to 2008. Amount of credit was measured by loan and advances to customers divided by total assets, nonperforming loans was measured using nonperforming loans/ total loans, and profits were measured using ROTA (Return on Total assets).

The trend of level of credit, nonperforming loans and profits were established during the period 2004 to 2008. Her findings reveal that the level of credit was high in the early years of the implementation of Basle II but decreased significantly in 2007 and 2008, probably when the Basle II was implemented by commercial banks. Notably, the level of nonperforming loans given by nonperforming loans to total loans decreased during the period 2004 to 2008.

The requirement by the Basle II might have enabled commercial banks to control their level of nonperforming loans thus reducing banks credit risk. Thus on average the profits of the banking industry increased during the period 2004 to 2008. However profitability of the commercial banks fluctuated during the period but on average increased marginally during the period 2004 to 2008. The profits were generally low during the period of study. The amount of credit extended to customers was relatively high but assumed a downward trend during the period. Whereas the level of credit and profits were relatively low and stable, the amount of credit was high and relatively volatile.

Mumi (2011) studied the impact of credit referencing on financial performance of financial institutions in Kenya. He used credit referencing management practice, credit derivatives and portfolio credit risk management to analyze the changes in return on asset (ROA) of commercial banks in Kenya. He found that credit referencing had a positive impact on financial performance of commercial banks and recommended that bank manager embrace credit information system.

2.3.4 Volume of lending and Bank performance

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. When banks exchange information about borrowers' types, the increase in lending to safe borrowers increases the volume of lending (Jappelli & Pagano, 2002). Empirically Houston et al., (2010) find that credit information sharing is associated with higher lending, measured by private credit to GNP ratio, and lower defaults.

Empirical evidence has provided plenty of evidence supporting the claim that credit sharing institutions have a positive effect on lending to the private sector. For instance, Jappelli & Pagano, (2006) show that strong credit-sharing institutions are positively related to the size of the credit market. Other empirical studies, including Miller, (2003) and Waweru & Kalani, (2009) have shown that credit is more abundant when borrowers and lenders benefit from credit-sharing institutions.

Brown & Zehnder, (2007) find that credit sharing between lenders is associated with increased and cheaper credit in transition countries in Eastern Europe. (Djankov, McLiesh, & Shleifer, 2007) show that such institutions are associated with higher ratios of private credit to gross domestic product. Berger & Udell, (2006) demonstrate how such institutions increased the quantity of small business loans in the United States, and, more importantly, served to expand credit to riskier, —marginal borrowers.

2.3.5 Operating cost and Bank Performance

Credit bureaus are institutional responses to the problem of information asymmetries in lending. Ronald Coase (2010) has suggested that when there are costs to transacting, markets have suboptimal outcomes. These “transactions costs” include the cost of searching, contracting, monitoring, and enforcing a market exchange, often stemming from the lack of information and resulting from the price of gathering it.

CIS among commercial banks will reduce operating costs (Jappelli & Pagano, 2006). With good credit track records, the risk premiums and search costs imposed on customers will ideally shrink (Jappelli & Pagano, 2006). This will lead to overall reduction in the operating costs associated with debt approval and collection. With CIS mechanisms the number of staff employed in the credit department will reduce based on the fact that fewer staff will be required to approve loans (Cheng & Degryse, 2010). CIS will also assist commercial banks to reduce the staff cost by reducing the number of staff involved in loan approval and collection (Waweru & Kalani, 2009). Mitigation incase a customer defaults will also decline as bad customers will not be granted because of CIS mechanisms.

2.4 Summary of Literature Review and Research gaps

From the studies conducted, there is mixed evidence about the effect of CIS on the profitability of commercial banks. It is therefore, important for bankers, bank regulators, supervisors, investors and researchers to understand how CIS affects the profitability of banks. Hence, the researchers’ main purpose in this project was to fill this significant gap by providing systematic analysis of the effect of credit information sharing on profitability of

commercial banks. To achieve this goal, the researcher analyzed financial statements of the all commercial banks and annual supervision reports from regulators central bank of Kenya.

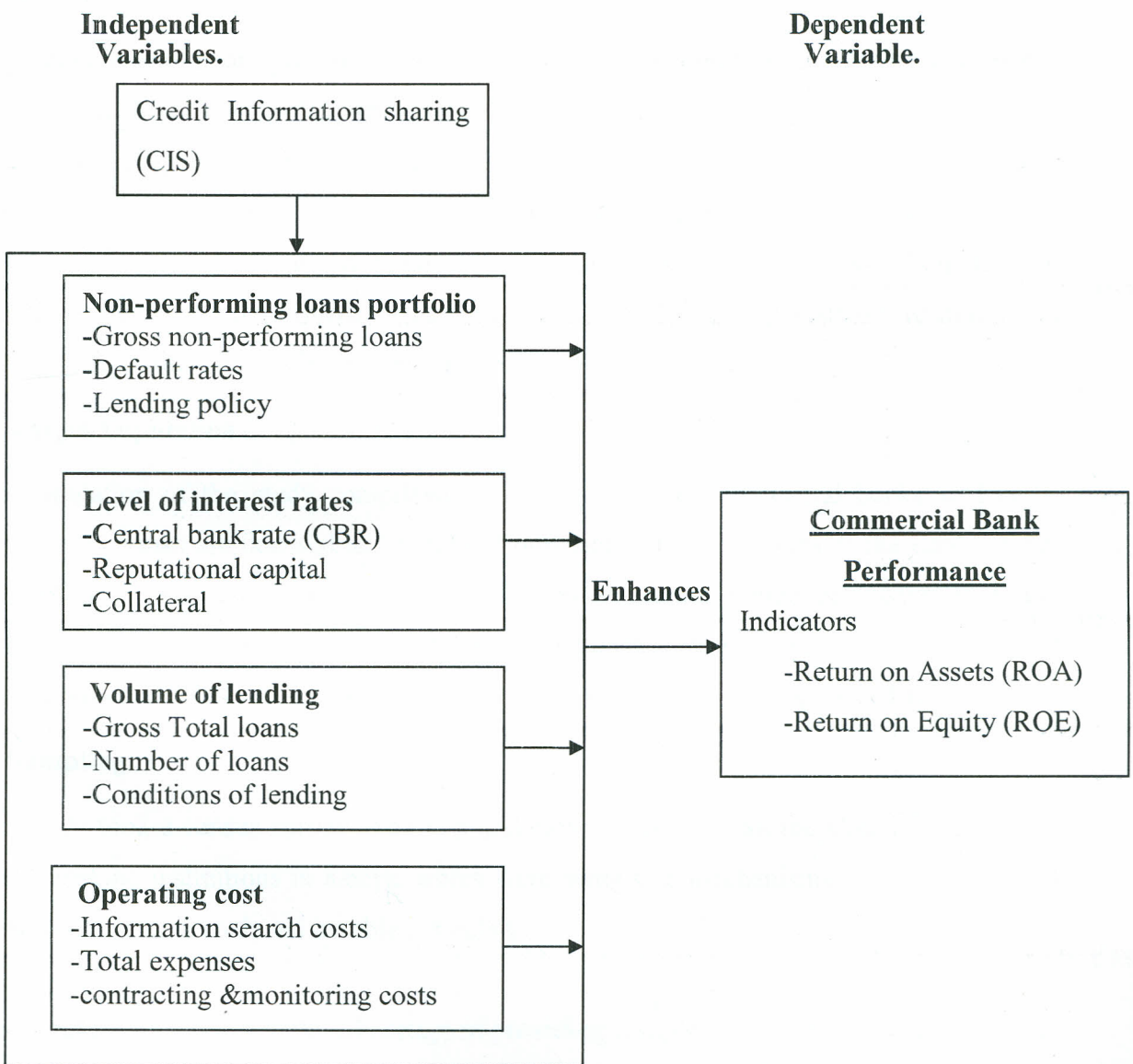
Financial institutions are unable to judge whether the use of information from credit reference reporting bureaus enables them to determine the quality of the clients. The study therefore seeks to assess the quality of clients that had been advanced loans based on information from credit reporting bureaus. Additionally, seeks to determine the defaulting rate for Banks since the emergence of credit reference reporting bureaus and also to establish the prevalence level of credit sharing information amongst the financial.

Few researches have been conducted on the area of credit information sharing and performance of commercial banks in Kenya and mostly have failed to show that there is a relationship between non-performing loans portfolio, level of interest rates, volume of lending and operating cost and the profitability of commercial banks as a result of credit information sharing and thus this has motivated the researcher to fill this gap in the literature

2.5 Conceptual Framework

The conceptual framework is developed from the review of literature discussed above and presented in figure 2.1. This study proposes a conceptual framework in which the dependent variable is the performance of commercial banks and the independent variables are Non-Performing Loans Portfolio, Volume of lending, level of interest rates and operating cost. The effect of the independent variables on the dependent variable is the subject of the study.

Figure 2.1: The conceptual framework



Source: Author (2013).

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter outlines the scope of methodological procedures used in the study. The main aspects covered includes study design, target population, sample design, data collection procedures, instruments, and procedures that were used for data collection as well as data analysis and presentation.

3.2 Research Design

This study research design was a descriptive survey. A descriptive survey is primarily concerned with addressing the particular characteristics of a specific population of subjects, either at a fixed point in time or at varying times for comparative purposes (Gill & Johnson, 2002). Moreover descriptive research designs are characterized by systematic collection of data from members of a given population through questionnaires (Lewis, Saunders, & Thornhill, 2009). A descriptive research design provided an appropriate technique of analyzing the influence of CIS on performance commercial banks.

3.3 Target Population

The population of the study comprised of all the licensed commercial banks in Kenya. Commercial banks are licensed and regulated pursuant to the provisions of the Banking Act (Cap 488 Laws of Kenya) and the Regulations and Prudential Guidelines issued by CBK. Currently there are there are 43 licensed commercial banks (Brown bridge, 2008). The list of these commercial banks was adapted from CBK and was attached as appendix III.

3.4 Sampling

This study took a census survey and the population consisted of all the Credit Managers of the 43 banking institutions in Kenya, which were using CIS mechanisms (See Appendix V) whose ownership is analyzed in table 3.4 below.

The Population Census had the advantage of providing complete population coverage, census survey is appropriate for this study because the population is small (Mugenda & Mugenda,

2003). Credit managers were used in this survey since they are in charge of credit analysis and allocation. These are the people who are in the best position to answer the issues of information sharing and credit in commercial banks.

Table 3.4: Ownership of commercial banks in Kenya.

Ownership	Number	Percentage of total
Local public commercial banks	3	7.0%
Local private commercial banks	27	62.8%
Foreign commercial banks	13	30.2%
Total	43	100.0%

Source: CBK (2013)

3.5 Data collection instruments

The researcher used self-administered questionnaires for primary data through drop and pick method to credit managers of all licensed commercial banks in Kenya. Secondary data was obtained from recorded materials, which included books, central bank supervision reports, commercial bank financial reports and credit reports. Secondary data was useful in providing collaborative information on the problem of the study.

3.6 Data analysis Methods

The data collected from the annual reports of the banks was analyzed using multiple regression analysis: the relation of one dependent variable to multiple independent variables. The regression output was obtained using Statistical Package for Social Sciences (SPSS version 18). The study used both qualitative and quantitative data. Qualitative data was analyzed using interpretive approach which included sorting and coding raw data and use of SPSS. Quantitative data was analysed using regression technique as shown in the regression model discussed below.

The Model

In this study, a multiple regression model with four independent variables was used:

$$Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \varepsilon$$

Where Y represents performance of commercial banks (profitability) which was the depended variable, β_0 is a constant term, X_1 -non-performing loans portfolio, X_2 -level of interest rates, X_3 -volume of lending and X_4 - operating cost which are the independent variables and ε is the disturbance term.

In this study, ROE was used as the indicator of the profitability in the regression analysis because ROE along with ROA has been widely used in earlier research (e.g. Muthee, 2010; Muasya, 2009). In this case, the required information was available in the annual reports of the banks under key figures section. The measure for financial performance will be ROE (Net Income/Total Shareholders' Equity).

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND INTERPRETATION

4.1 Introduction

This chapter presents the research findings to assess effects of Credit information sharing on the performance of commercial banks in Kenya. Descriptive statistics was used to analyze the data. In the descriptive statistics, relative frequencies were used in some questions and other were analyzed using mean scores with the help of Likert scale ratings in the analysis.

4.2. General information

4.2.1 Response rate

Table 4.2.1: Response rate

Response	Frequency	Percent
Actual Response	32	74.4
Non-Response	11	25.6
Target Sample	43	100.0

The study was conducted on 43 respondents who were served with a questionnaire; out of 43 targeted respondents 32 respondents filled-in and returned the questionnaires which make a response rate of 74.4%.

4.2.2 Demographic Information

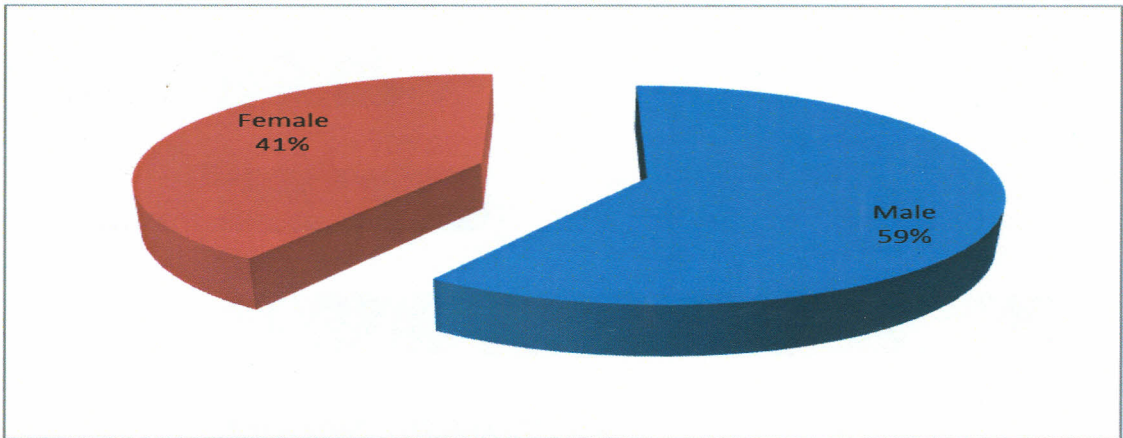


Figure 4.2.2: Gender of the Respondent

From the findings on the gender of the respondent, the study found that majority of the respondent as shown by 59% indicated that they were males whereas 41% of the respondents indicate that they were females, this is an indication that both genders were involved in the study through not in equal proportion.

4.2.3 Length of time worked in credit department

The results in figure 4.2 below show the length of time worked in the credit department. The findings show that majority of the respondents as shown by 47.5% had worked in the credit department for 11 to 15 years, 22.5% indicated 6 to 10 years, 15% indicated 16 to 20 years, 10% indicated above 20 years whereas 7.5% less than 5 years, this is an indication that respondents had worked with credit department for more than 11 years and so gave credible information.

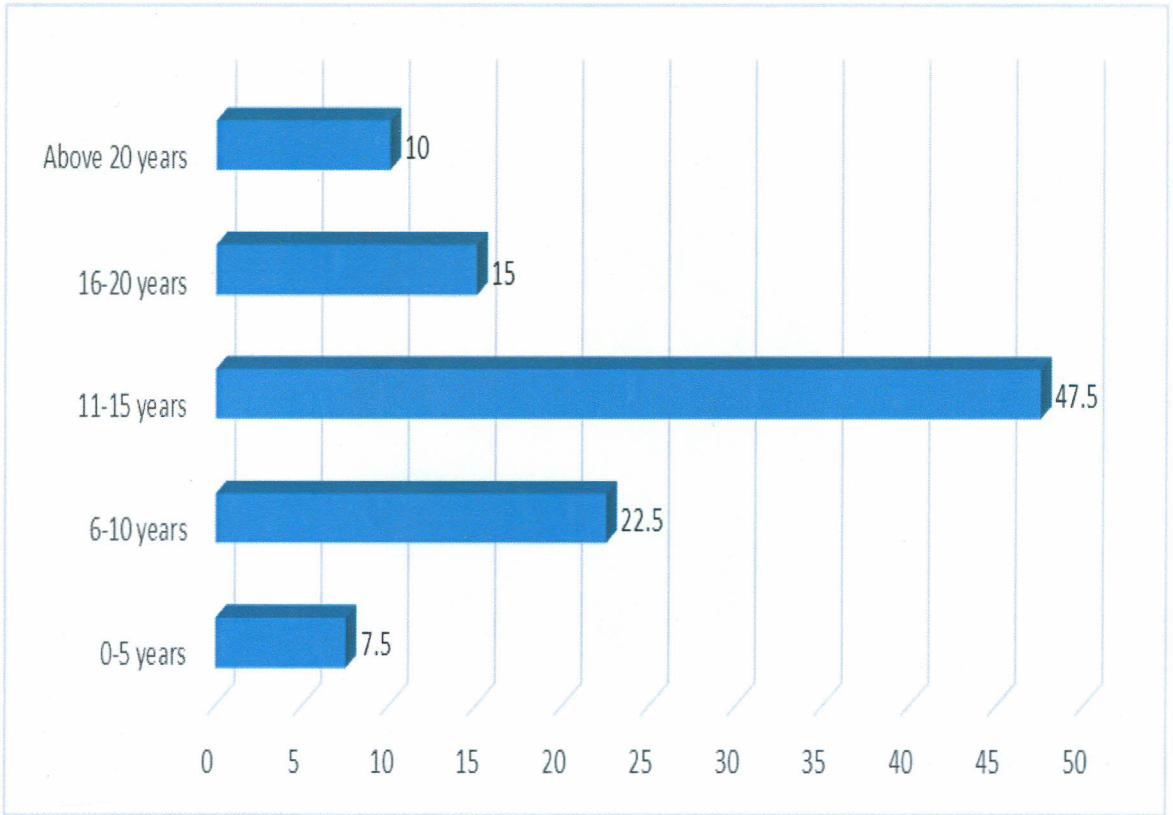


Figure 4.2.3: Length of time worked at the credit department

4.2.4 Use of credit information sharing

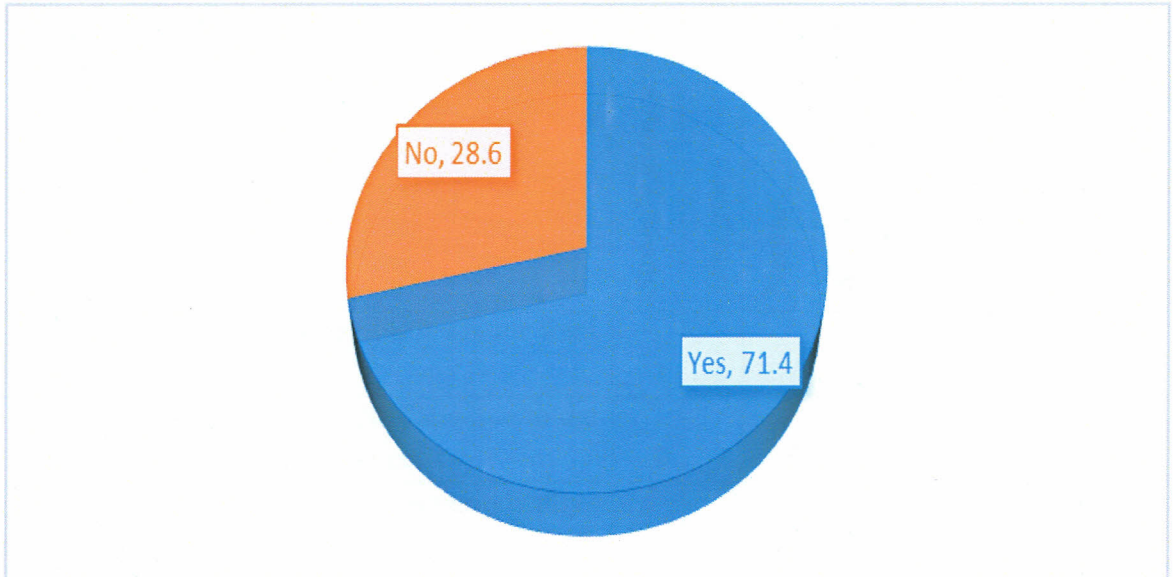


Figure 4.2.4: Whether the bank uses credit information sharing in appraising loan applicants

From the findings on whether the bank uses credit information sharing in appraising loan applicants, the study found that majority of the respondents as shown by 71.4% believed that their bank uses credit information sharing in appraising loan applicants whereas 28.6% of the respondents were of the opinion that their bank does not use credit information sharing in appraising loan applicants, this is an indication that commercial banks in Kenya uses credit information sharing in appraising loan applicants.

4.3 Non-performing loans

Table 4.1: Level of agreement on statement relating to Non-performing loans and performance of commercial banks

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Standard deviation
The company observes the limit set for total loan given out at any time.	1	2	7	18	3	3.65	0.913
There are few or no loan defaulters due to the institution's efficient lending policy	0	2	5	17	9	4.03	0.416
The company's lending policy is periodically reviewed to reflect the prevailing conditions	1	3	10	13	6	3.60	0.900
There are systematic written down steps in the handling of defaulting customers.	3	2	11	11	5	3.40	0.850
The institution utilizes information from reference bureaus in appraising the customer credit	2	3	7	13	6	3.55	0.832
Information sharing adds value with regard to quality of customers being granted credit.	0	2	6	18	7	3.95	0.988
The rate of defaulting by customers been minimized with the use of information sharing.	0	1	6	20	5	3.90	0.328
The institution informs customers that the bank is seeking reference information regarding their past loan servicing	2	4	8	11	7	3.58	0.894
NPLs portfolio has reduced due to the use of information sharing	0	0	5	19	8	4.10	0.525
The level of non-performing loans in my bank is very high	3	2	6	14	7	3.62	0.693

From the findings on the respondents level of agreement on statement relating to Non-performing loans and performance of commercial banks, the study found that respondents agreed that NPLs portfolio has reduced due to the use of information sharing as shown by the

mean of 4.10, There are few or no loan defaulters due to the institution's efficient lending policy as shown by the mean 4.03 , Information sharing adds value with regard to quality of customers being granted credit as shown by the mean of 3.95, The rate of defaulting by customers been minimized with the use of information sharing as shown by the mean of 3.90, The company observes the limit set for total loan given out at any time as shown by the mean of 3.65, the level of non-performing loans in my bank is very high as shown by the mean of 3.62, The company's lending policy is periodically reviewed to reflect the prevailing conditions as shown by mean of 3.60, The institution informs customers that the bank is seeking reference information regarding their past loan servicing as shown by mean of 3.58, the institution utilizes information from reference bureaus in appraising the customer credit as shown by the mean of 3.55, and that there are systematic written down steps in the handling of defaulting customers as shown by the mean of 3.40.

From the findings on banking supervision report non-performing loans (NPLs) declined by 17.5 percent, from Ksh 70.7 billion in June 2007 to Ksh 58.3 billion at the end of June 2008. This was attributed to write-offs and recoveries by some institutions. The ratio of gross non-performing loans to gross loans was 9.6 percent in June 2008 compared with 15.1 per cent as at the end of June 2007. Non-performing loans, net of interest in suspense, rose by 5.6 percent to Ksh. 50.9 billion in December 2009 from Ksh. 48.2 billion in December 2008. However, the asset quality, which is measured by the ratio of net non-performing loans to gross loans improved marginally from 3.4 percent in December 2008 to 3.2 percent in December 2009. Gross Non-Performing Loans (NPLs) declined by Ksh. 1.1 billion or 1.8 percent from Ksh. 61.87 billion in December 2008 to Ksh. 60.74 billion in December 2009. As a result, the ratio of gross non-performing loans to gross loans stood at 8.0 percent as at December 2009, compared with 9.2 percent registered in December 2008. The decline in gross NPLs was largely attributed to enhanced credit appraisal standards adopted by the financial institutions in 2009. Gross non-performing loans (NPLs) declined by 5.1 percent from Ksh. 60.7 billion in December 2009 to Ksh. 57.6 billion in December 2010, resulting to an improvement in the ratio of gross non-performing loans to gross loans from 8.0 per cent in December 2009 to 6.3 percent as at December 2010. The decline in gross NPLs was partly attributable to recoveries and the improved credit appraisal monitoring standards and robust domestic economic

growth. The total non-performing loans, net of interest in suspense dropped by 10.1 percent from Ksh. 47.7 billion in December 2010 to settle at Ksh. 42.9 billion in December 2011. As a result, the asset quality, which is measured by the ratio of net non-performing loans to gross loans improved from 2.1 percent in December 2010 to 1.2 percent in December 2011. However, the ratio of non-performing loans to gross loans in 2012 increased from 4.4 percent in December 2011 to 4.7 percent in December 2012. The increase in non-performing loans signaled an increase in credit risk which was large-ly attributable to high interest rates in the first half of 2012. CBK enhanced surveillance on institutions experiencing deteriorating asset quality.

4.5 Level of interest rates

Table 4.2: Level of agreement on statement relating to level of interest rates and performance of commercial banks

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Standard deviation
The interest rate charged on various types of loans cover the cost and meet good profit margin	2	2	6	15	7	3.73	0.731
The institution takes CBK lending rate into account in pricing loans	0	3	6	14	8	3.85	0.963
The institution takes rate charged by competitors into account in pricing loans	2	4	8	14	5	3.50	0.875
The institution takes Collateral/security provided by borrower into account in pricing loans	1	0	6	18	8	4.00	0.605
The institution takes Reputation of borrower into account in pricing loans	2	3	6	13	7	3.60	0.900
credit information sharing has reduced interest rates charged on consumer loans	0	1	5	14	12	4.18	0.344
the institutions interest rate has declined due to information sharing	1	2	4	19	6	3.83	0.656
Interest rate charged on a loan applicant depends on reputational capital of the borrower	1	0	7	15	9	3.98	0.894

From the findings on the respondents level of agreement on statement relating to level of interest rates and performance of commercial banks, the study found that respondents agreed that credit information sharing has reduced interest rates charged on consumer loans as shown by the mean of 4.18, The institution takes Collateral/security provided by borrower into account in pricing loans as shown by the mean 4.00, Interest rate charged on a loan applicant depends on reputational capital of the borrower as shown by the mean of 3.98, the institutions takes CBK lending rate into account in pricing loans as shown by the mean of 3.85, the institutions interest rate has declined due to information sharing as shown by mean of 3.83, the interest rate charged on various types of loans cover the cost and meet good profit margin as shown by mean of 3.73, The institution takes reputation of borrower into account in pricing loans as shown by the mean of 3.60 and that the institution takes rate charged by competitors into account in pricing loans commercial banks take rate charged by competitors into account in pricing loans as shown by the mean of 3.50. From the findings on other factors considered important in pricing of loans, the study found that other factors in pricing of loans include collateral, type of loan, borrowing rate, reputation of the borrower, government policy, profit margin, and CBK lending rate. This is an indication that there are other factors in the pricing of loans.

According to the Banking supervision report the Central Bank Rate (CBR) was reviewed upwards in August 2007 from 8.50 percent to 8.75 percent on recommendation from the Monetary Policy Advisory Committee (MPAC). As a result of the upward review of the CBR in August 2007, short term interest rates rose during the period January to June 2008, with the 91-day Treasury bill rate increasing from an average of 6.68 percent in December 2007 to 7.73 percent in June 2008. Average lending rates increased in the fiscal year 2008/09 from 13.9 percent in July 2008 to 15.1 percent in June 2009. Average lending rates declined marginally (by 4 basis points) in the fiscal year 2009/10 from 14.79 percent in July 2009 to 14.39 percent in June 2010. The decline in overall lending rate was reflected in the 1-5 years loans category in both the corporate and personal loans. The slight decline in interest rates was mainly attributed to the push by Central Bank to have commercial banks lower their rates. Average lending rate to the private sector declined by 48 basis points in the fiscal year

2010/11 from 14.39 percent in June 2010 to 13.91 percent in June 2011. The decline in overall lending rate was reflected in all loan categories (overdraft, 1-5 years and over 5 years loans category) in both the corporate and business loans. The decline in interest rates was mainly attributed to the push by Central Bank to have commercial banks lower their rates in the first nine months through March 2011.

The average commercial bank lending rates and deposit rates remained high between January and June 2012 with the lending rate averaging 20.1 percent while the deposit rate averaged 8.2 percent. Following the easing of monetary policy and use of credit information sharing in the second half of 2012, the commercial banks' average lending interest rate declined gradually. The average lending rate eased from 20.2 percent in July 2012 to 18.1 percent in December 2012 as the average interest rate paid by banks on deposits decreased from 8.3 percent to 6.8 percent as shown in Chart 6. Consequently, the interest rate spread narrowed marginally from 11.9 percent in July 2012 to 11.3 percent in December 2012 reflecting a larger decline in the lending rate.

4.6 Volume of lending

Table 4.3: Level of agreement on statements relating to volume lending and performance of commercial banks

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Standard deviation
The institution strictly observes conditions of lending	2	1	6	14	10	3.90	0.975
The overall volume of lending has increased due to information sharing	1	2	5	11	14	4.10	0.702
Conditions of lending have been relaxed since the inception of credit information sharing mechanisms	0	1	7	19	5	3.88	0.969

More MSMEs and individuals have been able to access loans due to CIS	1	2	6	16	7	3.83	0.956
The institutions overall profitability has improved due to information sharing	2	2	4	15	9	3.85	0.963
The institution always relies on previous record in approving the loan.	1	1	3	18	10	4.08	0.119

From the findings on the respondents level of agreement on statement relating to volume of lending and performance of commercial banks, the study found that respondents agreed that the overall volume of lending has increased due to information sharing as shown by the mean of 4.10, the institution always relies on previous record in approving the loan as shown by the mean of 4.08, the institution strictly observes conditions of lending as shown by mean of 3.90, Conditions of lending have been relaxed since the inception of credit information sharing mechanisms as shown by mean of 3.88, The institutions overall profitability has improved due to information sharing as shown by the mean of 3.85 and that More MSMEs and individuals have been able to access loans due to CIS as shown by the mean of 3.83.

Table 4.4: Whether a loan can be approved without being subjected to information sharing mechanism

	Frequency	Percent
Yes	24	76.2
No	8	23.8
Total	32	100.0

From the findings on Whether a loan can be approved without being subjected to information sharing mechanism, the study found that majority of the respondents as shown by 76.2% believed that Whether a loan can be approved without being subjected to information sharing mechanism whereas 23.8% of the respondents indicated that a loan cannot be approved without being subjected to information sharing mechanism, this is an indication that a loan can be approved without being subjected to information sharing mechanism for loyal customers, salaried civil servants, trusted customers and based on performance record. The Banking supervision report (2011) indicated that the loans and advances increased by 30.2 percent from sh. 914,910 on December 2010 to shs. 1,190,985 on December 2011. The

increase was attributed to increased demand for credit, increased lending rates, write-offs, recoveries and enhanced appraisal standards adopted by the banks.

As per the banking supervision reports , loans and advances classified in the normal risk category increased by 22.3 percent from Ksh. 449.4 billion in 2007 to Ksh. 549.5 billion in 2008 partly due to general improved credit standards applied by banks in underwriting advances. The loans and advances classified in the normal risk category increased by 18 percent from Ksh. 549.5 billion in December 2008 to Ksh. 646.1 billion in December 2009, occasioned by increased demand and the general improved credit appraisal standards employed by the banks. The loans and advances that are serviced in accordance with the contract and classified in normal risk category increased by 26.4 percent from Ksh. 646.1 billion in December 2009 to Ksh. 816.5 billion in December 2010. The increase was attributed to increased demand for credit and enhanced appraisal standards adopted by banks. However, loans and advances classified in the loss category increased by 27.6 percent from Ksh. 8.7 billion in December 2009 to Ksh. 11.1 billion in December 2010, as a result of losses from the normal course of business. Chart 7 below shows Risk Classification of loans and advances as at 31st December 2009 and 2010. Net Loans and Advances recorded a growth of 31.4 percent from Ksh. 876.4 billion to Ksh. 1,152.0 billion in December 2011. Significant portion of the sector's loans were advanced to personal, trade, manufacturing and the real estate sectors, which accounted for 72 percent of the gross loans in 2011. However, investment in Government securities declined from Ksh. 443.4 billion in 2010 to Ksh. 380.4 billion in 2011. This may be attributed to low interest rates on government securities during the first half of 2011 compared to lending interest rates. Gross loans which grew by 11.7 percent from Ksh. 1,191.0 billion in December 2011 to Ksh. 1,330.4 billion in December 2012. The growth in loans is attributed to increased demand for credit by the various economic sectors.

4.7 Operating costs

Table 4.5: Level of agreement on statements relating volume lending and performance of commercial banks

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree	Mean	Standard deviation
The institution is efficient in collecting its due debts	2	4	4	12	10	3.70	0.925
Information search costs have reduced due to CIS	1	2	5	14	10	3.93	0.981
Fewer staff are involved in debt collection and approval since the advent of CIS	2	2	3	18	5	3.50	0.875
The institution rarely takes defaulting clients to court since CIS was introduced in Kenya	1	2	6	16	7	3.83	0.956
The overall cost of loan approval and debt collection has reduced due to the use of information sharing	2	3	4	14	9	3.73	0.931

From the findings on the respondents level of agreement on statement relating to operating costs and performance of commercial banks, the study found that respondents agreed that Information search costs have reduced due to CIS as shown by the mean of 3.93, The institution rarely takes defaulting clients to court since CIS was introduced in Kenya as shown by mean of 3.83, The overall cost of loan approval and debt collection has reduced due to the use of information sharing as shown by mean of 3.73, the institutions are efficient in collecting due debts as shown by the mean of 3.70 and that fewer staff are involved in debt collection and approval since the advent of CIS as shown by the mean of 3.50. From the data in the Banking Supervision Report, (2011) the study found that the banking sector operational expenses increased by 21.4 percent in 2011. The increase in CBR impacted interest rates on deposits with banks registering an increase in interest rate expense by sh.15 billion in 2011. the average cost of deposits increased from 2.4 percent in 2010 to 2.9 in 2011. Salaries and wages increased by a small percent of 11.5 due to banks initiative and

innovations of cost effective wages means of offering their services without a corresponding increase in wage bill.

The banking supervision report shows that total expenses rose by 36.4 percent from Ksh. 79.5 billion in 2007 to Ksh. 108.5 billion in 2008. The increase in total expenses was due to a rise in interest expenses on deposits, loan losses, salaries and wages. Loan loss charge for the period increased from Ksh.5.6 billion in 2007 to Ksh. 10.3 billion in 2008. Similarly, Salaries and wages expenses increased from Ksh. 26.0 billion in 2007 to Ksh. 33.5 billion in 2008 as institutions continued to recruit staff to meet human resource needs arising from the expansion in their branch network and rollout of new products. Total expenses increased by 13.8 percent from Ksh. 108.5 billion in December 2008 to Ksh. 123.5 billion in December 2009. The increase in expenses was attributed to increase in interest expenses and salaries and wages. Interest expenses increased from Ksh. 30.2 billion in 2008 to Ksh. 35.1 billion in 2009. Salaries and wages increased from Ksh. 33.5 billion in 2008 to Ksh. 38.8 billion in 2009 as institutions focused on retaining high caliber staff to support expansion initiatives.

The banking sector's expenses increased by 11.3 percent from Ksh. 123.5 billion in the period ended December 2009 to Ksh. 137.5 billion in the year ended December 2010.

The increase in expenses was as a result of increase in salaries and wages by 21.1 percent from Ksh. 38.8 billion in 2009 to Ksh. 47.0 billion. The increase in staff costs was occasioned by recruitment of new, while retaining high calibre staff to meet the ever increasing needs of expansion and innovation by most institutions. On the other hand, interest expenses on deposits dropped from Ksh. 35.1 billion in 2009 to Ksh. 33.8 billion in 2010 due to lower deposit interest rates in 2010. Bad debts charge increased by 28 percent from Ksh. 8.6 billion in December 2009 to Ksh. 11.0 billion in December 2010 due to bad debts arising from the normal course of business. The other expenses which comprises among others training, advertising, printing and management fees increased by 11 percent from Ksh. 41.0 billion in December 2009 to Ksh 45.6 billion in December 2010.

The banking sector's expenses increased by 21.4 percent from Ksh. 137.5 billion in December 2010 to Ksh. 166.9 billion in December 2010. The increase in CBR impacted on interest rates on deposits with banks registering increase in interest expense by Ksh. 15.0

billion in 2011. As a result, interest expenses accounted for 50 percent of the total increase in the banking sector expenses in 2011. The average cost of deposits also increased from 2.4 percent in 2010 to 2.9 percent in 2011 as shown in Appendix III. Other expenses which comprise training, advertising, printing and management fees increased by 22.6 percent from Ksh. 45.6 billion in December 2010 to Ksh 55.9 billion in December 2011 due to increased capacity building costs. The salaries and wages, which have been major cost drivers increased by Ksh. 5.4 billion or 11.5 percent from Ksh. 47.0 billion in 2010 to settle at Ksh. 52.4 billion. The low increase in salaries and wages may be attributed to banks' initiatives and innovations of cost effective means of offering their services without a corresponding increase in wage bill.

The banking sector expenses grew by 48.8 percent from Ksh. 166.9 billion in December 2011 to Ksh. 248.4 billion in December 2012. The high CBR impacted on interest rates on deposits with banks registering an increase in interest expense by Ksh. 62.1 billion in 2012. Consequently, interest expenses accounted for over 76 percent of the total increase in the banking sector expenses in 2012. Interest expense as a ratio of income increased from 19 percent in 2011 to 31 percent in 2012. Similarly, the average cost of deposits increased from 2.9 percent in 2011 to 5.9 percent in 2012 as shown in Appendix III. Other expenses which included training, advertising, printing and management fees increased by 17.4 percent from Ksh. 55.9 billion in December 2011 to Ksh. 65.6 billion in December 2012 as a result of increase in capacity building costs. Salaries and wages increased by 13.5 percent from Ksh. 52.4 billion in December 2011 to Ksh. 59.5 billion in December 2012. However, salaries and wages as a ratio of income declined from 20.5 percent in 2011 to 16.7 percent in 2012 reflecting improved efficiency as banks embrace ICT to offer increased banking services without a corresponding increase in staffing costs.

4.8 Summary of the impact of information sharing on commercial banks

Table 4.6: Extent to which credit information sharing has affected various variables of commercial banks in Kenya

	No effect	Least effect	Neutral	Considerable effect	Most effect	Mean	Standard deviation
Non-performing loans	1	3	4	16	8	3.85	0.963
Level of interest rates	1	2	6	17	6	3.80	0.950
Volume of lending	1	2	5	14	10	4.00	0.895
Operating cost	0	1	9	15	7	3.90	0.975

From the finding on the extent to which credit information sharing has affected various variables of commercial banks in Kenya, the study found that majority of the respondents indicated that credit information sharing has a considerable effect on volume of lending as shown by the mean of 4.00, Operating cost as shown by the mean of 3.90, Non-performing loans as shown by the mean of 3.85 and Level of interest rates as shown by the mean of 3.80. On the comments on the future of CIS, the study found that CIS should be operationalized to include other financial institutions like SACCOS, legal framework should be improved, and that CRBs should be better organized to meet the requirements of banks. The Credit Reference Bureaus collect collate and disseminate credit information in order to establish credit worthiness hence enabling borrowers with no physical collateral to use their repayment history to access credit making the credit markets competitive and affordable. From the findings as at December 2011 there were there were over 1.3 million credit reports accessed by banks and over 6000 accessed by individuals (Banking Supervision Report, 2011). This shows that credit information sharing is high in the Kenyan banking sector.

4.9 Regression Analysis

Table 4.7: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.901 ^a	.811	.798	.88195

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 0.798 an indication that there was variation of 79.8% on the banking performance due to changes in non performing loan portfolio, level of interest rates, volume of lending and operating cost at 95% confidence level . 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 0.901.

Table 4.8: Anova

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	0.042	2	0.021	3.064	.018 ^b
	Residual	12.062	37	0.326		
	Total	12.104	39			

From the ANOVA statics in table above, the processed data, which is the population parameters, had a significance level of 1.8% which shows that the data is ideal for making a conclusion on the population's parameter as the value of significance (p-value) is less than 5%.

Table 4.9: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.510	.440		1.209	.000
	Non-performing loans portfolio	-.226	.129	-.026	-.205	.018
	Level of interest rates	.125	.112	.152	1.121	.026
	Volume of lending	.247	.125	.262	1.971	.043
	Operating cost	-.276	.185	-.183	-1.488	.042

The established regression equation was

$$Y = 0.510 - 0.226 X_1 + 0.125 X_2 + 0.247 X_3 - 0.276X_4$$

From the above regression equation it was revealed that holding non-performing loans portfolio, level of interest rates, and volume of lending and operating cost to a constant zero, banking performance would stand at 0.510. A unit increase in non-performing loans portfolio would lead to decrease in the banking performance by a factors of 0.226, unit increase in interest rate would lead to increase in banking performance by factors of 0.125, unit increase in volume of lending would lead to increase in banking performance by a factor of 0.247 and unit increase in operating cost would lead to decrease in banking performance by a factors of 0.276. This shows that there was positive association between banking performance and employee level of interest rates and volume of lending, but a negative association between banking performance and non-performing loans portfolio and operating cost. The study found that all the sign value for all the variables, non-performing loans portfolio, level of interest rates, volume of lending and operating cost were found to significantly influence the cost sharing effect. All the p-value for all the independent variable was found to be less than 0.05 indicating that they were statistically significant.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter provides the summary of the findings from chapter four, and it also gives the conclusions and recommendations of the study based on the objectives of the study. The objectives of this study were to determine the effect of credit information sharing on banking performance, determine how credit information sharing affects non-performing loans portfolio and bank performance, establish how credit information sharing influences volume of lending and performance of commercial banks in Kenya, establish how credit information sharing influences interest rates and bank performance and to establish the effect of credit information sharing on operating cost and performance of commercial banks in Kenya.

5.2 Summary of the Findings

5.2.1 Non-performing loans

The study found that respondents agreed that there are systematic written down steps in the handling of defaulting customers, the institution utilizes information from reference bureaus in appraising the customer credit, The institution informs customers that the bank is seeking reference information regarding their past loan servicing, The company's lending policy is periodically reviewed to reflect the prevailing conditions, the level of non-performing loans in my bank is very high, The company observes the limit set for total loan given out at any time, The rate of defaulting by customers been minimized with the use of information sharing, Information sharing adds value with regard to quality of customers being granted credit, There are few or no loan defaulters due to the institution's efficient lending policy and that NPLs portfolio has reduced due to the use of information sharing. Kusa and Okoth, (2013) noted that when loans become non-performing, banks liquidity and its earnings are adversely affected. The findings concur with those of Jappelli and Pagano, (2006) who found that the overall default decreases marginally with credit bureau introduction

5.2.2 Level of interest rates

From the findings on the respondents level of agreement on statement relating to level of interest rates and performance of commercial banks, the study found that respondents agreed that the commercial banks take rate charged by competitors into account in the pricing loans, The institution takes reputation of borrower into account in pricing loans, the interest rate charged on various types of loans cover the cost and meet good profit margin, the institutions interest rate has declined due to information sharing, The institution takes CBK lending rate into account in pricing loans, Interest rate charged on a loan applicant depends on reputational capital of the borrower, The institution takes Collateral/security provided by borrower into account in pricing loans and that credit information sharing has reduced interest rates charged on consumer loans. From the findings on other factors considered important in pricing of loans, the study found that other factors in pricing of loans include collateral, type of loan, borrowing rate, reputation of the borrower, government policy, profit margin, and CBK lending rate. This is an indication that there are other factors in the pricing of loans. When information is shared by an information exchange institution, such as credit bureaus the higher competition drives down interest rates (Brown, Jappelli, & Pagano, 2006). Powell, (2004) found that information sharing among borrowers would lead to lower interest rates.

5.2.3 Volume of lending

From the findings on the respondents level of agreement on statement relating to volume of lending and performance of commercial banks, the study found that respondents agreed that more MSMEs and individuals have been able to access loans due to CIS, The institutions overall profitability has improved due to information sharing, Conditions of lending have been relaxed since the inception of credit information sharing mechanisms, the institution strictly observes conditions of lending, the institution always relies on previous record in approving the loan, and that the overall volume of lending has increased due to information sharing. From the findings on whether a loan can be approved without being subjected to information sharing mechanism, the study found that majority of the respondents as shown by 76.2% believed that a loan can be approved without being subjected to information sharing mechanism whereas 23.8% of the respondents indicated that a loan cannot be

approved without being subjected to information sharing mechanism, this is an indication that a loan can be approved without being subjected to information sharing mechanism for loyal customers, salaried civil servants, trusted customers and based on performance record. Houston et al., (2010) found that credit information sharing is associated with higher lending, measured by private credit to GNP ratio, and lower defaults. Jappelli and Pagano (2006) show that strong credit-sharing institutions are positively related to the size of the credit market

5.2.4 Operating costs

From the findings on the respondents level of agreement on statement relating to operating costs and performance of commercial banks, the study found that respondents agreed that fewer staff are involved in debt collection and approval since the advent of CIS, the institutions are efficient in collecting due debts, The overall cost of loan approval and debt collection has reduced due to the use of information sharing, The institution rarely takes defaulting clients to court since CIS was introduced in Kenya, and that Information search costs have reduced due to CIS. Jappelli and Pagano, (2006) found that CIS among commercial banks will reduce operating costs. CIS will also assist commercial banks to reduce the staff cost by reducing the number of staff involved in loan approval and collection (Waweru & Kalani, 2009).

5.2.5 Summary of the impact of information sharing

From the finding on the extent to which credit information sharing has affected various variables of commercial banks in Kenya, the study found that majority of the respondents indicated that credit information sharing has a considerable effect on volume of lending, operating cost, Non-performing loans and Level of interest rates. On the comments on the future of CIS, the study found that CIS should be operationalized to include other financial institutions like SACCOS, legal framework should be improved, and that CRBs should be better organized to meet the requirements of banks.

5.3 Conclusions

Thus study thus concludes that profitability of commercial Banks is affected by non-performing loans portfolio, volume of lending, level of interest rate and operating costs as indicated by the regression equation $Y=0.843+ 0.642X_1-0.232X_2 +0.167X_3+ 0.143X_4$ showing that taking all the factors into account (Non-performing loans portfolio, volume of lending, level of interest rates and operating cost) at constant zero then profitability is 0.510. However taking all the independent variables at zero, then a unit increase in non-performing loans will lead to 0.226 decrease in profitability, the same way a unit increase in interest rates will lead to 0.125 increase in profitability, again a unit increase volume of lending will increase profitability by 0.247 and finally a unit increase in operating cost will lead to 0.276 decrease in profitability. This depicts that volume of lending continues to have the leading effect on commercial banks profitability followed by interest rates then non-performing loans and operating costs which shows a negative relationship between credit information sharing and the profitability of commercial banks. The negative relationship between operating cost and profitability is an indication that the resources used by the credit department calls for an extra expense in the firm which negatively affects profitability according to value destroying theories by (Ghauri & Buckley, 2003).

At 5% level of significance and 95% level of confidence, then non-performing loans, interest rates, volume of lending and operating costs are significant in explaining the relationship between credit information sharing and the profitability of commercial banks in Kenya since their levels of significance are below 0.05 which is the significance level.

As regards profitability which was measured using ROE and ROA, the relationship between credit information sharing and performance of commercial banks is evident from Appendix IV. If the return on the company's assets (net income divided by total assets) goes down, the company will have a worse ROE. Taking on more debt does not necessarily decrease ROE, as leverage can work in a company's favor and improve ROE if used wisely. ROE is more than a measure of profit; it's a measure of efficiency. A rising ROE suggests that a company is increasing its ability to generate profit without needing as much capital. It also indicates how well a company's management is deploying the shareholders' capital. In other words, the

higher the ROE the better falling ROE is usually a problem according to Willie and Hopkins (1997).

Return on Assets (ROA) is an indicator of how profitable company's assets are in generating profit. Return on Assets shows how many dollars of earnings result from each dollar of assets the company controls. Return on Assets ratio gives an idea of how efficient management is at using its assets to generate profit. The only common rule is that the higher return on assets is, the better, because the company is earning more money on its assets. A low return on assets compared with the industry average indicates inefficient use of company's assets. Return on equity is an important measure of the profitability of a company. Higher values are generally favorable meaning that the company is efficient in generating income on new investment. Investors should compare the ROE of different companies and also check the trend in ROE over time.

In conclusion, industries have high return on equity because they require less capital investment. Other industries require large infrastructure build before generating any revenue. It is not a fair conclusion that the industries with a higher Return on Equity ratio are better investment than the lower ones. Generally, the industries which are capital-intensive and with a low return on equity have a limited competition. But, the industries with high return on equity and small assets bases have a much higher competition because it is a lot easier to start a business within those industries. The study also concludes that that credit information sharing has a considerable effect on volume of lending, operating cost, Non-performing loans and Level of interest rates. The study further concludes that CIS should be operationalized to include other financial institutions like SACCOS, legal framework should be improved, and that CRBs should be better organized to meet the requirements of banks.

5.4 Recommendations

The study recommends that commercial banks that have should always use credit information sharing to screen loan applicants in order to reduce non-performing loans as this will improve their profitability. The study also recommends that commercial should periodically review which will minimize non-performing loans.

Further, it is important to note that if the value of the shareholders' equity goes down, ROE goes up. Thus, write-downs and share buybacks can artificially boost ROE. Likewise, a high level of debt can artificially boost ROE; after all, the more debt a company has, the less shareholders' equity it has (as a percentage of total assets), and the higher its ROE is and thus the study recommends that for companies to remain profitable they must maintain lesser values of shareholders equity.

The study 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. 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 further recommends that commercial banks should install 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 further recommends that Central bank should improve credit information sharing legal framework to encompass other financial institutions like SACCOS, NBFs and hire purchase firms this will streamline the credit markets.

5.5 Limitations of the Study

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 only impact of sharing negative credit information has been discussed in the study.

5.6 Suggestion for Future Research

The researcher recommends the following areas for future research. This study focused on the effect of credit information sharing on bank performance. However, the study period of five 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 7 years. This study used aggregate industry figures, the researcher therefore recommends that future researchers use firm (bank) specific figures to investigate the effect of credit information sharing on bank performance and assess whether the results will be different from the finding of this study. This study was limited to use of only four variables namely lending interest rate, volume loans, operating costs and non-performing loans as factors that influences performance of commercial banks. 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 performance of commercial banks.

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APPENDICES

Appendix 1: Cover letter

Peter M Kerage,
Kenyatta University,
P.O Box 23894- 00100.
Nairobi.

Dear respondent,

I am currently carrying out research on the impact of credit information sharing on the efficiency of credit markets in Kenya. This is in partial fulfillment of the requirements of the degree of Masters of Business Administration (MBA) in Finance in Kenyatta University.

The results of the study will be used to enhance our financial markets and how they give credit to their customers, which will ensure a more efficient banking sector.

I would be grateful if you could spare some time to provide the information on the attached questionnaire. Your response will be treated in strict confidence and at no time will be mentioned in the report.

Am counting on your cooperation and thank you in advance.

Yours truly,

Peter M Kerage

Appendix II: Questionnaire

This survey instrument is developed to capture data on effects of credit information sharing on the performance of commercial banks in Kenya. The data obtained from this exercise will be used solely academic purposes only, for fulfillment of the requirements of the degree of Masters in Business Administration Kenyatta University. Your institution has been identified as a key respondent in credit information sharing in Kenya. In this regard, you are kindly requested to participate in this survey by providing answers to enable the researcher fulfill the research objective.

SECTION A: GENERAL INFORMATION

1. Name of Bank you work for-----

2. Gender

Male Female

3. How many years have you served the credit department?

0 – 5 years 6 – 10 years 11 – 15 years

16 – 20 years Over 20 years

SECTION B

Non-performing loans

(a) To what extent do you agree that credit information sharing has improved the Please tick the most appropriate option using the scale provided

1- Strongly disagree 2- Disagree, 3- Neutral 4 – Agree 5 – Strongly agree

		1	2	3	4	5
1.	The Board Credit Committee is often involved in selecting loan applicants					
2.	The company observes the limit set for total loan					

	given out at any time.					
3.	There is efficiency in the company's policy on loan Portfolio					
4.	There are few or no loan defaulters due to the institution's efficient lending policy					
5.	The company's lending policy is periodically reviewed to reflect the prevailing conditions					
6.	There are systematic written down steps in the handling of defaulting customers.					
8.	The institution utilizes information from reference bureaus in appraising the customer credit					
9.	Information sharing adds value with regard to quality of customers being granted credit.					
10.	The rate of defaulting by customers been minimized with the use of information sharing.					
11.	The institution informs customers that the bank is seeking reference information regarding their past loan servicing.					
12.	NPLs portfolio has reduced due to the use of information sharing					

SECTION C

Level of interest rates

(a) Please tick the most appropriate option using the scale provided

1- Strongly disagree 2- Disagree, 3- Neutral 4 – Agree 5 – Strongly agree

		1	2	3	4	5
1.	The interest rate charged on various types of loans cover the cost and meet good profit margin					

2.	The institution takes the following factors into account in pricing loans:					
	i) CBK lending rate					
	ii) Rate charged by competitors					
	iii) Collateral/security provided by borrower					
	iv) Reputation of borrower					
3.	The rate of interest rates charged are solely pegged on the reputation of a customer					
4.	The institution's interest rate has declined due to information sharing					
5.	Interest rate charged on a loan applicant depends on reputation of the borrower					
6.	Reputation of a person is accepted as sufficient collateral to grant a loan					

(b) Which other factors do you consider important in pricing your loans?-----

SECTION D

Volume of lending

(a) Please tick the most appropriate option using the scale provided

1- Strongly disagree 2- Disagree, 3- Neutral 4 – Agree 5 – Strongly agree

		1	2	3	4	5
1.	The institution strictly observes conditions of lending?					
2.	The overall volume of lending has increased due to information sharing?					
3.	Conditions of lending have been relaxed since					

	the inception of credit information sharing mechanisms					
4.	More MSMEs and individuals have been able to access loans due to CIS					
6.	The institutions overall profitability has improved due to information sharing					
7.	The institution always relies on previous record in approving the loan.					

(b) Can a loan be approved without being subjected to information sharing mechanism?

Yes () No ()

Please Explain-----

SECTION E

Operating costs

(a) Please tick the most appropriate option using the scale provided

1- Strongly disagree 2- Disagree, 3- Neutral 4 – Agree 5 – Strongly agree

		1	2	3	4	5
1.	The institution is efficient in collecting its due debts					
2.	Information search costs have reduced due to CIS					
3.	Fewer staff are involved in debt collection and approval since the advent of CIS					
4.	The institution rarely takes defaulting clients to court since CIS was introduced in Kenya					
5.	The overall cost of loan approval and debt collection has reduced due to the use of information sharing					

SECTION F

Summary of the impact of information sharing on commercial banks

(a) Kindly tick the most appropriate box using the scale provided the extent to which credit information sharing has affected various variables of your institution.

1- No effect 2- Least effect 3- Neutral 4 – considerable effect 5 – most effect

		1	2	3	4	5
1.	Non-performing loans					
2.	Level of interest rates					
3.	Volume of lending					
4.	Operating cost					

(b) Which other factors to you consider important in influencing credit allocation?

(c) What is your comment on the future of CIS?

THANK YOU VERY MUCH

Appendix III : Licensed Commercial Banks

1. ABC Bank (Kenya)
2. Bank of Africa
3. Bank of Baroda
4. Bank of India
5. Barclays Bank
6. Brighton Kalekye Bank
7. CFC Stanbic Bank
8. Chase Bank (Kenya)
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^[2]
43. Victoria Commercial Bank

Source: Central Bank of Kenya, (2013)

Appendix IV: Profitability ratios before and after credit information sharing

Return on Assets (ROA)

	Years before credit information sharing		Years after credit information sharing		
YEAR	2008	2009	2010	2011	2012
ROA	2.57%	2.55%	3.47%	3.18%	3.25%

Return on Equity (ROE)

	Years before credit information sharing		Years after credit information sharing		
YEAR	2008	2009	2010	2011	2012
ROE	18.45%	17.64%	21.87%	22.09%	20.83%

Source: research data