CREDIT REFERENCE BUREAU SERVICES AND LOAN PERFORMANCE IN MICROFINANCE DEPOSIT TAKING INSTITUTIONS IN UGANDA.

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DEDICATION

I dedicate this piece of work to my family who enabled me to have education.

ACKNOWLEDGEMENT

I thank the almighty God who enabled me compile this piece of work, it was not easy, but by his Grace, I have been able to complete it.

I cannot forget to thank my Supervisor, Mr. Kibrai Moses who guided me step by step, till I got what he considered the best, thank you.

To all those that helped me in one way or the other during this hectic course, I thank you, especially the discussion group I belonged to, and all the course mates at large.

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List of abbreviations

ASR: Annual Supervision Report

BOU: Bank of Uganda

CRB: Credit Reference Bureau

CRBS: Credit Reference Bureau Services

FCS: Financial Card System

FIA: Financial Institutions Act

KYC: Know Your Customer principles

MDIs: Microfinance Deposit Taking Institutions

NPAs: Non-performing assets

NPLs: Non-performing loans

PIs: CRB Participating Institutions

SPSS: Statistical Package for Social Scientists

ABSTRACT

The study assessed Credit reference bureau services and loan performance in the MDIs in Uganda. The specific objectives were; to establish the trend of loan performance, before and after the introduction of CRB, to assess the operational performance of the CRB and investigate the relationship between CRB and loan performance. The study used a survey research design, using both quantitative and qualitative approaches. The study covered a period 2006 to 2014 and sample size of 100 respondents was used. Data was collected using the questionnaire, interview guide and documentary review. The research discovered that sharing of credit information with CRB has helped to improve the clients' repayment record. The trend of default rate had improved since the introduction of the CRB (2008-2014), compared to 2006-2007 when the CRB had not yet been introduced. It was also found out that there is a positive relationship between CRB and loan performance. Most clients responded that they were aware that if they repaid their loans on time, the good credit history will be shared with other financial institutions and hence enable them have easy access to the facilities, similarly the poor repayment record is shared with other financial institutions. The successful CRB implementation is hampered by a couple of challenges including, delays in data submission, submission of inaccurate data, system failure, complexity of credit reports, thus making it difficult to interpret by the borrowers and foreign currency risk experienced by MDIs. The study recommends that the Central bank should enhance its efforts in continuing to create awareness of the CRB. A new regulatory regime should be put in place to ensure that even institutions not supervised and licensed by the Central bank can submit credit data on the CRB. Additionally, institutions that submit data on the bureau should ensure that the data is accurate and timely.

CHAPTER ONE
GENERAL INTRODUCTION

1.0 Introduction

This chapter presents the basis of the research and shows the relationship between Credit Reference Bureau and loan performance in the Microfinance Deposit Institutions in Uganda. The study considers CRB as an independent variable, being influenced by borrowing history and information sharing factors. On the hand, the dependent variable is loan performance that is influenced by; Portfolio at risk (PAR) risk, provisioning for nonperforming loans, profitability, interest rates and credit criteria.

The study used adverse selection theory, moral hazard and credit rationing theories among others to show how information asymmetry leads to poor credit history, which in turn leads to high default rates, hence the need for a Credit Reference Bureau.

The study focused mainly on establishing the relevance of credit information sharing on loan performance.

1.1 Background of the Study.

Lending is one of the main activities of Microfinance Deposit taking Institutions and any other financial institutions in Uganda. This is evident by the size of loans that form MDIs assets and the annual substantial increase in the amount of credit granted to borrowers in the country. Loan portfolio is naturally the largest asset and the largest source of income for the MDIs. In view of the significant contribution of loans to the financial health of MDIs through interest income generated, these assets are considered the most important assets of the MDIs.

Table 1.1: Portfolio of MDIs compared to total assets

Year	Total Assets(Shs.000's)	Total Loans (shs.000's)	Percentage %
2008	123,618,086	83,401,894	67.47
2009	135,817,979	97,303,503	71.64
2010	168,894,802	120,317,886	71.24
2011	231,203,992	171,385,809	74.13
2012	276,556,302	190,345,515	68.83
2013	264,018,563	175,835,808	66.60
2014	322,980,293	206,029,445	63.79

Source: (BOU, 2014)

As a result of financial institutions business, they expose themselves to the risks of default from borrowers. Quality credit risk assessment and risk management and creation of adequate provisions for bad and doubtful debts can reduce the banks credit risk. When the level of nonperforming assets is high, the assets provisions made are not adequate protection against default risk.

Over indebtedness topped the major challenges facing Microfinance Institutions. This was according to international sample of practitioners, investors, regulators and observers and was based on 306 responses from 70 countries (Banana skins, 2014).

The financial institutions in Uganda had been lending funds to serial defaulters, this was as a result of the institutions having different credit information regarding the borrowers and these borrowers have exploited the information asymmetry to borrow several loans from the institutions and defaulting in the long run thus increasing the level of nonperforming assets (NPAs) among the Tier 3 Institutions in Uganda.

The lack of transparency about the credit worthiness of borrowers has been a major reason for the overly cautious lending policies of Uganda's Participating Institutions (commercial banks,

credit Institutions, and Microfinance Deposit taking Institutions) and for their slow pace in expanding lending operations to the low income clients.

Mark, 2002 indicates that financial institutions are facing an enormous risk of non-performing loans, noting that larger loans have greater risk exposure, so the variable cost per dollar is higher. If lenders don't take extra care, there could be more loan defaults.

To overcome this challenge, an institution is required to monitor the behavior of borrowers. Thus, the idea of establishing credit Reference Bureau was conceived in order to enable financial institutions to determine credit worthiness of their borrowers and therefore reduce the loan default risk.

In 2002, Bank of Uganda drawing from Asian and other African countries' experiences started on a process of setting up a Credit Reference Bureau (CRB) with ultimate goal of making lending and borrowing easier, faster and cheaper to both the lender and borrower. It was further envisaged that CRB implementation would eventually lead to a reduction in credit default rates amongst borrowers.

A major threat to banking business is nonperforming assets (NPAs). NPA are bad loans, which the borrowers have failed to satisfy their repayment obligations. (Michael, et al., 2006) emphasized that NPA in loan portfolio affect operational efficiency which in turn affects the profits of the bank, liquidity position and solvency position of banks. (Batra, 2003) noted that

NPA also affect the psychology of bankers in respect of their disposition of funds towards credit delivery and credit allocation.

The high level of non-performing loans in the banking industry has been a hindrance to economic stability (BOU, 2012 & 2013).

Table 1.2: Loan performance in MDIs

Year	Total Loans (billions)	NPLs(billions)	Portfolio at Risk (%)
2006	79.5	2.4	3.0
2007	107.7	3.1	2.8
2008	83.4	2.3	2.8
2009	83.4	2.3	2.4
2010	120.3	2.4	2.0
2011	171.4	3.2	1.9
2012	190.3	5.3	2.7
2013	175.8	3.4	1.9
2014	206.0	4.2	2.0

Source: (BOU, 2014)

When loans become non-performing, banks liquidity and its earnings are adversely affected.

Kenya has experienced banking problems since 1986 culminating in major bank failures (37 failed banks as at 1998) following the crises of; 1986 - 1989, 1993/1994 and 1998, the crises were mainly attributed to NPLs. (Waweru & Kalani, 2008)

In the late 1990s Bank of Uganda closed 4 banks. One of the causes identified was the flaws in Credit risk management systems in many Financial Institutions that gave rise to non-performing loans (BOU,2011). The Government of Uganda instituted a Commission of Enquiry to ascertain the causes of these bank failures.

As a result of the Commission of Enquiry, the Parliament of Uganda rescinded the Financial Institutions Statute 1993 and replaced it with the Financial Institutions Act, 2004 (FIA 2004)

with provisions aimed at, among others, the establishment of a credit reference bureau (CRB) to address some of the identified deficiencies in the proper functioning of the financial sector. (BOU, 2011).

It was therefore against this background that the Credit Reference Bureau was launched by BOU in 2008.

It was anticipated that with the CRB;

Borrowing would become easier as borrowers with a good loan record may not always be required to provide big securities.

Accessing loans would be quicker due to timely access of loan records.

Reduced default rates as borrowers seek to protect their reputation by meeting their obligations in a timely manner.

There would be strong motivation for clients to repay their loans because Credit reports that include both positive and negative information help build reputation in much the same way as a pledge of physical collateral, which may improve credit access for the poorest borrowers.

The CRB would contribute significantly to reduction in the costs of screening loan applications by enabling the lender to sort out prospective borrowers who have defaulted with other lenders. A CRB therefore, would improve lenders' ability to predict default.

It was also anticipated that the CRB would go a long way in stimulating economic development by making lending and borrowing easier and faster and borrowers would access loans at better interest rates. This would eventually lead to an overall reduction in the level of bad loans in the financial sector which would in turn help to reduce interest rates.

1.2 Statement of the problem

During the late 1980s, access to financial services was limited for the low income people because they were considered too risky. Information on credit risk was hard to come by and most financial institutions were not in position to evaluate the degree of credit risk that is not presented in a manner that they understand.

In the late 1990s, four banks were closed and put under liquidation. The main cause of failure was insolvency mainly due to, high levels of nonperforming loans due to willful default on the part of borrowers and lack of disciplined loan repayment culture amongst borrowers.

The banking industry was faced with challenges of information asymmetry between lenders and borrowers. As a result, there was multiple borrowing and over indebtedness by clients, leading to bad loans, high cost of lending and borrowing.

(Kane, et al., 2001) stated that at the peak of the financial crisis in Benin, 80% of total bank loans portfolio which was about 17% of GDP was nonperforming in the late twentieth century.

In order to address the weaknesses in credit risk management, BOU deemed it necessary to put in place supportive infrastructure to enhance transparency, information sharing and risk mitigation in order to enhance competition in the sector and increase access to financial services.

It was anticipated that the CRB would contribute significantly to a reduction in the costs of screening loan applications by enabling the lender to sort out prospective borrowers who default on their loan obligations with other lenders (BOU, 2006), thus reducing default rates and making borrowing less expensive for the customers as interest rates fall.

It was also envisaged that borrowing would become faster due to readily available information on borrowers, requirements for stringent collaterals relaxed and more and more clients would be eligible for financial services. In the long run, a bigger credit market and lower default rates would lead to lower interest rates, improved profitability and increased competitiveness.

It was also widely anticipated that the CRB would go a long way in stimulating economic development by making lending and borrowing easier and faster and borrowers would access loans at better interest.

Despite the introduction of the CRBS, Financial Institutions have continued to be faced with a problem of Nonperforming loans (BOU, 2014). This study therefore attempted to establish the relationship between CRBS and loan performance among MDIs in Uganda.

1.3 Objectives of the study

1.3.1 Major Objective

The major objective of the research was to establish the relationship between Credit Reference Bureau Services and loan performance in Microfinance Deposit taking Institutions in Uganda.

1.3.2 Specific Objectives.

1. To establish the trend of loan performance, before and after the introduction of CRB.
2. To assess the operational performance of the CRB
3. To investigate the relationship between CRB and loan performance

1.4 Research questions.

1. What was/is the trend of non-performing loans before and after the introduction of the CRB?
2. What is the operational performance of the CRB?
3. What is the relationship between CRB and loan performance?

1.5 Scope of the study

1.5.1 Geographical scope

The study was conducted in Kampala City Council Authority which is comprised of 4 divisions; Central, Nakawa, Rubaga and Kawempe.

1.5.2 Content scope

The study was carried out to establish the relationship between CRBS and loan performance in MDIs in Uganda. CRBS was the independent variable and loan performance was the dependent variable. The intervening variable was Bank of Uganda.

1.5.3 Time scope

The research covered the period between 2006 and 2014. This was mainly because most MDIs were licensed in 2005 and started submitting returns to Bank of Uganda in 2006. The study therefore compared the period before implementation of the CRB (2006-2007) and the period after its implementation (2008-2014). Data falling in this period was therefore enough to fully study the relationship between CRBS and loan performance in MDIs in Uganda.

1.6 Significance of the study

The findings of this study will be of benefit to the management of MDIs to develop credit risk management policies that will enable them achieve their long-term goals by enabling them to identify customers with ability to pay on time and thus can be granted credit.

The findings of this study shall be useful to MDIs and Bank of Uganda as it will help them in formulating effective policies related to credit as well as CRB.

The study shall contribute to literature and form part of empirical review and may inspire prospective researchers to explore more dimensions in the effect of credit reference bureaus on credit and would therefore form the basis for future research.

The study also will inform and enlighten the public on the roles and impact of credit reference bureaus and credit information sharing since there is much misconception of the same.

1.7 Justification of the study

The CRB is a new service in Uganda with some implementation challenges; this study therefore highlighted the different dimensions of the operation of CRB in relation to loan performance.

1.8 Definition of key terms

Nonperforming assets (NPAs): The MDI Act 2003 defines Nonperforming assets as loans that are 30 days and above in arrears.

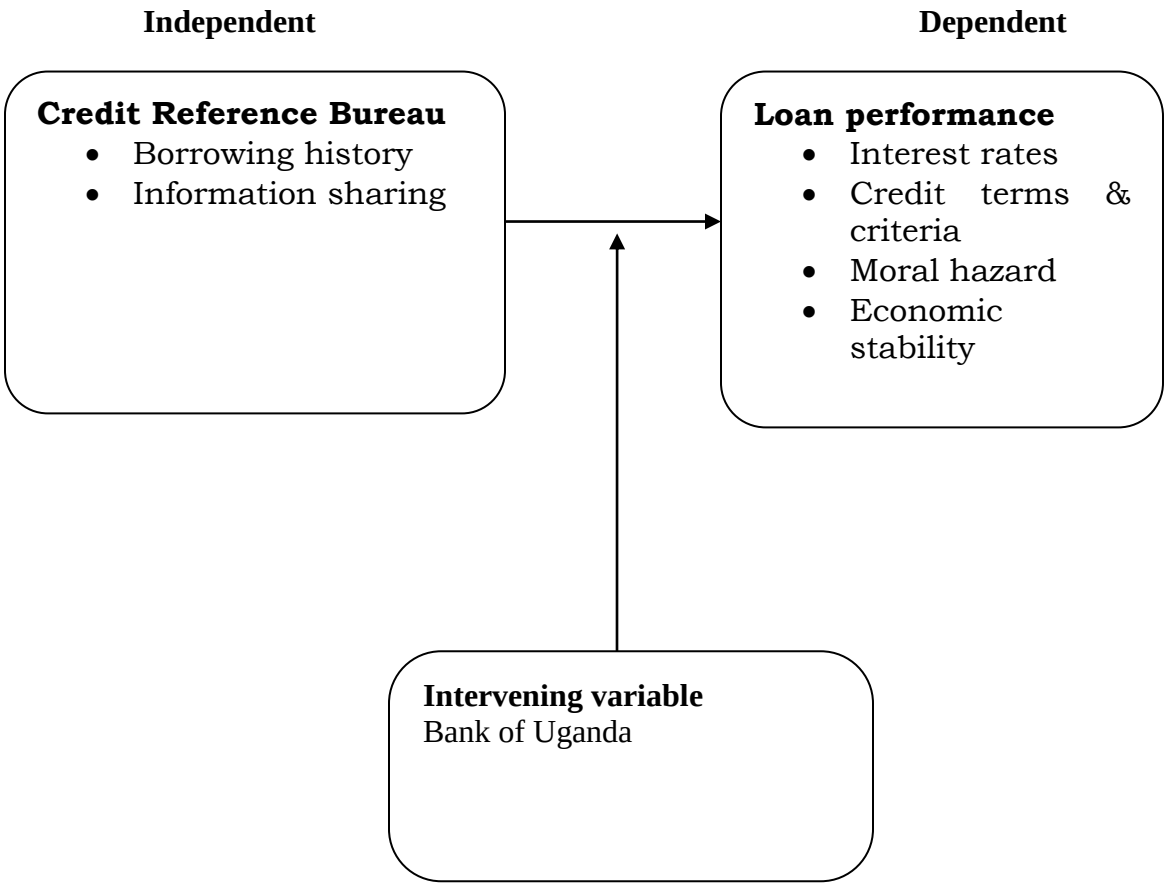
Portfolio at risk (PAR): This is the value of nonperforming loans/assets divided by total portfolio.

Credit Reference Bureau (CRB): The Financial Institutions act, 2004 defines a CRB as a legal entity established as a company that allows financial institutions to exchange information on their clients' repayment history and debt profiles and which compiles a database that collects, stores, consolidates and processes information related to persons, companies and enterprises

1.9 Conceptual framework

The conceptual framework below explains the relationship between CRB and the performance of MFIs. All determinants of MDI performance depend on the operartiom of the CRB. (Pagano & Jappelli, 1993, 1997, 2000), (Bennardo et al., 2010)

Bank of Uganda intervenes by licensing and regulating the financial institutions and the Credit reference bureaus. In addition, Bank of Uganda also determines the performance of the economy through monetary policy, by setting the CBR rate, intervening in the forex market. This generally influences the performance of loans.



Source: Adopted from Ntayi et al., (2009) and modified by the researcher

1.9.1 Borrowing history

The CRB ensures; timely information and accurate information on borrowers' debt profile and repayment history since experience has revealed that when financial institutions compete with each other for customers, multiple borrowing and over- indebtedness increases loan default unless the financial institutions have access to databases that capture clients' borrowing behavior; an improved pool of borrowers across the globe; reduced default rates as borrowers seek to protect their reputation collateral by meeting their obligations in a timely manner.

The CRB has enhanced a strong motivation for clients to repay their loans since credit reports include both positive and negative information that help in building reputation collateral in the same way as a pledge physical collateral which may improve credit access for the poorest borrowers.

A lack of accurate information sharing on the credit history and current financial ability of prospective borrowers makes it extremely difficult for lenders to correctly assess their credit worthiness and likelihood to repay their loans.

Credit reference bureaus enable information sharing about a borrower's characteristics and their indebtedness. This improves a financial institution's knowledge of applicant characteristics and permits a more accurate prediction of their repayment probabilities as well as abilities. The credit reference bureaus play a complementary role to the financial institutions in that CRB's enable the financial institutions to lend more to better risk clients.

1.9.2 Information Sharing

Credit information sharing undoubtedly plays a pivotal role in reducing the information asymmetry that exists between banks and borrowers (Gaitho, 2013). The major benefit that the banks receive from CRB is that they are able to get credit information on prospective borrowers that will facilitate assessment of credit requests to mitigate risks of bad debts.

The absence of a CRB in Uganda had been a major bottleneck to the expansion of the volume of private sector credit. Indeed, Ugandan firms - large, small and medium enterprises consistently cite limited access to credit as one of the greatest barriers to their operations. Up to now, the infrastructure for information sharing and unique borrower identification has been non-existent. According to (Mutebile, 2008), the Participating Institutions (PIs) (Commercial Banks, Credit Institutions and Microfinance Deposit-taking Institutions) had no way of checking and sharing information on the credit history of borrowers. Therefore, PIs have continuously been exposed to high credit risk on account of inadequate information on borrowers' creditworthiness. This has inevitably resulted in increased cost of borrowing, thereby making credit more expensive than it would otherwise have been.

By addressing the problem of information asymmetries, the CRB supports an increasing level of trust between lenders and borrowers – resulting in an increased volume of credit in the economy. This trust also will increase transparency and competition between lenders.

1.9.2 Interest rate

Interest rate is the price a borrower pays for the use of money they borrow from a lender/financial institutions or fee paid on borrowed assets, (Crowley, 2007). Interest can be thought of as "rent of money". Interest rates are fundamental to a 'capitalist society' and are normally expressed as a percentage rate over one year.

Interest rate as a price of money indicates market information concerning probable change in the purchasing power of money or future inflation (Collins, 2011). Financial institutions facilitate mobilization of savings, diversification and pooling of risks and allocation of resources. However, since the receipts for deposits and loans are not harmonized, intermediaries like banks incur certain costs (Collins, 2011). They charge a price for the intermediation services offered under uncertainty and set the interest rate levels for deposits and loans. The disparity between the gross costs of borrowing and the net return on lending defines the intermediary costs which include information costs, transaction costs, administration, default costs and operational costs. Interest rate spread is well-defined by market microstructure characteristics of the banking sector and the policy environment (Collins, 2011).

Independent studies have listed the several reasons for high interest rate spread. These are lack of sufficient competition, diseconomies of scale due to small size of markets, high operating and fixed costs, high transportation cost of funds due to expensive telecommunications, existence of regulatory controls and perceived market risks. They further state that the factors mentioned above lead to high intermediation costs, which cause high spread. These studies have recognized one of the most understandable costs, which is associated with the capacity to enforce debt contracts. Small borrowers with no fixed assets rights have no guarantee to offer. As such, they are perceived as borrowers with high risk. Because of high transaction costs involved such borrowers are charged punitive rates of interest. When there is high intermediation cost, reflected in the high interest rate spread; the borrower may be unable to repay his/her loan owing to the cost of such borrowings. This leads to a high risk of loan default hence non-performance

Borrowers can however, use their positive credit history as “collateral” to access loans at better rates and seek more competitive terms from different lending institutions. Additionally, Financial

Institutions are able to offer new products and offer competitive interest rates due to availability of information on customers' credit risk profiles.

1.9.2 Credit terms and criteria

A Credit terms is a contractual stipulation under which a firm grants credit to customers (Wamasembe, 2002); furthermore these terms give the credit period and the credit limit. The firm should make terms more attractive to act as an incentive to clients without incurring unnecessary high levels of bad debts. Credit terms normally stipulate the credit period, interest rate, method of calculating interest and frequency of loan installments.

Kakuru (1998) explains the significance of discounts in credit terms. Discounts are offered to induce clients to pay up within the stipulated period or before the end of the credit period .This discount is normally expressed as a percentage of the loan .discounts are meant to accelerate timely collection to cut back on the amount of doubtful debts and associated costs.

Credit standards; according to Mehta (1972), in advancing loans, credit standard must be emphasized such that the credit supplier gains an acceptable level of confidence to attain the maximum amount of credit at the lowest as possible cost. Credit standards can be tight or loose (Van Horne, 1994).Tight credit standards make a firm lose a big number of customers and when credit are loose the firm gets an increased number of clients but at a risk of loss through bad debts. A loose credit policy may not necessarily mean an increase in profitability because the increased number of customers may lead to increased costs in terms of loan administration and bad debts recovery.

In agreement with other scholars Van Horne, (1994), advocated for an optimum credit policy, which would help to cut through weaknesses of both tight and loose credit standards so, the firm can make profits.

According to Pandey (1998), credit period is the length of time for which credit is extended, generally stated in terms of net date .Length of the periods usually determined by industry customs, repayment habits of clients, and the level of repetitive borrowing. Shorter periods are preferred because if clients are defaulting frequently bad debts losses can be checked before it is too late to take corrective action. The debt collection costs also reduce with shorter credit periods.

Collection procedures; collection policy establishes a set of procedures used to collect accounts receivables which was getting overdue (Van Horne,1989).Methods used could include letters, telephone calls ,visits by the firms officials for face to face reminders to pay and legal enforcements.

Dickerson et al., (1995) asserts that collection policy is a guide that ensures prompt payment and regular collections. The rationale is that not all clients meet their obligations, some just take it for granted, others simply forget while others just don't have a culture of paying until persuaded to do so. Therefore, emphasizing strict collection procedures keeps debtors alert, reduces portfolio at risk and consequently reduces losses due to bad debts, hence greater profitability.

Ssemukono, (1996) ,states that collection efforts are directed at accelerating recovery from slow payers and decreases bad debts losses .This therefore calls for vigorous collection efforts .The

yardstick to measurement of the effectiveness of the collection policy is its slackness in arousing slow paying customers.

1.9.3 Moral hazard

Moral hazard emerges when borrowers never fulfil their part of the agreement with the financial institutions. As it is known, business loans are given for the sake of business growth only, that is, to improve the business enterprise's working capital. Unfortunately, sometimes it happens that some of the loan borrowers are not trustworthy in honoring the agreement made with the financial institutions. This specifically happens when the borrowers tend to diversify or misuse the loans advanced to them. Some borrowers misuse the loan to meet the household consumptions such as food items and other utilities including electricity and water bill items and to pay school fee for their children. Others divert to the loans to finance social functions such as weddings, financing elections. The results into failing to pay back outstanding balance in time or fail completely.

Moral hazards could as well be seen in the scenario where by the borrowers purposely deceive the financial institutions by giving wrong or incorrect profile information so as to be able to qualify for the loan.

1.9.4 Economic stability

Inflation and exchange rate are some of the factors that affect repayment behavior of a borrower. Rise in inflation figures affects purchasing power of the customer. Inflation goes hand in hand with operational costs. Operational costs -cost of electricity, fare, and petrol and raw materials- are increasingly as a result of persistent increase in general price levels. High inflation figures

discourage potential investors to invest in the economy. Economic instability is an outcome of the high inflation rates and unstable exchange rates.

For instance during the turbulent times of the Ugandan economy, between 2011 and 2012 inflation rose to unprecedented 23.5%, exchange rate at 2,600, this forced Bank of Uganda to increase the CBR to 24%, hence financial institutions had to raise their lending rates. Credit quality declined during 2012 as the ratio of NPLs to total gross loans increased from 2.2 percent in December 2011 to 4.2 percent in December 2012 and to 6.0% in December 2013. In addition, the nominal value of NPLs rose by Ushs.174.7 billion (or 113.1 percent).

All business sectors registered a rise in impaired loans. NPLs for the trade and commerce sector grew by Ushs.78.2 billion which caused a rise in the NPL ratio for the sector from 2.2 percent to 6.8 percent. Similarly, the building and construction sector's NPLs grew by Ushs.60.5 billion which increased the sector's NPLs-to-total loans ratio from 1.9 percent to 4.8 percent (BOU, 2013).

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The purpose of this chapter is exploring the various studies and publications relating to the research problem and what various scholars and authors have said about the Credit Reference Bureau services and loan performance. This chapter critically reviews theoretical models explaining information sharing: adverse selection theory and moral hazard theory. Also critical review of empirical studies undertaken and an effort to evaluate contributions is made and pertinent knowledge gaps identified. It relates to two strands of literature;

The Financial Institutions act, 2004 defines a CRB as a legal entity established as a company that allows financial institutions to exchange information on their clients' repayment history and debt profiles and which compiles a database that collects, stores, consolidates and processes information related to persons, companies and enterprises.

The CRB collects and assembles personal and financial information on individuals and businesses, aggregates it into the CRB's data repository files and the resulting information is made available on request to contributing companies or the participating institutions for credit assessment of the borrowers (CRB Regulations, 2005).

(Chakravarti & Chea, 2005) in their paper titled the evolution of Credit Bureaus in Asia Pacific, recollected that U.S CRB evolution took more than 170 years to reach the current levels of advanced and sophisticated bureaus. In the same paper, they underscored the importance of Credit Reference Bureaus in disseminating information collected on bill payments, loan

repayments, availability of credit, monthly debt and other types of information to businesses to help them conduct credit assessment so as to make lending decisions and determine the interest rates to charge clients. From, this perspective, it's clear that CRBs are important but for them to provide real value to the banking sector, its takes time to build the required database and involves learning and acquiring experiences in running and managing CRBs.

2.1. Theoretical Framework

The first strand investigates theoretically the role of information sharing in the credit market. Based on the theoretical literature, we can identify three channels whereby information sharing can affect lending outcomes.

2.1.1 Adverse Selection Theory

(Pagano and Tullio,1993) show that information sharing reduces adverse selection by improving banks information on credit applicants. In their mode of doing business, each banking institution has private information about local credit applicants, but has no information about foreign applicants. If banks exchange information about their clients' credit worth, they can assess also the quality of foreign credit applicants and lend to them as carefully as they lend to local customers.

By reducing information asymmetry between lenders and borrowers, credit registries allow loans to be extended to safe borrowers who had previously been priced out of the market, resulting in higher aggregate lending. When banks exchange credit information about borrowers' kinds, the increase in lending to good credit borrowers may fail to compensate for an eventual reduction in lending to risky types.

The adverse selection problem signals that when lenders cannot distinguish good from bad borrowers, all borrowers are charged an normal interest rate that reflects their pooled experience. If this rate is higher than worthy borrowers deserve, it will push some good borrowers out of the borrowing market, forcing in turn to banks charging even higher rates to the remaining borrowers.

Through sharing of the credit information, the lender is able to distinguish bad borrowers from good borrowers in the market. Better access to information helps lenders measure borrower risk more accurately and to set loan terms and conditions accordingly. Good borrowers with low risk would be given more attractive prices, stimulating credit demand, and fewer higher-risk borrowers would be rationed out of the market because of lenders inability to offer these borrowers accommodating rates (Barron & Staken, 2008)

In both models non-payment is a sign of bad quality for outside banks and carries the penalty of higher interest rates or no future access to credit facility and a high chance of default.
The exchange of information between banks may also reduce the informational rents that banks can extract from their clients within lending relationships, as shown by (Padilla and Pagano, 1997), in the context of a two-period model where banks have private information about their borrowers.

This informational advantage confers to banks some market power over their customers, and generates a hold-up problem: anticipating that banks will charge predatory rates in the future,

borrowers exert low effort to perform, resulting in high default and interest rates, and possibly market collapse. If they commit themselves to exchange information about borrowers' types, however, banks restrain their own future ability to extract informational rents, leaving a larger portion of the surplus to entrepreneurs. As a result, these will invest greater effort in their project, resulting in a lower default probability, lower interest rates and greater lending relative to the regime without information sharing.

2.1.2 Moral Hazard Theory

The moral hazard problem implies that a borrower has the incentive to default unless there are consequences for his future applications for credit. This result from the difficulty lenders have in assessing the level of wealth borrowers will have accumulated by the date on which the debt must be repaid, and not at the moment of application. If lenders cannot assess the borrower's wealth, the borrower will be tempted to default on the borrowing.

Lenders' Moral Hazard: (Padilla & Pagano, 1997) developed a model in which the performance of a loan depends on the quality of the borrower and on her effort. Initially, each bank possesses private information on the quality of a borrower. (Rajan & Raghuram 1992) says after extending a loan to a borrower a bank can exploit its private information on his quality and threaten to withhold credit to extract rents from him (hold up). Anticipating that the returns of his effort will be (partially) appropriated by the bank, the borrower has then a reduced incentive to exert effort ex ante. In turn, this worsens his repayment performance.

Banks can tackle this incentive problem by committing ex ante to sharing one with another their proprietary information about borrowers' quality. Expecting that this information pooling will

promote competition among lenders, borrowers will be reassured that no hold up will be possible and will step up their effort, lowering delinquency rates, (Padilla & Pagano, 1997).

Borrowers' Moral Hazard -A channel through which a credit bureau can affect lending outcomes is by imposing discipline on borrowers. Lenders' information sharing induces borrowers to exert effort because they "perform for a broader audience", that is, if they are delinquent on their contractual obligations, their misconduct will be disclosed to more lenders (Padilla and Pagano, 2000). Thus in this context information sharing mitigates borrowers' moral hazard. However, this effect weakens if lenders pool information on borrowers' characteristics in addition to information on delinquencies. In this case, a high quality borrower knows that anyway his high quality will be disclosed to lenders, regardless of whether his credit history is good or bad.

2.1.3 Credit Rationing Theory

This theory was introduced by (Freimer and Gordon, 1965) and compressively reviewed by (Stiglitz and Weiss, 1981). According to the seminal paper by Stiglitz and Weiss said that unsatisfied agents are borrowers. Asymmetric information leads to credit rationing, as lenders cannot distinguish between high quality and low quality borrowers. However, this dominate view is not without criticism. In particular (Meza and Webb, 1987) vigorously contest this result. They show that asymmetric information in credit markets can lead to the inverse result which is an excess of credit (over lending).

Financial institutions because they screen and monitor borrowers more efficiently than other investors can (Allen and Santomero, 1998). They are specialized in gathering private information and treating it. Managing money and deposit accounts, MFIs own highly strategic information on

firms' receipts and expenditures as well as the way that firms develop. Despite this plethora of information, relationships between bankers and firms are not perfect. Financial institutions suffer from informational asymmetries (Rochet and Jean-Charles, 2008) such that evolution of prices (interest rates) cannot clear the credit market.

The more interesting form of credit rationing is equilibrium rationing, where the market had fully adjusted to all publicly, i.e. why Financial institutions ration credit free, available information and where demand for loans for a certain market interest rate is greater than supply. (Stiglitz. and Weiss, 1981), proved that credit rationing occurs if banks charge the same interest rate to all borrowers, because they cannot distinguish between borrowers and screening borrowers perfectly is too expensive. Both assumptions are very simplifying and do not occur in this manner in the real world. MFIs are usually able to distinguish their borrowers up to a certain degree. Moreover, banks face more than only two types of borrowers. Financial institutions usually charge more than just one interest rate to all customers. High-risk borrowers pay a higher interest rate and credit rationing is less likely. However, financial institutions cannot distinguish borrowers perfectly and screening them perfectly is impossible. Thus, credit rationing may occur.

According to (Stiglitz and Weiss, 1981) credit rationing still occurs if financial institutions require collateral. They argue that low-risk borrowers expect a lower rate of return on average. Thus, they are less wealthy than high-risk borrowers on average after some periods. Low-risk borrowers are therefore not able to provide more collateral. Increasing collateral requirements may have the same adverse selection effect as a higher interest rate. Instead (Bester, 1985) argues that Financial institutions only offer contracts in which they simultaneously adjust interest

rates and collateral requirements. He proved that there is always a combination of interest rate and collateral requirements so that credit rationing does not occur.

2.2 Empirical Literature

The second stream of studies investigates the consequences of information exchange empirically. Most of these studies rely on aggregate, cross- country data and explore whether in a country the presence of public credit registers and private credit bureaus is associated with the development of the credit market and the tightness of financing constraints. (Padilla and Pagano, 1997) consider a panel of 43 countries and show that in countries with more credit registers, default rates are lower and bank credit is more abundant. (Mylenko & Nataliya, 2003) argue that the presence of credit registers and bureaus in a country lowers the perceived incidence of financing constraints, with this effect being differentially stronger for small and young firms. (Galindo & Miller, 2001) obtain analogous results exploring the impact of credit registers and bureaus in over 30 countries. While insightful, the analyses that employ aggregate data in cross- country empirical settings are exposed to measurement and indigeneity issues. For example, in such settings it is problematic to control for country-specific institutions and laws that affect credit market performance. Probably because of a dearth of data, very few studies provide microeconomic evidence on the implications of lenders' information sharing. (Jarl & Gregory, 2003) describe the functioning of a private business information exchange and examine whether the credit performance score compiled by this information exchange helps predict the probability of firms' failure.

The contribution of our study to the empirical literature is unique in its kind in that we can exploit the natural experiment generated by the staggered entry of lenders into a credit bureau in conjunction with rich borrower-level data.

2.2.1 Credit information sharing and bank lending

Theory shows that credit information sharing impacts on credit market performance by reducing adverse selection in lending (Padilla and Pagano, 1997), reducing moral hazard on the part of borrowers, thereby increasing borrower efforts and reducing credit rationing in multiple bank lending (Bennardo et al., 2010).

(Padilla and Pagano,1997) show that credit information sharing reduces adverse selection in bank lending. In their model, credit information sharing helps increase the bankable population and possibly expand lending. In the absence of credit information, banks cannot distinguish between a new pool of potential borrowers who are likely to repay and those who are likely to default.

The authors show that in such a situation, since the new loan applicants might have borrowed from other banks in the past, information sharing can help the bank in question make the right decision to lend safely to credible new applicants. The overall impact on lending, however, depends on the extent to which increased lending to safe borrowers compensates for the reduced lending to risky borrowers. As information sharing also reduces informational rent in contestable banking markets, the resulting increase in competition can increase lending.

Information sharing may also induce more bank lending by reducing borrower hold-up problems. Credit information acquired by a bank today confers informational advantage, which permits it to extract higher interest rates from borrowers in the future. (Padilla and Pagano,1997) show that, when banks commit to sharing credit information, the extraction of informational rent is

restrained. This increases borrower effort and makes repayment more likely. With reduced default risk, interest rates decrease and lending, in turn, increases.

It is also argued that sharing default information may serve as a disciplinary device to encourage borrowers to repay their debt. Among other moral hazard situations, borrowers may prioritize potential returns from risky investments over incentives to repay (Myers, 1977). It is shown in (Padilla and Pagano, 2000) that sharing default information encourages repayment. This is because sharing credit information allows borrowers who default to be blacklisted. As blacklisted borrowers may have difficulty getting credit in future, borrowers thus have an incentive to avoid default.

The resulting reduction in default rates could reduce borrowing cost and increase lending. (Padilla and Pagano, 2000), however, argue that sharing only default information has the potential to increase lending; sharing information about borrower quality cannot increase lending since borrowing cost cannot be reduced any further due to the elimination of informational rent.

Moreover, credit information sharing may help reduce over-borrowing and its associated credit rationing in multiple bank lending (Bennardo et al., 2010). Aside from the higher implicit cost in multiple lending, borrowing from multiple banks induces opportunistic behavior among borrowers, causing them to over-borrow. This behavior can be costly to lenders. Hence, their natural response to this opportunistic behavior is to ration credit, raise interest rates or deny credit. (Bennardo et al., 2010) show that credit information sharing permits lenders to assess the outstanding debts of each borrower and lend safely.

This mitigates the need for credit rationing and higher interest charges. Therefore, bank lending is expected to be higher in the presence of credit information sharing.

The above review shows that credit information can have a positive effect on bank lending, although borrower composition (Pagano and Tullio, 1993) and the type of information shared (Padilla and Pagano, 2000) may also have a role to play.

(Chakravarti and Chea, 2005) in their paper titled the evolution of Credit Bureaus in Asia Pacific, recollected that U.S CRB evolution took more than 170 years to reach the current levels of advanced and sophisticated bureaus. In the same paper, they underscored the importance of Credit Reference Bureaus in disseminating information collected on bill payments, loan repayments, availability of credit, monthly debt and other types of information to businesses to help them conduct credit assessment so as to make lending decisions and determine the interest rates to charge clients. From, this perspective, it's clear that CRBs are important but for them to provide real value to the banking sector, its takes time to build the required database and involves learning and acquiring experiences in running and managing CRBs.

2.2.2 Loan portfolio quality

A loan portfolio is referred to as of good quality when it has no or has minimal nonperforming Assets. .Non-performing Assets are loans that have low chances of being repaid back either partially or in full. A facility is classified as nonperforming when it's unpaid for a period of 90 days or more from the due date. When credit becomes unrecoverable for over 90 days, the interest accrued thereon is suspended to avoid continuous increase in the NPA amount.

According to (Alton and Hazen, 2001), non-performing loans are those loans which are ninety days or more past due or no longer accruing interest.

The major business of a financial institution is to lend out money. The credit creation process works smoothly when funds are transferred from ultimate savers to borrower (Bernanke, 1993). Being a business likes any other, it has a profit component which is interest earned on the loans advanced. In the event that substantial amount of loans given out are not repaid as per the laid down contract, then the bank loses on income; hence weakening the institution(s) liquidity.

The eventual outcome of a weakened bank is bankruptcy and loose of customer confidence. (Robert and Gary, 1994) state that the most obvious characteristics of failed banks is not poor operating efficiency, however, but an increased volume of non-performing loans. A rise in non-performing loans handicaps the financial institutions in terms of its day to day operations.

According to (McNulty et al. 2001), controlling NPAs is very important for both the performance of an individual bank and the economy's financial environment. According to (Meeker & Laura, 1987), the accumulation of non-performing assets in banks has assumed great importance as it tends to reflect asset quality as a whole. (Reddy, 2002) argued that the problem of NPA is not mainly because of lack of strict prudential norms, but due to legal impediments, postponement of the problem by the banks to show higher returns and manipulation by the debtors using political influence.

(Yadav, 2011) affirms that higher NPA engage banking staff on NPA recovery measures that includes filing suits to recover loan amount instead of devoting time for planning to mobilization of funds

When a bank is faced with high amount of NPA's, It loses not only the little income raised from operations but is also set aside a large junk of funds as provisions to cushion against loans defaulted. For a bank to operate effectively and be able to meet its day to day obligations, a health asset book is of essence.

(Batra, 2003) noted that NPA also affect the psychology of bankers in respect of their disposition of funds towards credit delivery and credit allocation. From the BOU annual report 2012, the management of NPA's by banks is still a big concern since it has the potential of worsening the quality of loans. Financial health of any bank is assessed by the level of NPA's in their books.

According to (Meeker and Laura, 1987), the accumulation of non-performing assets in banks has assumed great importance as it tends to reflect asset quality as a whole. The credit risk's indicators include the level of non- performing loans, problem loans or provision for loan losses. (Jimenez & Saurina, 2006 and Ahmed, 2010) noted that since the reform regime there have been various initiatives to contain growth of NPAs to improve the asset quality of the banking sector. A quality asset book reflects good portfolio management on the side of the bank and its officials. If loans are paid as per the agreed contract then the bank is able to earn income which is a reflection of a healthy institution.

2.2.2 The effect of CRB on financial performance

Research by (Armstrong, 2008), based on information from several countries across the globe show that existence of credit registries is associated with increased lending volume, growth of consumer lending improved access to financing a more stable banking sector. Further, (Hansen, 2004) highlighted that many borrowers make a lot of effort to repay their loans, but do not get

rewarded for it because this good repayment history is not available to the financial institution that they approach for new loans or credit. Whenever borrowers fail to repay their loans, financial institutions are forced to pass on the cost of defaults to other customers through increased interest rates and others fees. Credit reporting allows deposit taking microfinance institutions to better distinguish between good and bad borrowers. (Angulin & Scapens, 2000), in their study indicated that it is difficult to have accurate information on the financial ability of prospective borrowers and even more difficult to have accurate information on their credit history. This makes it extremely difficult for the lenders to assess the credit worthiness of potential borrowers and their ability to pay loans.

Recent theoretical research suggests a threefold effect of lenders exchanging information on the credit history of borrowers (Pagano and Tullio, 1993).

First, credit bureaus improve financial institutions knowledge about applicants, characteristics and permit more accurate prediction of repayment probability. This allows lenders to target and price their loans better, easing adverse selection problems. In this respect the benefit of establishing a credit bureau is greatest where each financial institution is confronted by a large number of customers on which it has no previous information.

Second credit reference bureaus reduce the information rents that financial institutions could otherwise extract from their customers. They tend to level the information playing field with the credit market and force lenders to price loans more competitively. Lower interest rates increase borrower's net return and argument their incentive to perform.

Third, credit reference bureaus work as a borrower discipline device; every borrower knows that if he defaults his reputation with all other potential lenders is ruined, cutting him off from credit or making it much more expensive. This mechanism also heightens borrowers' incentive to repay reducing moral hazard.

2.2.3 The operational performance of the CRB

The Credit Bureau serves both parties in a credit transaction as a tool to facilitate and accelerate the approval process. The Credit Bureau has been designed to function as a 'repository' of information held by an independent third party enjoying no benefit from any transaction being conducted by the two primary parties. This will assure accuracy and integrity in the data being furnished to the clients of the Credit Bureau.

The Bureau will permit any legal entity with credit-granting potential (bank, merchant, utility company, etc.) and a permissible purpose (in accordance with legislation) the opportunity to become a client with the ability to access available information in exchange fora fee and agreement to provide the credit histories of their existing portfolio, providing they obtain explicit customer authorization in advance of requesting credit profiles.

The Credit Bureau will therefore engage in the following activities on a day-to-day basis:

Data Collection The collection of both demographic (personal information such as name, address, age, sex, etc.) and credit data (credit information such as credit balance, payments, etc.) is the most important component in the creation of a database. The entire Credit Bureau concept

centers on the collection, storage, and dissemination of credit-related payment history and demographic information. The cornerstone of the data collection process at MCRB will be a ‘data pump’ module described in detail in the reference manual. This module will automatically accept electronic transmissions from Data Providers and update the Credit

Bureau Database The accuracy, integrity, and relevance of the data dictate the value of the core product (the credit profile) offered to the customer base and are the central focus of all of the other office functions.

Customer Service Credit Analysts will record, validate, process, and handle relations with Subscribers and data Subjects and will administer the data maintenance function. Proper maintenance will help to make possible prompt and efficient service. Customer service applies to existing data information providers, potential customers, and individual Subjects (either companies or individuals of Uganda) of credit profiles.

Communication between the credit profile subjects and the customer service staff of the Credit Bureau is critical to a properly functioning Credit Bureau. The customer service function includes the following duties:

(a) Answering questions for Subjects of credit profiles,

(b) Instructing Subjects of credit profiles and existing Subscribers about how to proceeding cases of disputed or inaccurate information,

(c) Researching disputes between lenders and Subjects of credit profiles,

(d) Answering questions for existing customers (Subscribers),

(e) Providing elementary technical support for existing Subscribers, and

(f) Amending or supplementing trade line information, when appropriate

Credit Profile Generation The credit data contained in the database is also the end product, when properly arranged into a pre-formatted report. The data will be sent back to the Subscribers in a standard, easy-to-read format agreed upon by the management of the Credit Bureau and the technology experts. There are two distinct steps in the generation of credit profiles: The first is the actual querying function of the database. This function selects the information from the database, pertaining to a specific Subject, and consolidates it into a unique reporting of all pertinent credit data existing in the Subject's file. The primary sorting criteria will be the identification number field, followed by the name field. The second step of the profile generation process is the actual delivery of the credit profile to the customer. Just as there will be numerous ways in which data must be collected, there will also exist a number of ways to return the final product to the Subscribers of the Credit Bureau. Most reports will be secure electronic transmission.

The Credit Analysts will be responsible for contact with the subscriber base regarding the generation and the delivery of the credit profiles. Since the most predominant method of delivery will be automatic, the Database Managers will be responsible for overseeing the operation of the connections between the Subscribers and the Credit Bureau. The automatic deliveries should be seamless to the Subscribers, so it is imperative that the connections between the Subscribers and the database are carefully monitored and kept in technologically sound condition.

Software and Hardware Maintenance: The Database Administrator will be the backbone of the software system's operational efficiency and Security requirements. The DBA will be cross-

trained and possess an intimate knowledge of the database and all other maintenance and transfer modules. Duties will include the following:

(a) Technical assistance to all components of the hardware and network equipment of the company.

(b) Technical assistance to all components of the software program used in data manipulation.

(c) Supervision of all uploads and data transfers to and from Subscribers.

(d) New product development and enhancements of existing Credit Bureau products,

(e) Troubleshooting for inner-office purposes,

(f) Installation and on-site instruction for customers of the Credit Bureau,

(g) Needs assessment and recommendations for potential Subscribers, and

(h) Troubleshooting and customer support for existing Subscribers.

Dispute Procedure Overview

The CRB must conduct its business in an impartial manner at all times. The most important commodity of the Credit Bureau, besides its data content, is its reputation for fairness and integrity. The ultimate success of the Credit Bureau is the amount and accuracy of both credit and demographic information that is contained in its database. A credit bureau does not pass judgment relative to any information housed in its database. It does not make any decisions relative to credit applications. It does provide the opportunity for individuals to view their personal credit files and to provide those individuals the vehicle by which they may challenge any information in their files that they believe to be inaccurate. Communication between the credit Profile subjects and the customer service staff of the Credit Bureau is critical. An integral part of the day-to-day operational functions of the Credit Bureau is the customer relations

component. Customer relations apply to individual Subjects (either legal entities or individuals) of credit profiles. The customer relations function would include the following duties:

• answering questions for Profile subjects credit profiles

• instructing Profile subjects of credit profiles and existing customers about how to proceed in cases of disputed or inaccurate information,

• researching disputes between lenders and Profile subjects of credit profiles, and
• amending or supplementing trade line information, when appropriate

In case of dispute, the Credit Bureau will verify the accuracy/inaccuracy of the information with the source of the data.

Compliance

In order to comply with the Law, (The Banking (Credit Reference Bureau) Regulations, 2008 'The specifics of dispute resolution', the CRB will implement the following procedure to uphold compliance. The compliance function will be an internally controlled operation. The Managing Director of the Credit Bureau will regulate the function. A regular schedule and program will be established, on a quarterly basis, to check that:

• Subjects (Customers) have permissible purposes to inquire into credit files,

• Subjects have authorized signatures to inquire into credit files

• authorized users (Subscribers) of automated technology are properly licensed,

• Credit Bureau staff are following proper procedures in investigating, correcting, and amending credit profiles, and borrower inquiries or disputes are being handled appropriately.

2.3 Conclusion:

Lending is the principal business activity for financial institutions. The loan portfolio is typically the largest asset and the predominate source of revenue. As such, it is one of the greatest sources of risk to a bank's safety and soundness. Information asymmetry between the lenders and borrowers heightened the risk of default. This therefore called for prudent credit risk management to deal with potential rise in default rates, hence a need for the establishment of the Credit reference Bureau.

The literature highlights the importance; Credit bureaus act as financial intermediaries within the financial infrastructure, facilitating information exchange among lenders, allowing lenders to supplement their information with that from other lenders so that credit decisions are made from the best possible information.

Secondly, CRBs make available comprehensive information about a borrower by assembling public records and credit account details to help lenders identify good borrowers. This in turn leads to improved risk management, increased amount of lending, reduction of defaults and enables borrowers to develop credit profiles.

Thirdly, credit histories do not only provide information for credit decisions but also allows good borrowers to take their credit information from one financial institution to another hence making the credit market more competitive.

Fourthly, through information sharing, credits bureaus help prevent multiple borrowing to bad borrowers, this reduces over indebtness. This is through ensuring that at the time of application the lender is aware of the debt exposure of the borrower.

Finally, advanced scoring and statistical methods of risk assessments developed using credit information, which categorizes credit applicants according to risk classes; helps in improving turnaround time.

In order for CRB to function properly, it requires an enabling regulatory environment. For Uganda's case with the proposed legal reforms to the Financial Institutions Act, 2004 and Microfinance Deposit Taking Institutions Act, 2003 will upscale CRB operations in Uganda.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter covers sections on Research design, scope and choice of sample size and selection, the different data sources that will be utilized, research instruments that will be used in data collection means through which data will be processed and analyzed, ethical issues that the research will take into consideration while carrying out the study, reliability of the research instrument and validity of the data collected.

3.1 Research design

This study used Survey design because Survey data can be collected from many people quickly and at relatively low cost. This was in line with the National Science Foundation that turned to survey research for the 2000 National Survey because it is an efficient method for systematically collecting data from a broad spectrum of individuals and educational settings.

The approach to the study was both quantitative and qualitative. Under quantitative approach, data was analyzed through analytical, narrative and explanatory methods, while under quantitative approach; data was analyzed through descriptive and inferential statistics.

The time dimension of the study was cross sectional where data was collected, analyzed and the results presented at once.

3.2 Area of the study

The area of study was Credit Reference Bureau Services and loan performance in Microfinance Deposit taking Institutions in Uganda. The basis of selection is premised on the fact that MDIs serve low income earners who form a significant part of the Ugandan population 81.56% (Uganda Bureau of Statistics 2014 Population census).

3.3 Sampling procedures

3.3.1 Study Population

Population included clients of MDIs who have borrowed as at as June 2015, which totaled to 140,594 clients and 03 Heads of credit (BOU 2015)

Table 3 1: Sample population, size and techniques

MDI	Population size	Sample size	Sampling techniques
PRIDE	73,392 borrowers	50	Simple random
	01 Head of Credit	01	Purposive
FINCA	55,482 borrowers	40	Simple random
	01 Head of Credit	01	Purposive
UGAFODE	11,717 borrowers	10	Simple random
	01 Head of Credit	01	Purposive
Total	140,594	103	

Source: (Sekaran, 2003:295)

3.3.2 Sample Size

The sample size was defined to include Heads of Credit for the 3 licensed Microfinance Deposit taking Institutions that signed with the CRB provider and 100 clients out the 140,591 who have borrowed from MDIs as at June as shown in table 3.1 above.

The sample size for this study was selected basing on the criteria set according to Roscoe's rule of thumb (Sekaran, 2003:295) i.e. a sample that is larger than 30 and less that 500 is appropriate for most research.

The researcher sampled some loan clients of MDIs to respond to the questionnaire. The questionnaires were personally administered by the researcher at the banking halls.

The sample of customers was only selected from Kampala branches due to resource constraints regarding time and costs involved.

3.3.3 Sampling techniques

For this study purposive and simple random sampling techniques were used. This was advantageous because the researcher relied on the respondents who were critical for research. Purposive sampling by holding interviews and discussions with Heads of Credit for the MDIs, because they are the ones responsible for the management of the CRB data and query for and receive reports from the CRB. Simple random sampling gave a chance to all respondents to be picked.

3.5 Data Collection methods and instruments

3.5.1 Questionnaires

Data was collected by use of close ended type of questionnaires.

(Kothari, 2004) terms the questionnaire as the most appropriate instrument due to its ability to collect a large amount of information in a reasonably quick span of time and economical manner. Questionnaires were designed in such a way that they collected as much information from the respondents as possible.

Closed questions were deployed to capture data in a consistent manner. This is because Closed-ended questions can be more specific, thus more likely to communicate similar meanings and questions when more easily analyzed.

Respondents were asked to indicate their level of agreement or disagreement with the statements formulated in line with the research questions by ticking the appropriate response in a scale format/Likert scale.

The format of the Likert scale was a five layered item ranging from Strongly disagree, disagree, neither disagree or agree, agree and strongly agree and will be represented by codes of 1,2,3,4 and 5 respectively.

3.5.2 Interview

Where the questionnaires did not to generate sufficient information, the interview method that comprised of personal (face to face) interviews with key individuals considered to have the necessary information relevant to objectives of the study was applied using interview guides. For this case, the Heads of Credit for the MDIs were interviewed, because they are the ones responsible for the management of the CRB data and query for and receive reports from the CRB Structured interviews with a set of pre - determined questions and standardized recording as constructed in the interview guide were used. This method had an advantage of providing in depth data which could have not been got using the questionnaire (Mugenda & Mugenda, 1999).

3.5.3 Document review

The study also used a review of existing literature related to the study problem and variables in form of reports, published and unpublished research, journals, electronic journals, websites and databases to gain more information on the study problem. (Sekaran, 2003) classifies these

documents as secondary sources of data collection method and asserts that this method saves time and reduces the cost of gathering information.

3.6 Quality Control

To ensure that the information used is reliable and accurate, corroborative methods were used.

3.6.1 Validity

Validity means that correct procedures have been applied to find answers to a question (Catherine, 2002).Validity was established through the average Content Validity Index (CVI) formula. This is a tool used to gauge the content validity of items on an empirical measure. It was applied using the formula shown below;

$$\text{Content Validity Index (CVI)} = \frac{\text{Number of items declared valid}}{\text{Total number of items}}$$

In this approach, 2 (two) CRB experts resident at Bank of Uganda were contacted to conduct, a pre-test of the instrument to establish whether it was valid. The researcher used (Sekarani, 2003) who recommends that for an instrument to be valid, its content validity index has to be 0.7 and above.

Using formula

That is; CVI =n/N

Where; CVI stands for Content Validity Index, n stands for number of items rated valid by all judges and N stands for number of items in the instrument. The instruments for this study were valid to be used since they had a C.V.I of 0.84 which is above 0.7.

Using the formula;

Expert 1. = 13/15= 0.87

Expert 2. = 12/15= 0.80

Therefore the total= 0.87+0.80 = 1.67/2 = **0.84**

3.6.2 Reliability

Reliability was used to measure the degree to which the instrument would be the same when put under the same conditions. Data collection instrument is presumed reliable when it produces the same results whenever it is repeatedly used to measure concepts from the same respondents even by other researchers.

Reliability of scales was done with the application of the Cronbach Alpha coefficients to test the internal consistency of the scales. (Carmenes & Zeller, 1979) in their view, reliability concerns the extent to which measurements are consistent or repeatable. All alpha reliabilities for all the variables were above 0.6, hence meeting acceptable standards of research, (Amin, 2005). Table 3.2 below displays the reliability indices/coefficients for all constructs used in the study.

Table 3 2: Reliability of variables

Objective	Reliability index
CRB awareness	**0.834**
Collateral requirements	**0.855**
Ease of access	**0.658**
Loan performance	**0.650**

Also variables and record names were well labeled during data entry, and data coding along with data completeness were double checked to ensure that the data analyzed was accurate and complete.

3.7 Data Management and Processing

The questionnaire developed was in such a way that it captured quantitative data which was coded and entered into SPSS software version 16.

3.8 Data Analysis

According to (Sekaran, 2003), data analysis is the evaluation of data. It is the process of systematically applying statistical and logical techniques to describe, summarize and compare data.

Quantitative data obtained was analyzed using SPSS version 16 because this is the most recommendable package for analyzing social sciences researcher data. (Sekaran, 2003). Descriptive analyses of frequencies, percentages, means and standard deviations were used. Relationships and variations among variables were determined by using correlations, regressions and T-tests.

Pearson Correlation at a significance level of 5% (2-tailed) was used supplemented with linear regression. One sample T-test at 95% confidence interval was used (Test Value = 0) to rank different variables. The observed T- values give a combination of mean and standard deviation of a given variable. The higher the T-value, the better distributed the variable is.

Qualitative data was categorized by themes and analyzed manually by matching content with themes of interest for the study.

3.9 Ethical Considerations

Information obtained during the course of the research was treated with a high level of confidentiality. Information was collected only for research purposes but the report will also be availed to Bank of Uganda being the Researcher's Employer and the Regulator of the Financial

Sector. This is done to share with the Regulator the stakeholders' key concerns on the project and proposed recommendations and/or solutions.

Voluntary participation of the respondents was encouraged by the researcher.

The researcher also sought formal introduction from the University in order to be properly identified.

In order to ensure confidentiality of information the researcher sought permission from Bank of Uganda to access its sensitive and/or privileged information.

3.10 Limitations of the study

There are only 3 MDIs in Uganda that submit information to CRB. This limited sample size. Additionally, the study focused on loan performance in MDIs only. However, there are other institutions such as Credit Institutions (tier 2) and commercial banks (tier 1) that submit data on the bureau. Therefore it may not be easy to generalize the findings to all other financial institutions.

The study required a lot of time to look for data, process and analyze data and later on discuss the study findings to come to the conclusion. The researcher however adhered to the activity schedule to accomplish the study in time.

3.11 Conclusion

Data collected and methods used by the researcher were deemed adequate to produce the outcome. The study population generally shares the common characteristics. Reliability and validity tests were all positive.

CHAPTER FOUR

PRESENTATION OF RESULTS AND DISCUSSION OF FINDINGS

4.0 Introduction

This section presents the findings and the discussions of the results of the study. The findings focused on MDIs' clients in the areas of CRB awareness, collateral requirements, ease of loan access and loan performance. On the side of MDIs, the findings focused on institutional information and performance of the CRB. This chapter consists of personal information of the respondents, presentation and interpretation of the results. The interpretation and presentation was guided by the research objectives.

4.1 Personal Information

This section presents the characteristics of the respondents that participated in the study.

4.1.1 Distribution of respondents by MDI

Table 4 1: Distribution of respondents by MDI

MDI	Sample (frequency)	%age
PRIDE Microfinance Ltd	50	50
FINCA (U) Ltd	40	40
UGAFODE Microfinance	10	10

Source: Primary data

Out of the 100 respondents, 50% were from Pride Microfinance, 40% from FINCA and 10% from UGAFODE as shown in table 4.1. This was in proportion to the total number of borrowing clients the respective institutions have. All the sampled respondents, returned the questionnaires fully completed, giving response rate of 100 %. This was regarded adequate in line with

literature by (Mugenda & Mugenda 1999) which recommends 70% as a good response rate when quantitative data is collected.

4.1.2 Age characteristics of respondents

The researcher also considered respondents by age. Table 4.2 below shows the age category of respondents.

Table 4.2: Age characteristics of respondents

Age (years)	Frequency	%age
<20	7	7
20-35	47	47
36-45	19	19
46-55	14	14
>55	13	13
Total	**100**	**100**

Source: Primary data

In table 4.2 above, details of age groups of respondents are presented and it shows that 7% of the respondents are aged less than 20 years of age, 47% are in age group 20-35, 19% are aged 36-45 while 13% are aged 55 years and above. This means that majority of the borrowers (66%) are in the age bracket of 20-45 years. This is so because this is the age bracket that is actively engaged in work and hence able to borrow.

4.1.3 Gender characteristics of respondents

The researcher considered respondents by gender aggregation as shown in table 4.3 below.

Table 4.3: Gender characteristics of respondents

Gender	Frequency	%age
Male	38	38
Female	62	62
Total	**100**	**100**

Source: Primary data

From table 4.3 above, it is indicated that the highest number of respondents are female, representing 62% while males are 38%. This is mainly because the MDIs mainly use the group lending methodology which focuses on women to improve on their household incomes.

4.1.4 Education levels of respondents

Education level of the respondents was also considered in the study. Table 4.4 summarizes different education levels of the respondents.

Table 4.4: Education levels of respondents

Level of Education	Frequency	%age
Primary	31	31
Secondary	21	21
Diploma	15	15
Degree	33	33
Total	**100**	**100**

Source: Primary data

In table 4.4, 31% of the respondents are of primary education level, 21% of them educated to secondary school level, 15% Diploma holders, while 33% have a degrees qualification. This means that at least each respondent was literate with majority of the respondents educated above primary school level; this is attributed to government education programs such as UPE, USE, Skilling Uganda. The primary level bracket is attributed mainly to those who completed primary level, but could not continue to other levels.

4.1.5 Distribution by Location

The study also considered the geographical location of the respondents. Table 4.5 below summarizes the respondents' locations.

Table 4.5: Location of respondents

Location	Frequency	% age
Urban	60	60
Semi-urban	31	31
Village/Rural	9	9
Total	**100**	**100**

Source: Primary data

Majority of the respondents (60%) were from urban centers followed by 31% from semi-urban areas. Only 9% were from village/ rural settings. This was because the researcher mainly concentrated in branches within Kampala area.

4.1.6 Marital status of respondents

Table 4.6: Marital status of respondents

Marital Status	Frequency	%age
Single	36	36
Married	52	52
Divorced	9	9
Separated	2	2
Widowed	1	1
Total	**100**	**100**

Source: Primary data

Table 4.6 shows that the married comprised 52% of the respondents. In most cases, the married put their family assets as collateral when applying for security and this forms a reliable cover for the MDIs in case there is failure to pay back. Singles who formed 36% are mainly school leavers who want startup capital after school.

4.1.7 Employment characteristics of respondents

Table 4.7: Employment details

Employment Status	Frequency	%age
Government Employee	4	4
Employed in private sector	28	28
Self employed	53	53
Unemployed	15	15
Total	**100**	**100**

Source: Primary data

Majority of the respondents (81%) are either employed in the private sector or self-employed. This, to a bigger extent, gives guarantee to the MDIs that this category of clients will be able to pay back. Government employees constituted only 4%. The unemployed respondents (15%) had had loans previously and were not having current loans running (table 4.7).

4.2 Findings according to study Oobjectives

The study was guided by four objectives namely; to establish the trend of loan performance before and after the introduction of the CRB, to assess the operational performance of the CRB, to investigate the relationship between CRB and loan performance and to identify challenges facing the CRB and suggest possible solutions.

4.2.1 Trend of loan performance, before and after the introduction of CRB

Table 4.8 and figure 1 below summarize the overall study results on the trend of loan performance of various MDIs from 2006 to 2014. This eight year period includes two years before and six years after the implementation of CRB.

Table 4.8: Portfolio at Risk (%age)

Year	All MDIs	Finca	Pride	UGAFODE
2006	3.24	3.60	1.94	*N/A*
2007	2.84	3.73	1.10	*N/A*
2008	2.73	2.72	2.89	*N/A*
2009	2.37	2.68	1.99	*N/A*
2010	2.03	2.46	1.80	*N/A*
2011	1.85	2.25	1.25	2.90
2012	2.79	3.89	1.95	3.44
2013	1.93	2.25	1.38	3.88
2014	2.04	2.42	1.60	2.91

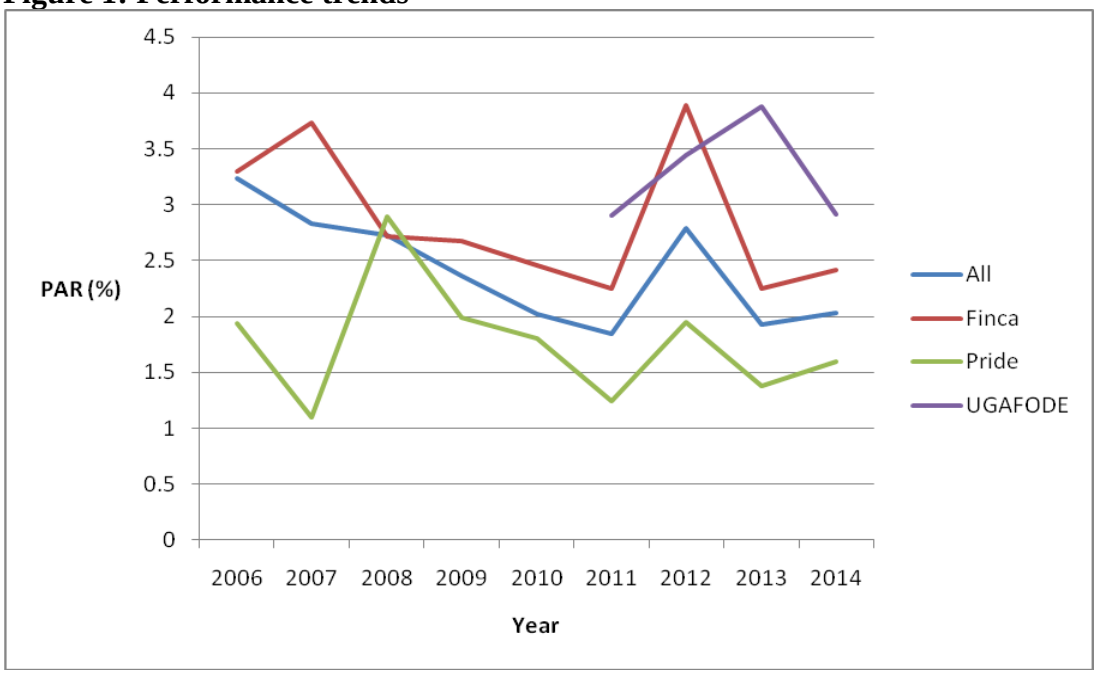
Source*: Bank of Uganda (2015)*

Performance results show average performance in the range of 1.85% - 3.2% for all MDIs. Pride microfinance is performing better than the other two institutions. This is mainly because Pride has a robust group lending methodology compared to others. The group lending methodology is based on group guarantee, where members that have the same characteristics and know each other form groups for purposes of accessing loans. Repayment is based on peer pressure and hence the default rate is lower compared to the individual lending methodology.

Performance trend (Figure1) shows improvement in performance after 2008 when CRB took effect. UGAFODE joined CRB in 2011 after being licensed by Bank Of Uganda. The performance in 2012 deteriorated due to high inflation rates which forced the Central Bank to increase the lending benchmark rate. This forced the MDIs and other financial institutions to increase their lending rates to both the existing and new clients. This made the loans expensive and hence the high default rates.

It should therefore be noted that, as much as the loan performance was improving even before the introduction of CRB, there is observable sharp improvement after 2008 than before**.**

Figure 1: Performance trends



Source: Secondary data

4.2.2 Assessing the operational performance of the CRB

The factors were considered under the variables of CRB awareness, collateral requirements and ease of loan access as presented here below.

Table 4.9: Assessing the operational performance of the CRB

CRB awareness	Mean	Standard Deviation	T-Value
I am aware of how a financial card and Credit Reference Bureau works.	3.97	0.745	53.3
I am aware that if I repay my loan on time, my good credit history will be shared with other financial institutions.	4.07	0.807	50.4
I am aware that my good credit history can help me get better loan terms the next time I borrow from the MDI	4.15	0.757	54.8
I am aware of the steps to go through to access my own credit report from the Credit Reference Bureau.	3.88	0.988	39.3
I am aware of the procedure to go through to have my complaint on the accuracy of the credit report resolved.	3.66	0.987	37.1
I am aware that poor repayment record is shared with other financial institutions supervised by Bank of Uganda	3.98	0.765	52.0
I am aware that good repayment record is shared with other financial institutions supervised by Bank of Uganda.	4.00	0.752	53.2

Source: Primary data

4.2.2.1 CRB awareness

4.2.2.1.1 Awareness about the operations of the CRB and Financial card systems

Respondents were generally aware how financial card and Credit Reference Bureau work (T-value =53.3, mean=3.97). This is attributed to the education provided by the PIs, the CRB service provider and the Central bank through the financial inclusion programs. This is in line with what (Chakravarti & Chea, 2005) argued, that it is clear that CRBs are important but for them to provide real value to the banking sector, its takes time to build the required database and involves learning and acquiring experiences in running CRBs.

4.2.2.1.2 Awareness that good credit history is shared by with other financial institutions

A significant number of the respondents (mean = 4.07, T-value=50.4), were in agreement with the fact that their loan information and loan repayment is always shared with other institutions supervised by Bank of Uganda. This implies that they knew about the ease with which their loan details from various banks can be accessed from one point.

This was in line with what Padilla & Pagano, 2000 who argued; that a credit bureau mitigates borrowers' moral hazard by imposing discipline on borrowers through information sharing among the financial institutions. Lenders' information sharing induces borrowers to exert effort because they "perform for a broader audience", that is, if they are delinquent on their contractual obligations, their misconduct will be disclosed to more lenders. (Padilla & Pagano, 2000).

4.2.2.1.3 Awareness that good credit history leads to better loan terms

T-values in table 4.9 show that respondents were aware that good credit history can help them in getting better loan terms at the next time of borrowing from an MDI with a T-value of 54.8 (mean=4.15, SD 0.757). This result is supported by the interview responses from the two MDIs' Heads of credit who agreed with the fact that a client's CRB report/repayment record is one of the key considerations into the bank's loan pricing decision. This is in agreement with (Rajan, 1992) who argue that after extending a loan to a borrower a bank can exploit its private information on his quality and threaten to withhold credit to extract rents from him (hold up).

4.2.2.1.4 Awareness about the steps to go through to access a credit report from the CRB

Awareness of the steps to go through to access credit reports from the Credit Reference Bureau (T value of 39.3 and a mean of 3.88) were less known. This is mainly due to a common practice of people not inquiring about finer details in their credit reports due to their complexity. This was

in agreement with the concern raised by the Heads of credit regarding the bulkiness and complexity of the Credit reference bureau reports.

4.2.2.1.5 Awareness of the procedures to resolve complaints of the credit reports

The awareness of the procedure to go through to have complaints on the accuracy of the credit report resolved was also less known (T value of 37.1 and a mean of 3.66). This is attributed to the fact that there's only one CRB provider, COMPUSCAN and this limits competition hence creates monopoly powers and clients' concerns are not addressed.

4.2.2.1.6 Awareness that poor repayment record is shared with other financial institutions

A good number of respondents (T-value=52.0, value=3.98) were aware that poor repayment record is shared with other financial institutions supervised by Bank of Uganda. This is in line with (Padilla and Pagano, 2000), who said that a high quality borrower knows that his high quality will be disclosed to lenders, regardless of whether his credit history is good or bad.

4.2.2.1.7 Awareness that good repayment record is shared with other financial institutions

Also, a good number of respondents (T-Value 53.2, mean=4.00) were aware that good repayment record is shared with other financial institutions supervised by Bank of Uganda. This is in line with (Padilla and Pagano, 2000), who said that a high quality borrower knows that his high quality will be disclosed to lenders, regardless of whether his credit history is good or bad.

It should be noted that, all the variables had means > 3 which implied that respondents were in agreement with them though with varying measures. Therefore there was evidence to show that CRB awareness was done to a larger extent and clients understood its impact.

4.2.2.2 Collateral requirements

Table 4.10: Summary of results of collateral requirements

Collateral Requirements	Mean	Standard Deviation	T-Value
The Financial Institutions have relaxed on the category of the collateral required ever since the Financial Card System and Credit Reference Bureau were introduced.	2.43	1.157	21.0
The value of the collateral required has reduced ever since the Financial Card System and Credit Reference Bureau were introduced.	2.32	1.171	19.8

Source: Primary data

4.2.2.2.1 Financial institutions have relaxed on the category of the collateral required

Response summaries in table 4.10 show that the respondents were in disagreement with the argument that MDIs have relaxed on the category of collateral required (T-Value=21.0, Mean =2.43). This indicates that CRB information helps MDIs to assess the credit worthiness and probability of repaying not a measure of category and value of collateral required. This finding was not in line with one of the objectives of establishing a CRB. It was anticipated that borrowing would become easier as borrowers with a good loan record may not always be required to provide big securities (BOU, 2008). The three heads of credit interviewed also agreed that collateral requirements have not been relaxed as a result of CRB. This is due to risk nature of the MDI clients.

4.2.2.2.2 Financial institutions have relaxed on the value of the collateral required

Additionally, respondents (T value=19.8, mean=2.32) disagreed that MDIs have relaxed on the value of collateral required. This indicates that CRB information helps MDIs to assess the credit worthiness and probability of repaying not a measure of category and value of collateral required. This finding was not in line with one of the objectives of establishing a CRB. It was

anticipated that borrowing would become easier as borrowers with a good loan record may not always be required to provide big securities (BOU, 2008). The three heads of credit interviewed also agreed that collateral requirements have not been relaxed as a result of CRB. This is due to risk nature of the MDI clients.

4.2.2.3 Ease of loan access

Table 4.11: Summary of results of ease of loan access

Ease of loan access	Mean	Standard Deviation	T-Value
It now takes less time access a loan from my bank	3.57	1.066	33.5
It is easy to access my repayment record for the previous loan facilities, even from other institutions.	3.67	0.779	47.1

Source: Primary data

4.2.2.3.1 It now takes less time to access a loan from the bank

A big number of the respondents (T value=33.5 mean=3.57) were in agreement to the fact that it now takes less time to access a loan from a bank (table 4.11). This finding was supported by responses from the Heads of credit who were in strong agreement with the fact that it now takes less time to process a client's loan due to the availability of updated data (CRB credit reports) on the potential borrowers. This was in agreement with objective two of establishing a CRB; accessing loans would be quicker due to timely access of loan records (BOU 2008).

4.2.2.3.2 It is easy to access repayment record even from other financial institutions

Additionally, a significant number of respondents (T value=47.1, Mean=3.67) agreed that it is easy to access their repayment record for the previous loan facilities, even from other

institutions. . This is attributed to the fact that the volume of information a new borrower is required to provide has reduced substantially due to the presence of CRB. All this is supported by the fact that all information can be accessed at one go and the analyses are preset. This makes it easy in determining borrowers' credit worthiness. Heads of credit were also in strong agreement with the fact that it now takes less time to process a client's loan due to the availability of updated data (CRB credit reports) on the potential borrowers even from other financial institutions.

4.2.2.4 Loan performance indicators

Table 4.12: **Summary of the results of Loan performance**

Loan performance indicators	Mean	Standard Deviation	T-Value
I meet my obligations on time to avoid bad history	4.05	0.716	56.6
Financial Institutions have reduced their Interest rates after the introduction of Credit Reference Bureau services	1.89	1.118	16.9
My creditworthiness is easily established as a result of the CRB	3.58	0.843	42.5

Source: Primary data

4.2.2.4.1 I meet my obligations on time to avoid bad history

Majority of the respondents (mean =4.05, T-value=56.6) agreed that they meet their obligations on time to avoid bad history. This was in line with (Pagano & Tullio, 1993) who argued that credit reference bureaus work as a borrower discipline device; every borrower knows that if he defaults his reputation with all other potential lenders is ruined, cutting him off from credit or making it much more expensive. This mechanism also heightens borrowers' incentive to repay reducing moral hazard.

4.2.2.4.2 Financial institutions have reduced their interest rates after the introduction of the CRB

Respondents disagreed (mean = 1.89, T-value = 16.9) with the fact that Financial Institutions have reduced their Interest rates after the introduction of Credit Reference Bureau services (Table 4.12). This was also raised by all the three Heads of credit who disagreed that interest rate charged on loans to clients has reduced due to the CRB introduction. However, they agreed that the cost of doing business had reduced since the introduction of CRB. The inverse relationship between the positions can be attributed to the desire by the MDIs to make as much profit as possible.

4.2.2.4.3 Creditworthiness is easily established

A relatively big number of respondents (mean= 3.58, T=42.5) agreed that their creditworthiness is easily established as a result of the CRB. They therefore try much as possible to avoid defaulting; this explains the improvement trend since the introduction of the CRB. This is in agreement with (Swaren, 1990) who argued that; it is a hazardous practice to extend lending term beyond the useful life of the corresponding collateral. Besides that, giving out loans to borrowers who are already overloaded with debt or possess unfavorable credit history can expose banks to unnecessary default and credit risk. In order to decrease these risks, banks need to take into consideration several common applicants' particulars such as debt to income ratio, business and credit history and performance record and for individual loan applicants their time on the job or length of time.

4.2.2.5 Summary of loan performance factors

Table 4.13: Comparison of objectives of establishing CRB and loan performance

Objective	Mean	SD
CRB awareness	3.96	0.458
Collateral requirements	2.38	0.077
Ease of loan access	3.62	0.224
Credit history	3.17	1.134

Source: Primary data

From table 4.13, the ranking of the factors is explained by mean i.e. CRB awareness (Mean=3.96); Collateral requirements (Mean=2.38); Ease of loan access (Mean=3.62) and; Credit history (Mean=3.17). The implication of this is that with CRB awareness, majority of the respondents were aware of CBR details and its implication in loan acquisition. They also agreed that with the introduction of the CRB, access of loans has been eased (mean=3.62). In addition, respondents (mean=3.17) agreed that Credit history plays a vital role in accessing more facilities from the same MDI or other financial institutions. However, respondents (mean=2.38) disagreed that collateral requirements have been relaxed with the introduction of CRB.

4.2.3 Investigating the relationship between CRB services and loan performance

The relationship between CRB services and Loan performance was studied using correlations between dependent and independent variables (Table 4.14). The independent variables included borrowing history and information sharing while the dependent variable of Loan performance.

4.2.3.1 Correlation analysis

Table 4.14: **Relationship between CRB services and Loan performance**

		Borrowing History	Information Sharing	Loan Performance
Borrowing History	Pearson Correlation	1		
Information Sharing	Pearson Correlation	0.433**	1	
Loan Performance	Pearson Correlation	0.221*	0.228**	1

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).

Source: Primary data

The results in table 4.14 show that CRB is significantly related to loan performance through its dimensions of borrowing history and information sharing. Correlation coefficient in this case is $r = 0.433$; $p \leq 0.01$. This shows that Information Sharing both for negative or positive reasons on the side of the borrower encourages improvement in loan servicing for a better record. This is mainly because borrowers are aware that good borrowing history leads to good loan terms at each borrowing time. Similarly, bad borrowing history leads to bad loan term.

Information sharing and borrowing history both have positive significant relationships with loan performance. Correlation coefficients are respectively $r = 0.228$; $p \leq 0.01$ and $r = 0.221$; $p \leq 0.05$.

However, the relationships though positive were not strong enough (correlation < 0.500). This is an indication that there could be more other factors that affect Loan Performance other than CRB. The relationships are further supported by the results of regression analysis.

4.2.3.2 Regression analysis

Table 4.15: Multiple regression analysis for Loan Performance

Model		R = 0.245 R^2 = 0.060 Adj. R^2= 0.041	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	Std. Error	Beta		
1	(Constant)		3.516	0.437		8.039	0.000
	Borrowing History		0.102	0.074	0.118	1.078	0.048
	Information Sharing		0.237	0.097	0.272	2.491	0.014

a. Dependent Variable: Loan Performance

The regression analysis results in table 4.15 above revealed positive coefficients of 0.102 and 0.237 for independent variables of Borrowing History (BH) and Information Sharing (IS) respectively. A positive constant, C, of 3.516 was observed.

Regression equation: **LP** = 3.516 + 0.102 **BH** + 0.237 **IS**

This is an indication that Borrowing History and Information Sharing have a positive implication on Loan Performance of MDIs. This implies that a unit change in Borrowing History leads to the change in the performance of MDIs by a factor of 0.102 keeping other factors constant. The corresponding value for Information Sharing is 0.237. The t-value for the constant (t=8.039) which is significant at 5% (p= 0.000) is higher than that of the independent variables (t=1.078, 2.491) which is significant at 5% (p=0.048, 0.014), an indication that the constant has more effect on the overall performance of MDIs. The value of R^2 = 0.060 means that the linear regression explains only 6.0% of the variance in the data, which is low. This means that other factors contribute more to the overall performance of the MDIs other than Information Sharing and Borrowing History.

Adjusted R^2=0.041, this implies that the change/variation in loan performance that is explained by variation in CRB is only 4.1% (0.041*100). This could mean that other variables that affect loan performance account for 95.9% (100-4.1).

4.3 Challenges of the CRB

The challenges were collected from the heads of credit of MDIs during the interview as follows;

i) Some MDIs delay to submit client information to CRB, this therefore affects information sharing among the financial institutions. There is need for timely submission of borrowers' information by all participating institutions. On the side of CRB, there is need to update information in real time (turnaround time)

ii) CRB lacks the ability to validate incorrect and inaccurate information which leads to many reports being disputed. The providers of CRB services should explore ways of validating the information so that only right information is accepted in the CRB.

iii) System interruptions that affects the submission of data in a timely manner. This requires a stable and reliable system.

iv) Unlicensed institutions do not submit their data and yet it is very vital. There is need to include all the unlicensed financial institutions on to the CRB network.

v) CRB monthly fees to MDIs are in foreign currency; this exposes them to foreign exchange risk. There is need to use the currency in which MDIs deal with their customers.

vi) The CRB reports are bulky and complex to interpret by borrowers. The CRB provider should make the reports simple and easy to read and interpret.

vii) The costs involved to the clients were also considered as a stumbling block in the implementation of CRB project. It starts with having to buy a financial card and then the CRB enquiry charges. This therefore calls for review of the charges and possibly subsidizing the costs.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter presents a summary of the findings of the study and general conclusion derived from the entire research. It also highlights recommendations for the policy makers and practitioners and suggests area/s for future research.

5.1 Summary of findings

The following are the conclusions the researcher made as per the research objectives.

5.1.1 The trend of loan performance, before and after the introduction of CRB.

The findings revealed that since the introduction of the Credit reference Bureau services in the period 2008 to 2014, the trend of loan performance among the MDIs improved compared to the performance registered for the period 2006-2007 prior to the introduction of the Credit Reference Bureau.

This is due to a combination of factors, but mainly information sharing where financial institutions are able to access borrowers' credit history. As such, clients are compelled to meet their obligations on time so as to avoid poor repayment history that might prevent them from accessing future facilities. In addition, there was a significant positive relationship between awareness that good credit history can help one get better loan terms on the next time borrowing and meeting loan obligations on time to avoid bad history in MDIs. This implies that the more clients become aware of CRB and its operations, the more they tend to meet their loan obligations on time to avoid bad history.

5.1.2 The operational performance of the CRB

The research established that the respondents were well aware of the operations of the Credit Reference Bureau services. This is because all clients who borrow from the institutions regulated and supervised by Bank of Uganda must be enrolled onto the CRB. This therefore compels them to know the operations of the CRB.

Respondents also acknowledged that the ease of loan access has improved with the introduction of the CRB. This was attributed to easy access of information about the prospective borrowers from the CRB, inform of CRB reports which makes the appraisal process by the financial institutions easy and quick.

However, the respondents disagreed that the cost of loans, category and value of collateral required reduced after the introduction of the CRB. This was despite the fact that the cost of doing business/ lending had reduced. This was driven by the desire of the financial institutions to make as much profit as possible.

5.1.3 The relationship between CRB and loan performance

The study established that there is a positive relationship between CRB and loan performance. This was mainly through the dimensions of information sharing, where financial institutions are able to access borrowers′ credit information during appraisal. This compels the borrowers to meet their obligations on time so as to have easy access to loan facilities. Another dimension is borrowing history. The CRB is able to produce all the history of a borrower, whether good or bad. A good borrowing history enables a financial institution to easily grant to a borrower a loan facility. Bad borrowing history on the other hand discourages financial institutions from extending further facilities.

5.2 Conclusion

Conclusions were made for each research objective as follows;

5.2.1 Establish the trend of loan performance before and after the introduction of CRB

The study established that loan performance improved after the introduction of the CRB. This is evidenced by a decreasing trend in nonperforming loans after the introduction of CRB (2008-2014) compared to the period (2006-2007), before the introduction of the CRB.

Because borrowers seek to protect their "reputation collateral" by meeting their obligations in a timely manner, financial institutions use information from CRB for risk identification through scenario analysis or risk mapping. Credit bureaus serve creditors as an impartial and efficient means to quickly exchange references on the paying habits and current debt of credit applicants and that CRB provides credit reports that include both positive and negative information help build or destroy "reputation collateral".

5.2.2 Assessing the operational performance of the CRB

The study revealed that the CRB has played a great role in the ease of information access by the financial institutions as a result of information sharing among the institutions. This has in turn improved the turnaround time and improved loan performance.

The study also found out that awareness of the importance and operations of the CRB and its impact on accessing future loans contributed significantly to good loan performance by the MDI clients.

5.2.3 Investigating the relationship between CRB and loan performance

The study revealed that there is a positive relationship between CRB and loan performance. Because clients' information is shared among the financial institutions, clients tend to meet their obligations on time so as to avoid bad history which makes it hard to access future facilities from the institutions. This explains the declining trend of nonperforming loans in the MDIs in 2008 after the introduction of CRB compared to the period 2006-2007 before the CRB was introduced. Information from CRB helps identify defaulters in terms of credit history and obligations and thus mark them risky clients and that CRB has helped instill culture of financial discipline since consumers know that they are monitored. The study findings correlate with (Christen and Pearce, 2005) indication that credit reports include both positive and negative information and helps build "reputation collateral" in much the same way as a pledge of physical collateral, which may improve credit access for the poorest borrowers.

Further, the findings also conform to (Anderson, 2007) indication that with CRB a culture of financial discipline will be instilled since consumers know that they will be monitored.

5.3 Recommendations

It was established that respondents were well aware of the operations and importance of the CRB. Bank of Uganda through the Communications Department should maintain the efforts put in creating awareness of the CRB.

One of the challenges facing the successful implementation of the CRB is that some institutions engaged in lending business are not licensed and regulated by Bank of Uganda, as thus they are

not required to submit data on the CRB. This affects effective determination of credit history of the prospective borrowers who are at the same time borrowers in these unregulated institutions. The researcher therefore recommends that a new regulatory regime should be put in place to ensure that the institutions not licensed and regulated by Bank of Uganda can submit data on the CRB.

The Central bank through the Supervision Function should put in place, measures and enforce them to ensure that all institutions submit correct and timely data on the CRB. Compuscan, the CRB provider should also update data submitted by the Institutions in a timely manner. Additionally, validation tools should be put on the CRB system so as to detect inaccurate data submitted on the bureau.

To facilitate credit information sharing even more effectively, information access should be available at low or no cost. This can be in form of subsidizing the Participating Institutions (PIs) so that the final cost to the borrower is reduced.

The researcher proposes and recommends some solutions to the challenges highlighted as; introducing validation tools on the CRB system so as to detect errors in the submitted data, putting in place a regulatory regime that compels all institutions that are engaged in lending to submit data to the CRB, ensuring that data is submitted to the bureau in a timely manner and the data should be accurate and free from any errors. The Service provider should also update data in a timely manner. The central bank should consider licensing other service providers so as bring about competition.

5.4 Area for further research

The researcher only looked at CRB and its effect on loan performance, however, there are several other factors that affect loan performance, hence the research recommends a study be carried out on the subject.

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APPENDICES

Appendix 1: Questionnaire for MDIs' Customers

Dear Participant,

I am **Dennis Mugarura,** a final year student pursuing Masters' degree in Business Administration of Uganda Martyrs University, Nkozi. In partial fulfillment of the requirements of the master's requirement, I am required to submit a Research dissertation report. I chose to research on the Credit Reference Bureau Services and loan performance in Microfinance Deposit taking Institutions in Uganda, and I believe its findings and recommendations will add value to the CRB project.

This questionnaire is intended to collect data on the general performance of the CRB and its effect on loan performance and the quality of CRB reports produced by the Service provider.

Kindly complete the attached questionnaire as objectively and accurately as possible, a process which should not take more than 15 minutes of your time.

Please note that the information provided will be treated with utmost confidentiality and will only be used for the purpose of the study.

If you have any queries, please do not hesitate to contact me on 0774 17 38 17.

Yours sincerely,

Mugarura Dennis

Questionnaire

SECTION A: Personal information:

Please respond to the following questions by ticking/marking the appropriate response:

1) AGE

A. Below 20 years ( )
B. 20-35 years ( )
C. 36-45 years ( )
D. 46-55 years ( )
E. Above 55 years ( )

2. GENDER

A. Male ( )
B. Female ( )

3. HIGHEST EDUCATION LEVEL
A. Primary ( )
B. Secondary( )
C. Tertiary ( )
D. University ( )

4. RESIDENCE
A. Urban( )
B. Semi Urban( )
C. Village( )

5. MARITAL STATUS
A. Single ( )
B. Married ( )
C. Divorced ( )
D. Separated ( )
E. Widowed ( )

6. **EMPLOYMENT DETAILS**
A. Government Employee ( )
B. Employed in Private Sector ( )
C. Self Employed ( )
D. Un-Employed ( )

SECTION B: Please use the scale below to indicate your level of agreement or disagreement with the statements below by **ticking/marking the appropriate response**. Indicate your response by ticking only one box represented by 1, 2, 3, 4 or 5 where 1= Strongly Disagree, 2= Disagree, 3= Neither Disagree or Agree, 4= Agree and 5= Strongly Agree as indicated below.

	1	2	3	4	5
CRB awareness					
8. I am aware of how a financial card and Credit Reference Bureau works.					
9. I am aware that if I repay my loan on time, my good credit history will be shared with other financial institutions.					

10. I am aware that my good credit history can help me get better loan terms the next time I borrow from the MDI					
11. I am aware that my loan information is shared with other institutions supervised by Bank of Uganda.					
12. I am aware of the steps to go through to access my own credit report from the Credit Reference Bureau.					
13. I am aware of the procedure to go through to have my complaint on the accuracy of the credit report resolved.					
14. I am aware that poor repayment record is shared with other financial institutions supervised by Bank of Uganda					
15. I am aware that good repayment record is shared with other financial institutions supervised by Bank of Uganda.					
Collateral Requirements					
16. The Financial Institutions have relaxed on the category of the collateral required ever since the Financial Card System and Credit Reference Bureau were introduced.					
17. The value of the collateral required has reduced ever since the Financial Card System and Credit Reference Bureau were introduced.					
Ease of access					
18. It now takes less time access a loan from my bank					
19. It is easy to access my repayment record for the previous loan facilities, even from other institutions.					
Loan performance/ Credit history					
20. I meet my obligations on time to avoid bad history					
21. Financial Institutions have reduced their Interest rates after the introduction of Credit Reference Bureau services					
22. My creditworthiness is easily established as a result of the CRB					

Thank you

AppendixII: Interview Guide for Microfinance Deposit taking Institutions (MDIs)

Dear Participant,

I am a final year student pursuing Masters' degree in Business Administration of Uganda Martyrs University Nkozi. In partial fulfillment of the requirements of the master's requirement, I am required to submit a research dissertation report on a topic of my choice. I chose to research on the Credit Reference Bureau Services and loan performance in Microfinance Deposit taking Institutions in Uganda, and I believe its findings and recommendations will add value to the CRB project.

This interview guide is intended to collect views on the general performance of the CRB and its effect on loan performance.

Yours sincerely,

Mugarura Dennis

Questions

Section A: Institutional information:

1- What sectors does the institution extend loans to?

2- What sector has a high default rate?

3- What is the size of the institution's loan book?

4- What has been the range of, the Ratio of Non-Performing Loans to Total Advances (PAR) over the past one year?

SECTION B:

Default rates

5. Do you agree that sharing of Credit information with CRB has helped to improve the clients' repayment record?

6. Do you agree that a client's CRB report/repayment record is one of the key considerations/input into the bank's loan pricing decision?

7. Do you agree that the rate of loan defaults has reduced as a result of the sharing information on bad borrowers with the Bureau?

Cost of borrowing and profitability

8. The cost of collecting information on new borrowers has reduced following the roll out of the CRB. Do you agree?

9. Interest rates charged on loans to clients have reduced due to the CRB, do you agree?

10. To what extent do you agree to the fact that the profitability of the financial institution has improved with CRB in place.

Loan processing and turnaround time

11. It now takes less time to process a client's loan due to the availability of data (CRB credit reports) on the potential borrowers?

12. The volume of information a new borrower is required to provide has reduced substantially due to the presence of CRB.

13. It is easy to determine the borrower's creditworthiness

General information

14. The quality of information received from the CRB in the credit report meets the bank's expectations. Do you agree?

15. I am confident that other banks do submit quality data to the Bureau.

16. The CRB provider responds to the banks enquiries on time.

17. Provide at least three comments on how you perceive the performance of the existing CRB provider?

18. What do you think are the main challenges affecting CRB operations in Uganda

19. Kindly suggest three areas where the current CRB provider needs to improve

20. Kindly provide at least three suggestions on what Bank of Uganda as the Regulator can do to improve its supervision of CRB operations

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Thank you for sparing your precious time to provide feedback

Appendix 3: Documentary review checklist

1. Bank of Uganda MDI quarterly reports 2006-2014
2. Bank Of Uganda Annual Supervision reports
3. Governor's quarterly update on CRB reports
4. Data quality reports from Compuscan