CREDIT RISK MANAGEMENT PRACTICES AND PERFORMANCE OF LOANS IN MICROFINANCE DEPOSIT TAKING INSTITUTIONS IN NORTHERN UGANDA

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DECLARATION

I, **Michael Owiny Tukei** declare that this research dissertation **titled,** "*Credit Risk Management Practices and Performance of Loans in Microfinance Deposit Taking Institutions in Northern Uganda*", is an original copy and it has never been submitted to any University, college or School for any academic award.

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APPROVAL

This is to certify that this research dissertation titled, *"Credit Risk Management Practices and Loan Performance in Microfinance Deposit Taking Institutions in Northern Uganda"*, has been under our supervision and is now ready for submission for examination with my approval as Kyambogo University based supervisors.

Signature.....

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Date...07/Nov/2019.....

DEDICATION

This dissertation is dedicated to my wife, sons and parents for their love, sacrifice, support and understanding without which the completion of this research project would not have been possible.

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LIST OF ABBREVATIONS/ACRONYMS

AMFIU	Association of Microfinance in Uganda
BCBS	Basel Committee on Banking Supervision
BOU	Bank of Uganda
CRB	Credit reference Bureau
GOU	Government of Uganda
MDIs	Microfinance deposit taking institutions
MFI	Microfinance institutions
NPLs	Nonperforming Loans
PAR	Portfolio at risk
VIF	Variance inflation factor

ABSTRACT

The purpose of the study was establishing the relationship between credit risk management practices and the performance of loans in Microfinance Deposit Taking Institutions in Northern Uganda. The objectives of the study were to find the effect of the Credit scoring, Client appraisals, Credit terms and Collection procedures on loan performance determined by the portfolio at risk, bad loan provisions and write offs. The study used exploratory design with quantitative approach and qualitative approach assisted in explaining the results. Cross sectional research design was used since the study was at one point in time and longitudinal research design was used to analyze the loan performance parameters from the MDIs over the last 5 years and purposive sampling technique was used to select the respondents from the 9 MDI branches. The use of descriptive and inferential statistics, was deemed the best design to fulfill the objective of the study. The findings in regards to the credit scoring on loan performance indicated that positive significant relationship exists (r=.552), the relationship between client appraisal and loan performance was significantly positively related (r=.491), the relationship of credit terms and loan performance had weak positive relationship (r=.071) and the relationship between collection procedures and loan performance was positively related (r=.410). This implies that loan performance is greatly influenced by credit scoring and appraisal. In regards there is need to find out the other predictors of loan performance since credit risk management practices predicts 34.4 percent of the variance in loan performance. Use of credit scoring, clients appraisal and collection procedures were significant predictors of loan performance. Thus, this requires management of MDIs to streamline the process of credit scoring, have trained and competent credit teams that properly appraise clients and concrete collection procedures as this will have the capacity to predict more of the variance in loan performance

CHAPTER ONE

INTRODUCTION

1.0 Introduction

This chapter discussed the background to the study, problem statement, purpose of the study, research objectives and questions, scope of the study, significance of the study and conceptual framework.

Loan performance is critical to the success and sustainability of microfinance institutions (MFI's) globally. One of the main tasks of Financial Institutions is to offer loans, and their main source of risk is credit risk, that is, the uncertainty associated with borrower's repayment of these loans (Grosvenor, 2010). Financial institutions especially MDIs are likely to collapse if there is decline in the performance of loans (Ahmed & Malik, 2015) . Microfinance deposit taking institutions (MDIs) are very important financial institutions in the financial system and the global economy. However, in their course of lending, MDIs are confronted with non-performing loans (NPLs) that tend to intensify into financial crisis when left unresolved.

Background to the study

The background to this study was analyzed in Historical, Theoretical, Conceptual and Contextual perspective.

Historical Perspective

Non-performing loans (NPLs) is a worldwide issue that affects financial markets stability in general and banking industry viability in particular. A loan is non-performing when payments of interest and/or principal are past due by 90 days or more, or interest payments equal to 90 days or more have been capitalized, refinanced, or delayed by agreement, or payments are less than 90

days overdue (IMF report on the treatment of Nonperforming Loans, 2005). According to Alton and Hazen (2001), non-performing loans are those loans which are ninety days or more past due on their payment or no longer accruing interest.

The economic crisis that occurred in 2007 and 2008 along with the credit crunch placed credit risk management into the regulatory focus. Subsequently, supervisory bodies instigated more transparency. This called for financial institutions in the lending business to have comprehensive knowledge of their borrowers (customers) and their associated credit risk (Lybeck, 2011). The new Basel III policies conveyed by BCBS present a superior regulatory burden for banks. The proposed Basel (IV) standards for capital reserves for banks will assist in the mitigation of risk in the occurrence of a financial crisis. It is probable to follow the third Basel accords and more rigorous capital requirements and superior financial disclosure will be required. These Basel accords impose certain minimum capital ratios as a guarantee that banks have a sturdy capital position to guard their solvency in the occurrence of a deep recession. The capital strength ensures that the banks carry on lending even in the depression stage of the business cycle.

To act in accordance with the most rigorous regulatory requirements, and take up the elevated capital costs of credit risk, as illustrated by Lybeck (2011) many financial institutions such as banks are refitting their approach to credit risk management.

Nevertheless, banks with a perception that this is solely a conformity exercise are being shortsighted. Therefore, a superior credit risk analysis and management presents an opportunity for banks to improve the overall financial stability, and performance to retain a competitive advantage.

Based on existing literature, credit risk exposure continues to be a significant basis of problems for the lending institutions. This issue is even more imperative with reference to microfinance institutions in Uganda. As defined by Kairu (2009) microfinance is the process of providing monetary services to the unbanked or low-income earners. It also refers to the sustainable practice of offering those services. These institutions lend to low income earners, a group that is believed to be very risky in terms of exposure to credit risk. Therefore, credit risk can be defined as the likelihood of loss owing to a borrower's failure to meet his obligation (loan, line of credit) (HKIB, 2012).

Worldwide, there have been cases of the collapse of MDIs due to undesirable loan performance. MiBANCO the then Peru leading Micro finance institution risked collapse due to irrecoverable loans of $78million in 2012, For instance Pride Zambia collapsed in 2009 with PAR>30 days of over 50% (Dixon, Ritche, & Siwale, 2011). This is the pointer to the fact that loan performance is a pillar to financial institutions' continuity in existence (Nawai & Shariff, 2012).

Theoretical Perspective

This study was underpinned by financial intermediation theory based on the theory of informational asymmetry and the agency theory. The approach of financial intermediaries is based on the method of regulation of the monetary creation, of savings and financing of economy. The method of regulation influences the liquidity and solvability of intermediaries (Gurley & Shaw, 1961). (Rajan, 2010), shows that the regulations regarding the capital of intermediaries influence their health, the ability for refinancing and the method for recovering debts. Additionally, because financial institutions are able to break down assets into small units, they can reduce transaction costs and also employ diversification for the benefit of both their customers and equity holders. Secondly, financial institutions act as evaluators of credit risk for the depositor. Accordingly

pressure mounts on the financial institutions to carefully give out loans to the borrowers because the savers need their deposits back at any time while the institutions must also make profits from interest to sustain their operations.

The MDIs are the agents for the savers or depositors and they connect the borrowers through credit that has to be managed with the hope of making profits for sustainability of the financial institutions. This relates to how the MDIs manage credit risk management practices to control the loan performance so as to reduce the risk.

1.1.3 Conceptual Perspective

Ahmed and Malik (2015) defined credit risk management practices in terms of client appraisal, credit terms and collection procedures. For better performance of credits or loans, a well-structured collection policy is needed and if the financial institutions do not implement it, would lead to loan delinquency (Boldizzoni, 2008). Lending is not an easy task for financial institutions because it creates a big problem which is called non-performing loans (Chhimpa, 2002, pp. cited in UPAL, 2009). Due to the nature of their business, Banks expose themselves to the risks of default from borrowers (Waweru & Kalani, 2009)

In today's environment of intense competitive pressures, volatile economic conditions, rising default rates and increasing levels of consumer and commercial debt, an organizations ability to effectively monitor and manage its credit risk could mean the difference between success and survival (Altman, 2002). The past decade has seen dramatic losses in the banking industry. Firms that had been performing well suddenly announced large losses due to credit exposures that turned sour, interest rate positions taken, or derivative exposures that may or may not have been assumed to hedge balance sheet risk. In response to this, commercial banks have almost universally embarked upon an upgrading of their risk management and control systems.

Due to the nature of their business, financial institutions expose themselves to the risks of default from borrowers. Prudent credit risk assessment and creation of adequate provisions for bad and doubtful debts can cushion the banks risk. However, when the level of non- performing loans (NPL's) is very high, the provisions are not adequate protection (Gupta, 1998).

According to Clarke (1999) awarding credit is a journey, the success of which depends on the methodology applied to evaluate and to award the credit. This journey starts from the application for credit through acquisition of credit and ends at the time the credit is fully paid. A credit policy helps to define the frame work within which credit will be extended and managed. Hempel et al (1994) states that there are two credit evaluation systems in relation to banks assessment of loan applications. Judgmental credit analysis which relies on the consumer loan officer's experience in assessing the loan and empirical credit analysis also referred to as credit scoring which assesses applicants based on scores applied to various applicant characteristics. Examples of applicant characterizes assessed include age, employment history, performance on loans currently held and types of accounts held (Asiedu – Mante, 2011).

Non-performing loans (NPLs) are loans that are in default or close to being in default. Many loans become non-performing after being in default for 90 days, but this can depend on the contract terms. A loan is non-performing when payments of interest and principal are past due by 90 days or more, or at least 90 days of interest payments have been capitalized, refinanced or delayed by agreement, or payments are less than 90 days overdue, but there are other good reasons to doubt that payments will be made in full (IMF report on the treatment of Nonperforming Loans, 2005)

Prudential Guidelines (2006) defines non-performing loan as a loan that is no longer generating income. The guidelines state that loans are non-performing when: principal or interest is due and

unpaid for 90 days or more; or interest payments for 90 days or more have been re-financed, or rolled-over into a new loan.

The literature identifies two sets of factors to explain the evolution of NPLs over time. One group focuses on external events such as the overall macroeconomic conditions, which are likely to affect the borrowers' capacity to repay their loans, while the second group, which looks more at the variability of NPLs across banks, attributes the level of NPLs to bank-level factors (Kereta, 2007). For instance, (Berger, Frame, & Miller, 2005), who studied the links between NPLs, cost efficiency and capitalization in the US commercial banks for the period 1995–2004, found a two-way causality between cost efficiency to NPLs. While they explained the causality from NPLs to cost efficiency as "bad luck," driven mainly by deterioration in macroeconomic conditions, they explained this causality from cost efficiency to NPLs through the hypothesis of "bad management." In particular, this hypothesis argues that low cost efficiency is a signal of poor management practices, thus implying that as a result of poor loan underwriting, monitoring and control, NPLs are likely to increase.

Lastly, is the "moral hazard" hypothesis, which was discussed by Keeton and Morris (1987); they argue that banks with relatively low capital respond to moral hazard incentives by increasing the riskiness of their loan portfolio, which in turn results in higher non-performing loans on average in the future. (Ghosh & Van Tassel, 2011) Showed that excess loss rates were prominent among banks that had relatively low equity-to-assets ratio. The negative link between the capital ratio and NPLs was also found in (Berger, Frame, & Miller, 2005), and (Greuning & Bratanovic, 2003). Keeton and Morris (1987) argued that banks that tend to take more risks, including in the form of excess lending eventually absorbed higher losses. Their finding was supported by (Guntz.S, 2011).

This therefore shows that risks in the bank can result to or increase the level of non-performing loans.

1.1.4 Contextual Perspective

In Uganda, financial institutions have for a long time been facing problems of poor loan performance and as a result leading to collapse of several of these institutions. For example the defunct Uganda commercial bank collapsed due to irrecoverable loans of 115 billion Uganda shillings (Ministry of Finance and Economic Development, 2015)

Recently AMFIU (2018), observed declining loan performance of the microfinance institutions as noted in the increasing trend in the average portfolio at risk > 30days from 2.35% in 2012 to 5.95% in 2014. In concurrence, Bank of Uganda (BOU) stability report (2012) also noted that credit risk of financial institutions remained elevated with the asset quality of the institutions deteriorating as was shown by the increase in the ratio of non-performing loans to total loans from 1.6% as at June 2011 to 3.9% at June 2012. Further still, the BOU supervision report 2016 indicated that the volume of non-performing loans increased by Ushs.8.1 billion from Ushs.7.5 billion to Ushs.15.6 billion with corresponding overall portfolio at risk that increased to 5.3% compared to 2.8% at the end of December 2015. (Odeke & Odongo, 2014), noted that all the financial institutions that were closed had tremendously high levels of NPLs.

In a bid to improve financial stability and reduce incidences of high level of NPLs, the bank of Uganda instituted a credit reference bureau on the rationale that timely and accurate information on borrowers' debt profile and repayment history would reduce information asymmetry between borrowers and lenders (Bank of Uganda report on Credit Reference Bureau (CRB) Services, 2005). The institution of the credit reference bureau was anticipated to enable banks and other financial institutions to, among other things, lower the default risk or credit risk and reduce NPLs, and

consequently contribute to financial deepening in the economy (Bank of Uganda's new Credit Reference Bureau, 2008). Unfortunately, the levels of NPLs in Uganda have continued to remain high despite the effort of Bank of Uganda. For example in 2013, the level of NPLs increased to 6% from 4.2% in 2012 (Bank of Uganda Annual Supervision Report, 2013).

Onuko, Muganda, & Musiega (2015), attributes this trend in performance within the financial sector to laxity in the credit management processes and poor credit risk management practices. On the other hand, the state of microfinance in Uganda report (2013 and 2015) cited weak loan tracking systems and credit management as causes of poor loan performance in terms of portfolio at risk therefore noting that improving credit management leads to decline in portfolio at risk figures.

Different scholars have studied loan performance and have suggested several variables as predictors of loan performance; these include macroeconomics factors such inflation, GDP (Warue, 2012), interest rates (Kariuki, 2010); (Mbucho, 2015), Credit management system (Moti, 2012)

This study focused on credit risk management practices to explain performance of loans of MDIs as literature has recognized that lack of prudent credit risk management by monetary establishments has helped stir the financial dip around the world (Bezzina & Grima, 2005).

Credit risk management practices include the systems, procedures and controls which a company has in place to ensure the efficient collection of customer payments and the risk of nonpayment. Literature further, suggests that good credit risk management practices such as client appraisal, credit terms, credit risk control measures and collections procedure (Moti, 2012); (Kiplimo & Kalio, 2014) results in good banking which ultimately leads to enhanced loan performance.

Studies linking credit risk management practices and performance of loans are still scarce in Uganda. Such studies have mostly been carried out in Pakistan (Ahmed & Malik, 2015) and Kenya (Moti, 2012); (Kiplimo & Kalio, 2014). Although recent researches have attempted to analyze the performance of loans in financial institutions, more needs to be done to clarify the relationship between credit risk management practices and performance of loans in MDIs in Uganda. Thus, this research was set out to address the gap.

Credit risk management practices are intended to ensure that micro finance institutions achieve their planned loan performance. This is because microfinance institutions generate their income from interest earned on loans granted to low income borrowers which makes repayment uncertain.

This study was to establish the relationship between credit risk management practices (Credit scoring, client appraisal, credit terms and collections procedures) and performance of loans in MDI's.

A review of the perspectives discussed in this study shows that nonperforming loans have impacted negatively on the financial institutions. All perspectives recognize that nonperforming loans are affecting the financial performance of these lending institutions. There is therefore a need for a study in the Ugandan context to try and address the issue of increasing nonperforming loans.

1.2 Statement of the problem

Evidence from Uganda shows that microfinance deposit taking institutions (MDI's) have continuously failed to achieve sustainable and desirable loan performance as reflected by the deterioration in asset quality. In 2013 PAR above 30 days in volume was at 3.2bn representing 1.7%, in 2014 it increased to 4.2bn representing 4.1% and in 2015 it increased to 7.5bn representing 2.8% with the volume of non-performing loans increasing by Ushs.8.1 billion from

Ushs.7.5 billion to Ushs.15.6 billion with corresponding overall portfolio at risk that increased to 5.3% compared to 2.8% at the end of December 2015 (Bank of Uganda Annual Supervision Report, 2016). This affects the performance of MDIs in sustaining the operations and limiting the profits. This study is to determine the impact of Credit Risk Management Practices on the performance of loans.

1.3 Purpose of the study

The study was to examine the relationship between credit scoring, client appraisal, credit terms, collection procedures, credit risk control practices, and performance of loans of MDIs in Uganda.

1.4 Research Objectives

i. To establish the effect of credit scoring on performance of loans of MDIs.
ii. To determine the effect of client appraisal on performance of loans of MDIs.
iii. To establish the relationship between credit terms and performance of loans of MDIs.
iv. To determine the relationship between collection procedures and performance of loans.

1.5 Research Questions

i. What is the effect of client appraisal on performance of loans of MDIs?
ii. What is the relationship between credit terms and performance of loans of MDIs?
iii. What is the effect of credit control practices on performance of loans?
iv. What is the relationship between collection procedures and performance of loans?

1.6 Scope of the study

1.6.1 Conceptual Scope

The study was focused on the effect of credit risk management practices on performance of loans in Microfinance Deposit Taking Institutions.

Credit risk management practices here include the Credit scoring, Credit appraisal, Credit terms and Credit collection procedures (Ahmed & Malik, 2015). Non-Performing Loans was analyzed by looking at the portfolio at risk (PAR), provision for bad debts and written off loans (Alton & Hazen, 2001)

1.6.2 Time

This study was conducted between the months of January to June 2019 in a cross sectional study design because data was collected at one point in time.

1.6.3 Geographically

The study was carried out on Microfinance Deposit Taking Institutions in Northern Uganda (particularly the districts of Lira, Gulu, Pader, Arua and Koboko where these MDIs have branches) because the Non-Performing Loans in Microfinance Deposit Taking Institutions is continuously deteriorating (BOU, 2016).

1.7 Significance of the study

i. The study acts as a guide to policy makers (BOU) so as to enable formulation of policies relating to improving the level of non-performing loans by putting more emphasis on credit scoring, credit appraisal, credit terms and credit collection procedures during their supervision visits.

ii. The study will also add to the scholarly work with the much needed information as regards the relationship between credit risk management and performance of loans. Particularly in area of credit scoring that is new in Uganda with only one service provider called Compuscan.

iii. The study will enrich the researcher's skills in the field of credit risk management practices. More knowledge will be gained in credit appraisal and credit collection procedures with its regulations that are embedded in the mortgage Act of 2009.

iv. The study will benefit the financial institutions in more improved way of managing the portfolio quality of the asset and better ways of handling collection procedures.

v. To the borrowers, the study will make them more informed in their borrowing behavior and understanding the urgency in making repayments to avoid spoiling the records tracked by the Credit reference bureau.

1.8 Conceptual Framework

The Credit Risk Management Practices are the independent variable and Performance of Loans the dependent variable. Under the independent variable are Credit scoring, Client appraisal, Credit terms and Credit collection procedures that have to be properly managed for good results on the performance of loans which is measured by the portfolio at risk, write offs and Provision for bad loans.

INDEPENDENT VARIABLE **DEPENDENT VARIABLE**

CREDIT RISK MANAGEMNT PRACTICES **PERFORMANCE OF LOANS**

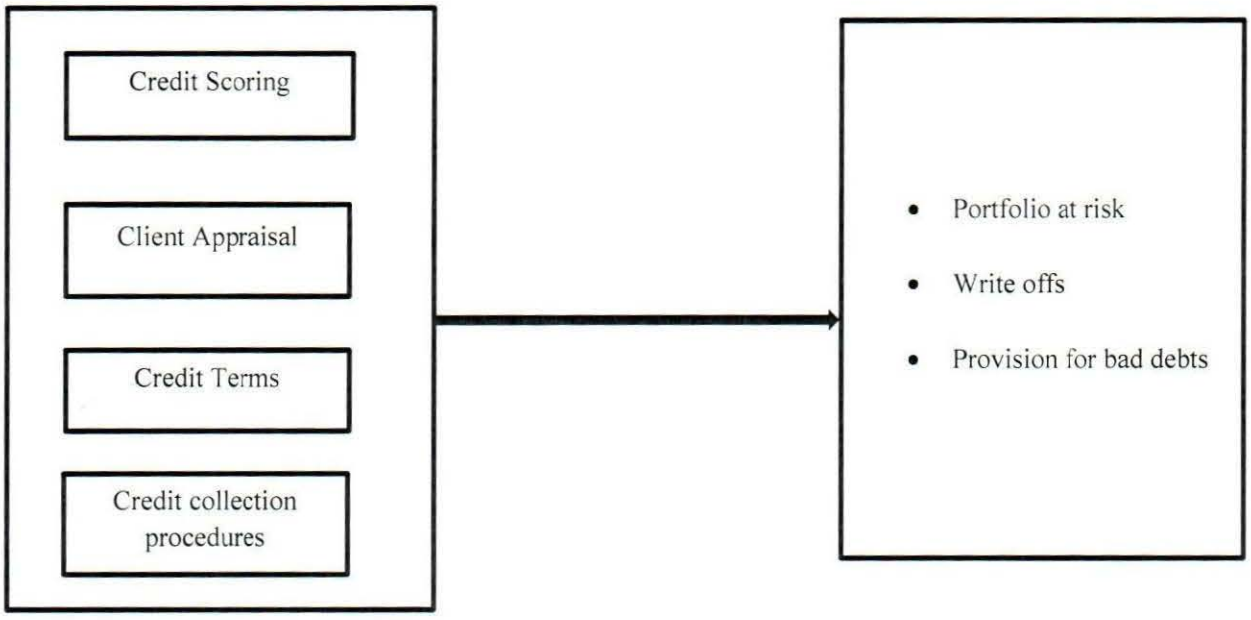

Figure 1: Conceptual Framework

Source: adopted from extant review of literature; (Moti, 2012), (Ahmed & Malik, 2015), (Kiplimo & Kalio, 2014) with modifications by the Author.

Explanation of the Conceptual model

The conceptual model above suggests a relationship between credit scoring, client appraisal, credit terms and collection procedures and nonperforming loans. The model further depicts that MDIs that put in place proper credit risk management practices in terms of credit scoring, client appraisal, credit terms and proper collection procedures (Moti, 2012); Ahmed & Malik, 2015; Kiplimo & Kalio, 2012; tend to reduce on their nonperforming loans operationalized by portfolio at risk, write offs and provision for bad loans as well as managing the influence of top management in interfering with the credit operations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter presented the literature review. It covered the theoretical review which discussed the theories that guided the study. It also discussed the empirical review where research work by other researchers and authors in the field under study was discussed. Lastly, a summary of the chapter was provided.

2.2 Theoretical review

The study was based on two theories: Theory of financial intermediation and transaction cost theory.

The financial intermediation theory is based on the theory of informational asymmetry and the agency theory. The approach of financial intermediaries is based on the method of regulation of the monetary creation, of saving and financing of economy. The method of regulation influences the liquidity and solvability of intermediaries (Gurley & Shaw, 1961). (Rajan, 2010), shows that the regulations regarding the capital of intermediaries influence their health, the ability for refinancing and the method for recovering debts. Additionally, because financial institutions are able to break down assets into small units, they can reduce transaction costs and also employ diversification for the benefit of both their customers and equity holders. Secondly, financial institutions act as evaluators of credit risk for the depositor.

Transaction cost theory has its origins in classic article (Ronald.Coase, 1937), The Nature of the Firm. According to Coase (1960) transaction costs include information acquisition costs and negotiation costs. This indicates that transaction costs include the costs of drawing contracts,

signing contracts and the cost of monitoring and enforcing contracts. He observes that market prices govern the relationships between firms but within a firm decision is made on a basis of maximizing profits. Transaction costs incurred by financial intermediaries and financial institutions in financial exchange are associated with credit risk in the form of collateral requirements, uncertainty, investments in specific issues and hefty costs incurred in monitoring granted credit facilities (Mercylynne, Job.Omagwa, & Wanjugu.Mumbi, 2017)

2.3 Literature Review

2.3.1 Performance of loans

Non-performing loans (NPLs) is a worldwide issue that affects financial markets stability in general and banking industry viability in particular. A loan is non-performing when payments of interest and/or principal are past due by 90 days or more, or interest payments equal to 90 days or more have been capitalized, refinanced, or delayed by agreement, or payments are less than 90 days overdue. (IMF report on the treatment of Nonperforming Loans, 2005).

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

2.3.2 Credit Risk Management

Mbucho (2015), defined credit risk management as the process for controlling and collection of payments from customers. According to Asiedu – Mante (2011), credit risk management practices involves procedures that will ensure that proper authorities grant credit, the credit goes to the right people, the credit is granted for productive activities or for businesses which are economically viable, the appropriate size of the credit is granted, the credit is recoverable and there is adequate flow of management information within the organization to monitor the credit activity.

Basel (1999) argued that the basis of sound credit risk management are the strategies that clearly outline the manner in which a credit portfolio is managed that is how loans are originated, appraised, monitored and collected. These practices are commonly conceptualized as usage of credit scoring, client appraisal, credit terms and collection procedures (Moti, 2012); (Kiplimo & Kalio, 2014) and (Ahmed & Malik, 2015).

2.3.3 Credit scoring and Performance of loans

According to Schreiner (2001), financial institutions are facing an enormous risk of non-performing loans (NPLs) noting that larger loans have greater risk exposure, so the variable costs per-dollar is higher. If lenders don't take extra care, there could be more loan defaults. To be able to overcome the challenge of NPLs, an institution is required to monitor the behavior of borrowers. Thus, the idea of establishing CRB was conceived in order to enable banks and other financial institutions to determine credit worthiness of their borrowers – individuals, groups and enterprises; and therefore reduce the loan default risk. In this respect CRB assists in sharing information on default among banks, eliminating corrupt borrowers with the aim of borrowing from different financial institutions with the aim of defaulting and also to identify honest/credible borrowers based on known history and character.

Pagano & Jappelli (1999), in their study indicated that information sharing improves the pool of borrowers, decreases defaults and reduces interest rates. It can also lead to an expansion of lending and ultimately reduction in the nonperforming assets. The arrival of credit reference bureau (CRB) has significantly transformed lending and contributed to the improved loan performance of many banks as well as other financial institutions. Before the introduction of CRB, many borrowers used to borrow from one institution to the other without being identified. This led into many financial institutions experiencing immense losses as a result of non-performing loans. Through the use of

CRB, the financial institutions are in a position to obtain detailed information on a person's credit history, including information on their identity, credit accounts and loans, bankruptcies and late payments and recent inquiries. Other information shared include: proven frauds and forgeries; bounced cheques, false declarations, credit default and late payments, use of false securities among others. For the case of Uganda, CRB has not effectively helped since evidence of escalating bad loans is still being reported. This study attempts to also investigate the possible causes.

2.3.4 Client appraisal and Performance of loans

Client appraisal is the request for a loan evaluation on its merits. Client appraisal is the first step in minimizing loan losses by MDIs since it ensures that a borrower has the willingness and ability to repay a loan (Kiplimo & Kalio, 2014). Literature suggests that minimizing the risk of bad debts in lending institutions is embedded in the ability to have greater insight into factors

like customer financial strength, credit score history and changing payment patterns (Moti, 2012); (Nkusu, 2011) all this implies that effective credit decisions should be based on thorough evaluation of risk conditions of lending and the characteristics of the borrowers.

The appraisal stage is the heart of a high quality portfolio thus desirable loan performance (Addae-Korankye, 2014), Prior studies have shown that MDIs do rely on both qualitative and quantitative data to appraise clients. Research further found that reliance on trust by MDIs can result in extremely low default rates; in fact, a high quality MDI will typically see default rates of below 3%. (Kereta, 2007). And (Richard, 2008), in his study found out that personal judgment and intuition play a big role in credit assessment. But the focus should be on the borrower's capacity, character, condition, capital and collateral (5Cs). The 5Cs help MDIs to increase loan performance as they get to know their customers better (Kiplimo & Kalio, 2014).

Credit appraisal by MDIs has been found to reduce the price of financing, however, (Ghosh & Van Tassel, 2011) argues that if there is any loophole in credit appraisal, and then recovery of the provided loans becomes a challenge and observed that the time spent to assess the applicant's credit worthiness also matters. He further argued that the longer it takes to assess the applicant, the better.

In group lending model, however it has been noted that peer selection provides a screening mechanism for borrower's character, choice of investment project and proposed loan use. This helps to reduce adverse selection and thus enhance loan performance (Morduch, 1999) since the borrowers in such lending models tend to have perfect knowledge of their partners due to the reasons that everyone wants to belong to a group with safe borrowers therefore lowering the cost of borrowing thus improving repayment performance and cost efficiency. Self-screening and group pressure imposed ensures rather secure loan recovery for the MDI (Guntz.S, 2011); (Hadi & Kamaluddin, 2015) observed that social collateral model is an effective system for assessing borrowers and improving on repayment performance in MDIs in Malaysia.

Kiplimo & Kalio (2014), in their study to investigate the impact of credit risk management practices on loan performance of micro deposit taking institutions in Baringo County in Kenya found out that client appraisal had a positive impact on loan performance. This implies that an MDI that is effective in separating the bad from good borrowers through efficient client appraisal tend to have better loan performance and reduced nonperforming loans.

2.3.5 Credit terms and Performance of loans

Credit term refers to the conditions under which an MDI advances credit to its customers (Moti, 2012), a good credit term has the ability to attract and retain customers without negatively affecting their cash flow (Aduda & Kalunda, 2012). The credit terms will specify the credit period, interest

rates (cost of money) and loan size. Credit period is the period of time in which the credit is granted. The length of credit period is influenced by collateral value, credit risk, the size of the account and market competition (Ross, 2008) and (Kereta, 2007) argues that the length of the loan matters because if MDIs support the poor only in the short run it will hamper welfare of the society in the long run.

Earlier studies found out that the chances of default tend to vary by loan size where higher defaults have been associated with smaller loan amounts (Berger, Frame, & Miller, 2005). (Rosenberg, June, 2009), in his microfinance analysis also contended that cost of issuing small loans by MDIs is higher in percentage terms than that of issuing larger loans, this is because administrative cost decrease proportionately to the size of the loan and this is probably why MDIs prefer advancing large loans.

Research links poor loan performance to high interest rates (Kariuki, 2010). The higher the interest rate as a result of higher default risk premium, the higher the nonperformance of the loans. An increase in the interest rates on credit facilitates advanced to borrowers is likely to deter them from servicing their loans according to the agreed terms and conditions (Kariuki, 2010). This proves that there exist a negative relationship loan performance and interest rates and it's argued that strong institutional performance and growth is mostly possible with low lending rates.

Previous studies also show that interest rates are higher for loans obtained from MDIs than those loans obtained from commercial banks (Ledgerwood, 2002) this could be because the costs of operation of MDIs are generally higher than those of the commercial banks since MDI clients are generally located a distance from the branches and require continuous monitoring (Nanyonjo & Nsubuga, 2004). In my opinion this could also be because of MDIs taking weaker collateral like

house chattels and "kibanja" or unregistered land sales agreements that make it risky to potentially recover the advanced amounts whereas for the commercial banks that take registered land titles and logbooks hence giving them a higher chance of recovering.

Odeke & Odongo (2014),argue that credit terms of MDIs have to be favorable such that it fits the borrowers' ability to repay a loan and minimize default but evidence provided by Spanish banking industry however, show that too lenient credit terms determines loan nonperformance, where the lenient credit terms were linked to weak internal controls. This suggests that tightening the loan contract terms by reducing the grace period on loans enhances the pool of credit worthy borrowers thus loan performance. This study further argued that loan terms that match the cash flow ability and favorable cost of money can lead to good repayment ability and capacity thus loan performance.

2.3.6 Collection procedures and Performance of loans

Collection procedures according to Ahmed & Malik (2015)are the systematic ways required to recover the past due amounts from the clients within legal powers. It also refers to detailed statement of steps to be taken regarding when and how the past due amounts of a debt are to be collected (Gatimu & Frederick, 2014); (Ahmed & Malik, 2015), further noted that collection procedures differ from institution to institution but what is important is that they complement with existing laws. According to Warue (2012)found out that most effective methods used by MDIs and self-help groups to recover loan arrears are peer pressure and this works well with group lending methodology for Uganda's case, notice to borrowers by lending MDIs and authority intervention methods. The same study further revealed that law court cases procedures of collection in Kenya may be a hindrance to loan default recovery by MDIs. Gatimu & Frederick

(2014), observed that effective collection procedures for any loan arrangement are those spelt out as part of the loan terms.

This section mentions an aspect of law of the land and in my opinion this matters a lot because the mortgage of Uganda practically makes it very difficult for the lender to recover his money due to the periods to be taken for the next action and those to be put in consideration when selling off the property.

Research has noted that challenges in collection have been associated to loopholes in credit risk assessment. The collection effort should aim at accelerating collections from slow payers and reducing bad debt losses (Kariuki, 2010). That is why its advices that MDIs view collections as an essential piece of the credit cycle and not just the final step in the lending process. Earlier studies show that the collection procedures and policies adopted by MDIs have significant effect on loan performance (Moti, 2012), (Ahmed & Malik, 2015); (Gatimu & Frederick, 2014); (Boldizzoni, 2008), found out that those financial institutions especially MDIs that do not follow well administered collection procedures suffer from loan defaults. This argument points to the fact that debt collection procedures that MDIs employ are vital to their loan collection performance because not all loan customers demonstrate the same level of commitment as some honor their obligations on time while others do not, some customers are slow payers while some are non-payers.

2.3.7 Credit risk management practices and Performance of loans

Credit risk management practices have become an issue of concern in the financial institutions today. This is probably due to rise in the level of nonperforming loans and default rates being faced by majority of these institutions which has made a need to develop improved processes and procedures to deliver better visibility into future loan performance. Credit risk management

practices involve those strategies of how loans are originated, appraised, monitored and collected (Basel, 1999).

Effective risk management practices are vital for stability of MDIs (Asongo & Idama, 2014)increased earning (Schroeck, 2002); (Al-Tamimi & Al-Mazrooei, 2007)and sustainable growth of an institution (Greuning & Bratanovic, 2003), (Gakure & Ngumi, 2013)noted that financial institutions without proper credit risk management practices tend to grow temporarily but have higher chances of failing in the future and indeed here in Uganda, some financial institutions collapsed or were at the verge of collapse when the Central Bank(BOU) took over the management. (Fatemi & Fooladi, 2006), have however argued that a firm will only engage in credit risk management practices if in so doing they are able to maximize the value of the firm and the value to the shareholders. Empirical studies have shown that the success of MDIs in the managing credit risk is reflected in the proportion of the delinquent loans to the gross lending portfolio (Kohansal & Mansoor, 2009). But to maintain financial stability and reach more clients, credit risk management should be at the Centre of financial institution's operations.

Prior studies suggests that credit risk management practices of client appraisal, credit scoring, credit terms and collection procedures enhances loan performance (Moti, 2012); (Ahmed & Malik, 2015), (Kiplimo & Kalio, 2014). Several scholars associate poor loan performance to laxity in credit risk management practices (Onuko, Muganda, & Musiega, 2015). (Richard, 2008), on the other hand identified weakness in credit risk management as part of the cause of difficulties being experienced by commercial banks. It is arguable that credit risk management practices provide one size fits all approach for curbing loan default problems and improving loan performance in MDIs (Ross, 2008)

2.4 Summary of the Literature Review

A review of empirical studies discussed in this study shows that there are mixed results on how credit risk management practices adopted by financial institutions impact on nonperforming loans. In some instances, some studies show that credit risk management has a significant impact on the performance of MDIs while on the other hand, results show that credit risk management was found to have a negative impact on MDI performance. There is therefore a need for a study in the Ugandan context for comparison of results. Although there is increased literature on credit risk management and Loan performance of MDIs in developing countries; the literature on the Ugandan context is scarce and the research design approaches are also different. There are few studies conducted on this context. It is based on these identified gaps that this study seeks to fill these knowledge gaps by conducting a study on the relationship between credit risk management practices and the level of nonperforming loans in Microfinance Deposit Taking Institutions in Northern Uganda.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

The study was about Credit Risk Management Practices and Performance of loans in Northern Uganda's Microfinance Deposit Taking Institutions. The systematic approach to this study was by following the laid out methodology that helped the researcher not to deviate from the intended process of conducting the research. This section contained the research design, area, and population, a sample of the study, data collection instruments, reliability and validity of the study findings and data processing and analysis.

3.2 Research Design

The study used exploratory design with quantitative approach. The quantitative approach is where correlation and regression were used in testing the relationships between study variables and the qualitative approach was utilized in explaining the findings of the quantitative design (Cresswell, 2014).

Cross-sectional research survey design was used because the study was carried out at one point in time. However, the longitudinal research survey design was used when analyzing the figures on portfolio at risk, provision of bad loans and write offs for the period of five years.

3.3 Area of the Study

The study was based on the MDI branches in Northern Uganda. There are 3 MDIs with 9 branches (AMFIU Annual report, 2018) in the Northern Uganda region.

3.4 Target Population

The Study was based on a population of 9 MDI branches and it focused on the Credit teams from the branches that included the Credit officers, Credit supervisors, and Branch managers.

3.5 Sampling Technique and Sample Selection

Given a population of 9 MDI branches in Northern Uganda, the sample based on (Krejcie & Morgan, 1970) sample determination table and was 9 MDI branches. Purposive sampling technique was used to select five respondents per branch among the branch employees for the reason that they were knowledgeable in the subject of study and the position they held at the branch and these acted as a unit of inquiry (Addae-Korankye, 2014) and these included the Branch Managers, Credit supervisors and Credit officers. The unit of analysis were all the 9 MDI branches operating in Northern Uganda. The researcher issued 5 questionnaires each to 9 MDI branches, totaling to 45 questionnaires.

Table 3. 1: Sample selection

MDIs	**No. of Branches**	**Sample**	**Respondents per Branch(Credit officer, Credit Supervisor and Branch Manager)**	**Total No. of Respondents**
FINCA Uganda Ltd	4	4	5	20
PRIDE Microfinance	4	4	5	20
UGAFODE	1	1	5	5
Total	**9**	**9**		**45**

Source :(AMFIU, 2015)

3.6 Data sources and data collection instrument

The study used mainly primary data collected from the field. The researcher used a questionnaire and interview guide to collect data on the study variables. These tools were more suitable for research surveys.

3.7 Reliability and Validity

Reliability is the extent to which the same research technique applied again to the same object (subject) will give you the same result whereas Validity is the extent to which our measure reflects what we think or want we them to be measuring (Cresswell, 2014).

3.71 Reliability of the instrument

To ensure accuracy, consistency and completeness, reliability of the instrument was established by using Cronbach's coefficient Alpha test and a coefficient of 0.7 was considered. According to (Grayson, 2004) and (Nunnally, 1978) a cut-off alpha coefficient of 0.7 is sufficient to prove that the instrument is reliable.

Table 3. 2: Showing the reliability of the instrument

Variables	Alpha from Pretest	Alpha from the final test	Number of items in the final test	Item deleted
Credit scoring	0.81	0.76	6	0
Client appraisal	0.79	0.72	5	0
Credit term	0.78	0.76	5	0
Collection procedures	0.87	0.77	5	0
Loan Performance	0.75	0.71	5	0

Source: ***Output from data analysis***

The higher the alpha is, the more reliable the assessment in the scales. According to Nunnually (1978) and Grayson (2004), a cut-off alpha coefficient point of 0.7 is sufficient enough to prove that the item scales are consistent and dependable. Consistent with the above scholars' standards and the fact that all the determined alpha coefficients were above 0.7, it was enough to conclude that the instrument was reliable.

3.72 Validity of the instrument

According to Cresswell (2014), Validity refers to the degree to which empirical evidences and theoretical rationales support the adequacy and appropriateness of interpretations and actions based on test scores whereas (Heale & Twycross, 2015) defines validity as the extent to which a concept is accurately measured in a study.

The validity of the instrument was done by giving it to the academia and experienced practitioners in the area of study to determine the appropriateness of the instrument and see whether it measures the content and construct Validity.

For purposes of this study, a factor analysis was carried out and minimum load of 0.5 was accepted.

3.8 Data processing and analysis

Data was collected using questionnaire and interview guide, checked for completeness, consistence and then coded so as to quantify data representing the attributes of the variables. Statistical Package for Social Scientist (SPSS) version 20 was used to derive descriptive and inferential statistics on the data. Descriptive statistics was used to describe the demographics characteristics. Pearson's correlation was run to establish the relationships between Credit risk management practices and Performance of loans, while regression analysis was performed to determine the predictive power of independent variables on the dependent variable.

3.9 Limitations of the study

i. The study is quantitative in nature and therefore, it may not capture the respondent's emotions, feelings on the MDIs. However, this issue was mitigated with some indirect questions added to the instrument.

ii. The study is cross sectional in nature and therefore, the findings may not depict what happened in these MDI branches over a period of time. This is mitigated with some aspects of the dependent variable covered in a longitudinal design.

iii. The study may face challenges of respondents not willing to give information and this can be mitigated by the researcher assuring the respondents on the ethical considerations like confidentiality and the purpose of the research that can be proved by the letter from the graduate school.

CHAPTER FOUR

PRESENTATION, INTERPRETATION AND ANALYSIS OF THE FINDINGS

4.1 Introduction

This chapter contains the presentation, analysis and interpretations of the study findings. The purpose of the study was to investigate the relationship between credit risk management practices and performance of loans in MDIs'. Therefore, the presentation of the findings was guided by the research objectives which were:

(i) To establish the effect of credit scoring on performance of loans of MDIs.

(ii) To determine the effect of client appraisal on performance of loans of MDIs.

(iii)To establish the relationship between credit terms and performance of loans of MDIs.

(iv)To determine the relationship between collection procedures and performance of loans.

4.2 Response Rate

The researcher issued 45 questionnaires to respondents in 9 MDI branches and a total of 40 questionnaires were duly filled and returned representing a response rate of about 89 percent, which is suitable to draw valid and reliable conclusions. This is consistent with Amin's (2005) assertions, which stated that, a response rate of 70% and above is representative of the population, and thus, can be relied on to draw valid conclusions.

4.3 Demographic Characteristics

This section presents the characteristics of the respondents such as gender, age, academic qualification; position of the respondent, duration the respondent has worked with the MDI as well as the characteristics of the MDI branches such as number of staff and duration the branch has been in existence. The aim was to understand various categories of respondents that participated in this study.

4.4 Characteristics of respondents

The characteristics of respondents regarding gender, age, position, duration the respondent has worked with the MDI and academic qualification of the respondent in the MDI branches are presented below:

4.4.1 Gender of the respondents

The results in the table below show the distribution of respondents by gender.

Table 4. 1: Characteristics of the respondents by gender

	Frequency	Percent	Cumulative Percent
Male	29	72.5	72.5
Female	11	27.5	100.0
Total	40	100.0	

Source: Output from data analysis

Table 4.1 above indicates that 72.5 percent of the respondents who participated in the study were males and 27.5 percent of the respondents were females. This shows that there are more male in credit departments of MDIs compared to females. The explanation got for the dominance of males in credit department is the long distances covered by the branches that need those with ability of riding motorcycles.

4.4.2 Age of the respondents

The result in the table below shows the distribution of respondents by age.

Table 4. 2: The age of respondents

	Frequency	Percent	Cumulative Percent
Less than 30 years	14	35	35
30 - 39 years	24	60	95
40-49 years	2	5	100
50 and above	0	0	100
Total	**40**	**100.0**	

Source: Output from data analysis

The table 4.2 shows that 60 percent of the respondents lie in the age group of 30 - 39 years, 35 percent of the respondents lie in the age group less than 30 years of age, 5 percent fall in the range 40 – 49 years and 0 percent 50 years and above. This implies that majority of the credit staffs are youth and are energetic.

4.4.3 Academic Qualification of the respondents

The results in the table below show the distribution of respondents by level of education.

Table 4. 3: Level of education of the respondents

	Frequency	Percent	Cumulative Percent
Diploma	4	10	10
Bachelor's Degree	36	90	100.0
Total	**40**	**100.0**	

Source: Output from data analysis

The table 4.3 above indicates that 90 percent of the respondents were Bachelor's degree holders and 10 percent had Diplomas. This implies that the credit staffs are educated and qualified to do the job and as such they were able to comprehend the questionnaire.

4.4.4 Job position of the respondents

The results in the table below show the job positions of the respondents.

Table 4. 4: Job position of the respondents

	Frequency	Percent	Cumulative Percent
Branch Manager	7	17.5	17.5
Credit supervisor	6	15.0	32.5
Credit officer	27	67.5	100
Total	**40**	**100.0**	

Source: Output from data analysis

The table 4.4 above indicates that 67.5 percent of the respondents were credit officers, 17.5 percent were Branch Managers and 15.0 percent of the respondents were credit Supervisors. This indicates that the respondents were knowledgeable about the subject matter.

Table 4. 5: Duration the respondent has worked with MDI

	Frequency	Percent	Cumulative Percent
Less than 1 year	3	7.5	7.5
1 – 3 years	21	52.5	60.0
4 – 6 years	8	20.0	80.0
Over 6 years	8	20.0	100.0
Total	**40**	**100.0**	

Source: Output from data analysis

The table 4.5 above indicates that 60 percent of the respondents have been in credit for less than 4years which shows high turnover in the credit section and the explanation given is that the commercial banks attract the loan officers with better pay compared to what MDIs pay.

4.5 Characteristics of the MDIs

The characteristics of MDIs regarding the number of staff involved and duration the branch has been in existence are presented below:

4.5.1 Number of Staff involved in credit operations at the branch

The results in the table below show the staff involved in credit operations at the branch.

Table 4. 6: Staff involved in credit operations at the branch

	Frequency	Percent	Cumulative Percent
5 – 7 staff	21	52.5	52.5
8 – 10 staff	14	35.0	87.5
Over 10 staff	5	12.5	100
Total	**40**	**100.0**	

Source: Output from Data analysis

The table 4.6 depicts that majority of the branches had 5-7 staff members in credit operations representing 52.5 percent, followed by 8-10 staff in credit operations representing 35.0 percent and 12.5 percent of the branches had over 10 staff in credit operations. This implies that all the branches had adequate staff in the credit department.

4.5.2 Duration the Branch has been in operation

The results in the table below show the duration of the MDI branch in operations.

Table 4. 7: Number of years the Branch has been running

		Frequency	Percent	Cumulative Percent
Valid	11 – 15 years	1	11.1	11.1
	Over 15 years	8	88.9	100
	Total	**9**	**100.0**	

Source: Output from data analysis

Table 4.7 indicates that all the MDIs have existed for more than 10 years. This implies that majority of the branches had been in existence for at least 10 years and thus have experience in dealing with credit and have been tested over time and managed the credit pressure.

4.6 Descriptive statistics

The descriptive statistics covered means, standard deviations, minimum and maximum values. The purpose here was to check whether the calculated means represent the observed data, that is, whether the mean is a good replica of reality Field, (2006) and Saunders et al., (2007). The means and standard deviations of all the constructs are summarized in Table 10a and 10b below.

4.6.1 The level of Credit risk management practices and loan performance.

Table 4. 8: Showing the mean, Standard deviation, minimum and maximum of variables

	N	Minimum	Maximum	Mean	Std. Deviation
Credit Score	9	4.20	4.83	4.4509	.20002
Client Appraisal	9	3.72	4.90	4.1833	.36905
Credit Terms	9	3.50	4.20	3.8467	.25298
collection procedure	9	4.24	4.60	4.3700	.12369
Performance of loans	9	3.43	4.33	3.8278	.25909
Valid N (listwise)	**9**				

Mean: 1-1.80 "Very low", 1.81-2.61 "Low", 2.62-3.42 "Medium", 3.43-4.23 "High", 4.24-5.04 "Very high"

Source: Output from data analysis

Table 4.8 above reveals that all mean scores of the constructs in question range between 3.83 and 4.45, with the standard deviations in the range of 0.12 to 0.37. Because of small standard deviations compared to mean values, it is clear that the calculated means are a good replica of reality (Field, 2006 and Saunders et al., 2007). Basing on the mean values of Credit scoring, it is evident that respondents accepted that performance of loans could be enhanced if much attention is put on use of credit scoring. This argument is not far from the earlier findings of Pagano and Jappelli (1993). In addition, respondents had similar views on client's appraisal and collection procedures with means of 4.45 and 4.37 respectively. This observation is in line with the findings of Kaplimo and Kalio, (2014); Sheila, (2011); Moti et al, (2012); Nkusu (2011) and Warue (2012); Gatimu and Kalui (2014). The mean value of credit terms 3.85 is the lowest in contrast to other means in Table 4.9.

Table 4. 9: Showing the mean, Standard deviation, minimum and maximum of items.

Descriptive Statistics					
	N	Min	Max	Mean	Std. Dev
Credit Scoring					
All the loan clients are registered under credit scoring system	9	3	5	4.55	.677
The loans have credit scoring applications before approval	9	3	5	4.52	.554
Are all requirements met by customers when registering for credit scoring	9	1	5	3.95	1.061
The BOU policies regarding credit scoring are strictly followed	9	2	5	4.45	.749
CRB reports have helped in gaining insight of potential borrowers' intent on loan	9	2	5	4.40	.778
Measures are in place to monitor the CRB enrolment of each client by branch management	9	3	5	4.68	.526
Client appraisal					
Loan officers follow the due process of loan appraisal put by the institution	9	3	5	4.50	.555
Our bank has a clearly established process for approving new loans.	9	4	5	4.78	.423
All repeat loans are appraised afresh.	9	1	5	3.98	1.310
Credit committee make use of the CRB reports to making decisions	9	3	5	4.47	.679
Loan appraisals are always done by only loan officers	9	1	5	2.90	1.614
Credit Terms					
Interest rates are communicated to clients way in time	9	2	5	4.23	1.025
Clients are given loan durations that are convenient to them	9	4	5	4.50	.506
Customers can pay loan installments any time within the loan period	9	1	5	3.47	1.467
Customers pay their loan any time they feel like	9	1	5	2.70	1.636
Clients are sensitized on the credit terms before they take money	9	1	5	4.42	.813
Collection Procedures					
Our bank has a system for monitoring the condition of individual credits	9	1	5	4.25	.981
The Bank's system has features to track loan repayments	9	4	5	4.65	.483
We follow the escalation process to the latter	9	3	5	4.17	.712
The Bank has a policy on handling of loan collections	9	4	5	4.70	.464
The courts and bailiffs are used in helping on collections	9	1	5	4.05	1.154

Portfolio at risk					
The PAR is maintained at the standard minimum	9	1	5	3.68	1.228
Do clients repay their loan installments as they fall due	9	1	5	3.42	1.217
The loan clients have the capacity to pay their loan installments	9	2	5	4.00	.784
Loans take long to be repaid beyond the stipulated time	9	1	5	3.13	1.181
Clients have to be forced to repay loans	9	1	5	3.25	1.296
Write offs					
All loans above 180 days are written off	9	1	5	2.47	1.502
Bad loans are transferred to external debt collectors for recovery	9	1	5	4.07	.917
Bad loans are written off and reasons for default established	9	1	5	4.42	.903
All escalation procedures are followed before write off	9	3	5	4.55	.552
Independent teams visit or establish the reasons of default	9	1	5	4.37	.897
Provision for bad loans					
There is a policy here to provide for bad loans	9	1	5	4.48	.784
The Bank's provision for bad loans has been reducing over the last one year	9	1	5	3.58	1.357
The Bank can determine the adequacy of provisions	9	1	5	3.85	.975
Bad loans are always recovered	9	1	5	3.48	1.154
Staff understand the implications of bad loans provisions	9	1	5	4.20	.992
Valid N (listwise)	**9**				

Mean: 1-1.80 "Very low", 1.81-2.61 "Low", 2.62-3.42 "Medium", 3.43-4.23 "High", 4.24-5.04 "Very high"

Source: Output from data analysis

Table 4.9 above reveals that all mean scores of the constructs in question range between 2.47 and 4.78 and items with mean scores below 3.00 need major improvements for better results. These are: All loans above 180 days are written off with mean of 2.47, customers pay for their loans when they feel like paying and loan appraisals done by only loans officers.

Table 4. 10: Key loan performance indicators extracted from the instrument (A questionnaire)

Year	PAR above 30 days in Percentage	No. of loans paid promptly	No. of loans paid Beyond stipulated time	Provision for bad loans	Bad loans recovered	Percentage write off of the total portfolio	No. of loans written off	No. of written off loans recovered
2018	2.8	732	152	25,431,432	20	2.83	62.8	27.5
2017	2.64	616	169	14,145,416	10	2.7	74.6	25
2016	1.96	583	161	11,719,826	15	1.78	87.4	19
2015	2.5	547	210	16,762,123	22	2	74	6
2014	1.5	850	133	23,678,561	25	1	98	3

Source: Performance reports from MDIs

Table 4.10 above, shows how the respondents (Credit teams) indicated the loan performance indicators in the period of five years. The findings revealed that the percentage of written off loans has been rising from year 2015 and the rising provisions for bad loans confirming the concerns from the problem statement.

Table 4. 11: Interview Guide Responses

Interview Guide Questions and Responses	Yes		No	Yes %	No %
1. Did the loan officer appraise/access your business before granting you the loans? (Reframe based on the type of loan)		19	0	100	0
2. How effective is the verification of physical business and residence of client before getting the loan?		16	3	84	16
3. Does the loan officer examine your financial records?		17	2	89	11
4. Do the loan Officers communicate the Interest rates before you borrow?		15	3	79	16
5. Do you know all the other charges to the loan before borrowing?		15	4	79	21
6. At what interest rate did you obtain the current loan?		15	4	79	21
7. Are clients given loan durations that are convenient to them?		19	0	100	0
8. Do you find difficulties in paying the loan installments any time within the loan period?		7	12	37	63
9. If yes, in part 8, probe the causes of failure to pay on time	Multiple borrowing, Low business, drop in business and price changes, bad season				
10. Do the bank officials explain the loan obligations?		15	4	79	21
11. Does your Bank give you a loan repayment schedule?		19	0	100	0
12. If "No" in question 11, what happens when you default or forget your payment date?		19	0	100	0
13. Does your loan Officer visit your business premises after granting you the loan?		15	4	79	21
14. Do you get any form of alerts such as SMS to remind you of your loan obligation?		19	0	100	0
15. Have you ever failed to pay your loan completely?		3	16	16	84
16. If yes, how did the Bank recover their loan?	Sold collateral and refinancing				

Source: Output from data analysis

Table 4.11 above helps in correlating the findings from the questionnaire respondents (Credit teams) with the findings from the interview guide respondents (Clients) to determine the level of accuracy exhibited by the credit teams when carrying out their duties. From the 19 customers interviewed, percentages were derived from the Yes and No answers and quantified to give meaning to the qualitative data gathered.

4.7 Correlation Analysis

Pearson correlation coefficient (r) was carried out to establish the extent to which the study variables are associated to each other in line with the research objectives. Bivariate-correlation analysis was performed and Pearson correlation coefficients were generated to measure the magnitude of the relationship between the study variables. The results are presented in the table below and interpreted according to the stated research objectives.

Table 4. 12: Zero-order correlation

	1	2	3	4	5
credit scoring **(1)**	1				
credit Appraisal **(2)**	.461**	1			
Credit Terms **(3)**	.134	-0.73	1		
Collection Procedures **(4)**	.655**	. 491**	.025	1	
Loan performance **(5)**	**.552****	**.491****	**.071**	**.410****	1

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

Source: Output from data analysis

4.7.1 The Credit scoring and loan performance

The results in table 4.12 indicates that there was positive significant relationship between credit scoring and loan performance ($r = .552$, $p< 0.000$). This means that any positive change in use of credit scoring is associated with a positive change in loan performance.

4.7.2 The Credit appraisal and loan performance

The results in table 4.12 reveal that there was significant positive relationship between credit appraisal and loan performance ($r = .491$, $p< 0.000$). This implies that any positive change in clients' appraisal is associated with a positive change in loan performance.

4.7.3 The Credit terms and loan performance

From table 4.12, the results indicate that there was positive insignificant relationship between credit term and loan performance ($r = .071$, $p< 0.532$). The implication is that any positive change in credit terms will not significantly be associated with loan performance.

4.7.4 The Collection procedures and loan performance

The results in table 4.12 further indicates that there was positive significant relationship between collection procedures and loan performance ($r = .410^{**}$, $p< 0.000$). This implies that any MDI with clear guidelines on loan collection that are implemented by the credit team is associated with loan performance.

4.8 Regressions Analysis

Regression model was used to examine the predictive power of credit risk management practices on loan performance. The regression analysis results explained the variance in loan performance as a result of change in credit risk management practices using coefficient of determination (r^2). The results of the regression analysis are presented in the table below:

Table 4. 13: Showing multiple regression analysis coefficients of the variables

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	Std. Error	Beta	T	Sig.	Tolerance	VIF
(Constant)	.748	.519		1.441	.154		
Use of Credit Scoring	.407	.137	.381	2.967	.004	.504	1.984
Client Appraisal	.232	.081	.302	2.882	.005	.755	1.324
Credit Terms	.030	.069	.041	.440	.661	.955	1.047
Collection Procedures	.039	.121	.040	.326	.745	.557	1.794

a. Dependent Variable: Performance of Loans

b. Predictors: credit scoring, credit terms, credit appraisal, collection procedures

Model Summary

R = **.614**, R^2 = **.377**, Adjusted R^2 = **.344,** Std error = **.3744**,F Statistic = **11.369**, Sig. = **.000**

The results from the table 4.13 depicts that credit risk management practices explain 34.4 percent of the variance in loan performance (Adj. R^2 =.344, level of significance = 0.000). This implies that loan performance is not only explained by credit risk management practices, but also by other variables that explain it by 65.6 percent not included in this study.

It should also be noted that based on the results of standardized Beta coefficient, use of credit scoring (Beta = .381, Sig. = .004) was a better predictor of loan performance, followed by Client appraisal (Beta = .302, Sig. = .005) and these were significant and then credit terms and collection

procedures (Beta = .041, Sig. = .661; Beta = .040, sig. = .745) respectively and these were not significant. This means that as far as loan performance is concerned, more emphasis should be put on use of credit scoring and client appraisal.

In addition, the multi-collinearity test was carried out by running regression model (table 4.13) in which the variance inflation factor (VIF) and tolerance values were generated. The results indicate that the multi-collinearity problem between the predicator variables did not exist since all the VIF values were above the cut off value, as per the rule of 1 which advocates for investigation if the values are less than 1. Since the actual VIF values are all above 1, it is a sign that predictor variables are not highly related and each accounts for the variance in Loan performance (Chong, 2008). Therefore, basing on these results above, the validity of the regression tests in this study is not problematic.

The results in Table 4.13 reveal that there were four independent variables (use of credit scoring, client appraisal, credit terms and collection procedures) explaining 34.4 percent of the variance (Adjusted R^2) in loan performance. This validates the purpose of this study (establishing a relationship between Credit risk management practices and performance of loans in MDIs). Basing on these results, the validity of the regression tests in this study is not questionable. The predictive model of the study variables would thus appear as follows:

$$\mathbf{LP= a+\beta_1 CS+ \beta_2 CA+ \beta_3 CT+ \beta_4 CP+e}$$

Where **LP** is Loan performance, a is constant term, $\beta_1\beta_2\beta_3\beta_4$ is a regression gradients/coefficients/stable parameters, e is estimated error, CS is use of credit scoring, CA is client appraisal, CT is credit terms and CP is collection procedures. In incorporating the stable parameters as obtained from this study, the model becomes:

$$\mathbf{LP= .748+.381CS+.302CA+ .3744}$$

CHAPTER FIVE

DISCUSSION, SUMMARY, CONCLUSION, RECOMMENDATIONS AND SUGGESTIONS

5.1 Introduction

This chapter covers the detailed explanation of the tests carried out or performed in the previous chapter, and how obtained results relate to the findings in the existing literature. The chapter dwells more on the discussion of results of the study, as per quantitative analyses centered on the objectives of the study. The results are discussed in the context of the relevant literature with a view of making concrete conclusions and recommendations of the findings in line with the study objectives.

5.2 Discussion of findings

The discussion of the findings is in relation to the study objectives as stated in chapter one and they are discussed as below;

5.2.1 Credit scoring and loan performance.

The study findings revealed a positive significant relation between credit scoring and loan performance. This therefore means that the use of credit scoring by MDIs enhances loan performance. This finding is in agreement with the earlier scholars such as Pagano and Jappelli (1993) who in their study indicated that information sharing improves the pool of borrowers, decreases defaults and reduces interest rates. It can also lead to an expansion of lending and ultimately reduction in the nonperforming assets.

Also from the interview guide findings of the researcher, it showed that 100 percent of the respondents agreed to make credit scoring for their clients.

However, they raised shortcomings in the way credit scoring was being handled at the branches of MDIs for example one borrower can fraudulently access two cards by getting another person to offer only finger prints, also interchanging loan applications due to similar names that ends spoiling one's record and poor capturing of information during CRB registration.

Another weakness advanced was on the inability of credit scoring determining the character of the borrowers that is left to the credit team to decide and yet credit scoring takes a higher percentage of the credit committee decisions. This makes it difficult for the loan officer to defend a decision of denying a borrower money due to character.

Also from the issue of Microfinance Institutions that are not regulated by BOU giving out loans to the same borrowers which makes it difficult for the users of Credit reference bureau to know those with transactions hence multiple borrowing by the same customers.

5.2.2 Credit appraisal and loan performance

The results of the study revealed significant positive relationship between credit appraisal and loan performance. This implies that an improvement in credit appraisal will lead to improved loan performance. These findings are in agreement with the earlier scholars such as Kaplimo and Kalio, 2014; Sheila, 2011; Moti et al, 2012; Nkusu, 2011 among others who concluded in their various studies that credit appraisal positively influences loan performance.

From the interview guide results subjected to the 19 borrowers, 84 percent borrowers agreed to credit staff carrying appraisals and visiting their businesses and premises.

5.2.3 Credit terms and loan performance.

The study findings revealed a positive but insignificant relation between credit terms and loan performance. This therefore means that credit terms do not matter as far as loan performance is

concerned. This finding is in disagreement with the earlier scholars such as Moti et al, 2012; Kalunda et al, (2012); Ross et al, (2008); and Kareta (2007) argued that the length of the loan matters because if MDIs support the poor only in the short run it will hamper welfare of the society in the long run. Earlier studies by Berger and Udell, (2014) found out that the chances of default tend to vary by loan size where higher defaults have been associated with smaller loan amounts.

Also from the interview guide subjected to 19 borrowers, at least 22 percent of them agreed to not considering interest rates when borrowing. From the results of the interview guide administered to the clients, it indicates that the MDI clients when borrowing money do not put in much consideration on the credit terms but rather simply chase for the loan to meet their demands at short notice.

5.2.4 Collection procedures and loan performance.

The results of the study revealed significant positive relationship between collection procedures and loan performance. This implies that an improvement in the collection procedures will enhance the loan performance. These findings are in agreement with the earlier scholars such as Warue (2012); Gatimu and Kalui (2014), observed that effective collection procedures for any loan arrangement are those spelt out as part of the loan terms.

From the interview guide results, 36.8 percent of the borrowers accepted to failing to pay their installments and had to be forced to pay including disposal of the collateral. Borrowers indicated the reasons for default that included low business, drop in prices, bad seasons leading to drought and multiple borrowing that stretches borrowers in payments.

Also from the table 4.10 showing loan performance key indicators findings revealed that most of bad portfolio above 30 days was written off from year 2015 to 2018 ranging between 1,78% to 2.83% which implies the collection procedures need improvement.

5.3 Summary

The study findings revealed a positive significant relation between credit scoring and loan performance. This therefore means that the use of credit scoring by MDIs enhances loan performance.

The results of the study revealed significant positive relationship between credit appraisal and loan performance. This implies that an improvement in credit appraisal will lead to improved loan performance.

The study findings revealed a positive but insignificant relation between credit terms and loan performance. This therefore means that credit terms do not matter as far as loan performance is concerned.

The results of the study revealed significant positive relationship between collection procedures and loan performance. This implies that an improvement in the collection procedures will enhance the loan performance.

The results from the table 12 depicts that credit risk management practices explain 34.4 percent of the variance in loan performance (Adj. R^2 =.344, level of significance = 0.000). This implies that loan performance is not only explained by credit risk management practices, but also by other variables that explain it by 65.6 percent not included in this study

5.4 Conclusion

The study examined the relationship between credit risk management practices and loan performance. The findings indicate that there is a significant positive relationship between use of credit scoring and client appraisal, and loan performance. The study findings add on to the earlier works of other scholars and debates on the predictors of loan performance. The ability to enhance the loan performance depends on the use of credit scoring and proper client appraisal.

5.5 Recommendations

The researcher made the following recommendations based on the findings, discussions and the conclusions of the study.

The credit staff of MDIs need to put in consideration the other factors affecting loan performance in their appraisals and decision making like price changes, multiple borrowing and bad seasons leading to drought in Northern Uganda.

Use of credit scoring and client appraisal were significant predictors of loan performance. Thus, this requires management of MDIs to have trained and competent credit teams that properly appraise clients and adopts use of credit scores as well as follow up as this will have the capacity to predict more of the variance in loan performance.

5.6 Suggestions for further research

The researcher suggests that further studies be carried out on the other factors affecting loan performance that the borrowers highlighted as some of the factors affecting them like low business operation, price changes, multiple borrowing and bad seasons leading to drought in Northern Uganda.

Also from the literature review, I suggest that since developed countries use CRB to capture credit

sales of suppliers, research is needed to see the possibility of introducing that to Uganda to save financial institutions from assuming that all traders own the existing stock at their premises.

REFERENCES

Addae-Korankye, A. (2014). Causes and Control of Loan Default/Delinquency in Ghana. *American International Journal of Contemporary Research*, 4-12.

Aduda, J., & Kalunda, E. (. (2012). Financial Inclusion and Financial Sector Stability with Reference to Kenya. *Journal of Applied Finance and Banking.*, *6*(2), 95 -120.

Ahmed, & Malik. (2015). Credit Risk Management and Loan Performance Empirical Investigation of Micro Finance Banks of Pakistan. *International Journal of Economics and Financial Issues*, 5(2), 575-576.

Al-Tamimi, H. H., & Al-Mazrooei, F. M. (2007). "Banks' risk management: comparison study of UAE national and foreign banks". *The Journal of Risk Finance*, pp. 394-409.

Altman, E. I. (2002). Management Credit Risk. In A. C. Millennium. *Economic Notes, 31*, 201-21.

Alton, G., & Hazen, J. (2001). "As Economy Flounders". *"Do We See A Rise in Problem Loans?"*, 22-32.

AMFIU Annual report. (2018). *AMFIU Annual report.* Kampala: AMFIU.

Asiedu – Mante, E. (2011). *Rural Banking in Ghana.* Accra: Combert Impression.

Asongo, A., & Idama, A. (2014). TheCauses of Loan Default in Microfinance Banks:. *An Experience of Standard Microfinance Banks Limited Yola Nigeria. ,IORS Journal of Business and Management.*, *1*(6), 74-81.

Bank of Uganda. (2016). *ANNUAL SUPERVISION REPORT;Issue No. 7.* Kampala: Bank of Uganda.

Bank of Uganda. (2017). *Annual Report 2016/2017.* Kampala: Bank of Uganda.

Bank of Uganda Annual Supervision Report. (2013). *Annual Supervision Report.* Kampala: BOU.

Bank of Uganda Annual Supervision Report. (2016). *Annual Supervision Report-December 2016.* Kampala: BOU.

Bank of Uganda report on Credit Reference Bureau (CRB) Services. (2005). *Credit Reference Bureau (CRB) Services.* Kampala: BOU.

Bank of Uganda's new Credit Reference Bureau. (2008). Uganda's new Credit Reference Bureau : Speech by Emmanuel Tumusiime Mutebile, Governor BOU. *Launch of the Credit Reference Bureau, Bank of Uganda* (pp. 1-3). Kampala: Bank of Uganda.

Basel. (1999). *Principles for the Management of Credit Risk, Basel Committee on Banking Supervision.* Basel: Basel.

Berger, A., Frame, W., & Miller, N. (2005). CreditScoring and the Availability, Price, and Risk of Small Business Credit. *Journal of Money Credit and Banking., 37*(2), 191–222.

Bezzina, F., & Grima, S. (2005). Exploring factors affecting the proper use of derivatives. *An empirical study with active users and controllers of derivatives, 38*, 414-435.

Boldizzoni, F. (2008). Means and ends: the idea of capital in the west, 1500-1970. *Economics and Financial Issues*, 575-576.

BOU. (2016). MDI Reporting. *Loan performance*, 4-6.

Chhimpa, J. (2002). Incremental NPA(Non Performing Assets). *Stem that Inflow, 23*(3), 18-21.

Chong. (2008). Business computing and performance analysis. *Journal of Educational Computing Research*, 23-46.

Cresswell, J. W. (2014). *Research design: Qualitative, quantitative and mixed methods approaches (4th ed.).* California: Sage: Thousand Oaks.

Dixon R, R. J. (2011). Loan Officers and Loan Delinquency in Microfinance. *A Zambian Case Accounting Forum 31*, 47-71.

Dixon, R., Ritche, J., & Siwale, J. (2011). A Zambian case: Accounting Forum 31. *Loan officers and Loan Delinquency in Microfinance*, 47-71.

Fatemi, A., & Fooladi, I. (2006). Credit risk management: a survey of practices. *Managerial Finance, 32*(3), pp.227-233.

Gakure, R., & Ngumi, P. (2013). Do bank innovations influence profitability of commercial banks in Kenya? *Prime Journal of Social Science*, 237-248.

Gatimu, E., & Frederick, M. (2014). Assessing institutional factors contributing to loan defaulting in microfinance institutions in Kenya. *Journal of Humanities and Social Science*(19), 105-123.

Ghosh, S., & Van Tassel, E. (2011). Microfinance and competition for external funding. *Economics Letters, 112*(2), 168-170.

Grayson, D. (2004). Some myths and legends in quantitative psychology. *Understanding Statistics*, 3(1), 101-134.

Greuning, H., & Bratanovic, S. (2003). *Analyzing and Managing Banking Risk.* Washington, DC:: The World Bank.

Grosvenor, G. &. (2010). *Forecasting Non-Performing Loans in Barbados.* Central Bank of Barbados, , Research Department. Bridgetown, Barbados: Tom Adams Financial Centre.

Guntz.S. (2011). *Sustainability and Profitability of Microfinance Institutions;*. Nurenberg: Geeorg Simon University of Applied Sciences.

Gupta, A. (1998). Is Kenya on the Brink of a Banking Crisis In Marketing Intelligence. Kenya's Top Banks Comprehensive Survey. *The Business and Finance Journal*, 34-45.

Gurley, & Shaw. (1961). Money in a Theory of Finance. *Journal of Political Economy, 69*(1), 56-62.

Gyntelberg, J., & Remolona, E. M. (2007). Risk in Carry Trades. *A Look at Target Currencies in Asia and the Pacific*, 34-57.

Hadi, N. A., & Kamaluddin, A. (2015). Social Collateral, Repayment Rates, and the Creation of Capital among the Clients of Microfinance. *Procedia Economics and Finance*(31), 823-828.

Heale, R., & Twycross, A. (2015, 8 10). *Validity and reliability in quantitative studies.* Retrieved 5 14, 2019, from Researchgate.net: https://www.researchgate.net/publication/280840011_Validity_and_reliability_in_quantitative_research

HKIB, H. (2012). *Credit Risk Management.* Hoboken: John Wiley & Sons.

IMF report on the treatment of Nonperforming Loans. (2005). The Treatment of Nonperforming Loans prepared by:Adriaan M. Bloem and Russel Freeman. *Eighteenth Meeting of the IMF Committee on Balance of Payments Statistics Washington, D.C., June 27–July 1, 2005* (pp. 5-10). Washington DC: International Monetary Fund.

Kairu, P. K. (2009). *Credit Management.* Nairobi: Focus Publishers Ltd.

Kariuki, J. (2010). *The Relationship between Credit Risk Assessment Practice and the Level of Non performing loans of Kenya banks.* Nairobi: University of Nairobi.

Kereta, B. B. (2007). Outreach and Financial Performance Analysis of Microfinance Institutions in Ethiopia. *African Economic Conference United Nations Conference Center (UNCC), Addis Ababa, Ethiopia*, 17-26.

Kiplimo, K., & Kalio, A. (2014). Influence of Credit Risk Management Practices on Loan Performance of Microfinance Institutions in Baringo County. *International Journal of Science and Research, 3*(10), 2260-2267.

Koch, M. S. (2006). *Management of Banking. Thomson South- West.*

Kohansal, M., & Mansoor, H. (2009). Factors Affectng on Loan Repayment Performance of Farmers n Khorasan-Razav Provnce of Iran,. *Internatonal Research on Food Securty, Natural Resource Management and Rural Development.*, 23-25.

Krejcie, R., & Morgan, D. (1970). Educational and Psychological Measurement. *Determining sample size for research activities*, 30, 607-610.

Ledgerwood, J. (2002). *Microfinance Handbook.* Washington, DC: World Bank.

Lore, M. a. (2000). *The Professional Handbook of Finance Risk Management.* Oxford univesity.

Lybeck, J. (2011). *A Global History of the Financial Crash of 2007–10.* London: Cambridge University Press.

Mbucho, C. (2015). INFLUENCE OF CREDIT MANAGEMENT ON THE LOAN PERFORMANCE AMONG MICROFINANCE INSTITUTIONS IN KENYA. *Strategic Journal of Business & Change Management, 2*(2), 922-934.

Mercylynne, Job.Omagwa, & Wanjugu.Mumbi. (2017). Credit Risk Management and Financial Performance of selected commercial banks in Kenya. *Journal of Business and Management, 19*(11), PP 92-98.

Ministry of Finance and Economic Development. (2015). *Economic propersity.* Kampala: GOU.

Morduch, J. (1999). The Microfinance Promise. *Journal of Economic Literature*, pp. 1569-1614.

Moti, e. (2012). Effectiveness of Credit Management System on Loan Performance. *International Journal of Business, Humanities and Technology*, 2(6) 99-108.

Nanyonjo, J., & Nsubuga, J. (2004). Recognizing the role of MFI in Uganda. Bank of Uganda. WP/04/01/2004.

Nawai, & Shariff. (2012). Factors Affecting Repayment Performance in Microfinance Programs in Malaysia. *Procedia-Social and Behavioural Sciences*, 62, 806-811.

Nkusu, M. (2011). Nonperforming Loans and Macrofinancial Vulnerabilities in Advanced Economies. *IMF Working Paper*, 11-16.

Nunnally, J. (1978). *Psychometric theory (2nd ed.).* New York: McGraw-Hill.

Odeke, S., & Odongo, J. (2014). Interest Rate Exposure And Financial Performance of Commercial Banks In Uganda. *Research Journal of Finance and Accounting*, Vol.5, No.2, PP 167-180.

Onuko, L. K., Muganda, M., & Musiega, D. (2015). Effect of Credit Risk Management on Loan Portfolio Quality of Tier One Commercial Banks in Kenya. *International Journal of Business and Management Invention* , 546-575.

Pagano, M., & Jappelli, T. (1999). "Information Sharing, Lending and Defaults. *The Journal of Finance, 43*(5), 1693-1718.

Rajan, R. (2010). *"Fault Lines"*. Princeton, NJ.: Princeton University Press.

Richard, E. (2008). Credit risk management system of a commercial bank in Tanzania. *International Journal of Emerging Markets, 3*(3), 323-332.

Ronald.Coase. (1937). "The Nature of theFirm,". *Economica*, 386 – 405.

Rosenberg. (June, 2009). *Measuring Results of Microfinance Institutions–Minimum Indicators that Donors and Investors Should Track.* Washington DC,: (CGAP)/The World Bank.

Ross. (2008). *Essentials of Corporate Finance.* USA, McGraw-Hill: Hill International edition.

Schreiner, M. (2001). "Seven Aspects of Loan Size". *Journal of Microfinance, 3*(2), pp. 27–47.

Schroeck, G. (2002). *Risk Management and Value Creation in Financial Institutions.* Hoboken.: John Wiley & Sons, Inc.,.

Taherdoost, H. (2016). Validity and Reliability of the Research Instrument; How to Test the Validation of a Questionnaire/Survey in a Research. *International Journal of Academic Research in Management , 5*(3), 28-36.

UPAL. (2009). Priority sector advances: Trends, issues and strategies. *Journal of Accounting and Taxation,, 1*(5), 079- 089.

Warue, B. (2012). Factors affecting loan delinquency in Microfinance Institutions in Kenya. *International Journal of Management Sciences and Business Research*, Vol. 1 Issue 12.

Waweru, M., & Kalani, V. (2009). Commercial Banking Crises in Kenya: Causes and Remedies. *African Journal of accounting, Economics, Finance and Banking Research, 4*(4), 12 – 33.

Waweru, M., & Kalani, V. (2009). Commercial Banking Crisis in Kenya. *African Journal of Accounting, Economics, Finance and Banking Research*, 12-33.

APPENDIX 1: QUESTIONNAIRE

KYAMBOGO UNIVERSITY

Dear Respondent,

I am Michael Owiny Tukei a student of Kyambogo University pursuing Master of Business Administration (MBA). I am undertaking research on credit risk management practices and non-performing loans in Microfinance Deposit Taking Institutions (MDIs) in Uganda.

You have been identified as a key person to give accurate data about the study, kindly spare 15 minutes of your time and participate in this study by filling the questionnaire. The study is purely academic and all data provided shall be treated with confidentiality. I hope that timely completion

SECTION A: Background information (*Please tick the appropriate box)*

a) Gender Male ☐ Female ☐

b) Name of your Institution (MDIs only) .....

c) Age of respondents

Less than 30 years	30 – 39 years	40 – 49 years	50 –above years

d) Education background

Diploma	Bachelor	Masters	Others (specify)

e) How long have you worked in this Bank?

Less than 1 year	1- 3 years	4 – 6 years	Over 6 years

f) **Indicate your position**

Branch Manager	Credit supervisor	Credit officer

g) How long have you been in the current position?

Less than 1 year	1- 3 years	4 – 6 years	Over 6 years

h) **Number of years this Bank has been in operation**

Less than 5 years	5-10 years	10-15 years	Over 15 years

i) **Number of staff involved in credit operation in this Branch.**

2-4 Team members	5-7 Team members	8-10 Team members	Over 10 Team members

SECTION B: CREDIT RISK MANAGEMENT PRACTICES

Please tick (√) the appropriate box or correct response on the basis of the following scale:

Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
1	2	3	4	5

	Use of Credit Scoring	**1**	**2**	**3**	**4**	**5**
1	All the loan clients are registered under credit scoring system					
2	The loans have credit scoring applications before approval					
3	Are all requirements met by customers when registering for credit scoring					
4	The BOU policies regarding credit scoring are strictly followed					
5	CRB reports have helped in gaining insight of potential borrowers' intent on loan					
6	Measures are in place to monitor the CRB enrolment of each client by branc management					
	Client Appraisal					
1	Loan officers follow the due process of loan appraisal put by the institution					
2	Our bank has a clearly established process for approving new loans.					
3	All repeat loans are appraised afresh.					
4	Credit committee make use of the CRB reports to making decisions					
5	Loan appraisals are always done by only loan officers					
	Credit terms					
1	Interest rates are communicated to clients way in time					
2	Clients are given loan durations that are convenient to them					
3	Customers can pay loan installments any time within the loan period					
4	Customers pay their loan any time they feel like					
5	Clients are sensitized on the credit terms before they take money					
	Collection procedures					
1	Our bank has a system for monitoring the condition of individual credits					
2	The Bank's system has features to track loan repayments					
3	We follow the escalation process to the latter					
4	The Bank has a policy on handling of loan collections					
5	The courts and bailiffs are used in helping on collections					

SECTION C: PERFORMANCE OF LOANS

Please tick (√) the appropriate box or correct response on the basis of the following scale:

Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
1	2	3	4	5

	Portfolio at risk	1	2	3	4	5
1	The PAR is maintained at the standard minimum					
2	Do clients repay their loan installments as they fall due					
3	The loan clients have the capacity to pay their loan installments					
4	Loans take long to be repaid beyond the stipulated time					
5	Clients have to be forced to repay loans					
	Write offs					
1	All loans above 180 days are written off					
2	Bad loans are transferred to external debt collectors for recovery					
3	Bad loans are written off and reasons for default established					
4	All escalation procedures are followed before write off					
5	Independent teams visit or establish the reasons of default					
	Provisions for Bad loans					
1	Is there a policy here to provide for bad loans					
2	The Bank's provision for bad loans has been reducing over the last one year					
3	The Bank can determine the adequacy of provisions					
4	Bad loans are always recovered					
5	Staff understand the implications of bad loans provisions					

Key Performance Indicators to be filled by respondents

PAR (Portfolio at Risk)

Year	PAR above 30 days in Percentage	No. of loans paid promptly	No. of loans paid Beyond stipulated time
2018			
2017			
2016			
2015			
2014			

Loan Loss Provisions

Year	Provisionfor bad loans	Bad loans recovered
2018		
2017		
2016		
2015		
2014		

Write offs

Year	Percentage write off of the total portfolio	No. of loans written off	No. of written off loans recovered
2018			
2017			
2016			
2015			
2014			

Other Questions

1. What are the challenges or problems associated with application of credit Risk Management Practices.....
   .....
   .....
   .....
   .....
2. What strategies are you applying to improve on the performance of loans.....
   .....
   .....
   .....
3. In your view is credit scoring of importance since its inception? If yes or no, support your response with valid examples
   .....
   .....
   .....

Thank you for your time and cooperation.

APPENDIX 2: INTERVIEW GUIDE

KYAMBOGO UNIVERSITY

INTERVIEW GUIDE ON CREDIT RISK MANAGEMENT PRACTICES AND PERFORMANCE OF LOANS IN MDIs:

A CASE OF NORTHERN UGANDA

1. Did the loan officer appraise/access your business before granting you the loans? (Reframe based on the type of loan)
2. How effective is the verification of physical business and residence of client before getting the loan?
17. Does the loan officer examine your financial records?
18. Do the loan Officers communicate the Interest rates before you borrow?
19. Do you know all the other charges to the loan before borrowing?
20. At what interest rate did you obtain the current loan?
21. Are clients given loan durations that are convenient to them?
22. Do you find difficulties in paying the loan installments any time within the loan period?
23. If yes, in part 8, probe the causes of failure to pay on time
24. Do the bank officials explain the loan obligations?
25. Does your Bank give you a loan repayment schedule?
26. If "No" in question 11, what happens when you default or forget your payment date?
27. Does your loan Officer visit your business premises after granting you the loan?
28. Do you get any form of alerts such as SMS to remind you of your loan obligation?
29. Have you ever failed to pay your loan completely?
30. If yes, how did the Bank recover their loan?

End of Guide

APPENDIX 3: Table for Determining Sample Size from a Given Population

N	S	N	S
10	10	110	86
15	14	120	92
20	19	130	97
25	24	140	103
30	28	150	108
35	32	160	113
40	36	170	118
45	40	180	123
50	44	190	127
55	48	200	132
60	52	210	136
65	56	220	140
70	59	230	144
75	63	240	148
80	66	250	152
85	70	260	155
90	73	270	159
95	76	280	162
100	80	290	165

N is population size S is sample size

Source: Krejcie & Morgan (1970)

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10th June 2019

To Whom It May Concern

RE: LETTER OF INTRODUCTION

Dear Sir/Madam,

This is to introduce **Mr. Michael Owiny Tukei** Registration Number **16/U/13332/GMBA/PE** who is a student of Kyambogo University pursuing a Masters Degree.

He intends to carry out research on **"Credit Risk Management Practices and Performance of Loans in Microfinance Deposit taking Institutions in Northern Uganda"** as partial fulfillment of the requirements for the award of the Masters in Business Administration.

We therefore kindly request you to grant him permission to carry out this study in your institution.

Any assistance accorded to him will be highly appreciated.

Yours sincerely,

KYAMBOGO UNIVERSITY
★ 10 JUN 2019 ★
OFFICE OF THE
DEAN GRADUATE SCHOOL

Assoc. Prof. Muhamud N. Wambede
DEAN, GRADUATE SCHOOL