# CREDIT RISK MANAGEMENT AND AGRICULTURAL FINANCING BY BANKS IN UGANDA

Case Study: Entrepreneurs Financial Centre (EFC), Acacia Avenue Kololo Branch.

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**2013-B021-10131**

Uganda Martyrs University

April 2016

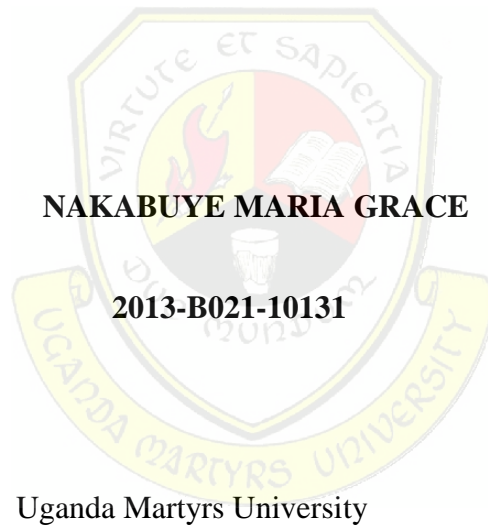# CREDIT RISK MANAGEMENT AND AGRICULTURAL FINANCING BY BANKS IN UGANDA

Case Study: Entrepreneurs Financial Centre (EFC), Acacia Avenue Kololo Branch.

An Undergraduate Dissertation Presented to The Faculty of Business Administration and Management in Partial Fulfillment of the Requirements for the Award of the Bachelor's Degree of Business Administration and Management of   Uganda Martyrs University

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## DEDICATION

This dissertation is dedicated to my entire family, especially my parents, my siblings and to my most treasured friends.

# ACKNOWLEDGEMENT

I thank the ALMIGHTY GOD for making this dissertation and my study a very successful one.

I am heartily grateful to my supervisor and mentor Moses Kibrai for giving me the opportunity to show what I could do and for his excellent supervision. I thank him for his numerous pieces of advice as to how to go about this dissertation. I also thank him for giving me up to date materials on the things I needed for this dissertation to be a success.

My appreciation also goes to the employees and clients of the Bank for their valuable comments and their support in filling the questionnaires. The branch manager and loan officers and others who helped me in administering the questionnaires, providing all the necessary information and documents without which this research project may not have been successfully completed.

I will also take this opportunity to thank all my lecturers who in one way or the other helped me in my study as well as this dissertation, I also thank my dear friends who have motivated me not give up to strive to accomplish the success especially Kitaka Joseph. Finally, I appreciate the immense support from my parents Mr. & Mrs. Kakande Martin, financially, spiritually and psychologically.

May God Bless you all

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# LIST OF ABBREVIATIONS

AF – Agricultural Financing

CA – Credit Appraisal

CI – Credit Insurance

CM – Credit Management

CR – Credit Risk

CRM – Credit Risk Management

EF – Equipment Financing

FIs – Financial Institutions

IMF – International Monetary Fund

MDI – Micro Finance Deposit-Taking Institution

MFIs – Micro Finance Institutions

SF – Structured Financing

VC – Venture Capital

## ABSTRACT

The purpose of this study is to establish the relationship between credit risk management and agricultural financing which were my variables, independent and dependent respectively. The specific objectives of the study were, to examine the relationship between credit appraisal and agricultural financing, to investigate the relationship between credit management and agricultural financing, to access the relationship between credit insurance and agricultural financing. The objectives where set to explain the research questions. A case study design was used in this study as the design, quantitative approach was used as the study approach and a cross sectional design was used for the time dimension. The sample size for the study was 32 respondents and questionnaires were used to collect data. The research findings, established that there is a significant positive relationship between credit appraisal and agricultural financing, a significant positive relationship between credit management and agricultural financing and a significant positive relationship between credit insurance and agricultural financing. The study concludes that credit risk management explains financing in the agricultural sector. The study therefore, recommends that financial institutions should set credible credit policies to manage risks in agricultural financing and to ensure that the policies and guidelines are followed for every loan given out. Banks should also encourage the loan applicants to attain credit insurance so that they don't bare the risk of default on loan payment.

## CHAPTER ONE

## GENERAL INTRODUCTION

### 1.0 Introduction

The study was carried out to determine the relationship between credit risk management and agricultural financing as the independent and dependent variables respectively. The researcher used credit appraisal, loan management and loan insurance as the determinants for CRM and equipment financing, structured financing and venture capital as the determinants for agricultural financing.

CRM is the process of evaluating risk in an investment. When the risk has been identified, investment decisions can be made and the risk visa vie return balance considered from a better position. CR can be reduced by monitoring the behavior of clients who intend to apply for credit in business. These clients may be businesses or individuals (Altman, 2002). The fundamental dilemma in managing credit risk is overcoming the agency or incentive problems between lenders as outsiders and borrowers as insiders. Financial institutions that manage to successfully perform its credit risk management have a positive impact on their financial performance (Haim and Thierry, 2005).

Agriculture finance may be defined as the financing and liquidity credit provided to farm borrowers. Or may be defined as financial intermediaries that provide loan funds to agriculture, and the financial markets in which these intermediaries obtain their funds (Ali, 2008). Agricultural finance refers to financial services ranging from short, medium and long term loans, to leasing, to crop and livestock insurance, covering the entire agriculture value chain-input supply, production and distribution, wholesaling, processing and marketing. MFW4A (2014).

According to Charles (2013) Agricultural sector in Uganda contributes to 30 percent of the GDP and is the backbone of Uganda's industrial activity, employment, household incomes and food security. Lending to sector constitutes, however, only 7 percent of total private sector credit. According to a report by World Bank (2013) agricultural financing is still limited and does not reach majority of the population. Meyer, Roberts and Mugume (2004) noted that many banks have failed to finance agriculture due to poor management and imprudent lending.

1.1 Background to the Study

Agriculture is an important versatile sector in Uganda. It employs 68% of the population supporting millions of livelihoods and contributes substantially to the economy (Watuwa, 2012). It accounts for 40% of Uganda's GDP but receives on 10% of the total private sector lending (IMF Report, 2003).

Financing of the agricultural sector has been difficult due to the perceived and unmanaged sartorial risk factors although it contributes to employment by up to 53% in majority of poor and developing countries and 60% in South Saharan Africa. The agricultural sector has great exposure to risks and these not only affect the farmer but also the institution lending to the farmer for agricultural purpose (Anon, 2013). Risks have serious consequences for income generation and loan repayment capacity of borrowers (Shafqat, 2007).

Agriculture is an inherently risky economic activity. There are many uncontrollable elements that can affect output production and prices resulting in highly variable economic returns to farm households. Formal lender avoid financing the agricultural sector due to a number of reasons some of which include; high cost of service delivery, lack of branch networks, perception of low

probability of agriculture, lack of collateral, high levels of rural poverty or low farmer education and financial literacy (Wenner, 2010).

According to a report by ABC Capital Bank Ltd (2012) formal financial institutions are less prominent in rural areas than in urban areas yet majority of the rural people are agricultural farmers. They only serve 14% of the rural population; this shows that Uganda's financial system is still quite shallow. With regard to access to finance, 62% of Uganda's population has no access whatsoever to finical services.

In Uganda, access to agricultural credit by the rural community, where majority over 80% are small holder farmers has remained very low and stagnant in the range of 10%-20% in the last 10 years. The problem is attributed to supply as well as demand factors. Some demand factors include; lack of collateral, lack of bankable project and high risk of agricultural credit to farmers. (Ezra, Dorothy, Annet and Musa, 2012).

Risks in agricultural financing are also related to the duration of loans, since the uncertainty of the farm incomes and the probability of losses increases over longer time horizons. Thus, given the average short maturity of loan able resources in deposit taking financial institutions and considering the time horizon of agricultural seasonal investment loans, commercial banks are normally reluctant to engage themselves in agricultural lending (Shafqat, 2007).

According to Wenner (2010) a farmer can be an able and diligent manager with an excellent reputation for repayment, guaranteed access to a market and high quality technical assistance, but an unexpected flood or drought can force him or her to involuntarily default. These unexpected risks that come about in agriculture discourage financing institutions from providing credit to famers for fear of non-repayment from the famer's side.

According to Agwe, Fissha, Nair and Larson (2009), a survey by Word Bank found that absence of well-functioning national identification and credit information systems limited the ability of financial institutions to access their client's credit worthiness. These are some of the problems that financial institutions encounter hence they avert financing agriculture.

The collateral requirements by banks poses a serious challenge for farmers trying to source for funding for farming (Zander, Miller and Mhlanga, 2012). Withdraw of government and its parastatals from the provision of agricultural services to farmers have not kept pace with the growth of the private sector participation in terms of ability to effectively take over financial services in agriculture. The sector has been left with somewhat a hostile territory in which farmers see fertilizers and other inputs but lack but lack of credit facilities blocks their access to these inputs (Agriculture and Livestock Policy, 1997).

According to Meyer, Roberts and Mugume (2004) heterogeneity of farm level activities is one of the factors that affects the involvement of financial institutions in agricultural finance. Farm households have diverse farming and non-farming activities and produce a variety of products. This reduces their production and marketing skills, but complicates the tasks of loan officers who need to understand their cash flows and predict their loan repayment capacity.

Price instability, instability in the price regimes of agricultural products in both domestic and international can cause actual income to differ greatly from that that was originally projected (Meyer, Roberts and Mugume, 2004). These price instabilities reduce agricultural financing by commercial banks since the banks cannot rely on the cash flows of the firm due to the price changes.

Many banks hesitate to finance agriculture in developing countries because of high costs of delivery services especially in rural areas, information asymmetries, lack of branch networks, perception about agriculture's low profit potential, small farmers' lack of collateral, high levels of rural poverty and low level of farmer education and financial literacy (Sgustafson, 2015).

According to Wenner, et al. (2007) too often, the mere perception of high risk can dissuade financial intermediaries from entering a particular market segment when a large contributing factor to that perception maybe lack of adequate credit risk evaluation an management techniques. This seems to be the case with rural finance especially lending to rural and medium scale agricultural produces.

According to Taddewo as stated in The Daily Monitor (2014) lack of a corporate bank or agricultural bank in Uganda where farmers can access affordable loans has also affected agricultural financing. Farmers in Uganda find it difficult to access loans in commercial banks due to high interest rates which range between 20%-30%.The lack of records and statistics on farming in developing countries makes assessment of credit suitability challenging for financial providers. This changes the conditions required to access financial products and undermines opportunities for profitable investment (Ruete, 2015).

Access to credit is a major and complicated challenge in the agriculture sector. Commercial banks have the need to link their future profitably with the growth of lending to the agricultural segment. This means making agricultural lending a significant integral part of each of the commercial banks' growth strategy. Banks fail to appreciate the potential of the agriculture sector and the problems and realities related to production, products, and the political and economic organization of the value chain (USAID, 2012).

## 1.2 Statement of the study

According to Wenner (2010) formal lenders avoid financing agriculture for a host of reasons but, predominantly, bank managers around the world say they will not finance agriculture because of the high degree of uncontrollable production and price risks that confront the sector which lead to credit risks. Because agricultural lending is risky and expensive, high performing financial intermediaries tend to limit exposure to agriculture in their loan portfolio.

According to a report by World Bank (2013) agricultural financing is still limited and does not reach majority of the population. Lending in the agricultural sector has been slowed down by unaddressed risks associated with the sector. According to USAID (2012), access to credit is a major constraint to modernization of agriculture throughout sub-Saharan Africa. Although the African banking industry has shown remarkable development in the past decade, credit for agriculture remains low.

Meyer, Roberts and Mugume (2004) noted that many banks have failed to finance agriculture due to poor management and imprudent lending which breed credit risks. Agricultural financing has been characterized by poor loan repayment rates, accordingly, agricultural credit from some donors and multilateral development banks has dropped dramatically in recent decades and now considered too risky (Robert et al., 2011).

Agricultural financing is still low due to the number of risks credit risks being one of them. Although governments are now making efforts to attract investment for agriculture, the lack of understanding of the financial risks, credit risks and opportunities in agriculture, deprives the sector of much-needed funds to boost production, processing and marketing (Ruete, 2015). Therefore, CRM techniques have to be developed to deal with the credit risks so that agricultural financing can be improved and the sector can flourish.

**1.3Broad Objective**

To investigate the relationship between CRM and agricultural financing.

**1.3.1 Specific objectives**

  I.    To examine the relationship between credit appraisal and agricultural financing.

  II.   To investigate the relationship between credit management and agricultural financing.

  III.  To access the relationship between credit insurance and agricultural financing.

**1.4Research questions**

  I.    What is the relationship between credit appraisal and agricultural financing?

  II.   How is credit management related to agricultural financing?

  III.  Is there a relationship between credit insurance and agricultural financing?

**1.5Scope of the study**

**1.5.1 Geographical scope**

The study was carried out in Entrepreneurs Financial Centre (EFC) Acacia Avenue Kololo an MDI to study the relationship between credit risk management and agricultural financing.

**1.5.2Content scope**

Agricultural financing is faced with many challenges because agriculture is a very risky business and these risks are then transferred to agricultural lending institutions because they are connected to it. Since there are many risks faced by agricultural finance, it is not possible to cover all of them in this research study.  Therefore, this research will cover credit risk management and financing of the agricultural sector.

The study is aiming at finding the relationship between CRM and agricultural financing using the dimensions of the dependent variable which are equipment financing, structured financing and lastly venture capital and also the dimensions of the independent variable which are credit appraisal, credit management and lastly credit insurance.

**1.5.3 Time scope**

It was a short term cross-sectional study, in this study, data collection, analysis and presentation of results was for a single period.

**1.6 Significance of the study**

Through my study, various people are to benefit from it. The study will add value to academic research in CRM and agricultural financing and help future researchers to research and suggest further research on the topic ( in other words, it acts as basis for further research on credit risk management and financing of the agricultural sector).

The study can be used to formulate policies to mitigate the credit risks so as to increase the rate of agricultural financing by banks and also to add value to credit risk management practices by banks in financing the agricultural sector.

The study helps the reader to understand and examine the relationship between credit risk management and agricultural sector financing for their own benefit.

**1.7Justification of the study**

CRM is essential for the long term success of any financial institution since it protects the shareholders money and prevents the financial institution from going bankrupt. If credit risks are not properly managed, they may lead to the collapse of the credit market and most banks. The study is therefore justifiable because it helps;

To increase understanding, insight and clarity on how CRM affects agricultural financing.

To evaluate and critique research that has been carried out by other researchers concerning CRM.

**1.8 Definition of Key terms**.

Default Risk: it is the risk of default of interest and principal repayment.

Agriculture finance: it is the financing and liquidity credit provided to farm borrowers. Or may be defined as financial intermediaries that provide loan funds to agriculture, and the financial markets in which these intermediaries obtain their funds (Ali, 2008).

Structured Financing: it refers to such financing structures wherein the lender doesn't look at the entity as a risk but tries to align the financing to specific cash accruals of the borrower.

Venture Capital is defined as an independent, professionally managed, dedicated pools of capital that focus on equity or equity-linked investments in privately held, high-growth companies (Gompers & Lerner, 2001).

Credit appraisal: it is the assessment of the various risks that can impact on the repayment of loan.

**1.10 Conceptual framework.**

**Figure 1: Illustration of the conceptual framework to show the relationship between CRM and agricultural financing**

| Independent Variable | Dependent Variable |
|---|---|
| Credit Risk Management | Agricultural Financing |
| Dimensions | Dimensions |
| •Credit appraisal | • Equipment financing |
| • Loan management | • Structured financing |
| • Credit insurance | • Venture capital |

Moderating Variables

- Bank Policies
- Government policies on agricultural financing.
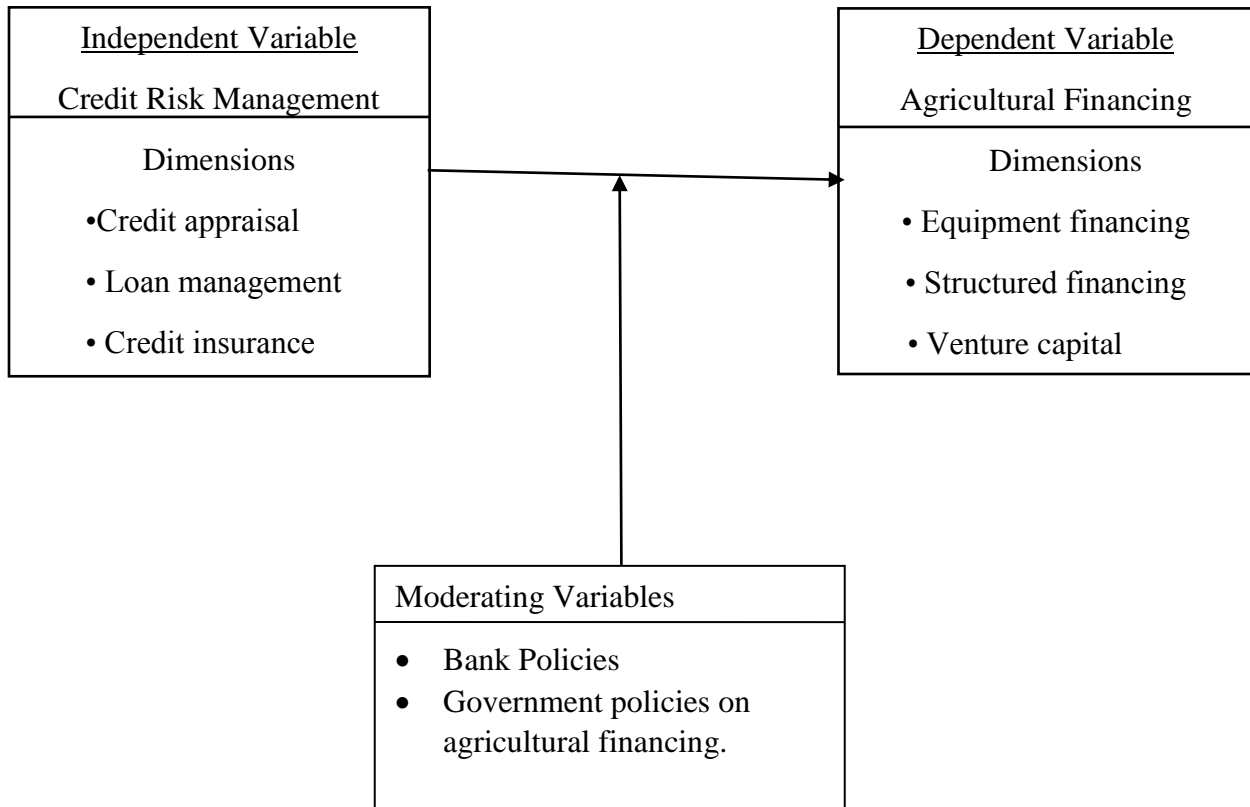
Source Wenner (2010) modified by the researcher.

Figure 1, shows the relationship among the variables; the independent variables, dependent variables and the intervening variables with their dimensions. It shows the relationship between credit risk management and agricultural financing. The independent variable is measured using credit appraisal, loan management and loan insurance whereas the dependent variable is measured by equipment financing, structured financing, and venture capital. This relationship is however affected by the intervening variables which are; bank policies and government policies on agricultural financing.

# CHAPTER TWO

# LITERATURE REVIEW

## 2.0 Introduction

This chapter critically reviews the existing literature on CRM and agricultural financing. Its aim is to present an overview of the existing issues surrounding credit risk management in agricultural financing.

## 2.1 Credit Risk Management

CR is the probability of a loss due to borrowers' inability to pay back the borrowed amount (principle and interest or both) to financial institution according to the pre-defined terms and conditions (Tannien, 2013). CRM is the main cover for the lender financial institution to protect itself against borrowers who unsuccessful to meet the conditions of the loan or other owed funds that were expected of them (Sherrie, 2012). The success of banks depends upon that they manage their credit and take accounted risks that they can handle (Hussain, et al., 2014).

CRM is a structured approach to managing uncertainties through risk assessment, developing strategies to manage it, and mitigation of risk using managerial resources. The strategies include transferring to another party, avoiding the risk, reducing the negative effects of the risk, and accepting some or all of the consequences of a particular risk. Some traditional risk managements focused on risk stemming from physical or legal causes such as natural disasters or fires, accidents, deaths and lawsuits. (Huizinga and Demirgue, 2012)

CRM is the process of evaluating risk in an investment. When the risk has been identified, investment decisions can be made and the risk visa vie return balance considered from a better position. CR can be reduced by monitoring the behavior of clients who intend to apply for credit

in business. These clients may be businesses or individuals (Altman, 2002). The fundamental dilemma in managing CR is overcoming the agency or incentive problems between lenders as outsiders and borrowers as insiders. Financial institutions that manage to successfully perform its CRM have a positive impact on their financial performance (Haim and Thierry, 2005).

CRM is a structured approach to managing uncertainties through risk assessment, development of strategies to manage it and mitigation of risk using managerial resources. The strategies can include; transferring the risk to another party, avoiding the risk and accepting some or all consequences of a particular risk. The adequate management of CR in financial institutions is critical for their growth and survival (Harrison, 2010).

CRM incorporates decision making process; before the credit decision is made, follow up of credit commitments including all monitoring and reporting process (Haim and Thierry, 2005). The credit decision is based on the financial data and judgmental assessment of the market outlook, borrower, management and shareholders. The follow-up is carried out through periodic reporting reviews of the bank commitments by customer.

CRM issues continue to occupy the agendas of boards of directors in companies today. In today's environment companies are looking for assistance in identifying and managing risk throughout their organization (Duffie and Singleton, 2003). The goal of CRM is to maximize a financial institution's adjusted rate of return by maintaining credit risk exposure within acceptable parameters. Banks need to manage the risks inherent in the entire portfolio as well as the risk in individual CR and other risks. The effective management of CR is a critical component of a comprehensive approach to risk management and essential to the long term success of any banking organization (Magnifique, 2013).

According to Stanley (2006) corporate face a number of CR exposures that could be managed with credit derivatives. As applied to corporate finance, CRM is a technique for measuring, monitoring and controlling the financial or operational risk on a firm's balance sheet. The role of risk management is to mitigate the cost associated with cash flow volatility that result from capital market imperfections thus creating value for shareholders.

In CRM, models are developed to allow a tailored and flexible approach to price measurement and risk management (Altman, 2002). The models allow banks to analyze marginal and absolute contributions to risk, and reflect concentration risk within a loan portfolio hence contributing to an improvement in overall risk management culture (Robert, 2011).

CRM has a big impact on the life of a financial institution and if the right policies are chosen and wrongly implemented, then the objective achievement becomes a default task. The way a bank manages its credit affects its financial performance (Magnifique, 2013).Effective management of credit by financial intermediaries is critical to institutional viability and sustained growth. Failure to control and manage risks especially CRs can lead to insolvency (Mark, 2007). The basic principles underlying CRM are; the establishment of a clear risk policy and reporting structure, underwriting authority and loans limit, allocation of responsibility and accountability, prioritization of the lending process and systems, and finally the timely communication of risk information to top management (Dowel et al, 2008).

Achou and Tegnah (2007) show that better CRM result in better financial institution performance and thus it is of crucial importance for banks to practice prudent CRM to safe guard the assets of the financial institutions and protect investor's interests. They conclude that financial institutions with strong CRM policies tend to incur lower loan default. The goal of CRM is to maximize a financial institutions risk adjusted rate of return by maintaining credit risk

exposure within acceptable parameters (Basel Committee, 2004). Most major financial institution problems have been either explicitly or indirectly caused by weakness in CRM. Therefore, managing risk is a major issue faced by all financial institutions and the new regulatory guidelines proposed by various regulatory bodies recommended a more systematic approach to CRM using both qualitative and quantitative methods (Basel Committee, 2004).

Over the years, various approaches to measure and manage CR have been developed. Some of the popular approaches in which firms manage their CR include; credit portfolio models, internal ratings, exposure limit, and stress testing. Stress testing is done to overcome some of the draw backs of risk models that are overly dependent on historical data and to test the specific risk parameters which define the model (Wang, 2013).

CRM is one of the most important tasks for any financial institution. It is critical because it gives directions for the way FIs should deal with its risk asset exposure (Fight, 2004). Casu, Girardon and Molyneux (2006) pointed out that CRM aims to maximize the banks risk return rate by keeping CR level under acceptable thresholds. The ability to manage CR in a profitable manner decides its ability to compete and survive. Due to the importance of CRM, many different measures are implanted by banks, these include; creating a proper CR environment, operating under a suitable credit administration by monitoring procedures and evaluation, creating an appropriate granting procedure and maintaining sufficient administration of credit risks (Casu, Girardon and Molyneux 2006).

Banking CRM in the eyes of Crouhy, Galai& Mark (2006) can be divided into retail and commercial CRM, it is based upon portfolio management is highlighted for both retail and commercial. This means that the customers are categorized into different portfolios, each of which is homogenous in several characteristics. Instead of manage every single client, the bank

will handle them in groups and therefore usually saves time, effort and cut cost. For retail banking, the book introduces the credit scoring model that is customized for personal banking. Commercial lending, on the other hand, will utilize the helpfulness of internal risk rating system established based on the rating system of professional credit rating agencies. Either the credit scoring or internal rating is both based upon financial and non-financial assessment. Several credit models and credit derivatives are also presented as new approaches to, respectively, measure and to mitigate credit risk management (Crouhy, Galai& Mark, 2006).

Objectives of CRM

According to Marzan (2015) the following are the objectives of CRM;

- To maximize a bank's earning from loan portfolio.

- To improve quality of loan portfolio to maximize earnings by: keeping nonperforming assets below 5% and arresting new loans to become classified.

- To give utmost emphasis on loan sanctioning in order to improve quality of the loan portfolio. Credit facilities are to be considered solely on viability of business or project or undertaking having adequate cash flows to adjust the loans, and management capacity of the borrower to run the business profitably.

- To evaluate credit risks before sanctioning, which may hamper generation of the projected cash flows of the borrower and might delay or hinder repayment of Bank's loan.

- To monitor continuously performances of the financed projects or business will be Bank's main thrust for ensuring repayment of the loan, and receiving early warning for taking timely corrective measures.

- To price the loans on the basis of loan pricing module of the Bank focusing on risk rating of the borrower.

- To strictly adherence to Bank's policy guidelines.

Heffernan (2009) listed the key ways that FIs can minimize and manage credit risks:

- Appropriate loan valuing, it can be done to control the loan value as well as the loan monitoring costs using the following formula;

$$R (L) = I + IP + fees$$

Where; R (L) - the rate of interest on loan

   I  - the rate of market interest

   IP - the risk of possibility that the loan will not be paid.

- Security and collateral

- Credit limits, the maximum amount that can be lent related to loan assessment's aspects like collateral or wealth.

- Diversification of risks, this is done by lending to new loan markets, performing leases financing, guarantee of diversifying banking services to minimize overall risk exposure.

Since exposure to credit risks continues to be the leading source of problem in the bank worldwide, banks and their supervisors should be able to draw useful lessons from past experience. Banks should now have a keen awareness of the need to identify measure, monitor and control risk as well as to determine that they hold adequate capital against these risks and that they are adequately compensated for risks incurred (The Basel Committee 2011).

The Basel committee 2011 report on sound practices in risk management suggests the following:

- Establishing an appropriate credit risk environment.

- Operating under a sound credit granting process.

- Maintaining an appropriate credit administration, measurement and monitoring processes.

- Ensuring adequate control over credit risk.

In different banks, the lending organization can vary a lot, because usually each bank designs its own credit process (Colquitt, 2009). In big banks, each department and officer focus on one main task, while in smaller banks, one officer can be responsible for many tasks. However, essentially, the tasks in the process remain the same, as shown in figure below:

**Figure 2: Credit Cycle**
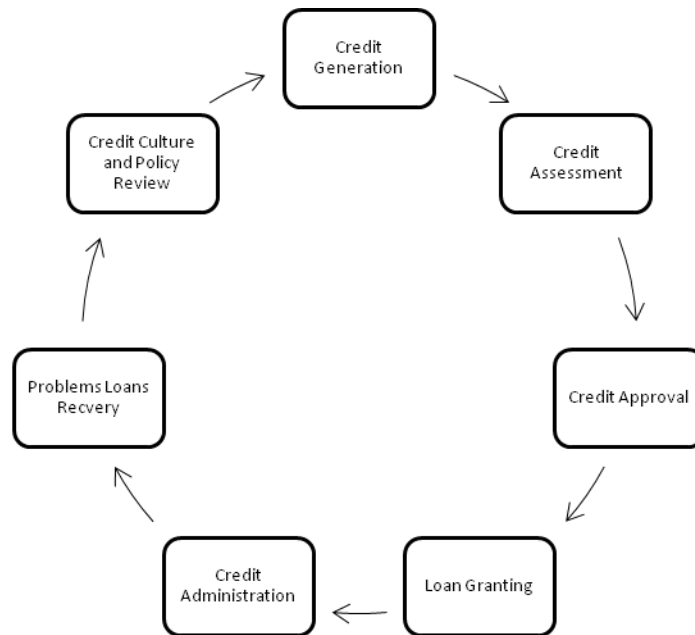


Source, (Colquitt, 2009)

It can be seen from figure 2 that there are many different tasks, from credit generation, credit assessment to loan granting. Hence, it is extremely important for banks to have departments with

clear obligations to be able to operate profitably and effectively so as to manage the CR (Colquitt, 2009).

According to Glantz (2002) CRM process covers the entire credit cycle starting from the origination of the credit in a financial institution's books to the point the credit is extinguished from the books. It is provided for sound practices in: credit processing or appraisal, credit approval or sanction, credit documentation, credit administration, disbursement, monitoring and control of individual credits, monitoring the overall credit portfolio (stress testing), credit classification and finally managing problem credits or recovery.

### 2.1.1Credit appraisal

CA is a holistic exercise which starts from the time a prospective borrower walks into the bank and ends in credit delivery and monitoring with the objective of ensuring and maintaining the quality of lending and managing CR within acceptable limits. The quality of CA processes depends on two factors namely, a transparent and comprehensive presentation of the risks when granting the loan on the one hand, and an adequate assessment of these risks on the other hand (Seyfried, 2001). Furthermore the level of efficiency of the CA processes is an important rating element due to the considerable differences in the nature of various borrowers and the assets to be financed as well as the large number of products and their complexity, there cannot be a uniform process to assess risks (Raaij 2005).

The criteria for the CA process is essential, successful and effective CA process determines the success of the credit journey and hence reduces the level of non-performing loans and all Banks should have an effective CA policy (Mureithi, 2008).This therefore means that there is a possible relationship between the level of non-performing loans and the CA process. The particular credit standards applied in making term loans have been accompanied by the use of special methods of

CA. In extending medium-term credit, bankers look beyond seasonal or temporary business transactions of the borrower, and expand their credit investigations beyond the limits that are usually set in making short-term loans. The influence of business cycles and of long-term economic forces upon the financial position of the borrower is carefully weighed.

According to Saxena (2009), CA process of a customer lies in assessing if that customer is liable to repay the loan amount in the stipulated time, or not. Banks have their own methodology to determine if a borrower is creditworthy or not. It is determined in terms of the norms and standards set by the banks. The banks need to be cautious, lest they end up increasing their risk exposure. All banks employ their own unique objective, subjective, financial and non-financial techniques to evaluate the creditworthiness of their customers.

CA is a complete exercise which starts from the time a potential borrower walks into the branch and concludes in credit delivery and monitoring with the objective of certifying and maintaining the quality of lending and managing CR. An important need of appraisal is obtaining an understanding of the anticipated expenditure and benefits of a project, usually expressed in terms of its inputs (costs) and outputs (results). It will enable any obviously poor or ineligible ones to be eliminated, avoid duplication and give an early overall view of the success of the measure (Sharma and Kalra, 2015)

While assessing a customer, the bank needs to know the following information: Incomes of applicants and co-applicants, age of applicants, educational qualifications, profession, experience, additional sources of income, past loan record, family history, employer/business, security of tenure, tax history, assets of applicants and their financing pattern, recurring liabilities, other present and future liabilities and investments (if any). Out of these, the incomes

of applicants are the most important criteria to understand and calculate the credit worthiness of the (Saxena, 2009).

Emphasis on the loan appraisal process and its administration by bank management during evaluation of a loan recognizes that loans comprise the major portion of a bank's assets; and, that it is the asset category, which ordinarily presents the greatest CR and potential loss exposure to a bank. Moreover, pressure for increased profitability, liquidity considerations, regulatory compliance and a competitive business environment have produced great innovations in credit instruments/loan products and approaches to lending. Credit Analysts therefore should find it necessary to devote a large portion of time and attention to review a loan proposal and the appraisal process of applicants to ensure that all customers go through the same process (Marzan, 2015).

The first step in limiting CR involves screening clients to ensure that they have the willingness and ability to repay a loan. Microfinance Institutions use the 5Cs model of credit to evaluate a customer as a potential borrower (Abedi, 2000). The 5Cs help MFIs to increase loan performance, as they get to know their customers better. These 5Cs are: character, capacity, collateral, capital and condition. **Character** refers to the trustworthiness and integrity of the business owners' .it's an indication of the applicant's willingness to repay and ability to run the enterprise. **Capacity** assesses whether the cash flow of the business (or household) can service loan repayments. **Capital** assets and liabilities of the business and/or household. **Collateral** access to an asset that the applicant is willing to cede in case of non-payment, or a guarantee by a respected person to repay a loan in default. **Conditions** a business plan that considers the level of competition and the market for the product or service, and the legal and economic environment.

## 2.1.2Credit Management

While providing credit as a main source of generating income, banks take into account many considerations as a factor of CM which helps them to minimize the risk of default that results in financial distress and bankruptcy. This is due to the reason that while banks are providing credit they are exposed to risk of default which need to be managed effectively to acquire the required level of loan growth and performance (Mirach, 2010). Most MFIs lack the most basic aspects of CM hence are not capable of analyzing trends within organization, leading to default. Management might not be in a position to track the performance of its loan recovery officers in the field if no proper information system is in place. A number of CM information solutions, however, are emerging. Banks should remind clients of the due dates and all payments should be tracked hence effective CM (Mbugua, 2012).

Mensah (1999), stressed the importance of CM as follows: CM process deserves special emphasis because proper CM greatly influences the success or failure of FIs. This indicates that credit provision should be accompanied by appropriate and attractive credit policies and procedures that enhance performance of CM and protects the banking industry from failure.

According to Mirach, (2010), the process of CM begins with accurately assessing the credit-worthiness of the customer base and his/her business viability. This is particularly important if the company chooses to extend some type of credit line or revolving credit to certain customers. Hence, proper CM is setting specific criteria that a customer must meet before receiving the proposed credit arrangement. As part of the evaluation process, CM also calls for determining the total credit line that will be extended to a given customer. When the process of CM functions efficiently, everyone involved benefits from the effort. The FIs such as banks has a reasonable

amount of assurance that loans granted to a client will be paid back within terms, or that regular minimum payments will be received on credit account balances.

In order to be effective in CM, credit policies must be communicated throughout the organization, implemented through appropriate procedures, monitored and periodically revised to take into account changing internal and external circumstances. The credit and collection policy of one firm are not independent of those of other firms. If product and capital markets are reasonably competitive, the credit and collection practices of one company will be influenced by what other companies are doing (Mirach, 2010).

According to Wallstreet Suite Commercial lending management (2007), lenders without a fully integrated solution to manage the loan lifecycle, can find it to be costly and time consuming to maintain control over loan events. This lack of integration can ultimately lead to a breakdown in communication between lenders and borrowers. The resulting disruption to the loan lifecycle leads to delayed client payments and an inability to monitor credit and debt limits hence impacting the operational risk and costs.

A key requirement for effective credit management is the ability to intelligently and efficiently manage customer credit lines and all credits extended to clients should be recorded. In order to minimize exposure to bad debt, over reserving and bankruptcies, companies must have greater insight into customer financial strength, credit score history and changing payment patterns (Nzotta, 2004).

According to Gatuhu (2013) Formulation of collection policies have been a challenge in CM, enforcement of guarantee policies provides chances for loan recovery in case of loan defaults, Staff incentives are effective in improving recovery of delinquent loans, a stringent policy is

more effective in debt recovery than a lenient policy, regular reviews have been done on collection policies to improve state of CM, and finally that available collection policies have assisted towards effective CM.

The loan institution must conduct loan assessments on the borrower and/or his project's capability of taking and repaying a loan so that the income derived from the project investment may constitute the first line of defense for loan repayment. Collateral should only constitute a second line of defense. Also, the technical staff must be highly professional and efficient in order to conduct accurate and credible studies. Further, bank managements must take these studies into consideration, as well as other factors, when making decisions on loans. Such decisions must be made at several management tiers, rather than one single tier, after precise study and close examination have been conducted (Mustafa, Ali, and Awaideh, 2011).

According to Jabatan (2001) several factors are used as part of the CM process to evaluate and qualify a customer for the receipt of some form of commercial credit. These factors include;

- Gathering data on the potential customer's current financial condition, including the current credit score.
- The current ratio between income and outstanding financial obligations will also be taken into consideration.
- Competent credit management seeks to not only protect the vendor from possible losses, but also protect the customer from creating more debt obligations that cannot be settled in a timely manner.

A good CM system helps to reduce the amount of capital tied up with debtors (People who owe money) and minimize the exposure to bad debts. Good CM is vital to your cash flow.

Hence, the issue of CM has a profound implication both at the micro and macro level. When credit is allocated poorly it raises costs to successful borrowers, erodes the fund, and reduces banks flexibility in redirecting towards alternative activities. Moreover, the more the credit, the higher is the risk associated with it. The problem of loan default, which is resulted from poor CM, reduces the lending capacity of a bank. It also denies new applicants' access to credit as the bank's cash flow management problems augment in direct proportion to the increasing default problem. In other words, it may disturb the normal inflow and outflow of fund a bank has to keep staying in sustainable credit market (Mirach, 2010).

### 2.1.3 Credit Insurance

According to Chubb Group of Insurance Companies (2011), an institution is no stranger to risk, especially in a business environment featuring stiffer competition and more regulation than ever before. In times like these, it's critical to have a stable, experienced insurer in your corner that understands the ins and outs of your institution's operations. Lenders can take out insurance policies to cover their agricultural portfolios and pass the costs of the premiums on to their farmer clients through additional fees or interest charges (Christen and Pearce, 2005).

The largest current asset on most balance sheets is the accounts receivable. It is, as a result, an important element of collateral for many lenders. Enhancing that asset's quality with Accounts Receivable (Credit) Insurance can be a good choice for a bank and for the creditor. If a concentration of risk exists with a small number of buyers, or if a large portion of the accounts receivable asset is to foreign buyers, the bank may require CI to mitigate these special risks. Mitigation of risks of non-collection for a creditor can ensure business survival if a large buyer should default (Tarnet insurance, 2016).

In developing countries, formal and semi-formal rural financial intermediaries have limited or nonexistent means to transfer credit risk to third parties through, for example, portfolio securitization or credit insurance, which were common in mortgage and consumer finance markets in developing countries prior to the 2008 financial crash. If more farm borrowers held agricultural insurance policies, this could serve to reduce credit risk for financial institutions, but agricultural insurance markets are grossly underdeveloped in middle and low income countries (Wenner, 2010).

A CI policy also allows companies to feel secure in extending more credit to current customers, or to pursue new, larger customers that would have otherwise seemed too risky. The policy should be explained to all the parties involved. The protection CI allows a company to increase sales, and to grow their business with existing customers (Euler Hermes, 2014). They continue to say, that CI is not a substitute for prudent, thoughtful credit management.  Sound CM practices should be the foundation of any CI policy and partnership. CI goes beyond indemnification and does not replace a company's credit practices, but rather supplements and enhances the job of a credit professional. Therefore, it is important for FIs to have policies on CI.

CI provides coverage of insured's who are subject to obligations to repay credit advances by means of periodic installments. Coverage may be provided against the events of sickness/accident and/or unemployment. The incidence of risk under a CI policy depends on the original term of the policy and the policy duration at which the incidence of risk is considered (Taylor, 2014). Governments, donors, and insurance companies need to collaborate in the development of yield- insurance products that are inexpensive, sustainable, and appropriately designed. Governments, commodity exchanges, and financial institutions likewise need to

collaborate in developing futures, structured finance products, and other hedging instruments to reduce price risk (Wenner, 2010).

Burfeind (2010) says the target customer for CI is the uninsured or underinsured with little or no liquid assets who's assuming a financial obligation they could not honor in the event of death, disability or unemployment. If you've just taken out a loan, or are in the process of borrowing money or signing up for a credit card, your lender may offer you CI. The policies promise to pay your loan if you die, go on disability or lose your job. You might wonder if you really need CI, it is optional, however, before taking out a policy, weigh its advantages and disadvantages.

According to Calistru and Trifu (2013) CI is an indemnity insurance, because it requires the compensation to be paid to the insured for a loss suffered because of insolvency or default of the insured' client and not for a "physically" event, as the other insurance. Therefore, it is a pecuniary insurance, for financial loss and not material. The differences between ordinary insurance and credit insurance come from the nature of risk and from the interests of stakeholders:

- credit insurance involves three parties, each being aware of others;
- the insurer has no interest in the contract, unless as the guarantor for the purchaser;
- The responsibility for repayment is of the debtor, while the insurer responsibility is on the second level, being liable only if the first one fails to fulfill its obligation to pay for the reasons included in the policy.

Thus, credit insurance comes to eliminating the seller's fear regarding the buyer' payment of the amounts due to him, offering protection for the risk of default. Therefore, credit insurance is a

direct seller protection against the risk of failures to receive and at the same time, as a guarantee to the bank, is also the possibility of access to finance (Calistru and Trifu, 2013).

According to Insure.com (2010) the types of credit insurance include:

Credit life insurance: Pays your debt on a specific loan or line of credit if you die before the loan is paid off.

Credit disability insurance: If you are unable to work because of a disability, this coverage makes your monthly minimum loan payments for a limited time period. The policy may require that you be working a certain number of hours a week before the disability. You must be disabled for a certain number of days before the credit insurance will kick in, typically 14 to 30 days.

Credit involuntary unemployment insurance: If you become unemployed because of a lay-off or strike, this coverage pays your minimum loan payment for a limited time period. The policy may require that you be working a certain number of hours a week before the job loss. You must be unemployed for a certain number of days, typically 30, before a benefit is paid.

Credit property insurance: There are two types of credit property insurance. Credit personal property insurance covers repair or replacement of a financed item, such as a washer. If you have homeowners or renters insurance, this insurance is unnecessary.

Credit leave of absence insurance: This policy makes a limited number of monthly payments on a specific loan or credit card if you take an unpaid family leave from work for specific reasons, including care for a newborn or care for a seriously ill family member. If insurance were available to protect both suppliers and clients from risk, it would improve financial coverage and loan conditions in rural areas and agricultural financing. (Trivelli, et al., 2006).

## 2.2 Agricultural Financing

According to Charles (2013) Agricultural sector in Uganda contributes to 30 percent of the GDP and is the backbone of Uganda's industrial activity, employment, household incomes and food security. Lending to sector constitutes, however, only 7 percent of total private sector credit. Furthermore, even this low level of credit is mostly (that is 82 percent) is mostly constituted by short term and medium term loans. The agricultural sector assumes a dominant role in Uganda's economy in terms of numbers employed. Thus, it accounts for over 80 percent of all employment and supports the livelihoods of the majority of rural inhabitants who constitute 85 percent of Uganda's population and also accounts for 85 per cent of Uganda's export earnings (Meyer, Roberts and Mugume, 2004).

Agriculture is the primary economic sector in developing country that employs high portion of the population. Apart from the production of oil, gold, diamond, between 60 and 90% of the population of the developing countries lives directly on the agriculture. The national product is gained to a large part from agriculture sector and foreign exchange incomes originate to a large extent from the export of agricultural products, particularly from cash crops (Munuo, 2013). Access to finance is critical for the growth of the agriculture sector. The shift from subsistence to commercial agricultural production requires funds. However, in developing countries, where agriculture is a source of livelihood for 86 per cent of rural people (International Finance Corporation, 2013).Financing for investments in agriculture is scarce, even for large investors. In Africa, less that 1 per cent of commercial lending is destined to the agriculture sector (International Finance Corporation, 2013).

The role of financial institutions is crucial in the development of any sector and agriculture is no exception to it. Rather, the development of agriculture sector is more dependent on banking

sector because 80 percent of farmers are small and marginal, who are unable to save and invest due to their low levels of income. Agriculture is the most crucial sector of the country because the main policies of output growth, poverty alleviation, social justice and equity are best served in this sector. Agricultural finance is dedicated to financing agricultural related activities such as; input supply, production, processing and distribution (Meyer, Roberts and Mugume, 2004).

**Table 2.1 Commercial bank lending by sector and country, 2008 (percentage share of total).**

|  | Kenya | Tanzania | Uganda | Average |
|---|---|---|---|---|
| Agriculture | 3.6 | 12.4 | 5.9 | 7.3 |
| Manufacturing | 11.0 | 14 | 12.2 | 12.4 |
| Trade | 11.9 | 16.8 | 12.3 | 13.7 |
| Transport, electricity & water (oil & gas) | 6.9 | 7.6 | 12 | 8.8 |
| Construction | 3.6 | 3.3 | 9.5 | 5.5 |
| Mining | 1.3 | 0.9 | 0.3 | 0.8 |
| Other services and personal loans | 61.8 | 40.6 | 52.2 | 51.5 |

Source, USAID (2012) and modified by the researcher.

Table 2.1 shows that agriculture sector is one of the least finance sectors by commercial banks through loans in all the three countries analyzed. The average percentage of agricultural loans is 7.3% which makes it the third least financed sector.

According to Andrews (2006) agricultural finance is a subset of rural finance dedicated to financing agricultural related activities such as input supply, production, distribution, wholesale, processing and marketing. Agricultural finance refers to financial services ranging from short, medium and long term loans, to leasing, to crop and livestock insurance, covering the entire agriculture value chain-input supply, production and distribution, wholesaling, processing and marketing (MFW4A, 2014).

There are an estimated 60,000 farmers and fishermen who operate on a commercial scale in Uganda. Some already enjoy access to short-term loans from commercial banks, MFIs and business firms that buy and/or process crops such as sugar cotton and tobacco. Access to term finance has been confined to a few borrowers who have benefited from special lines of credit for relatively large outlays for items, such as oil pressing machinery and cotton gins (Meyer, Roberts and Mugume, 2004).

For the past few decades agricultural financing has been the centerpiece of many rural development programs in developing countries. Donors and Governments have recognized that financial constraints continue to weaken performance in agriculture which directly link to poverty (Allard et al, 2010).FIs face opportunities as well as challenges in providing financial services to the agricultural sector. The sector clearly lacks financing, with the one percent commercial lending share to agriculture in Africa often cited as an example. Farmers are a very heterogeneous group with varied plot sizes, production capacity, mechanization, resources, and expertise. However, they all share a limited ability to access appropriate financial services for their farming activities and overall household expenses(International Finance Corporation, 2012)

AF involves higher transaction costs in rural areas than in urban areas given the distances, lower population densities, and lower quality infrastructure. Together, these factors make it hard to aggregate agricultural loans into portfolios that make branches viable (International Finance Corporation, 2012). Accordingly, in order to increase access by rural populations to agricultural credit and other financial services, while at the same time ensuring the profitability and viability of the financial institutions, strategies capable of alleviating the risks specific to financing agricultural activities have to be identified

Agricultural finance has become an important input due to the advent of capital intensive agricu1tural technologies. Farmers require capital in order to enhance the productivities of various farm resources. Organized and unorganized credit agencies in rural and urban areas provide credit for both development and consumption purposes. Provision of credit by these agencies involves many obstacles to both bankers and borrowers due to differences in banking system followed by bankers, socio-economic conditions of borrowers and infra - structural facilities and institutional support offered to the borrowers (Anon, 2012).

According to Jean (2011) some of the reasons that make agricultural financing difficult include; the territorial dispersion of borrowers, distances from places of residence, and low population densities in many rural situations which increase financial services transaction costs. High levels of diverse nature of risks which are often covariant within one and the same region. According to Julius (2007) most FIs avoid AF/lending especially production enhancement credit due to high transaction costs from rural areas which result into high costs of loan administration, high level of poverty in rural areas which create a situation where loan repayment capacity is often difficult, agricultural loans normally require long terms and grace periods which makes matching assets and liabilities within the bank difficult and price or yield variations are widely considered to be risky which discourages FIs.

Financing in the Agribusiness sector has been difficult due to perceived and unmanaged sectorial risk factors although it contributes to employment by up to 53% in a majority of poor and developing countries, 60% in South Saharan Africa (Ombok, Oima and Oginda, 2014). Farmers in developing countries are often exposed to the lack of credit as the greatest barrier to increasing production and the profitability of agricultural enterprises.

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Adapting regulatory frameworks is crucial to improving financial access for farmers, and the overall effectiveness of finance. Key issues include norms for qualifying and evaluating agricultural portfolios, provisioning for agricultural portfolios, recognizing the agricultural sector as both strategic and specialized, and ensuring participation of producers in the ownership structures of MFIs. Therefore, to both deepened and broaden the agricultural finance paradigm, there is a need to further study public policy tools as well as private initiatives such as guarantee funds and strategic partnerships, so as to identify the most promising experiences that will help push agriculture in developing countries forward (Solène, 2008).

Many investments in agriculture (and in farm machinery, irrigation, land purchase, and post-harvest and processing facilities) require larger amounts of capital that only amortize over several years. Other investments, such as the establishment of tree-crop plantations, are characterized by long gestation periods. These term investments are often beyond the self-financing capacity of farmers and require access to term finance, which allows spreading the investment costs over several years. Term finance comprises various financial instruments such as term loans, leasing, and equity finance. Providing larger amounts of funds over longer time horizons is more risky for financial institutions and requires specific skills to manage these risks at a reasonable cost. Apart from an enabling economic, legal and policy environment, suitable financing technologies and products are critical to the ability of FIs to offer term finance. Thus, FIs are often reluctant to provide such finance (Anon, 2012).

In the past, governments and donors have frequently stepped in to enhance the supply of term loans through agricultural development banks and credit projects. However, after the poor performance of directed credit, both in terms of outreach and sustainability had come to be recognized, most credit programs were phased out and many agricultural development banks

have been liquidated. Moreover, the liberalization of marketing boards in many countries has dismantled interlinked credit arrangements, which constituted another important source of working capital for small farmers who lacked tangible collateral (Empel, 2012).

The absence of term finance limits the ability of entrepreneurial farmers with growth potential to undertake investments that enhance the scale or productivity of farming operations or exploit new market opportunities. From a macroeconomic perspective, the absence of suitable rural term finance products has economic costs in terms of slower growth and lower competitiveness of the agricultural sector, reducing its contribution to rural development and poverty reduction (Hollinge, 2004).

According to The World Bank Group (2015) agriculture financers should find ways to de-risk agricultural finance by addressing both idiosyncratic (or individual) risks as well as important systemic risks. Individual risks are often linked to credit risk assessment, and information and systems to help. Information can assist financial institutions in credit risk assessment by promoting credit bureaus and linkages with value chain companies. Finding good collateral, for example, moveable collateral and not just rely on titled land, could also help. On the systemic risk, agricultural insurance, catastrophic risk programs, price hedging through commodity exchanges or value chains, can also provide some solutions.

### 2.2.1 Equipment Financing

EF denotes financing of usually movable assets acquired as additions or supplements to more permanent assets. An important factor in this type of asset finance is close collaboration between the equipment providers (vendors) and the bank. Equipment financiers can leverage government subsidies for equipment. EF is the type of financing that enables one to acquire the equipment

and technology the business needs without one using up one's own capital or business credit line (Balboa Capital, 2012).

Leasing is a financing alternative that allows one to update his or her equipment without investing the full purchase price. Leasing can help one to secure the equipment and technology one needs, without tying up a large sum of capital. It is a cost effective and flexible way to manage one of the more capital intensive aspects of an investment (RBC Royal Bank, 2015). Leasing is an economic alternative to traditional debt financing of capital investments. The leasing organization should ensure that the clients understand their obligation and the terms are understood.

EF is the type of financing where the purpose of financing is to make possible the acquisition by business enterprises including farms of income producing equipment, the financing agency retains the title to or holds a lien on the equipment acquired, and the purchaser contracts to pay off the obligation on an installment basis and all payments made in regard to the asset are recorded (Raymond, Saulnier and Neil, 1994).

Some of the benefits of EF include; it is quick and easy since ones credit application will be evaluated providing one with a quick decision. It provides flexibility to respond quickly to business growth and change (TCF Equipment finance, 2014).When you need business equipment, getting a small equipment loan could be a smart financial move. You can use these loans to purchase virtually any type of equipment, but how much you can borrow depends on the type of equipment you're buying and whether the equipment is new or used.

EF prevents one from having to pay the entire cost of the equipment upfront. Although one will have to pay more to finance the equipment, one will be able to spread out the cost over an

extended period of time (Fundera, 2015). It also provides financial flexibility. Unlike debt, which requires timely payments to avoid high interest rates and potential bankruptcy problems, lease payments can be structured to the lessee's advantage. Taking the operating cycle and the cash cycle of the lessee into consideration, lease payments can be correlated with the timings of the cash inflows and outflows. Such a benefit is highly advantageous to the lessee in that the lessee gets an opportunity to preserve working capital during the beginning points of the operating cycle. In addition, contractual flexibility can be realized if the lease is classified as an operating lease where the lease can be extended or canceled as necessary (Nevitt, et.al. 2000).

### 2.2.2 Structured Financing

SF encompasses all private and public arrangements that effectively refinance and hedge any economic activity beyond the scope of conventional forms of on balance sheet securities (debt, bonds, equity) in the effort to lower the cost to capital and to mitigate agency costs of market impediments on liquidity (Ramesh, 2007). SF involves tailoring a product to the risk-return profile and maturity requirements of the borrower therefore; it is one of the heavily criticized forms of complex investments.

The most prominent forms of SF products for agriculture, as suggested by Winn, Miller, and Gegenbauer (2009) are; supplier finance (It generally entails financing input suppliers to enable them to offer credit sales to producers), receivables-backed finance (It relies upon contractual obligations in the value chain, using a buyer's legal commitments to pay for goods or services to be received under contract as a substitute for a credit assessment of the borrower), factoring (It is a financial transaction in which a business sells its accounts receivable (invoices) at a discount, forfeiting (the forfeiter purchases an exporter's receivables at a discount by paying cash), and

securitization (It is a financing technique where individual streams of cash flow are bundled and sold on capital markets to investors).

SF for agriculture and agribusiness can be the advance of funds to enterprises to finance inputs, production and the accompanying support operations, using certain types of security that are not normally accepted by banks or investors and which are more dependent on the structure and performance of the transaction, rather than the characteristics (creditworthiness) of the borrower. Its use is especially relevant when conventional sources of loan security are not available or are insufficient and relevant policies should be set and followed (Winn, Miller, and Gegenbauer, 2009).

SF is the process of making a loan based on a strong performance in cash flow. Rather than other assets being used as collateral for a loan, funds are advanced based on history that indicates a consistent flow of cash into the borrower's business that will allow for the timely and orderly repayment of the loan amount (Oxford Dictionary, 2009). According to Fabozzi and Yale (n.d.) SF are techniques employed whenever the requirements of the originator or owner of an asset, be they concerned with funding, liquidity, risk transfer, or other need, cannot be met by an existing, off-the-shelf product or instrument. Hence, to meet this requirement, existing products and techniques must be engineered into a tailor-made product or process. Thus, structured finance is a flexible financial engineering tool.

SF is able to provide avenues for use of alternative collateral by placing emphasis on the security of transaction commodities and documents rather than relying on fixed assets. In this way it offers an approach for increasing financing to agriculture and agribusiness (Winn, Miller, and Gegenbauer, 2009). Structured finance mainly focuses on the transaction to be financed and thus on performance risk, not on the credit standing of the borrower (credit risk) as in conventional

banking. Instead of the traditional credit appraisal (such as the five "Cs" of character, capacity, capital, collateral and conditions). It assesses the performance (that is to say; risks, profitability and cash flow) of the underlying transactions to be financed (Njovo, and Caroliny, 2014).

According to Winn, Miller, and Gegenbauer (2009) SF excludes straightforward bank finance, based on balance sheet analysis or the use of conventional collateral, such as land or buildings. Instead, it relies on collateral that is inherent in the transaction itself, such as future receivables. It is a broad term encompassing many possible financial instruments, any of which may be used individually or combined with conventional finance and/or other structured finance instruments. It moves the opportunities for financing beyond companies with acceptable credit risks and offers lower costs for financing. SF relies on the strength of the value chain rather than the typical focus on the security of the borrower.

SF does not rely primarily on conventional loan collateral such as real estate and other fixed assets owned by the borrower. This may be applicable in cases where the entrepreneur doesn't want to put at risk her/his private assets, or where such is insufficient to cover the proposed loan value. Only balance sheet items which are inherent in the transaction, such as flows or stocks of agricultural commodities, are used to secure lending. According to Njovo and Caroliny, (2014) successful implementation of SF requires an adequate legal framework that ensures contract compliance by all parties. According to Anon (2005) SF is a form of financial intermediation, based upon securitization technology. It involves the pooling of assets and the subsequent sale to investors of claims on the cash flows backed by these pools.

### 2.2.3 Venture Capital
VC has got more and more important during the last two decades. Many well-known companies like Apple Computers, Intel, Lotus and Microsoft grew with venture capital. Typically, the

venture capital industry applies a limited partnership as organizational form. In such a partnership, venture capitalists manage the fund while investors are limited partners and cannot get involved in the day-to-day business. Such a partnership is usually predetermined to ten to thirteen years (Gompers and Lerner, 2001).VC is a specific form of industrial finance, part of a more broadly based private equity market. That is, investments made by institutions, firms and wealthy individuals in high-growth ventures that are not yet listed on a stock market (Lindström, 2007).

Since it is often difficult to evaluate the earnings potential of new business ideas or very young companies, and investments in such companies are unprotected against business failures, VC is a highly risky industry. As a result, VC firms set rigorous policies and requirements for the types of proposals they will even consider. Most VC firms require their client companies to have some operating history, a very small number handle startup financing for businesses that have a well-considered plan, something "new," and an experienced management group (Gale, 2007).

VC is a growing industry that is an important part of the overall financing sector. A well-functioning and active VC industry is crucial for the success of the overall economy as it supports the growth and development of new innovative startup firms by offering financing and advice. In fact, VC has become an important intermediary in financial markets, providing capital to firms that might otherwise have difficulty attracting financing. These firms are typically small and young, plagued by high levels of uncertainty and large differences between what entrepreneurs and investors know. Moreover, these firms typically possess few tangible assets and operate in markets that change very rapidly. VC organizations finance these high-risk, potential high-reward projects, purchasing equity or equity-linked stakes while the firms are still privately held (Gompers and Lerner, 2001).

To illustrate the importance of the VC industry, it can be noted that during the last three decades (1970-2000), American venture capitalists have invested $273.3 billion into new ventures. These venture firms now employ 7.6 million people and generate over $1.3 trillion in annual sales revenue, representing 5.9% and 13.1% of the respective U.S. national totals. In addition, on average every $36,000 in VC investment creates one new job (Megginson, 2004).

In general it can be said that explaining, let alone predicting, venture capital performance is extremely difficult. Every investment of a VC fund in a portfolio company is unique and its outcome is unknown to everyone at the time of the initial investment. The variance in investment outcomes is huge, ranging from bankruptcy to world-known success stories. In addition, one VC fund can only invest in a limited number of companies, which makes the return of a single VC fund highly volatile (Lindström, 2007).

Venture capitalists in the United States are much more assertive in reserving contingent control rights: they use more systemically financial instruments that convey residual control in case of poor performance, namely convertible securities, and they activate contingent control more frequently, as measured by the replacement of entrepreneurs and the termination of projects. Many VC firms have specialized in one geographical area, certain type of companies, technology, or some particular development operation (internationalization). This means that in many cases the best possible development of one venture-backed company calls for capabilities and experience of several VC firms (Hege et al., 2003).

The economics of venture capital are characterized by high risk and high returns. Investing in young firms is risky with many failing and becoming total losses. The compensation for the failures comes from investments that yield 10, 20, or even 100 times the initial capital invested

by the venture capitalists. Since VCs invest in a number of firms, large successes are used to offset the failures (Lyons and Kenney, 2007).

The goal of VC investments is usually to finance the growth or other development phase of the company and then exit the company with a higher valuation. The faster the exit can be done, the higher is the IRR for the investment (assuming same valuation multiple). Thus, VC companies usually aim to exit the investment as soon as the company is ready to be sold, or alternatively when the company is considered to be a failure (Lindström, 2006).

As well as capital, experience is a key resource that a VC brings to the venture. The provision of strategic guidance can add significant value to a portfolio company (Powell et al, 2002). VCs are assumed to be particularly good coaches, they are believed to benefit their companies through a variety of activities such as mentoring, strategic advice, monitoring, establishing corporate governance, professionalization of the company, and building a management team (Lerner et al, 2011).

Obtaining VC financing also has its costs. The close involvement of the VC can be time-consuming for the EN and ENs can experience a significant loss of control (Hellmann & Puri, 2003). Moreover, VC financing is said to be an expensive source of capital. The human capital required to assess and monitor investments is likely to take years to develop. The investment contracts are time-consuming and costly to negotiate. As a result, VCs require a return that compensates them for their investment of both financial and human capital (Lerner et al, 2011). VCs expect a ten times return of capital over five years. Combined with the preferred position, this is very high-cost capital.

## 2.3 Review of literature based on study objective

### 2.3.1 Credit appraisal and agricultural financing

The credit appraisal processes depends on two factors namely, a transparent and comprehensive presentation of the risks when granting the loan on one hand, and an adequate assessment of these risks on the other hand (Raaij, 2005). Furthermore the level of efficiency of the credit appraisal processes is an important rating element due to the considerable differences in the nature of various borrowers and the assets to be financed as well as the large number of products and their complexity, there cannot be a uniform process to assess risks (Raaij 2005). Financing in the Agribusiness sector has been difficult due to perceived and unmanaged sectorial risk factors (Benjamin, David and Moses, 2014). This risks cannot be managed easily and make the appraisal process difficult, this hence affects agricultural financing since most financial institutions may find it difficult to assess the risks involved and how much credit is on worth.

According to Saxena (2009), credit appraisal process of a customer lies in assessing if that customer is liable to repay the loan amount in the stipulated time, or not. Banks have their own methodology to determine if a borrower is creditworthy or not. It is determined in terms of the norms and standards set by the banks. Since agriculture is widely considered more risky than industry or trade it is not surprising that agricultural lending projects have had poor repayment performance (Christen and Pearce, 2005). This affects the appraisal process of a client since the venture he wants funded is considered too risky, therefore he/she may not be able to access the credit needed to finance his agricultural projects after he has been assessed and not found credit worthy. Padmalatha (2010) credit appraisal play a major role in agricultural loans, each bank has to appraise every loan depending on its features. According to the World Bank Group (2015)

finding good collateral, for example, moveable collateral and not just rely on titled land, could also help in assessing the credit worthiness of a borrower.

## 2.3.2 Credit management and agricultural financing

According to Julius (2007) most financial institutions avoid agricultural financing/lending especially production enhancement credit due to high transaction costs from rural areas which result into high costs of loan administration. The issue of credit management has a profound implication both at the micro and macro level. When credit is allocated poorly it raises costs to successful borrowers, erodes the fund, and reduces banks flexibility in redirecting towards alternative activities. Moreover, the more the credit, the higher is the risk associated with it (Mirach, 2010).

Most MFIs lack the most basic aspects of credit management hence are not capable of analyzing trends within organization, leading to a default which in turn affects agricultural lending (Mbugua, 2012). According to Jean (2011) some of the reasons that make agricultural financing difficult include; the territorial dispersion of borrowers, distances from places of residence, and low population densities in many rural situations which increase financial services transaction costs. High levels of diverse nature of risks which are often covariant within one and the same region all these affect the management of the credit lent out to agricultural farmers in rural areas.

## 2.3.2 Credit insurance and agricultural financing

Insured farm loans have evolved to be an important component of the federal role in the agricultural credit subsector. Guaranteed loans have become an important component, these loans are made in cooperation with other agricultural finance agencies. The public agency insures or guarantees repayment of the loan (Hatch and Musser, 2015).

A credit insurance policy also allows companies to feel secure in extending more credit to current customers, or to pursue new, larger customers that would have otherwise seemed too risky. The policy should be explained to all the parties involved. The protection credit insurance provides allows a company to increase sales, and to grow their business with existing customers (Euler Hermes, 2014). This increases agricultural credit since the credits have been insured from any risks that may affect payment and the burden of the credit risk is shifted to the insurance company.

Pomareda and Valdés (1989) credit insurance has an effect on financing of the agricultural sector. Lenders can take out insurance policies to cover their agricultural portfolios and pass the costs of the premiums on to their farmer clients through additional fees or interest charges (Christen and Pearce, 2005). This in turn increases agricultural credits from financial institutions. If insurance were available to protect both suppliers and clients from risk, would that improve financial coverage and loan conditions in rural areas and agricultural financing. (Trivelli, et al., 2006).

# CHAPTER THREE

# RESEARCH METHODOLOGY

## 3.0 Introduction

This section gives a strategy that was used to accomplish the research undertaking outlined above. It proposes the research design used in this study, study and target population that was used in carrying out the research, geographical scope, sampling method, the sample size used in the study, the sampling techniques used and shows the data sources for the research and how data was collected, analyzed and presented and also measurement of the study variables. This section also shows the ethical considerations when carrying out the research and the study limitations.

## 3.1 Research Design

This study adopts a case study approach involving a study on credit risk management and agricultural financing. A research design is defined as an arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure. This research adopted a cross sectional time dimension and a quantitative study approach.

## 3.1.1 Design

Case study

A case study is a detailed analysis of a single case (Nick and Ian, 2008). A case study places more emphasis on the full analysis of a limited number of events or conditions and their

interrelations. It deals with the processes that take place and their interrelationships (Richard, 1976)

The researcher will choose the case study research design because; it allows a lot of detail to be collected that would not normally be easily obtained by other research designs. The data collected is normally a lot richer and of greater depth. It tends to be conducted on rare cases where large samples of similar participants are not available. It allows the researcher the complex relationship between phenomena, context, and people.

### 3.1.2 Study approach

Quantitative approach

The researcher adopts a quantitative approach focusing on generating figures out of the results obtained. The figures were presented in a descriptive form. Alan and Emma (2007) describe a quantitative research as the collection of numerical data and as exhibiting a view of the relationship between theory and research as a deductive, a prediction for a natural science approach, and as having an objectivist conception of social reality.

The researcher used this approach because of the following reason; it can be time tested to determine its significance, large volumes of data can be analyzed relatively quickly, statistical tests of significance give researchers additional credibility in terms of interpretations they make and the confidence the researcher has in the findings, it can eliminate behavioral and emotional biases which would hinder consistence of the results, it is a cost effective research approach.

### 3.1.2 Time dimension

Cross sectional design

According to Jean (2005) the cross sectional design relies on existing variations in the independent variables in a sample. Data is collected at one point in time. It can only measure differences between rather than change. A cross sectional design involves comparing the groups simply in terms of difference of the dependent variable.

The researcher used the cross sectional design because of the following; it can minimize some of the ethical problems that can arise with longitudinal design. Cross sectional designs are simple, cost effective and consistently are often able employ excellent samples and avoid problems caused by sample attrition. It has a strong external validity.

### 3.2 Area of Study

The research will be carried out at Entrepreneurs Financial Centre (EFC) Acacia Avenue Kololo an MDI.

### 3.3 Study Population

The study population is 35 people as stated in human resource manual of EFC 2015.

### 3.4 Sample Size

It is established from the study population the study adopts the Krejice and Morgan table to determine the sample size from the population of 35 employees. Krejice and Morgan (1970) developed the formula for determining the sample size for categorized types of data.

**3.5 Sampling technique**

Stratified Sampling

The researcher used this technique because of the following; the researcher is studying a heterogeneous population, it allows the researcher to use statistical methods to analyze sample results, it is easy to implement and easy to analyze.

**3.6 Data sources**

Primary sources

These are sources of first occurrence of a piece of work. The researcher used questionnaires as a research tool for data collection.

**3.7 Methods of data collection**

Questionnaires

According to James (1997) a questionnaire is a means of eliciting the feelings, beliefs, experiences, perception or attitudes of some individuals. It could be structured or unstructured.

The researcher used questionnaires as a method of data collection because of the following; it allows collection of information from a larger number of individuals and relatively inexpensive, it contributes to reliability by promoting consistency, and it also reduces the introduction of bias by eliminating interviews to influence answers.

**3.8 Data Analysis and Presentation**

The researcher analyzed quantitative data (using questionnaires as a research tool) by using SPSS. The presentation is inform of graphs, tables and charts and also descriptive and inferential statistics.

**3.9 Quality Control**

The researcher was aware of the challenges of reliability and validity of the research. The researcher ensured the reliability of the research by being able to collect data that can be replicated by using the test and re test method.

The researcher ensured validity by using the expert review approach to ensure that the research tool was valid.

**3.10 Measurement of variables**

The researcher used the following dimensions to measure the independent variable; Credit appraisal, credit management and lastly loan insurance.The researcher used the following dimensions to measure the dependent variable; Equipment financing, structured financing and lastly venture capital

**3.11 Ethical considerations**

The researcher acknowledged and referenced all work of others used in this and clearly cite them.

The researcher sought voluntary participation in research work from the respondents.

**3.12 Study limitations**

Time dimension, the research is for a short time which is not sufficient enough too effectively understand the topic and variables examined. The researcher used both the quantitative and qualitative approach to minimize or manage the limitation of time.

Research design, the research generalized that what happens or affects one area also happens or affects another area. This may come as a result of the sample size (the smaller the sample size

the higher the error and the larger the sample size the smaller the error). The researcher minimized this limitation by getting a lot of information from the small sample.

The convenience sample selection that was used can be biased. Thus the selected sample may not give a complete representation of the population. Thus affecting the accuracy of the results of this study.

# CHAPTER FOUR

## PRESENTATION OF RESULTS AND DISCUSSION OF FINDINGS

### 4.0 Introduction

This chapter presents data collected using the questionnaires as described in Chapter three. The results of the study are presented according to the dimensions under the dependent and independent variables. The findings were analyzed and interpreted using SPSS version 16. All the responses are presented in frequencies, percentages, mean, standard deviation minimum and maximum which are displayed in tables, and graphs. The statements were analyzed based on 1-Strongly disagree, 2- Disagree, 3- Not sure, 4- Agree & to 5-Strongly agree scale rate and statistical measures like the mean standard deviation. Finally, results based on the objectives were also presented, interpreted and discussed.

### 4.1 Response rate

A total of 32 questionnaires were distributed to EFC Staff who comprised the research respondents and all the questionnaires were returned. The response rate for the distributed questionnaires for this study was for that reason 100%  since all the questionnaires were answered which was representative enough of the research respondents.

### 4.2 General Information

This section presents the general information. It includes aspects such as gender of respondents, age of the respondents, department of the respondents, working experience of the respondents and employment position of the research respondents the following results were obtained.

**4.2.1 Gender of the Research Respondents**

This research study also set out to find out the gender of the research respondents who participated in the research study. The following was the research data that was captured from the research field.

**Table 4.2 Gender of the Research Respondents**

| Sex | Frequency | Percentage |
|---|---|---|
| Female | 14 | 43.8 |
| Male | 18 | 56.2 |
| **Total** | **32** | **100.0** |

**Source: Primary Research Data**

In table 4.1 above, the results show the gender of the respondents. It indicates that (14, 43.8%) respondents were female and (18, 56.2%) respondents were male. This implies that the majority of the respondents were male.

**4.2.2 Age of the Respondents**

The researcher set out to establish the age of the research respondents who participated in the research study. The following was the research data that was captured from the research field.

**Table 4.3 Age of the Research Respondents**

| Category | Frequency | Percentage |
|---|---|---|
| Below 25 years | 5 | 15.6 |
| 25 - 35 years | 23 | 71.9 |
| 36 - 45 years | 4 | 12.5 |
| Above 45 years | 0 | 0 |
| **Total** | **32** | **100.0** |

**Source: Primary Research Data**

In table 4.2 above, the results of the age groups of the respondents were presented. The results show that, (5, 15.6%) respondents were below 25 years, (23, 71.9%) respondents were between 25-35 years, (4, 12.5%) respondents were between 36-45 years and (0, 0%) respondent was above 45 years. This could imply that all the respondents that participated in the study were generally young.

**4.2.3 Department of the Respondents**

The researcher set out to establish the department of the research respondents who participated in the research study. The following was the research data that was captured from the research field.

**Table 4.4  Department of the Research Respondents**

| Department | Frequency | Percentage |
|---|---|---|
| Credit | 25 | 78.1 |
| Treasury | 4 | 12.5 |
| Finance | 0 | 0 |
| Banking | 0 | 0 |
| Others | 3 | 9.4 |
| **Total** | **32** | **100.0** |

**Source: Primary Research Data**

In table 4.3 above, the results of the departments of the respondents show that, (25, 78.1%) respondents are in the credit department, (4, 12.5%) respondents are in the treasury department, (0, 0%) respondents are in the finance department, (0, 0%) respondents are in the banking department, and (3, 9.4%) respondents are in other departments. This could imply that majority of the respondents were drawn from the credit department.

**4.2.4 Working experience of the Respondents**

The researcher set out to establish the working experience of the research respondents who participated in the research study. The following was the research data that was captured from the research field.

**Table 4.5  Working experience of the Research Respondents**

| Working Experience | Frequency | Percentage |
|---|---|---|
| Below 1 year | 8 | 25.0 |
| 1 – 5 years | 18 | 56.2 |
| 6 – 10 years | 5 | 15.6 |
| Above 10 years | 1 | 3.1 |
| **TOTAL** | **32** | **100.0** |

**Source: Primary Research Data**

In table 4.4 above, the results show the working experience of the respondents. It indicates that (8, 25.0%) respondents had a working experience below 1 year, (18, 56.2%) had a working experience between 1-5 years, (5, 15.6%) respondents have a working experience between 6-10years, and (1, 3.1%) respondent had a working experience above 10 years. This could imply that most of the respondents have not been in the bank for more than 5 years.

**4.2.5 Employment position of the Respondents**

The researcher set out to establish the employment position of the research respondents who participated in the research study. The following was the research data that was captured from the research field.

**Table 4.6 Employment position of the Research Respondents**

| Position | Frequency | Percentage |
|---|---|---|
| Manager | 1 | 3.1 |
| Head of Department | 2 | 6.2 |
| Risk Officer | 5 | 15.6 |
| Credit Officer | 17 | 53.1 |
| Banking Officer | 2 | 6.2 |
| Others | 5 | 15.6 |
| **TOTAL** | **32** | **100.0** |

**Source: Primary Research Data**

In table 4.5 above, the results show the employment positions of the respondents. It indicates that (1, 3.1%) person was a manager, (2, 6.2%) respondents were heads of department, (5, 5.6%) respondents were risk officers, (17, 53.1%) respondents were credit officers, (2, 6.2%) respondents were banking officers and (5, 15.6%) respondents held other positions. This could imply that majority of the respondents are credit officers.

**4.3 Descriptive Statistics**

**4.4 Credit Appraisal**

The researcher set out to research on credit appraisal policies and procedures of the bank. The following was the research data that was captured from the research field.

**Table 4.7 Credit Appraisal**

| Particulars | N | Minimum | Maximum | Mean | S.D |
|---|---|---|---|---|---|
| Bank has a policy on credit appraisal | 32 | 1.00 | 5.00 | 4.0312 | 0.99950 |
| Policy is disseminated to staff | 32 | 1.00 | 5.00 | 3.7500 | 1.16398 |
| Policies are followed in the appraisal process | 32 | 1.00 | 5.00 | 3.7500 | 1.01600 |
| Customers understand the appraisal process | 32 | 1.00 | 5.00 | 3.0000 | 0.87988 |
| Clients are trained to understand the approval process | 32 | 1.00 | 4.00 | 3.0312 | 1.03127 |
| All applications for credit go through the appraisal process | 32 | 1.00 | 5.00 | 3.9375 | 1.07576 |

**Source: Primary Research Data**

**4.4.1 Bank has a policy on credit appraisal**

Table 4.6 above represents the results on credit appraisal. The results of the analysis show that the mean of the respondents' responses was 4.0312 which implies that the respondents agree with the statement, the bank's credit appraisal policy that is followed in giving out loans since 4.0312 is above 3 in the Likert scale. The correspondent standard deviation was 0.99950 which indicates the variation of responses, this could be because respondents had varied understanding on the questions asked or they could have not been aware of company policies. The findings seem to agree with Mureithi (2008) who says that all banks should have an effective CA policy so as to reduce and manage the CR.

**4.4.2 Bank policy on credit appraisal is disseminated to staff**

Table 4.6 represents the results to determine whether the credit appraisal policy in the bank is disseminated to staff. The result shows that the mean of the respondents' responses was 3.7500 which implies that the respondents agree with the statement, the bank's a credit appraisal policy is disseminated to staff since the mean is above 3 in the Likert scale which is the region of agreement. The corresponding standard deviation was 1.16398 indicates the variation of responses, this could be because respondents had varied understanding on the questions asked or they could have not been aware of company policies. The findings seem to agree with Mirach, (2010) who says that, in order to be effective in credit management, credit policies must be communicated throughout the organization, implemented through appropriate procedures, monitored and periodically revised to take into account changing internal and external circumstances.

**4.4.3 Policies are followed in the appraisal process**

Table 4.6 represents the results on whether the credit appraisal policies are followed in the appraisal process. The results show that the mean of the respondents' was 3.7500 which implies that the respondents agree with the statement, the bank credit appraisal policies are followed in the appraisal process since the mean is above 3 in the Likert scale which is the region of agreement. The correspondent standard deviation was 1.01600 which indicates the variation of responses, this could be because respondents had varied understanding on the questions asked or they could have not been aware of company policies. The findings seem to agree with Mirach (2010) who says that credit policies must be implemented through appropriate procedures, followed and monitored.

### 4.4.4 Credit appraisal policies are understood by customers

Table 4.6 above represents the results on whether the credit appraisal policies are understood by the customers. The results show that the mean of the respondents' was 3.0000 which imply that the respondents agree with the statement that the bank credit appraisal policies are understood by the customers since the mean is in the region of agreement in the Likert scale. The standard deviation was 0.87988 which indicates the variation of responses, this could be because respondents had varied understanding on the questions asked or they could have not been aware of company policies.

### 4.4.5 Clients are trained to understand the approval process

Table 4.6 represents the results to determine whether the clients are trained to understand the approval process. The results show that the mean of the respondents' responses was 3.0312 which imply that the respondents agreed with the statement that the clients were trained to understand the approval process since the mean is above 3 in the Likert scale which is the region of agreement. The corresponding standard deviation was 1.03127 which indicates the variation of responses, this could be because respondents had varied understanding on the questions asked or they could have not been aware of company policies.

### 4.4.6 All applicants for credit go through the appraisal process

Table 4.6 represents the results to determine whether the clients are trained to understand the approval process. The results show that the mean of the respondents' was 3.0312 which imply that the respondents agreed with the statement that all applicants for credit go through the appraisal process since the mean is above 3 in the Likert scale which is the region of agreement.

The corresponding standard deviation was 1.07576 which indicates the variation of responses, this could be because respondents had varied understanding on the questions asked or they could have not been aware of company policies. This seems to agree with Marzan (2015), who say that credit analysts should find it necessary to devote a large portion of time and attention to review a loan proposal and the appraisal process of applicants to ensure that all applicants go through the same process.

## 4.5 Credit Management

The researcher set out to research on credit management policies and procedures of the bank. The following was the research data that was captured from the research field.

**Table 4.8: Credit Management**

| Particulars | N | Minimum | Maximum | Mean | S.D |
|---|---|---|---|---|---|
| Systems for recording credit advance to clients exist. | 32 | 1.00 | 5.00 | 4.4062 | 0.87471 |
| Rewards are regularly updated | 32 | 1.00 | 5.00 | 3.8438 | 1.13903 |
| Other transactions with clients are recorded. | 32 | 1.00 | 5.00 | 4.1250 | 1.15703 |
| Bank tracks payment schedule of clients. | 32 | 1.00 | 4.00 | 4.0625 | 1.16224 |
| Customers are reminded of loan repayment due dates. | 32 | 1.00 | 5.00 | 4.0000 | 1.04727 |

**Source: Primary Research Data**

### 4.5.1 There is a system for recording credits advanced to clients

Table 4.7 represents the results to determine whether there is a system for recording credits advanced to clients. The results show that the mean of the respondents' was 4.4062 which imply

that the respondents agreed with the statement that there is a system for recording credits advanced to clients since the mean is above 3 in the Likert scale which is the region of agreement. The corresponding standard deviation was 0.87471which indicates the variation of responses, this could be due to the fact respondents had varied understanding on the questions asked or they could have not been aware of company policies. The findings seem to agree with Gathu (2013) who says that CM policies should exist in FIs for effective loan recovery.

### 4.5.2 The rewards are regularly updated

Table 4.7 represents the results to determine whether the rewards are regularly updated. The results show that the mean of the respondents' was 3.8438 which imply that the respondents agreed with the statement that rewards are regularly updated since the mean is above 3 in the Likert scale which is the region of agreement. The corresponding standard deviation was 1.13903 which implies the variation of responses, this could be because respondents had varied understanding on the questions asked or they could have not been aware of company policies.

### 4.5.3 The other transactions with the clients are reflected / recorded

Table 4.7 represents the results to determine whether other transactions with the clients are reflected or recorded. The results show that the mean of the respondents' was 4.1250 which imply that the respondents agreed with the statement that other transactions with the clients are reflected or recorded since the mean is above 3 in the Likert scale which is the region of agreement. The corresponding standard deviation was 1.15703 which implies the variation of responses, this could be because respondents had varied understanding on the questions asked or they could have not been aware of company policies and procedures. The findings seem to agree with Nzotta (2004) who says that, for effective CM customer lines have to be managed effectively and credits extended should be recorded.

**4.5.4 The bank tracks the repayment schedule of clients**

Table 4.7 represents the results to determine whether the bank tracks the repayment schedule of clients. The results show that the mean of the respondents' was 4.0625 which implies that the respondents agreed with the statement that repayment schedule of clients are tracked since the mean is above 3 in the Likert scale which is the region of agreement. The corresponding standard deviation was 1.16224 which indicates the variation of responses, this could be because respondents had varied understanding on the questions asked or they could have not been aware of company policies. The findings seem to agree with Mbugua (2013) who says that client's payments should be recorded for effective CM.

**4.5.5 Customers are reminded of the due dates of loan payment**

Table 4.7 represents the results to determine whether the customers are reminded of the due dates of loan payment. The results show that the mean of the respondents' was 4.0000 which imply that the respondents agreed with the statement that customers are reminded of the due dates of loan payment since the mean is above 3 in the Likert scale which is the region of agreement. The corresponding standard deviation was 1.04727 which indicates the variation of responses, this could be because respondents had varied understanding on the questions asked or they could have not been aware of company policies. The findings seem to agree with Mbugua (2014) who say that reminding clients of their due dates can help reduce the CR hence effective CM.

**4.6 Credit Insurance**

The researcher set out to research on credit appraisal policies and procedures of the bank. The following was the research data that was captured from the research field.

**Table 4.9: Credit Insurance**

| Particulars | N | Minimum | Maximum | Mean | S.D |
|---|---|---|---|---|---|
| A policy on credit insurance exists | 32 | 1.00 | 5.00 | 4.0312 | 0.99950 |
| An insurance company with which the bank insures its credits exists | 32 | 1.00 | 5.00 | 4.0312 | 1.14960 |
| Credit insurance policy is explained to customers. | 32 | 1.00 | 5.00 | 3.3438 | 1.20775 |
| Insurance firm charges for insurance services. | 32 | 1.00 | 4.00 | 4.0313 | 0.69488 |
| Credit insurance provides a hedge to the bank. | 32 | 1.00 | 5.00 | 3.2812 | 1.05446 |

**Source: Primary Research Data**

### 4.6.1There is a policy on credit insurance in the bank

Table 4.8 represents the results to determine whether there is a policy on credit insurance in the bank. The results show that the mean of the respondents' was 4.0312 which imply that the respondents agreed with the statement that there is a policy on credit insurance in the bank since the mean is above 3 in the Likert scale which is the region of agreement. The corresponding standard deviation was 0.99950 which indicates the variation of responses, this could be because respondents had varied understanding on the questions asked or they could have not been aware of company policies. The findings seem to agree with Euler Hermes (2014) who says that it is important for FIs to have policies on CI since it reduces the banks risk.

### 4.6.2 There is an insurance organization with which the bank insures its credits

Table 4.8 represents the results to determine whether there is an insurance organization with which the bank insures its credits. The results show that the mean of the respondents' was 4.0312which implies that the respondents agreed with the statement that an insurance company

with which the bank insures its credits exists since the mean was above 3 in the Likert scale which is the region of agreement. The corresponding standard deviation was1.14960 which indicates the variation of responses, this could be because respondents had varied understanding on the questions asked or they could have not been aware of company policies.  This seems to agree with Chubb Group of Insurance Companies, (2011), that say, an institution should have a stable, experienced insurer in its corner that understands the ins and outs of your institution's operations.

**4.6.3The credit insurance process is explained to customers**

Table 4.8 represents the results to determine whether the credit insurance process is explained to customers. The results show that the mean of the respondents' was 3.3438, which implies that the respondents agreed with the statement that the credit insurance process is explained to customers since the mean was above 3 in the Likert scale which is the region of agreement. The corresponding standard deviation was 1.20775, which indicates the variation of responses, this could be because respondents had varied understanding on the questions asked or they could have not been aware of company policies. This seems to agrees with (Euler Hermes, 2014) who say that a credit insurance policy also allows companies to feel secure and the process should be explained to all the parties involved.

**4.6.4 The insurance firm charges for the insurance services**

Table 4.8 represents the results to determine whether the insurance firm charges for the insurance services. The results show that the mean of the respondents' was 4.0313, which implies that the respondents agreed with the statement that the insurance firm charges for the insurance services since the mean was above 3 in the Likert scale which is the region of agreement. The corresponding standard deviation was 0.69488, which indicates the variation of responses, this

could be because respondents had varied understanding on the questions asked or they could have not been aware of company policies.

**4.6.5 Credit insurance provides a hedge to the bank**

Table 4.8 represents the results to determine whether credit insurance provides a hedge to the bank. The results show that the mean of the respondents' was 3.2812, which implies that the respondents agreed with the statement that credit insurance provides a hedge to the bank since the mean was above 3 in the Likert scale which is the region of agreement. The corresponding standard deviation was 1.05446, which indicates the variation of responses, this could be because respondents had varied understanding on the questions asked or they could have not been aware of company policies. The findings seem to agree with Calistru and Trifu (2013) who say that, CI provides a hedge to the bank since it can have a guarantee to possible access to credit.

**4.7 Equipment Financing**

The researcher set out to research on equipment financing policies and procedures of the bank. The following was the research data that was captured from the research field.

**Table 4.10: Equipment Financing.**

| Particulars | N | Minimum | Maximum | Mean | S.D |
|---|---|---|---|---|---|
| A policy on equipment financing in the bank exists | 32 | 1.00 | 5.00 | 3.0625 | 1.13415 |
| Clients are trained to understand the equipment financing policies | 32 | 1.00 | 5.00 | 3.1562 | 1.19432 |
| Payments made in installments are tracked. | 32 | 1.00 | 4.00 | 3.9062 | 0.96250 |
| Terms and conditions are understood by the parties involved. | 32 | 1.00 | 5.00 | 3.5000 | 1.21814 |

**Source: Primary Research Data**

### 4.7.1 There is a policy on equipment financing in the bank

Table 4.9 represents the results to determine whether there is a policy on equipment financing in the bank. The results show that the mean of the respondents' was 3.0625, which implies that the respondents agreed with the statement that there is a policy on equipment financing in the bank since the mean was above 3 in the Likert scale which is the region of agreement. The corresponding standard deviation was 1.13415, which indicates the variation of responses, this could be because respondents had varied understanding on the questions asked or they could have not been aware of company policies.

### 4.7.2 Clients are trained to understand equipment financing policies

Table 4.9 represents the results to determine whether the clients are trained to understand equipment financing policies. The results show that the mean of the respondents' was 3.1562, which implies that the respondents agreed with the statement that clients are trained to

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understand equipment financing policies since the mean was above 3 in the Likert scale which is the region of agreement. The corresponding standard deviation was 1.19432, which indicates the variation of responses, this could be because respondents had varied understanding on the questions asked or they could have not been aware of company policies.

### 4.7.3 Payments made in installments are tracked.

Table 4.9 represents the results to determine whether payments made in installments are tracked. The results show that the mean of the respondents' was 3.9062, which implies that the respondents agreed with the statement that payments made in installments are tracked since the mean was above 3 in the Likert scale which is the region of agreement. The corresponding standard deviation was 0.96250, which indicates the variation of responses, this could be because respondents had varied understanding on the questions asked or they could have not been aware of company policies. The findings seem to agree with Raymond, Saulnier and Neil (1994) who say that all payments in regard to the asset should be recorded.

### 4.7.4 Terms and conditions are understood by the parties involved

Table 4.9 represents the results to determine whether terms and conditions are understood by the parties involved. The results show that the mean of the respondents' was 3.5000, which implies that the respondents agreed with the statement that terms and conditions are understood by the parties involved since the mean was above 3 in the Likert scale which is the region of agreement. The corresponding standard deviation was 1.21814, which indicates the variation of responses, this could be because respondents had varied understanding on the questions asked or they could have not been aware of company policies. The findings seem to agree with RBC Royal Bank (2015) who say that, the leading organization should ensure that the clients understand the terms set.

## 4.8 Structured Financing

The researcher set out to research on structured financing policies and procedures of the bank. The following was the research data that was captured from the research field.

**Table 4.11: Structured Financing.**

| Particulars | N | Minimum | Maximum | Mean | S.D |
|---|---|---|---|---|---|
| Bank has a policy on structured financing agri-businesses. | 32 | 1.00 | 5.00 | 3.0938 | 1.35450 |
| Scheduled terms and conditions are respected and understood by both parties. | 32 | 1.00 | 5.00 | 3.1875 | 1.20315 |
| Installment payment is tracked. | 32 | 1.00 | 5.00 | 3.6250 | 1.21150 |
| The clients understand their obligation. | 32 | 1.00 | 4.00 | 3.6250 | 1.09985 |
| Termination of financing agreement is understood by both parties | 32 | 1.00 | 5.00 | 3.3750 | 1.18458 |

**Source: Primary Research Data**

### 4.8.1 The bank has a policy on structured financing agri-businesses

Table 4.10 represents the results to determine whether the bank has a policy on structured financing agri-businesses. The results show that the mean of the respondents' was 3.1875, which implies that the respondents agreed with the statement that the bank has a policy on structured financing agri-businesses since the mean was above 3 in the Likert scale which is the region of agreement. The corresponding standard deviation was 1.35450, which indicates the variation of responses, this could be because respondents had varied understanding on the questions asked or they could have not been aware of company policies. The findings agree with Winn, Miller and Gegenbauer (2009) who say that relevant policies on SF have to be set and followed.

**4.8.2 The scheduled terms and conditions are respected and understood by the parties**

Table 4.10 represents the results to determine whether the scheduled terms and conditions are respected and understood by the parties. The results show that the mean of the respondents' was 3.1875, which implies that the respondents agreed with the statement that the scheduled terms and conditions are respected and understood by the parties since the mean was above 3 in the Likert scale which is the region of agreement. The corresponding standard deviation was 1.20315, which indicates the variation of responses, this could be because respondents had varied understanding on the questions asked or they could have not been aware of company policies. The findings seem to agree with Njovo and Caroliny (2014) who say that successful implementation of contract structured financing requires an adequate legal framework that ensures contract compliance by all parties.

**4.8.3 The installment payment is tracked**

Table 4.10 represents the results to determine whether the installment payment is tracked. The results show that the mean of the respondents' was 3.6250, which implies that the respondents agreed with the statement that installment payment is tracked since the mean was above 3 in the Likert scale which is the region of agreement. The corresponding standard deviation was 1.21150, which indicates the variation of responses, this could be because respondents had varied understanding on the questions asked or they could have not been aware of company policies.

**4.8.4 Clients understand their obligations**

Table 4.10 represents the results to determine whether the clients understand their obligations. The results show that the mean of the respondents' was 3.6250, which implies that the respondents agreed with the statement that clients understand their obligations since the mean was above 3 in the Likert scale which is the region of agreement. The corresponding standard

deviation was 1.09985, which indicates the variation of responses, this could be because respondents had varied understanding on the questions asked or they could have not been aware of company policies.

**4.8.5 Termination of financing agreement is understood by both parties**

Table 4.10 represents the results to determine whether termination of financing agreement is understood by both parties. The results show that the mean of the respondents' was 3.3750, which implies that the respondents agreed with the statement that termination of financing agreement is understood by both parties since the mean was above 3 in the Likert scale which is the region of agreement. The corresponding standard deviation was 1.18458, which indicates the variation of responses, this could be because respondents had varied understanding on the questions asked or they could have not been aware of company policies.

**4.9 Venture Capital**

The researcher set out to research on venture capital policies and procedures of the bank. The following was the research data that was captured from the research field.

**Table 4.12: Venture Capital**

| Particulars | N | Minimum | Maximum | Mean | S.D |
|---|---|---|---|---|---|
| Bank has a policy to invest in agriculture in form of capital. | 32 | 1.00 | 5.00 | 3.0938 | 1.37628 |
| Capital invested gives the bank an opportunity to invest in that firm. | 32 | 1.00 | 5.00 | 3.2188 | 1.26324 |
| Equity invested generates returns for the bank. | 32 | 1.00 | 5.00 | 3.5000 | 1.31982 |
| Bank has a policy to divested the invested money. | 32 | 1.00 | 4.00 | 3.1563 | 1.22104 |
| Bank maintains records on venture capital management. | 32 | 1.00 | 5.00 | 3.4062 | 1.21441 |

**Source: Primary Research Data**

**4.9.1 The bank has a policy to invest in agriculture in form of capital**

Table 4.11 represents the results to determine whether the bank has a policy to invest in agriculture in form of capital. The results show that the mean of the respondents' was 3.0938, which implies that the respondents agreed with the statement that the bank has a policy to invest in agriculture in form of capital since the mean is below 3 in the Likert scale which is the region of agreement. The corresponding standard deviation was 1.37628, which indicates the variation of responses, this could be because respondents had varied understanding on the questions asked or they could have not been aware of company policies.

**4.9.2 The capital invested gives the bank an opportunity to own an interest in that firm**

Table 4.11 represents the results to determine whether the capital invested gives the bank an opportunity to own an interest in that firm. The results show that the mean of the respondents' was 3.2188, which implies that the respondents agreed with the statement that the capital

invested gives the bank an opportunity to own an interest in that firm since the mean was above 3 in the Likert scale which is the region of agreement. The corresponding standard deviation was 1.26324, which indicates the variation of responses, this could be because respondents had varied understanding on the questions asked or they could have not been aware of company policies.

**4.9.3The equity they invest generates returns for the bank**

Table 4.11 represents the results to determine whether the equity they invest generates returns for the bank. The results show that the mean of the respondents' was 3.5000, which implies that the respondents agreed with the statement that equity they invest generates returns for the bank since the mean was above 3 in the Likert scale which is the region of agreement. The corresponding standard deviation was1.31982, which indicates the variation of responses, this could be because respondents had varied understanding on the questions asked or they could have not been aware of company policies.

**4.9.4 The bank has a policy on the money it has invested on the terms when it is to be divested.**

Table 4.11 represents the results to determine whether the bank has a policy on the money it has invested on the terms when it is to be divested. The results show that the mean of the respondents' was 3.1563, which implies that the respondents agreed with the statement the bank has a policy on the money it has invested on the terms when it is to be divested since the mean was above 3 in the Likert scale which is the region of agreement. The corresponding standard deviation was 1.22104, which indicates the variation of responses, this could be because respondents had varied understanding on the questions asked or they could have not been aware of company policies. The findings seem to agree with Lindström (2007) who says that VC companies aim to exist the investment if it is making losses.

**4.9.5 The bank maintains records on venture capital management**

Table 4.11 represents the results to determine whether the bank maintains records on venture capital management. The results show that the mean of the respondents' was 3.4062, which implies that the respondents agreed with the statement that the bank maintains records on venture capital management since the mean was above 3 in the Likert scale which is the region of agreement. The corresponding standard deviation was 1.21441, which indicates the variation of responses, this could be because respondents had varied understanding on the questions asked or they could have not been aware of company policies.

**4.10 Correlation Analysis**

The correlation analysis is an important aspect in this chapter whereby it enables the researcher to find out the significance of the specific objectives stated for this given research and the confidence level between the independent and dependent variable and in this case between the dimensions of credit risk management and agricultural financing. Correlation is represented by (r) as seen in the tables below.

**Table 4.13Correlation between CRM and AF**

| Variables | 1 | 2 | 3 | 4 |
|---|---|---|---|---|
| **1.** Credit appraisal | 1 | | | 0.568** |
| **2.** Credit management | | 1 | | 0.791** |
| **3.** Credit insurance | | | 1 | 0.635** |
| **4.** Agricultural financing | | | | 1 |

**Source: Primary Research Data**

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**4.11.1 Correlation between credit appraisal and agricultural financing**

The study sought to determine the relationship between credit appraisal and agricultural financing. This was done with the support of the Pearson correlation analysis. Table 4.12 shows a positive significant 0.568 correlation between the effect of credit appraisal on agricultural financing and the confidence level between the two is 0.01 which shows a 99% confidence level this is shown by r= 0.568< 0.01 and with this a positive change in credit appraisal to a positive change in agricultural financing. This meant that credit appraisal leads to the improvement of agricultural financing. This seems to agree with Padmalatha (2010) who says that credit appraisal play a major role in agricultural loans, each bank has to appraise every loan depending on its features.

**4.11.2 Correlation between credit management and agricultural financing**

The study sought to determine the relationship between credit management and agricultural financing. This was done with the support of the Pearson correlation analysis. Table 4.12 shows a positive significant 0.791 correlation between the effect of credit management on agricultural financing and the confidence level between the two is 0.01 which shows a 99% confidence level this is shown by r= 0.791< 0.01 and with this a positive change in credit appraisal to a positive change in agricultural financing. This meant that credit management leads to the improvement of agricultural financing. The findings seem to agree with Mbugua(2012) who says that most MFIs lack the most basic aspects of credit management hence are not capable of analyzing trends within organization, leading to a default which in turn affects agricultural lending.

**4.11.3 Correlation between credit insurance and agricultural financing**

The study sought to determine the relationship between credit insurance and agricultural financing. This was done with the support of the Pearson correlation analysis. Table 4.12 shows

a positive significant  0.635 correlation between the effect of credit insurance on agricultural financing and the confidence level between the two is 0.01 which shows a 99% confidence level this is shown by r= 0.635< 0.01 and with this a positive change in credit appraisal to a positive change in agricultural financing. This meant that credit insurance leads to the improvement of agricultural financing. The findings seem to agree with Pomareda and Valdés (1989) who say there is a relationship between insurance and agricultural financing.

## 4.11 Conclusion

In conclusion, with the vivid evidence acquired from the 32 respondents who participated in this exercise, it was proven that there is a positive relationship between credit risk management and agricultural financing whereby all the independent dimensions that is to say credit appraisal, credit management, and credit insurance all when changed have a great impact on agricultural financing and this is shown with the 99% confidence level achieved in all the three comparisons.

# CHAPTER FIVE

## SUMMARY, CONCLUSION AND RECOMMENDATION

### 5.1 Introduction

This study assessed credit risk management and agricultural financing at Entrepreneurs Financial Centre (EFC) an MDI, Acacia Avenue Kololo branch. This was carried out by analyzing the dimensions of credit risk management that is to say, credit appraisal, credit management and credit insurance and also the dimensions of agricultural financing that is to say, equipment financing, venture capital and lastly structured financing. This was done against the background that credit risk management in banks was affecting finances extended to the agricultural sector.

A case study approach was used for the study. Sample size of 32 members of staff which was drawn from the 35 staff at Entrepreneurs Financial Centre (EFC), Acacia Avenue Kololo branch. The Stratified Sampling technique was used to identify the sample for the study using the Krejice and Morgan table.

The main source of data used for the study was, the primary sources of data, questionnaires were used as the main instrument to collect the primary data on credit appraisal, credit management, credit insurance, equipment financing, venture capital and lastly structured financing.

### 5.2 Summary

### 5.2.1 Credit appraisal and agricultural financing

According to the research findings, there is a positive relationship between credit appraisal and agricultural financing. The credit appraisal process of FIs affects number of agricultural loans that are approved.

**5.2.2 Credit management and agricultural financing.**

According to the research findings, there is a positive relationship between credit management and agricultural financing. Therefore, credit management policies and procedures have in an impact on agricultural financing by banks.

**5.2.3 Credit insurance and agricultural financing.**

According to the research findings, there is a positive relationship between credit insurance and agricultural financing. Thus credit insurance has an effect on agricultural financing.

**5.3 Conclusion.**

The following findings were made in line with the conclusion drawn;

There were more male respondents in the bank than female. Respondents working in financial institutions were generally young and were between the ages $25 - 35$. The bank employs more people in the credit department this is because the banks overall business is in credit, therefore, a credit department in every financial institution is established to follow up on the goal achievement. Most respondents had not stayed in the banking sector for long majority didn't last 10 years in the same institution of banking or even in the banking environment.

There was a positive significant 0.791 correlation between the effects of credit management on agricultural financing. The confidence level between the two was 0.01 which shows a 99% confidence level. With this a positive change in credit management to a positive change in agricultural financing which meant that credit management leads to the improvement of agricultural financing.

There was a positive significant0.568 correlation between the effects of credit appraisal on agricultural financing. The confidence level between the two is 0.01 which shows a 99%

confidence level. With this a positive change in credit appraisal to a positive change in agricultural financing which meant that credit appraisal leads to the improvement of agricultural financing.

There was a positive significant 0.635 correlation between the effects of credit insurance on agricultural financing. The confidence level between the two is 0.01 which shows a 99% confidence level. With this a positive change in credit appraisal to a positive change in agricultural financing which meant that credit insurance leads to the improvement of agricultural financing.

The bank has credit appraisal policies that are followed in giving out loans. The policies are disseminated to staff and are followed in the appraisal process. The policies are not understood by the customers since the mean was 3.0000 which show that the respondents were not sure whether the customers understood the appraisal process. The bank trains the clients to understand the approval process.

## 5.4 Recommendation

On the basis of the results and conclusions of this study, the following policy implications are suggested so as to be considered in the future intervention strategies which are aimed at improving the agricultural financing by practicing and following the credit risk management policies set.

Management should focus seriously on CA because it is a critical determinant in explaining agricultural financing. CA process helps FIs to determine the creditworthiness of clients therefore, where critical emphasis is put on CA management of the FIs can help reduce on credit risks and increase on loans approved for agricultural projects.

Train credit officials to conduct financial analysis of the client, focusing on household cashflow, market situation, assessment of managerial or entrepreneurial ability, and reputation. Institutions can have centralized or decentralized systems to approve client requests.

Management should also strengthen their focus on CM because it is a critical determinant in explaining agricultural financing. The formulation of CM policies may be challenging but enforcement of guarantee policies provides chances for loan recovery. Therefore, FIs should have credible CM policies so as to influence agricultural financing positively.

Management should focus seriously on CI because it is a critical determinant in explaining agricultural financing. CI offers protection for the risk of default therefore; CI is a direct seller protection against the risk of failures to receive. FIs should encourage their loan applicants to acquire CI so as influence AF positively.

The bank has to ensure that all clients understand the terms and conditions set in the financing agreement and all records regarding installment payments should be recorded as and when they occur or when they are paid.

The bank should encourage credit insurance for agricultural loans this will reduce on the credit risk since the insurance will bear the burden of the loan payment in case the client fails to meet the payment requirements due to unforeseen circumstances.

## 5.5  Suggestions for further research.

Basing on the research of credit risk management and agriculture financing, further studies have to be carried out on the impact of credit insurance and agricultural financing since it is an important area and it has a great influence on the financing of agricultural yet there isn't a lot of literature about it.

Further research should be carried on the effect of credit risk management and agricultural financing.

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## APPENDICES

**Appendix 1 Questionnaire**

As part of academic research required by all final year students of Uganda Martyrs University, I am conducting a research study on Credit Risk Management and Agricultural Financing. Please assist me with the questionnaire.

Responses to this questionnaire will be used to develop general findings and conclusions without specific reference to the respondents except where permission has been granted approval. Thank You.

**Section A**

**General Information**

1.  Gender

    ☐ Female                                    ☐ Male

2.  Please indicate your age category

    ☐ Below 25 years                        ☐ 25 - 35 years

    ☐ 36 -45 years                            ☐ above 45 years

3.  Department

    ☐ Credit                                      ☐ Treasury

    ☐ Finance                                    ☐ Banking

    ☐ Others: Specify …………………………..

4.  Experience in years of working in the banking sector

    ☐ Below 1 year                            ☐ 1 – 5 years

    ☐ 6 – 10 years                             ☐ above 10 years

5. Which best describes your position in the bank

☐ Senior Executive                    ☐ Head of Department

☐ Manager                              ☐ Risk Officer

☐ Credit Officer                       ☐ Banking Officer

☐ Others: Specify …………………………………

**Section B**

For the following statements, rate your perspective ranging from 1 – 5

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

Determinants of Credit Risk Management at EFC

|  |  | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
|  | CREDIT APPRAISAL |  |  |  |  |  |
| 1 | Our bank has a policy on C.A. |  |  |  |  |  |
| 2 | Policy is disseminated to the staff. |  |  |  |  |  |
| 3 | The policy is followed during C.A process. |  |  |  |  |  |
| 4 | Customers /clients understand the C.A procedure. |  |  |  |  |  |
| 5 | Clients are trained to understand the approval process. |  |  |  |  |  |
| 6 | All applications for credit go through the appraisal process. |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | CREDIT MANAGEMENT. |  |  |  |  |  |
| 1 | There is a system for recording credits advanced to clients. |  |  |  |  |  |
| 2 | The rewards are regularly updated. |  |  |  |  |  |
| 3 | The other transactions with the clients are reflected / recorded. |  |  |  |  |  |
| 4 | The bank tracks the repayment schedule of clients. |  |  |  |  |  |
| 5 | Customers are reminded of the due dates of loan payment. |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | CREDIT INSURANCE. |  |  |  |  |  |
| 1 | There is a policy on credit insurance in the bank. |  |  |  |  |  |
| 2 | There is an insurance organization with which the bank insures its credits. |  |  |  |  |  |
| 3 | The credit insurance process is explained to customers. |  |  |  |  |  |
| 4 | The insurance firm charges for the insurance services. |  |  |  |  |  |

| | | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| 5 | Credit insurance provides a hedge to the bank. | | | | | |

Determinants of Agricultural Financing at EFC

| | | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|---|
| | EQUIPMENT FINANCING | | | | | |
| 1 | There is a policy on equipment financing in the bank | | | | | |
| 2 | clients are trained to understand the policies | | | | | |
| 3 | the payments made in installments are tracked | | | | | |
| 4 | terms and conditions are understood by the parties involved | | | | | |
| | | | | | | |
| | STRUCTERED FINANCING | | | | | |
| 1 | The bank has a policy on structured financing agri-businesses | | | | | |
| 2 | The scheduled terms and conditions are respected and understood by the parties | | | | | |
| 3 | the installment payment is tracked | | | | | |
| 4 | clients understand their obligations | | | | | |
| 5 | termination of financing agreement is understood by both parties | | | | | |
| | | | | | | |
| | VENTURE CAPITAL. | | | | | |
| 1 | The bank has a policy to invest in agriculture in form of capital. | | | | | |
| 2 | The capital invested gives the bank an opportunity to own an interest in that firm. | | | | | |
| 3 | The equity they invest generates returns for the bank. | | | | | |
| 4 | The bank has a policy on the money it has invested on the terms when it is to be divested. | | | | | |
| 5 | The bank maintains records on venture capital management. | | | | | |

**THANK YOU.**

**Appendix 11: Krejice and Morgan Table**

*Table for Determining Sample Size of a Known Population*

| N | S | N | S | N | S | N | S | N | S |
|---|---|---|---|---|---|---|---|---|---|
| 10 | 10 | 100 | 80 | 280 | 162 | 800 | 260 | 2800 | 338 |
| 15 | 14 | 110 | 86 | 290 | 165 | 850 | 265 | 3000 | 341 |
| 20 | 19 | 120 | 92 | 300 | 169 | 900 | 269 | 3500 | 346 |
| 25 | 24 | 130 | 97 | 320 | 175 | 950 | 274 | 4000 | 351 |
| 30 | 28 | 140 | 103 | 340 | 181 | 1000 | 278 | 4500 | 354 |
| 35 | 32 | 150 | 108 | 360 | 186 | 1100 | 285 | 5000 | 357 |
| 40 | 36 | 160 | 113 | 380 | 191 | 1200 | 291 | 6000 | 361 |
| 45 | 40 | 170 | 118 | 400 | 196 | 1300 | 297 | 7000 | 364 |
| 50 | 44 | 180 | 123 | 420 | 201 | 1400 | 302 | 8000 | 367 |
| 55 | 48 | 190 | 127 | 440 | 205 | 1500 | 306 | 9000 | 368 |
| 60 | 52 | 200 | 132 | 460 | 210 | 1600 | 310 | 10000 | 370 |
| 65 | 56 | 210 | 136 | 480 | 214 | 1700 | 313 | 15000 | 375 |
| 70 | 59 | 220 | 140 | 500 | 217 | 1800 | 317 | 20000 | 377 |
| 75 | 63 | 230 | 144 | 550 | 226 | 1900 | 320 | 30000 | 379 |
| 80 | 66 | 240 | 148 | 600 | 234 | 2000 | 322 | 40000 | 380 |
| 85 | 70 | 250 | 152 | 650 | 242 | 2200 | 327 | 50000 | 381 |
| 90 | 73 | 260 | 155 | 700 | 248 | 2400 | 331 | 75000 | 382 |
| 95 | 76 | 270 | 159 | 750 | 254 | 2600 | 335 | 1000000 | 384 |

*Note: N is Population Size; S is Sample Size*          *Source: Krejcie & Morgan, 1970*

## Appendix III: Correlations Analysis Tables

| | | creditappraisal | agriculturalfinaning |
|---|---|---|---|
| creditappraisal | Pearson Correlation | 1 | .568** |
| | Sig. (2-tailed) | | .001 |
| | N | 32 | 32 |
| agriculturalfinaning | Pearson Correlation | .568** | 1 |
| | Sig. (2-tailed) | .001 | |
| | N | 32 | 32 |

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

**Correlations**

| | | creditmanagement | agriculturalfinaning |
|---|---|---|---|
| creditmanagement | Pearson Correlation | 1 | .791** |
| | Sig. (2-tailed) | | .000 |
| | N | 32 | 32 |
| agriculturalfinaning | Pearson Correlation | .791** | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 32 | 32 |

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

**Correlations**

| | | credit insurance | agriculturalfinaning |
|---|---|---|---|
| creditinsurance | Pearson Correlation | 1 | .635** |
| | Sig. (2-tailed) | | .000 |
| | N | 32 | 32 |
| agriculturalfinaning | Pearson Correlation | .635** | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 32 | 32 |

**Correlations**

|  |  | credit insurance | agriculturalfinaning |
|---|---|---|---|
| creditinsurance | Pearson Correlation | 1 | .635$^{**}$ |
|  | Sig. (2-tailed) |  | .000 |
|  | N | 32 | 32 |
| agriculturalfinaning | Pearson Correlation | .635$^{**}$ | 1 |
|  | Sig. (2-tailed) | .000 |  |
|  | N | 32 | 32 |

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

## APPENDIX IV: INTRODUCTION LETTER

Uganda
Martyrs
University

making a difference

**Office of the Dean**
**Faculty of Business Administration and Management**

*Your ref.:*
*Our ref.:*

Nkozi, 10th March 2016

### To Whom it may Concern

Dear Sir/Madam,

**Re: Assistance for Research:**

Greetings and best wishes from Uganda Martyrs University.

This is to introduce to you *NAKABUYE MARIA GRACE* who is a student of Uganda Martyrs University. As part of the requirements for the award of the Degree of Bachelor of Business Administration and Management of the University, the student is required to submit a dissertation which may involve a field research on a selected case study such as a firm, governmental or non governmental organization, financial or other institutions.

May I therefore kindly request your assistance in permitting and facilitating the student in this survey. Your support will be greatly appreciated.

Thank you in advance.

Yours Sincerely,

Edward Segawa
**Associate Dean**

UGANDA MARTYRS
UNIVERSITY
OFFICE OF THE DEAN
10 MAR 2016
FACULTY OF BUSINESS
ADMINISTRATION & MANAGEMENT
SIGN:...........

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