

**THE EFFECTS OF CREDIT RISK MANAGEMENT ON FINANCIAL PERFORMANCE  
IN BANKS: A case study of Centenary Bank**

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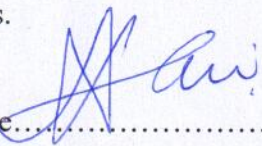


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## DECLARATION

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## **DEDICATION**

I dedicate this work to my dearest family which has shown heroic support throughout my academic struggle.

## **ACKNOWLEDGEMENTS**

The greatest honor goes to Almighty God who has enabled me to get this far.

With great thanks, I wish to acknowledge all my family members for believing in me and for their career guidance, mental and financial support. I will forever remain indebted to them.

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## **ABSTRACT**

The study examined the effect of credit risk management on financial performance of Housing Finance Bank. The Specific Objectives of the study were to examine the effect of Credit Risk identification, Credit Risk assessment and Credit Risk control on the financial performance of CENTENARY BANK. The study used a descriptive cross-sectional design using both qualitative and quantitative approach to collect data from a sample of 59 respondents. Questionnaire and interviewing guides were used to collect the data. Quantitative data was analyzed using measurement of central tendency and qualitative data was analyzed using correlations and regression analysis techniques.

The study found a high positive significant relationship between credit risk identification and financial performance. The study also found a high positive significant relationship between credit risk assessment and financial performance. Then the study found a high positive significant relationship between credit risk control and financial performance

The study concluded that effective credit risk management through risk identification, assessment and control in financial institutions if well managed has a resultant significant positive effect on the financial performance of the bank and vice versa. The study recommends that to achieve the desired sales revenue and profitability, financial institutions should be guided by a philosophy of continuously exploring all possible risk origins and their classification to guide credit risk assessment; continuously exploring existing and incidental credit risk data and risk estimation using industry best responsive credit risk estimation models/techniques; review and strengthen the credit mitigation and monitoring mechanism through continuous training and allocations of necessary resources for the credit recovery team.

# **CHAPTER ONE**

## **INTRODUCTION**

### **1.0 introduction**

The management of credit risk and its impact on the financial performance of financial institutions in Uganda were the subjects of this study. The independent variable in this study was credit risk management, whereas the dependent variable was financial performance. While the study looked at two indicators of Sales growth and Profitability for Financial Performance, Credit Risk Management employed three: Risk detection, Risk Assessment, and Risk Control.

Commercial banks are important sources of financial data for the economy and are Financial Institutions. In emerging economies where borrowers lack access to credit markets, they even play a crucial role (Cornett and Saunders, 1999). According to research (Barth, Caprio, and Levine, 2004), efficient commercial banks promote economic growth, whereas inefficient ones stymie it and increase poverty.

According to Cassola, Drehmann Hartmann, Ducan, and Scheicher (2008), credit management has a significant impact on whether commercial banks succeed or fail. This is due to the fact that the quality of loan decisions and, consequently, the quality of the risky assets, both have a significant impact on deposit banks' susceptibility to collapse. He adds that credit management offers a leading sign of the caliber of deposit institutions' portfolio of credit. Therefore, a well-developed credit policy structure and procedure are essential to effective credit management.

### **1.2 Background Study**

#### **1.2.1 Historical background**

According to Brindley (2004), the development of credit risk management in the 1960s was largely influenced by global competitiveness, technical advancement, and the ongoing pursuit of competitive advantage. According to John (2004), there was no risk management division in the banking organization in the 1980s, and the bank's head trader was the only person with the knowledge and power to make decisions about bad deals and order their unwinding. The banking institutions started to recognize the importance of credit risk management in the 1990s and

established risk management divisions whose primary responsibility was to measure risk rather than to manage it. This rendered credit risk management helpless because all decision-making power was given to the chief trader (Economic intelligence report, 2009). But as financial markets and derivatives became more volatile and enterprises without credit risk management systems incurred significant financial losses, the field of credit risk management experienced a boom in the early 1990s (Bofondi and Gobbi, 2003).

Any financial institution's goal is to maximize earnings and shareholder value by offering a variety of financial services, primarily through risk management (Khan& Ahmed, 2001). Strategic managers in any organization must effectively manage risk (Dickinson, 2002). Risk exists and affects almost every sector, region, and business process. Risk may fluctuate with social and economic circumstances, but it never goes away (Uryema and Deventer, 1993). Furthermore, despite having risk management processes in place, many organizations have collapsed, as has been extensively publicized. The Enron failure and other well-publicized company failures sparked a discussion about the effectiveness and significance of corporate governance (Bester, 1994). The Sarbanes Oxley Act (SOX), which was passed on July 30, 2002, as a result of these corporate governance failures, has emphasized the significance of enterprise risk management in preventing fraudulent reporting. (Bester, 1994). In recent years, risk management has gained a lot of attention, particularly in the wake of tragic events like the September 11, 2001, attack on the USA (Williams, Smith, and Young, 1998) and corporate scandals like Enron and WorldCom (Baranoff, 2004). Due to technological advancement, growing reliance on third parties to provide information technology and services, competition from other players in banking institutions, and increased customer expectations and demands, credit risk may be rising in the banking sector today (Hassan Al-Tamimi and Al-Mazrooei, 2007).

### **1.2.2 Theoretical background**

The moral hazard or unfavorable incentives theory, first put forth by (Vaubel, 1983), served as the foundation for this investigation. He makes the argument that bank owners have a disincentive to act in ways that are against the interests of the bank's creditors, who are primarily depositors or the government if it explicitly or implicitly insures deposits, by engaging in risky investment and lending strategies like lending money to high-risk borrowers at high interest rates

that, if unsuccessful, would endanger the bank's ability to remain solvent. Building on the moral hazard effect, Milton (2000) noted that commercial banks have three processes for evaluating credit: the loan approval process, the loan monitoring process, and the loan termination process. These processes are all geared toward efficient credit risk management.

### **1.2.3 Conceptual background**

The investigation found four ideas, including risk identification, risk assessment, risk control, and financial performance, that were mentioned in the theory.

The method a bank uses to limit its financial exposures is known as risk management. Risk identification, risk analysis and assessment, risk audit monitoring, and risk treatment or controls are the basic steps that make up the risk management process (Bikker and Metzmakers, 2005). Risk is the possibility of losses brought on by a decline in the credit standing of counterparties or borrowers, or by possible losses brought on by a client's unwillingness or inability to make complete and prompt payments. It continues to be the most significant risk to handle (Bofondi and Gobbi, 2003). According to Bofondi and Gobbi (2003), credit risk occurs when a borrower is unable to repay the loan or when their credit rating declines.

According to Coyle (2000), credit risk management is the process of identifying, evaluating, controlling, and monitoring risks related to the potential for loan repayment default. The three components of credit risk management were similarly conceptualized to include risk identification, risk assessment, and risk control.

The process of risk identification identifies and quantifies potential organizational hazards, as well as conditions and emerging risks. The organization can analyze the activities and locations where its resources are exposed to risks by identifying the risks (Williams, Smith, and Young, 1998). This study's conceptualization of risk identification included two indications related to credit risk origin and the identified risk's ensuing classification. Finding and analyzing risks that are pertinent to achieving an organization's goals in order to decide how those risks should be managed is known as risk assessment. Prior to systematic identification of the factors that might prohibit each operating target from being met, operating objectives must first be determined. In other words, it's a breakdown of potential pitfalls (Holton, 2003).

Any procedure for determining counterparty's creditworthiness is referred to as a credit analysis. The counterparty's information will be examined by one or more credit analysts. This could

consist of the company's balance sheet, income statement, recent industry trends, the current economic climate, etc. They could determine the precise nature of an obligation. For instance, compared to subordinated debt from the same issuer, senior debt often has a greater credit rating (Holton, 2003). In this work, risk assessment was conceptualized to incorporate two risk indicators as well as risk estimation.

Hedging or neutralizing the financial risks that arise from a single or a series of transactions is the definition of risk control. The process of rules, processes, and systems that an institution needs to manage all the risks emerging from its financial transactions wisely and to guarantee that they are within the bank's risk appetite can also be viewed as risk control (Holton, 2003). Two indicators of mitigation and monitoring were included in this study's conceptualization of risk control.

### **1.3 Problem Statement**

Any financial institution's success depends heavily on credit risk management, and having it is predicted to boost performance (Hassan Al-Tamimi, Al-Mazrooei, 2007). Indeed, Centenary Bank, Uganda has a long history of implementing credit risk management techniques designed to improve her results. Credit risk management techniques include policies that detail the products offered and all actions that must be taken to manage the risk, credit manuals created in accordance with bank credit policies, and ongoing staff training in the subject of credit management. It is regrettable that the bank continues to experience rising bad debts and deteriorating profitability levels despite all the aforementioned steps made by Centenary Bank to reduce credit risk. The bank's sales revenue and profitability have suffered as a result of the rise in NPLs and bad debts. If left unchecked, this issue could increase the bank's insolvency risk.

Given that credit is the largest area of business for commercial banks (Kitua, 1996), this issue requires an urgent solution and, if not addressed in a timely manner, could result in bank failure. This is thus because, in comparison to other bank risks, credit risk has a higher amount of loss (Chijoriga, 1997). In order to determine how credit risk management affects the financial success of commercial banks in Uganda, a study was conducted using centenary bank in Kampala Metropolitan area.

#### **1.4 General Objective**

The main objective of this research is to find out the effects of credit risk management on the financial performance of Centenary Bank.

#### **1.5 Specific Objectives of the Study**

- I. To examine the effect of Credit Risk identification on financial performance of Centenary Bank
- II. To find out the effect of Credit Risk assessment on financial performance of Centenary Bank
- III. To establish the relationship between Credit Risk control and financial performance of Centenary Bank

#### **1.6 Research Questions**

What is the effect of Credit Risk Identification on financial performance of Centenary bank in Kampala Metropolitan area?

What is the effect of Credit Risk assessment on financial performance of Centenary bank in Kampala Metropolitan area?

What is the relationship between Credit Risk control and financial performance of Centenary bank in Kampala Metropolitan area?

#### **1.7 Significance of the Study**

The study aided in identifying the gaps in credit risk management that Centenary Bank in the Kampala Metropolitan Area needed to investigate in order to properly utilize the credit asset and provide the desired results, namely a clean credit portfolio.

The study would fill in knowledge gaps in the academic community regarding credit risk management and financial institution performance as well as the relationship between credit risk identification, assessment, and controls and the financial performance of commercial banks in Uganda, a developing nation.

#### **1.8 Justification of the Study**

The study was crucial since there was a lack of knowledge regarding credit risk management, including how credit risk identification, assessment, and control were carried out, as well as how

the various responsibilities affected the performance of financial institutions. The knowledge gap was closed by supplementing the currently existing knowledge with new information, which was then adopted by numerous banks in order to enhance their credit risk management and, as a result, improve their financial performance, which is the primary goal of the bank.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.0 Introduction

The literature on credit risk management and the financial performance of financial institutions is reviewed in this chapter. Introduction, theoretical review, actual literature review, and chapter summary make up its structure.

#### 2.1 Theoretical Review

This study was supported by the moral hazard or adverse incentives theory first put forth by (Vaubel, 1983), which contends that bank owners are under an incentive to make decisions that are against the interests of the bank's creditors, who are primarily depositors or the government—if it explicitly or implicitly insures deposits—by engaging in risky investment or lending strategies like lending money to high-risk borrowers at high interest rates that, if unsuccessful, would jeopardize the security of the institution. When officers' loans are rewarded based on the amount of loans without enough consideration for risk, loan quality falls (Hawkins and Turner, 1999).

Koch and MacDonald (2000) observed that effective credit risk management starts with oversight of the risk in individual loans while providing a remedy for the moral hazard impact. To ensure favorable loan quality, careful risk selection is essential. As a result, the historical emphasis on managing the performance of loans and regulating the quality of individual loan approvals remains crucial (Comptroller's Handbook, 2000). Building on the moral hazard effect, Milton (2000) noted that commercial banks use three processes for evaluating credit: the loan approval process, the loan monitoring process, and the loan termination process. These processes are all geared toward efficient credit risk management. Although banks now safeguard their entire loan portfolio, banks have traditionally had a difficult time mitigating loan default.

## **2.2 Actual Literature Review**

### **2.2.1 Credit risk identification and financial performance**

The identification of risks is a crucial first step in the risk management process (Kleindorfer and Saad, 2005). Any additional risk management activities are only started after risks have been identified. Therefore, the goal of risk identification is to identify all pertinent risks. This suggests that an early assessment is necessary to determine whether or not a risk is thought to be relevant and will therefore be further investigated. As a result, risk identification must adopt a comprehensive strategy (Buhman, Kekre, and Singhal, 2005), although this study concentrated on efforts to pinpoint the sources of credit risk and risk classification.

#### **2.2.1.1 Identification of credit risk origin and financial performance.**

According to Craighead, Blackhurst, Rungtusanatham, and Handfield (2007), the length of time it takes a company to learn about a risk or estimate the corresponding disruption affects how severe the disruption will be. According to Craighead et al. (2007), companies must learn to forecast disruptions in advance in order to properly assess risks and implement mitigation measures. Relevant dangers are thus identified early and mitigation measures can be started by carefully analyzing the environment for early indicators.

According to Uganda Brownbridge (1998), loans were made to debtors in high-risk areas of the credit market at high interest rates. Due to the high cost of capital, local banks were forced to extract high returns from their holdings, such as by levying high interest rates, which had an impact on the caliber of their loan portfolios. Since many of their customers were turned away by foreign banks (or would have been if they had requested for a loan) because they did not match the stringent creditworthiness requirements imposed of them, the local banks almost ineluctably suffered from the adverse selection of their customers. There were likely both excellent quality (i.e. creditworthy) and bad quality borrowers within the credit market divisions that the local banks served. Many of the bankrupt banks had trouble identifying good and bad risks because they lacked the necessary skills to screen and manage their borrowers. Additionally, internal controls and credit procedures, such as the documenting of loans and loan Securities, were usually in very poor shape.

Mazumder and Ahmad (2010) argued that excessive risk-taking and greed have actually been a continual source of danger in the financial sector. They are successful in prosperous times, turbulent times, and particularly when bubbles cause defaults in the real estate industry—a danger that is frequently a result of lax laws. By presenting empirical data on the credit risk

sources in Centenary Bank and their impact on financial performance, this study therefore filled in the gaps in the literature.

### ***2.2.1.2. Credit risk classification and financial performance***

The next approach can only be used to analyze and manage risks that were identified in the first phase (Berg, Knudsen, and Norrman, 2008).

Risk identification, according to the literature, is the most important first stage in a risk management process (Kleindorfer and Saad, 2005). Therefore, the effectiveness of risk detection activities is essential to the overall process of managing credit risk. As a result, the actions and outcomes of the first phase have a significant impact on the next step, which is risk assessment. The only occurrences that may be assessed for their actual ability to undermine the organization's credit risk management system are those that have already been designated as risks.

For most banks, loans are the biggest and most evident source of credit risk, according to Llewellyn (2008); nevertheless, credit risk can come from both on and off balance sheet activity. Credit risk should be addressed in the context of economic risks in addition to direct accounting loss. This includes additional charges to the accounting loss, such as opportunity costs, transaction costs, and costs related to non-performing assets. Credit risk can be further divided into subcategories based on the grounds for default, such as issues with transaction settlement or the country in which there is exposure. By observing their payment habits and their capacity to benefit from any reductions offered for early payment, sellers that offer trade credit might learn important information about their clients' financial health (Paul and Boden, 2008). The mobilization of deposits and the provision of credit are not the primary functions of bank administration, according to Marrison and White (2002) hence reduced client default risk results from effective credit risk management.

### **2.3.2 Credit risk assessment and financial performance**

The main element includes identifying, measuring, monitoring and managing various exposures that can't be effectively implemented unless there is a broader process and system in place (Tomlin, 2006). This study focused specifically on credit risk data and risk estimation and financial performance of commercial bank in Uganda.

#### **2.3.2.1. Credit risk data and financial performance**

In order to effectively prevent a risk, limit its possibility and impact, accept its occurrence, or prepare for it, risk assessment must therefore give the essential in-depth information regarding

the risk (Zsidisin, Ellram, Carter 20, and Cavinato, 2004). The relationship between hazards and trigger events requires special consideration (Kleindorfer and Saad, 2005).

According to Basel (1999), Greuning and Bratanovic (2003), and PriceWaterhouse (1994), a credit risk management system should include policies and strategies (guidelines) that explicitly define the scope and allocation of bank credit facilities as well as the way a credit portfolio is managed, or how loans are created, valued, monitored, and collected.

When controlling credit risk, it has been shown that having a well-defined process for authorizing new loans and extending current ones is crucial (Heffernan, 1996). From a managerial standpoint, the accuracy of credit risk assessment serves two important goals. First, it eliminates borrowers who present an excessive amount of credit risk from consideration. Second, it is used to decide how much credit should be extended and what fee should be tacked on to an extension of credit for those borrowers who pass the initial screening. Credit risk assessment assists institutions in balancing expectations of risk and return with limitations on portfolio performance in this way (Cole, Glenn, and Brent, 2005).

#### **2.3.2.2 Credit risk estimation and financial performance**

Bank client screening has received a lot of support (Derban, Binner, and Mullineux, 2005). Derban, Binner, and Mullineux (2005) claim that the method minimizes potential biases and minimizes subjective judgments in addition to reducing processing costs. If rating systems are to be helpful, they should reflect changes in the expected severity of loan loss (Santomero, 1997). Chijoriga (1997) asserts that quantitative models make it possible to perform a variety of tasks, including numerically identifying the variables that are important in explaining default risk, evaluating the relative degree of significance of the variables, improving the pricing of default risk, being better able to weed out unsuitable loan applicants, and being in a better position to determine any reserve needed to cover expected future loan losses.

The impact of a disruption on the business depends significantly on how quickly a particular risk materializes and how long the risk event lasts (Hendricks & Singhal, 2003). The outcomes of the risk assessment activities must therefore contain a classification of all identified hazards and a ranking of their significance.

According to Paul and Boden (2008), firms need to assess risk before deciding whether or not to extend credit. Finding the right balance between losing a transaction and working with a customer who can be slow with payments or default can be difficult. Therefore, making informed

decisions demands competence in and familiarity with the credit management function and clientele.

According to Abdou and Pointon (2009), understanding assets, their resale value, and marketplaces is crucial to asset-backed lending. But relying heavily on asset-backed financing carries three risks: legal complications, collateral devaluation, and collateral illiquidity. The longer pledged assets are kept in liquidation, the worse off the lender will be. If the pledged commodities unexpectedly depreciate in value, deteriorate in storage, or sustain damage, the lender also loses. Last but not least, because asset-based financing requires complex documentation, public findings, and strict adherence to commercial standards, and unique borrower impositions, legal errors could wind up costing the lender a lot of money.

### **2.3.3.1 Credit risk mitigation and financial performance**

According to Kleindorfer and Saad (2005), risk managers must act quickly and prioritize urgent threats because prevention is preferable to treatment. However, managers can only take swift action when they prioritize risk management tasks and recognize risk management as one of their primary management responsibilities. As a result, risk management initiatives must be regarded as a crucial duty within the organization (Zsidisin et al., 2004). Additionally, support for credit risk control is required from a number of corporate departments. Senior executives must provide support in order to encourage holistic thinking, collaborative decision-making, and quick implementation of ideas (Berg et al., 2008) and even though the earlier stages of the risk management process help to improve risk control, only appropriate and effectively carried out risk control activities can directly contribute to risk performance in the form of decreased probabilities for particular risks or diminished effects of actual risks on an organization's performance.

It has always been thought that collateral could be used to secure loans and that, in the event of default, the collateral would be exchanged for the balance owed. Accordingly, collateral is primarily employed by financiers as a loss-mitigating strategy to offset loan losses brought on by default (De Laurentis and Mattei, 2009). The use of loan loss provisions is typically taken into account by commercial banks, and research on the factors affecting loan loss provisioning distinguishes between non-discretionary and discretionary components (Pinho and Martins, 2009).

The general provision, which is made against a portfolio of loans and is calculated differently across nations, is made between the specific provision and the general provision in the majority of countries. The former represents identified loss in an individually assessed loan or the amount of defaulted loans. General provisions typically increase during economic expansions since banks extend more loans and there is a high demand for credit, according to Perez, Salas-Fumas, and Saurina's (2008) observation. As risks materialize during a downturn, loans to riskier enterprises would experience larger loan losses, which would then result in higher particular loan-loss provisions.

Among the causes of Bank Latino's bankruptcy, according to Herrero's 2005 analysis on the Venezuelan banking crisis, were questionable lending methods that allowed collateral to be utilized for multiple loans, poor loan quality, and a high concentration of loans in one industry. De Juan (2004) contends that poor risk management, particularly with regard to credit risk, contributed to the bankruptcy of Spanish banks. This problem was made worse by the concentration of the loan portfolio in the group to which the bank itself belonged.

#### 2.3.3.2 Credit risk monitoring and financial performance

According to Derban et al. (2005), monitoring borrower risk is crucial for addressing the moral hazard issue since existing and potential exposures change over time and in response to changes in the underlying variables. Among other things, monitoring entails keeping in touch with borrowers frequently, fostering an environment where the bank can be seen as a trusted adviser and problem-solver, cultivating a culture of support for borrowers whenever they are identified as having problems and are attempting to resolve them, keeping track of the flow of borrowers' business through the bank's account, routinely reviewing borrowers' reports as well as an on-site visit, and updating borrowers' credit scores.

Banks in the developing world have employed instruments like covenants, collateral, credit rationing, loan securitization, and loan syndication to reduce credit losses (Hugh, 2001). High-quality credit staffs have also been found to be essential for successfully managing the CR in commercial banks by ensuring that the necessary depth of knowledge and judgment is constantly available (Koford and Tschoegl, 1997; Wyman, 1999). Donaldson (1994) noted that because they make it simple to keep track of the trend of credits within the portfolio, computers are important in credit analysis, monitoring, and control. Risk management, according to Marphatia and Tiwari (2004), is essentially about people—how they think and interact with one another.

Technology is but a tool; when used improperly, it is useless. This emphasizes even more how crucially important qualified personnel are to controlling credit risk. Overall, risk control initiatives seek to lessen both the likelihood of risk occurrences and the adverse effects of those occurrences (Tomlin, 2006).

Sheehan (2010) also stated that the optimum risk response is to use the firm's management control systems to lower the potential for loss for activities where there is a high possibility of occurring but where the financial effect of each incident is little. The best risk management strategy for activities with a high likelihood of losses of a significant financial size is to stay away from them. The ideal risk management strategy is to shift some or all of the risk to a third party, whether through the purchase of insurance, hedging, outsourcing, or formation of partnerships. This is especially effective for actions that have a low probability of occurring but would have significant financial consequences if they did. The optimum risk response is to accept the risk if a cost-benefit analysis shows that doing so would be more expensive than just accepting the risk. The only action the company should do is to acknowledge and monitor the danger. Managers can use the management control system to its fullest potential by first determining which events pose the biggest threat to the company. It enables managers to create a management control system that balances the firm's risk exposure with the risk tolerance of the board of directors.

#### **2.4 Summary of the Literature Review**

According to the aforementioned studies on the performance of financial institutions, it was found that lending is, in fact, the main and riskiest operation for most commercial banks. High recovery rates from a successful loans department will have a favorable effect on the bank's profit and loss statement, according to Sweet (2004). It's important to limit losses brought on by bad loans. However, the majority of studies have focused on data from rich countries and less has been done with emerging countries. This study set out to determine the relationship between credit risk management and financial performance in Centenary Bank of Uganda on the basis of this premise.

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.0 Introduction**

This chapter presents the methods that were used in the study. It describes the research design, study population, sample size and selection, data collection methods and instruments, validity and reliability of findings, data analysis of quantitative and qualitative data and the measurement of variables

#### **3.2 Research Design**

The study adopted a descriptive cross-sectional design using both qualitative and quantitative approaches. The cross-sectional approach was used because the issues of credit risk management and financial performance were to be collected at one point in time. The quantitative approach was used to answer the questions of how much and how many and was concerned with the casual relationships between variables (Polit and Beck, 2004). Qualitative approach was used to examine the subjective experience of a phenomenon or process holistically and thoroughly when little is known about the topic (Polit and Beck, 2004).

#### **3.3 Study Population**

The study was conducted in Centenary Bank. The target population was 70 employees comprising of all staff from both Credit and Finance departments. The category comprised of 8 senior managers, 2 Loan pricing staff and 60 retail credit staff totaling to 70 as shown in the table below. This group of study population made up the key informants.

#### **3.4 Sample Size and Selection**

A sample size of 62 respondents was selected using statistical tables for Morgan and Krejcie (1970). The sampling approach is shown in table 2 below:

Study population and sample structure

<b>Category of staff</b>	<b>Population</b>	<b>Sample size</b>	<b>Sampling technique</b>
Senior management	8	8	Purposive
Loan pricing staff	2	2	Purposive
Retail credit staff	60	52	Simple random
Total	70	62	

Source: **Secondary data**

The table above shows the population, sample size and sampling strategy that were used in this study. The three different strata used to carry out this research to give a total population of 70 and a sample total of 62 were senior management, Loan pricing staff and retail credit staff. The sample sizes for senior management and loan pricing staff was arrived at using purposive sampling technique and the one for retail credit staff was arrived at using simple random sampling.

### **3.5 Sampling Techniques and Procedures**

The researcher used both probability and non-probability sampling techniques. In this study, the senior management and the loan pricing staff were purposively selected because they are equipped with important information required for the objectives of the study. Retail credit staff were subjected to simple random sampling to avoid bias.

### **3.6 Data Collection Methods**

The study utilized both qualitative and quantitative methods of data collection. Qualitative methods involved the use of open ended questionnaires and interviews on credit risk management and financial performance, while quantitative involved the use of closed ended questionnaires.

#### **3.6.1 Questionnaires method**

Questionnaire method was used in the collection of quantitative data. The questionnaire method helped in eliciting specific responses which are easy to analyze. This method was also economical in terms of time management as questionnaires were easy to fill and took less of respondents` time and that of the researcher in administering and analyzing them (Amin, 2005). The questionnaires were issued to all the 62 selected respondents.

### **3.6.2 Face to face interviews method**

Open ended questions were asked with the aim of getting information from respondents and the responses were written down by the researcher. The study specifically interviewed the Risk Manager and Internal Auditor.

## **3.7 Data Collection Instruments**

Data collection instruments included both qualitative and quantitative instruments that were used to collect primary and secondary data.

### **3.7.1 Questionnaires**

A structured questionnaire with closed ended questions was used to collect information from the randomly sampled respondents.

### **3.7.2 Interview guide**

The interview guide was developed by the researcher to be used when conducting interviews for the purposive sampling strategy as guided by Marjorie (2003). Marjorie asserts that in every community, family, neighborhood, workplace and schools, there are people who have knowledge and skills to share. In this category of respondents, we had the senior management and loan pricing staff.

## **3.8 Pretesting of Data Collection Instruments**

The research instruments were pretested amongst 10 senior staff of the bank to ensure validity and reliability of the instruments before distribution to the actual respondents.

## **3.9 Data Analysis**

Data was organized in a manner that facilitates analysis and it involved data being converted to numerical codes, a process known as coding (Mugenda & Mugenda, 1999). Completed questionnaires were edited for completeness, accuracy, uniformity and comprehensiveness. The interview guide was used to check the feedback from the respondents, noting the relationships between the given answers and asked questions.

The data analysis helped the researcher to make conclusions on the previously stated hypothesis.

### **3.10 Quantitative Data Analysis**

The data collected was summarized using descriptive analysis such as frequencies and measures of central tendency i.e. mean and standard deviation statistics by use of SPSS to enable the researcher to meaningfully describe a distribution of scores or measurements. The data was presented in the form of descriptive tabulations, percentages, frequencies, mean and standard deviation before a comprehensive analysis of statistics was generated to determine their relationships. Inferential statistics by use of Pearson Correlation model and regression analysis was used because it was the most suitable to find the relationship between variables (Mugenda & Mugenda, 1999).

#### **3.10.1 Qualitative data analysis**

Qualitative data collected was compiled, edited, coded and categorized through finding patterns, trends and relationships from the information gathered. Secondary data collected like interviewees responses was analyzed for content and finding patterns were discussed in line with the research objectives in order to establish areas of convergence and divergence. The analysis involved listing and summarizing data in compilation sheets of developed themes.

### **3.11 Measurement of variables**

The measurement of ordinal variables was made on a 5 point Likert scale questionnaire with a five category response continuum of Strongly Agree (SA), Agree (A), Not Sure (NS), Disagree (D) or Strongly Disagree (SD).

In this study, the researcher used three measurement levels; nominal, interval and ratio levels because they are what suits the variables being measured. Nominal level were used to measure sex and level of education because they are mutually exclusive and exhaustive (Sekaran, 2003). Interval scale measurement by the use of the Linkert scale was used to measure how strongly participants agree or disagree with a question, statement or opinion on a five point scale. The measurement has an advantage that it enables data to be subjected to further manipulation in order to generate descriptive statistics. Ratio scale is a measurement with an absolute zero to a variable stating the magnitude. In this case it meant measure the mean, standard deviation and correlations of variables in the conceptual frame work.

## CHAPTER FOUR

### PRESENTATION, ANALYSIS AND INTERPRETATION OF RESULTS

#### 4.0 Introduction

This chapter presents analyses and interprets the study findings on credit risk management and financial performance in Centenary Bank. The first section presents response rate, this is followed by background information about the respondents, and finally descriptive and inferential presentation and analysis of the study findings in relation to the specific objectives.

#### 4.1 Response Rate

The response rate for this research was 95.2% which was high. Amin (2005) suggested that a high response rate also suggests more accurate survey results.

$$\text{Response rate} = \frac{\text{received questionnaires}}{\text{Total questionnaires distributed}} = \frac{59}{62} * 100$$

$$\text{Total questionnaires distributed} \quad 62 \quad = 95.2\%$$

This section gives the number of people who responded to the study against those which the researcher had targeted and also the characteristics of the respondents in relation to gender, age, level of education, current occupation and term of service. This was based on the information provided in the questionnaire and interviews by the respondents.

#### 4.2 Background Information

The background information about the respondents in relation to level of education, job title, term of service and experiences were investigated by the study. Findings are presented in the following sections below;

##### 4.2.1 Findings on the level of education of the respondents

The education levels of the respondents were observed in the study because education levels may influence the way employees perform at work.

#### 4.2.2 Findings on the Job title of the respondents

The job title of the respondents was observed in the study because the job title may influence the quality of data collected. This was arrived at by asking them to indicate their current occupation on the questionnaire of which the findings are presented in table below:

**Table 1: Findings on the Job title of the respondents**

	<b>Frequency</b>	<b>Percent</b>
Branch Manager	5	8.5
Assistant Manager Banking Operations	4	6.8
Banking Officer	31	52.5
Others	19	32.2
<b>Total</b>	<b>59</b>	<b>100.0</b>

**Source: Secondary data**

**Table 1** above shows that majority of 31(52.5%) of the respondents were banking officers, 5(8.5%) were branch managers, 4(6.8%) were assistant managers banking operations. A total of 19(32.2%) of the respondents held other job titles other than those above. This particular finding suggested that the responses were collected from individuals who were involved in daily credit operations as branch managers, banking officers and assistant managers and therefore possessed adequate experiences on credit risk management and its impact on the financial performance of the bank.

#### 4.2.3 The term of service

The term of service of the respondents was observed in the study because term of service may influence the quality of data collected given that the more senior someone is the more knowledgeable he or she is likely to be in that field.

#### 4.3. The Effect of Risk Identification on Financial Performance of Centenary Bank

The first objective of the study was to examine the effect of credit risk identification on financial performance in Centenary Bank. The findings on credit risk identification and financial

performance were gathered from questionnaire and interview guide. Credit risk identification according to the conceptual frame work consisted of risk origin and classification of risk. Credit risk identification was measured using 10 items scored on a 5 point Likert scale ranging from 5= strongly agree, 4 = agree, 3 = not sure, 2= disagree, 1= strongly disagree. The study analyzed the credit risk identification practices at Centenary Bank and the findings are presented in the table 6 below.

**Table 2: showing the mean and standard deviation of credit risk identification in Centenary Bank**

<b>Response</b>	<b>Mean</b>	<b>S.D</b>
1. Adequate effort is undertaken to identify existing sources of credit risks to Centenary Bank	4.20	.738
2. Centenary Bank always strive to establish consumer credit risk sources	4.19	.730
3. Centenary Bank always strive to establish corporate credit risk sources	3.93	.828
4. Centenary Bank always strive to establish regulatory risk related to loan advances to customers	1.88	.966
5. Effort is undertaken to establish the bank's ability to absorb credit losses	1.86	.955
6. Past records are always emphasized in identifying how credit loss was likely to occur	4.17	.746
7. Centenary Bank has undertaken efforts to classify Bond related risks	1.98	1.042
8. Centenary Bank has undertaken efforts to classify retail lending related risks	3.71	.983
9. Centenary Bank has undertaken efforts to classify corporate lending	4.14	.840

related risks		
10. Centenary Bank has undertaken efforts to classify money markets related credit risks	1.90	.977

**Source: Secondary data**

**Table 2** above shows that the respondents agreed and as well as disagreed with the questions on risk origin in Centenary Bank. The standard deviation ranged from 0.738 to 0.966 which was relatively narrow suggesting that most means did not deviate from the central mean by a big margin. The overall results are indicative of mixed experiences of adequate identification of some aspects of risk origin as well as failure to adequately identify some credit risk origins in the bank.

**Item 1** which asked if adequate effort was undertaken to identify existing sources of credit risks to Centenary Bank received the highest mean of 4.20 followed by item 2 which asked if the Centenary Bank always strived to establish consumer credit risk sources (mean = 4.19) and item 6 which asked if past records were always emphasized in identifying how credit loss was likely to occur. These findings suggested adequate emphasis to consider previous records to identify sources of credit risk, establishment of consumers' credit risk sources which helps guide the risk analysis and control process leading to effective mitigation of credit in the bank thereby contributing to revenue loss prevention and fostering of health Return on Asset and Return on Equity.

However, **item 5** which asked if effort was undertaken to establish the bank's ability to absorb credit losses and item 4 which asked if Centenary Bank always strived to establish regulatory risk related to loan advances to customers received the lowest means of 0.86 and 0.88 respectively suggesting that the respondents disagreed with the efforts to identify credit risk implications at these points. These findings suggested that credit risk identification in the bank did not adequately consider the regulatory risk related factors and the bank's ability to absorb the credit related losses which constrains effective risk analysis and control for failure to expose such adverse risk origins.

Similarly **Table 2** above shows that the respondents agreed and as well as disagreed with the questions on risk classification in Centenary Bank. The standard deviation ranged from 0.840 to 1.042 which was relatively narrow suggesting that most means did not deviate from the central mean by a big margin. The overall results are indicative of mixed experiences of efforts to classify some aspects of credit risk and failure to adequately classify some credit risks in the bank.

According to **table 2**, the respondents agreed that Centenary Bank had undertaken efforts to classify corporate lending related risk (mean = 4.14) while they also agreed that the bank undertook to classify retail lending related risks (mean = 3.71) findings which revealed that adequate efforts to classify corporate and retail lending risks in the risk identification practices of the bank. The efforts to classify corporate and retail lending risks should be commended as it helps guide the risk analysis and risk control processes leading to effective mitigation of credit risk thereby minimizing revenue loss.

On the other hand, the respondents disagreed that the bank took efforts to classify Bond related risks (mean = 1.98) and money markets related credit risks (mean = 1.90) finding which suggested that less efforts was undertaken to classify bond and money markets credit related risk in the risk analysis practices of the bank which exposes the bank to suffer such risks when they manifest. The prevalence of such silent and uncatered for credit risks if exposed to the bank compromises the banks sales revenue and profitability to the losses suffered. It was necessary that effort is undertaken to classify bond and money market related risks for health financial performance in the bank.

#### **4.3.1. Correlation results**

To test the relationship between risk identification and financial performance of Centenary Bank,

Pearson's correlation analysis was conducted at the 2-tailed level and the findings are presented below:

**Table 3: Correlation Matrix between Credit Risk Identification and Financial Performance**

Variable		1	2
1. Credit Risk Identification	Pearson Correlation	1.000	
	Sig. (2-tailed)		
2. Financial Performance	Pearson Correlation	.495**	1
	Sig. (2-tailed)	.000	
**. Correlation is significant at the 0.01 level (2-tailed).			

**Source: Secondary data**

**Table 3** above shows Pearson’s correlation coefficient  $r = 0.495^{**}$  and  $p = 0.000$  between credit risk identification and financial performance suggesting that there was a high positive significant relationship between credit risk identification and financial performance of Centenary Bank at a 99% confidence limit. This finding suggested that effective identification of credit risk through identification of credit related risk origin and its classification has a resultant significant positive effect on the financial performance of the bank. This study therefore confirmed the hypothesis that:

*There is a positive relationship between credit risk identification and financial performance of financial institutions in Uganda.*

#### **4.3.2. Regression results**

To establish the extent to which the credit risk identification influenced financial performance of Centenary Bank, a simple regression analysis was conducted using the ANOVA techniques of adjusted  $R^2$ , standardized beta values, t-values and the significance measured at 0.05 levels. The results are tabulated in the Table 8 below.

**Table 4: Regression results between on the credit risk identification and financial performance**

Model	R	R Square	Adjusted R Square	t-value	F constant	Sig	Std. Error of the Estimate
1	.495 <sup>a</sup>	.245	.231	4.297	18.468	0.000	0.767
a. Predictors: (Constant), credit risk identification							

$P \leq 0.05$

**Source: Secondary data**

The regression model in **Table 4** above shows adjusted  $R^2$  value of 0.231 between credit risk identifications and financial performance suggesting that the credit risk identification alone predicted 23.1% of the variance in the financial performance of Centenary Bank. The adjusted  $R^2 = 0.231$ ,  $t = 4.297$ ,  $F = 18.468$  and significance 0.000 suggested that the credit risk assessment was a significant predictor of the variance in financial performance of Centenary Bank. The study therefore confirmed the hypothesis that there is a positive relationship between Risk Identification and the performance of Financial Institutions in Uganda.

**4.4. The Effect of Risk Assessment on Financial Performance of Centenary Bank.**

The second objective of the study was to examine the effect of credit risk assessment on financial performance in Centenary Bank. The findings on credit risk assessment and financial performance were gathered from questionnaire and interview guide. Credit risk assessment according to the conceptual frame work consisted of risk data and risk estimation. Credit risk assessment was measured using 16 items scored on a 5 point Likert scale ranging from 5= strongly agree, 4 = agree, 3 = not sure, 2= disagree, 1= strongly disagree. The study analyzed the credit risk assessment practices at Centenary Bank and the findings are presented in the table 9 below.

**Table 5: showing the mean and standard deviation of credit risk assessment in Centenary Bank**

<b>Response</b>	<b>Mean</b>	<b>S.D</b>
1. The credit risk rating system provides adequate qualitative data necessary for decision making on credit to borrowers	2.46	1.250
2. The credit risk rating system provides adequate quantitative data necessary for decision making on credit to borrowers	2.51	1.251
3. Effort is undertaken to collect risk data on new credit products	2.41	1.191
4. The credit application evaluations in Centenary Bank is effective in ensuing a good portfolio quality	4.29	.911
5. The bank information system can adequately identify concentrations of credit risk	4.25	.902
6. The bank information system is reliably in providing information for early remedial action on deteriorating or problem credit	2.31	1.235
7. The bank information system is reliably in providing information on credit quality	4.31	.815
8. Centenary Bank boosts of responsive credit risk estimation techniques/models	4.32	.797
9. Adequate effort is undertaken to estimate the frequency of credit loss to Centenary Bank	4.51	.626
10. Adequate effort is undertaken to estimate the severity of credit loss to Centenary Bank	4.39	.810

**Source: Secondary data**

**Table 5** above shows that the respondents agreed and as well as disagreed with the questions on credit risk data consideration of risk analysis in Centenary Bank. The standard deviation ranged

from 0.815 to 1.251 which was relatively narrow suggesting that most means did not deviate from the central mean by a big margin. The overall results are indicative of mixed experiences of efforts to consider appropriate credit risk data and failure to adequately classify appropriate risk data in the bank.

Item 7 which asked if the bank information system was reliably in providing information on credit quality received the highest mean of 4.31 followed by item 4 which asked if the credit application evaluations in Centenary Bank was effective in ensuing a good portfolio quality (mean = 4.29) and item 5 which asked if the bank information system could adequately identify concentrations of credit risk (mean = 4.25). These findings suggested deployment of a reliable information system which provided a rich credit risk data base with potential of identify risk concentration. The emphasis of credit evaluation should equally be commended as it enables the firm to obtain relevant data necessary for credit decision making.

However, item 6 which asked whether the bank information system was reliably in providing information for early remedial action on deteriorating or problem credit received the lowest mean of 2.31 followed by item 3 which asked if effort was undertaken to collect risk data on new credit products (mean = 2.41) and item 1 which asked whether the credit risk rating system provided adequate qualitative data necessary for decision making on credit to borrowers (mean = 2.46). These findings revealed material weaknesses in the information systems capability to provide reliable data for action on none deteriorating loans. The findings also revealed failure to adequately examine new credit products risks and material weaknesses in the credit rating system to provide qualitative data which needs management attentions to provide for such policy on new credit product risk analysis and qualitative data in the credits ranking risk analysis tool.

Similarly Table 5 above shows that the respondents agreed that Centenary Bank boosted of responsive credit risk estimation techniques/models (mean = 4.32), agreed that adequate effort was undertaken to estimate the frequency of credit loss to Centenary Bank (mean = 4.51) while they also agreed that the bank adequately estimated the severity of credit loss to Centenary Bank (mean = 4.39). These findings revealed adequate efforts undertaken to estimate credit risk by the bank's credit risk analysis which should be commended as it helps strengthen the credit management process and enhance the credit risk controls. Asked to describe the credit risk assessment practices in Centenary Bank, the Internal Auditor put it:

For individual clients, we use the five (5) Cs of credit which are character, capacity, conditions, capital and collateral. For companies we use CAMPARI of credit which are Character, Amount, Margin, Purpose, Ability, Repayment and Insurance/ Capital. However, effort is also undertaken to use the Credit Reference Bureau (CRB) reports.

#### 4.4.1. Correlation results

To test the relationship between credit risk assessment and financial performance of Centenary Bank, Pearson’s correlation analysis was conducted at the 2-tailed level and the findings are presented below.

**Table 6: Correlation Matrix between Credit Risk Assessment and Financial Performance**

Variable		1	2
1. Credit Risk Assessment	Pearson Correlation	1	
	Sig. (2-tailed)		
2. Financial Performance	Pearson Correlation	.810**	1
	Sig. (2-tailed)	.000	
**. Correlation is significant at the 0.01 level (2-tailed).			

**Source: Secondary data**

**Table 6** above shows Pearson’s correlation coefficient  $r = 0.810^{**}$  and  $p = 0.000$  between on the credit risk assessment and financial performance suggesting that there was a high positive significant relationship between credit risk assessment and financial performance of Centenary Bank at a 99% confidence limit. This finding suggested that effective assessment of credit risk through consideration of credit related data and classifications of credit risks has a resultant significant positive effect on the financial performance of the bank. This confirmed the hypothesis that:

*There is a positive relationship between Credit Risk Assessment and performance of Financial Institutions in Uganda.*

#### 4.4.2. Regression results

To establish the extent to which on the credit risk assessment influenced financial performance of Centenary Bank a simple regression analysis was conducted using the ANOVA techniques of adjusted R<sup>2</sup>, standardized beta values, t-values and the significance measured at 0.05 levels. The results are tabulated in the Table 11 below.

**Table 7: Regression results between on the credit risk assessment and financial performance**

Model	R	R Square	Adjusted R Square	t-value	F constant	Sig	Std. Error of the Estimate
1	.810 <sup>a</sup>	.656	.650	10.436	108.920	0.000	0.517
a. Predictors: (Constant), credit risk assessment							

P≤0.05

#### Source: Secondary data

The regression model in **Table 11** above shows adjusted R<sup>2</sup> value of 0.650 between on the credit risk assessment and financial performance suggesting that credit risk assessment alone predicted 65% of the variance in the financial performance of Centenary Bank. The adjusted R<sup>2</sup> = 0.650, t = 10.436, F= 108.920 and significance 0.000 suggested that the credit risk assessment was a significant predictor of the variance in financial performance of Centenary Bank. The study therefore confirmed the hypothesis that there is a positive relationship between Risk assessment and the performance of Financial Institutions in Uganda.

#### 4.5. The Effect of Risk Controls on Financial Performance of Centenary Bank.

The third objective of the study was to examine the effect of credit risk control on financial performance in Centenary Bank. The findings on credit risk control and financial performance were gathered from questionnaire and interview guide. Credit risk control according to the conceptual frame work consisted of risk mitigation and risk monitoring. Credit risk assessment was measured using 16 items scored on a 5 point Likert scale ranging from 5= strongly agree, 4

= agree, 3 = not sure, 2= disagree, 1= strongly disagree. The study analyzed the credit risk assessment practices at Centenary Bank and the findings are presented in the table 12 below:

**Table 8: showing the mean and standard deviation of credit risk control in Centenary Bank**

<b>Response</b>	<b>Mean</b>	<b>S.D</b>
1. The use of individual credit limits has been effective in mitigating credit risk in Centenary Bank	2.22	1.190
2. The use of collateral has been effective in mitigating credit risk in Centenary Bank	2.25	1.154
3. The use of credit committee reviews credit applications has been effective in mitigating risk	2.32	1.224
4. The consideration of risk in determining interest rates has been effective in mitigating credit risk in Centenary Bank	2.41	1.261
5. The credit granting function in Centenary Bank has adequate internal controls	2.24	1.165
6. Centenary Bank boasts of a system which can monitor the condition of individual credit to customers	3.78	.852
7. Centenary Bank has a well-established process for monitoring approval of new credit to borrowers	4.12	.590
8. The credit monitoring information system is reliable in monitoring credit risk	4.46	.502
9. The credit recovery team has been effective in recovering none performing loans	2.17	1.191
10. Senior management of Centenary Bank takes prompt action on identified credit risks	2.27	1.257

**Source: Secondary data**

**Table 9** above shows that the respondents disagreed with the questions on credit risk mitigation in the risk control practices of Centenary Bank. The standard deviation ranged from 1.154 to 1.261 which was relatively narrow suggesting that most means did not deviate from the central mean by a big margin. The overall results are indicative of inadequate consideration of credit risk mitigation in the company credit risk control practices.

The respondents disagreed that the use of individual credit limits was effective in mitigating credit risk in Centenary Bank (mean = 2.22), disagreed that the use of collateral was effective in mitigating credit risk in Centenary Bank (mean = 2.25). The respondents also disagreed that the use of credit committee reviews credit applications was effective in mitigating risk (mean = 2.32) while they also disagreed that the credit granting function in Centenary Bank has adequate internal controls (mean = 2.24). These findings suggested that the use of credit limits, collateral, use of credit risk to determine interest and credit review committees in the bank's credit risk control practices had not been effective in mitigating credit risk. It was necessary that the management of the bank strengthens the credit risk mitigation policies in its risk control practices as these are critical for revenue loss prevention and profitability of the bank.

Similarly, **Table 10** above shows that the respondents disagreed and as well as agreed with selected questions on credit risk monitoring in the risk control practices of Centenary Bank. The standard deviation ranged from 0.502 to 1.257 which was relatively narrow suggesting that most means did not deviate from the central mean by a big margin. Item 8 which asked if the credit monitoring information system was reliable in monitoring credit risk received the highest mean of 4.46 while item 7 which asked whether Centenary Bank had a well-established process for monitoring approval of new credit to borrowers received a high mean of 4.12. These findings revealed that the credit information system and credit approval process could be relied on in monitoring credit should be maintained for enhanced financial performance of the bank.

However, the respondents disagreed that the credit recovery team had been effective in recovering non-performing loans (mean = 2.17) while they also disagreed that senior management of Centenary Bank took prompt action on identified credit risks (mean = 2.27). The ineffectiveness of the credit management team and management inaction to take corrective action on raised credit risk in the credit risk monitoring practices of the bank constraints the

achievement of goal of credit risk management leading to revue losses and failure to achieve the desired profitability.

The quantitative and qualitative findings seem to suggests that although efforts was undertaken to put in place credit monitoring mechanisms using a MIS and credit team, the credit monitoring activity was constrained by competency, quality of data generated by the MIS, credit recovery and morals of the bank personnel and customers.

#### 4.5.1. Correlation results

To test the relationship between credit risk control and financial performance of Centenary Bank, Pearson’s correlation analysis was conducted at the 2-tailed level and the findings are presented below.

**Table 9: Correlation matrix between credit risk control and financial performance**

Variable		1	2
3. Credit Risk Assessment	Pearson Correlation	1	
	Sig. (2-tailed)		
4. Financial Performance	Pearson Correlation	.581**	1
	Sig. (2-tailed)	.000	
**. Correlation is significant at the 0.01 level (2-tailed).			

**Source: Secondary data**

**Table 11** above shows Pearson’s correlation coefficient  $r = 0.581^{**}$  and  $p = 0.000$  between on the credit risk assessment and financial performance suggesting that there was a high positive significant relationship between credit risk control and financial performance of Centenary Bank at a 99% confidence limit. This finding suggested that effective credit risk controls through provisions of risk mitigation factors and credit monitoring have a resultant significant positive effect on the financial performance of the bank.

This confirms the hypothesis that:

*There is a positive relationship between Credit Risk Control and performance of Financial Institutions in Uganda.*

#### **4.5.2. Regression results**

To establish the extent to which on the credit risk controls influenced financial performance of Centenary Bank, a simple regression analysis was conducted using the ANOVA techniques of adjusted  $R^2$ , standardized beta values, t-values and the significance measured at 0.05 levels. The results are tabulated in the Table 14 below:

**Table 10: Regression results between on the credit risk control and financial performance**

Model	R	R Square	Adjusted R Square	t-value	F constant	Sig	Std. Error of the Estimate
1	.581 <sup>a</sup>	.337	.326	5.386	29.007	0.000	0.718
a. Predictors: (Constant), credit risk control							

$P \leq 0.05$

Source: **Secondary data**

The regression model in **Table 12** above shows adjusted  $R^2$  value of 0.326 between on the credit risk control and financial performance suggesting that credit risk control alone predicted 32.6% of the variance in the financial performance of Centenary Bank. The adjusted  $R^2 = 0.326$ ,  $t = 5.386$ ,  $F = 29.007$  and significance 0.000 suggested that the credit risk control was a significant predictor of the variance in financial performance of Centenary Bank. The study therefore confirmed the hypothesis that there is a positive relationship between Risk controls and the performance of Financial Institutions in Uganda.

**Table 11: Multiple regression results between credit risk management and financial performance**

Adjusted R <sup>2</sup> = 0.735		Unstandardized		Standardized	T	Sig.
		Coefficients		Coefficients		
		B	Std. Error	Beta(β)		
1	(Constant)	-.670	.256		-2.617	.011
	Risk Identification	.232	.069	.243	3.377	.001
	Risk Assessment	.667	.082	.644	8.153	.000
	Risk Control	.218	.092	.187	2.365	.022
a. Dependent Variable: Financial Performance b. Independent variable: credit risk identification, assessment and control						

P<0.05

The Multiple regression results yielded an adjusted R<sup>2</sup> value of 0.735 at significance 0.000 suggesting that on credit risk management were high significant predictors of the variance in the financial performance of the Centenary Bank as they predicted 73.5% of the variance in the financial performance while other variable predicted the remainder of 26.5% of the variance in the financial performance. This had commercial and mortgage banking institutions' performance policy implications in that the achievement of the desired level of sales revenue and profitability depends on observance of effective risk management practices.

Risk assessment was the highest predictor of the variance in financial performance of the bank ( $\beta = 0.644$ ,  $t=8.153$ ,  $\text{sig} = 0.000$ ). This was followed by risk identification ( $\beta = 0.243$ ,  $t=3.377$ ,  $\text{sig} = 0.001$ ). The implication was that for enhanced financial performance, priority should be given to credit risk assessment through gaining of appropriate risk data and risk estimations as this will yield higher results in the short and long term. Risk identification practices of establishing credit risk origins and classifications of credit risks coupled with credit risk controls need to be equally emphasized as they were found to have a significant effect of the financial performance of the bank.

## CHAPTER FIVE

### SUMMARY, DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS

#### 5.0 Introduction

The study investigated the effect of credit risk management on financial performance. This chapter presents a summary, discussion, conclusions and recommendations of the study on credit risk management and financial performance. The first section presents a summary of the study findings in relation to the specific objectives. This is followed by a discussion, conclusion, and recommendations of the study in relation to the objectives of the study. Limitations of the study, contributions of the study and recommendations for further studies are also presented in this chapter.

#### 5.1 Summary of the study findings

This sub section presents a summary of the study findings on the effects of credit risk identification, credit risk assessment and credit risk control on the financial performance of the Centenary Bank on the study finding in chapter four.

##### 5.1.1. Credit risk identification and financial performance of Financial Institutions in Uganda

The study found a high positive significant relationship between credit risk identification and financial performance of financial institutions in Uganda ( $r = 0.495^{**}$  and  $p = 0.000$ ). The simple regression results revealed that credit risk identification alone predicted 23.1% of the variance in the financial performance of the bank. The study therefore confirmed the hypothesis that there is a positive relationship between Risk Identification and the performance of Financial Institutions in Uganda.

##### 5.1.2. Credit risk assessment and financial performance of Financial Institutions in Uganda

The study found high positive significant relationship between credit risk assessment and financial performance of financial institutions in Uganda ( $r = 0.810^{**}$  and  $p = 0.000$ ). The simple regression results revealed that credit risk assessment alone predicted 65% of the variance in the financial performance of the bank. The study therefore confirmed the hypothesis that there

is a positive relationship between risk assessment and the performance of Financial Institutions in Uganda.

### 5.1.3. Credit risk control and financial performance of Financial Institutions in Uganda

The study found a high positive significant relationship between credit risk control and financial performance of financial institutions in Uganda ( $r = 0.581^{**}$  and  $p = 0.000$ ). The simple regression results revealed that credit risk control alone predicted up to 32.6% of the variance in the financial performance of the bank. The study therefore confirmed the hypothesis that there is a positive relationship between risk control and the performance of Financial Institutions in Uganda

## **5.2 Discussion of the study findings**

This sub section presents a discussion of the study findings on the effects of risk identification, assessment and control on financial performance in relation to previous scholars' findings, opinions, viewpoints and recommendations from the literature review.

### **5.2.1. Credit risk identification and financial performance of CENTENARY BANK**

The study found that credit risk identification significantly affected financial performance of the bank suggesting that effective identification of credit risk origin and risk classification has a resultant significant positive effect on the financial performance of the bank and vice versa. These findings are supported by Marrison(2002) view that the main activity of bank management is not deposit mobilization and giving credit but also effective credit risk management which reduces the risk of customer default. He adds that the competitive advantage of a bank is dependent on its capability to handle credit valuably through a well-managed credit identification process which guides risk assessment and control.

The study found out that credit risk identification in the bank did not adequately consider the regulatory risk related factors and the bank's ability to absorb the credit related losses which constrains effective risk analysis and control for failure to expose such adverse risk origins. Brownbridge (1998) identified that the single biggest origin of bad loans of many of the failed local banks in Africa was insider lending accounting for a substantial proportion of the bad debts which breached large-loan exposure limits, and were extended to projects which could not generate short-term returns. Paul, (2007) equally suggests that economic conditions, capital availability and the industry sector/market in which firms operate all influence trade credit

decisions. Mazumder and Ahmad (2010) contended that greed and the tendency to take excessive risk have rather been a constant risk source in the financial market.

The study found out that less effort was undertaken to classify bond and money markets credit related risk in the risk analysis practices of the bank which exposes the bank to suffer such risks when they manifest. This finding relates to a great extent to what Llewellyn (2008) noted that credit risk could stem from activities both on and off balance sheet and credit risk can be further sub-categorized on the basis of reasons of default for instance the default could be due to country in which there is exposure or problems in settlement of a transaction. Chen et al. (2007) examined a large sample of investment grade and speculative bonds and found that liquidity explains a material portion of the variations in credit spreads.

This study inferred that the Centenary Bank management in some cases acted in ways which are contrary to the interests of the bank's creditors and undertook risky investment/lending strategies without adequate risk identification which jeopardize the solvency of the bank in affirmative of the moral hazard or adverse incentives theory proposed by (Vaubel, 1983). It was necessary that systems of risk identification to trace risk origins and risk classifications are undertaken by the management of the commercial banks.

### **5.2.2. Credit risk assessment and financial performance of Centenary Bank**

The study found that credit risk assessment significantly affected financial performance of the bank suggesting that efforts to harness credible credit risk data and risk estimation in the bank's risk assessment practices has a resultant significant positive effect on the financial performance of the bank and vice versa. These findings relate to a great extent to what Hishigsuren and Hussein (2007) noted that, in mainstream financial intermediation, two broad means of appraising of repayment capacity and asset-backed lending aimed at exposing possible credit risk during credit analysis are important in ensuring financial sustainability.

This study found that Centenary Bank had deployed a reliable information system which provided a rich credit risk data base with potential to identify risk concentration. This view related to an earlier opinion that the main purpose of risk assessment is thus to provide the necessary in-depth information about a risk identified in order to effectively avoid it, reduce its likelihood and impact, accept its occurrence or prepare contingency plans (Zsidisin, et al., 2004). Special attention needs to be paid to the inter-relatedness of risks and trigger events (Kleindorfer & Saad, 2005)

The study found out that Centenary Bank had undertaken adequate efforts undertaken to estimate credit risk by the bank's credit risk analysis which should be commended as it helps strengthen the credit management process and enhance the credit risk controls. This position relates to Hishigsuren and Husseini (2007) view that in mainstream financial intermediation, there are two broad means of evaluating creditworthiness; appraisal of repayment capacity, and asset-backed lending. Banco de Portugal (2010) noted that increasingly rigorous criteria for lending to non-financial firms increased the degree of contraction in the first quarter of 2010.

On credit estimation, Paul and Boden (2008) concluded that firms need robust and reliable processes to assess risk and decide whether to extend credit. The optimal balance between losing a sale and selling to a customer who may delay payment or default is not easy to strike. Expertise in and knowledge of the credit management function and customer base are therefore vital to good decision making.

This study inferred that the Centenary Bank management or its staff sometimes in some cases acted in ways which were contrary to the interests of the bank's creditors mainly depositors and undertook risky investment/lending strategies without adequate assessment of likely risk which jeopardized the solvency of the bank in affirmative of the moral hazard or adverse incentives theory proposed by (Vaubel, 1983). It was necessary that systems of credit risk assessment use reliable risk data and adequate risk estimation is undertaken by the management of the commercial banks.

### **5.2.3. Credit risk control and financial performance of Centenary Bank**

The study found that credit risk control significantly affected financial performance of the bank suggesting that efforts to put in place credit risk mitigation factors and monitoring of credit risk in the bank's risk control practices has a resultant significant positive effect on the financial performance of the bank and vice versa. These findings are supported by Herrero (2005) who found that Venezuela Banking Crisis was attributed to inappropriate lending practices, which allowed collateral to be used for multiple loans, poor loan quality and a high concentration of loans in one sector. De Juan (2004), equally noted that banking failures in Spain were caused by poor risk management especially credit risk which was aggravated by the concentration of the loan portfolio in the group to which the bank itself belonged.

The study found that the use of credit limits, collateral, use of credit risk to determine interest and credit review committees in the bank's credit risk control practices in Centenary Bank had

not been effective in mitigating credit risk. Tools like covenants, collateral, credit rationing, loan securitization and loan syndication have been used by banks in the developing world in controlling credit losses but with mixed success and failure rates (Hugh, 2001). Sheehan (2010) recommends that in risk mitigation, activities with a high likelihood of occurring, but where the financial impact of each event is small, the best risk response is to use the firm's management control systems to reduce the potential for loss. For activities that involve a high probability of losses and of a large financial magnitude, the best risk response is to avoid the activity. For activities that have a low probability of occurring, but the financial impact of each event would be of a large magnitude, the best risk response is to transfer a portion or all of the risk to a third party either by purchasing insurance, hedging, outsourcing or entering into partnerships. If a cost-benefit analysis determines the cost to mitigate the risk is greater than the cost ascribed to bearing the risk itself, then the best risk response is to accept the risk.

The study also found that Centenary Bank had a reactive credit management team and management's inaction to take corrective action on raised credit risk in the credit risk monitoring practices of the bank constraints the achievement of goal of credit risk management leading to revenue losses and failure to achieve the desired profitability. This view echoes what other scholars had earlier found that many firms fail because of poor credit management (Perrin, 1998; Summers and Wilson, 2000) and it is evident that one of the main factors in late payment is the mismanagement of and passive role assigned to trade credit in organizations. The costs of managing late payment can erode profitability, especially when profit margins are tight (Paul, 2007).

Waweru and Kalani (2009) highlighted a lack of aggressive credit collection policy as the most important factor, while poor credit assessment and untrained personnel was ranked second in contributing to bad loans in Kenya while other respondents noted that the bank negligence in monitoring loans and insider lending/owner concentration loans contributed to the problem of bad debts. This study opined that the Centenary Bank management or its staff in some cases acted in ways which contradict the interests of the bank's creditors mainly depositors and undertook risky investment/lending strategies without providing for adequate risk mitigation and monitoring mechanisms which jeopardize the solvency of the bank in affirmative of the moral

hazard or adverse incentives theory proposed by (Vaubel, 1983). It was necessary that systems of credit risk control provide for adequate risk mitigation factors while closely monitoring the effectiveness of the risk mitigation and overall risk management provisions in the bank to achieve the desired financial performance.

### **5.3 Conclusions**

This sub section presents the conclusions and key learning points of the study on the effect of credit risk management on financial performance of Centenary Bank.

#### **5.3.1 Credit risk identification and financial performance**

The study concluded that credit risk identification significantly affected financial performance of financial institutions in Uganda. Therefore the hypothesis that there is a relationship between risk identification and financial performance of financial institutions in Uganda was supported by the findings from the field. This therefore concluded that once risk identification, which considers risk origin and classification of risk is taken in to account, financial performance will improve through sales revenue and profitability.

#### **5.3.2 Credit risk assessment and financial performance**

The study concluded that credit risk assessment significantly affected financial performance of financial institutions in Uganda. The hypothesis that there is indeed a relationship between credit risk assessment and financial performance of financial institutions in Uganda holds true and was supported by the findings from the field. This therefore also concluded that once credit risk assessment which considers risk data and risk estimation factors is taken into account, financial performance will improve through increased sales volume and profitability.

#### **5.3.3 Credit risk control and financial performance**

The study concluded that the use of credit mitigation factors of credit limits, collateral, use of credit risk to determine interest and credit review committees in the bank's credit risk control practices were not effective in mitigating credit risk thereby constraining the financial performance of the bank due to losses arising from the none performing loans and bad debt.

The study also concluded that the ineffectiveness of the credit management team and management inaction to take corrective action on raised credit risk in the credit risk monitoring practices of the bank constrained the financial performance of the bank. Thus that effective

credit risk controls through provisions of risk mitigation factors and credit monitoring if well managed have a resultant significant positive effect on the financial performance of the bank and vice versa.

#### **5.4 Recommendations of the Study**

This sub section presents the recommendations of study on the effects of credit risk management and financial performance of financial institutions arising from the study findings and discussions above.

##### **5.4.1 Credit risk identification and financial performance**

To achieve the desired sales revenue and profitability, the study recommends that the management of FIs should constantly identify and regulate the bank's ability to absorb the credit risk, undertake to classify bond and money markets credit related risk in their credit risk identification. The above should be guided by a philosophy of continuously exploring all possible risk origins and their classification to guide credit risk assessment.

##### **5.4.2 Credit risk assessment and financial performance**

To achieve the desired sales revenue and profitability, the study recommends that the management of FIs should upgrade the information systems' capability to provide reliable data for action on deteriorating loans through benchmarking industry management information systems.

This should be complemented with adequate examination of new credit products risks and obtaining of desirable qualitative data for credit risk assessment. The above should be guided by a philosophy of continuously exploring existing and incidental credit risk data and risk estimation using industry best responsive credit risk estimation models/techniques.

##### **5.4.3 Credit risk control and financial performance**

To enhance the sales revenue and profitability, the study recommends that the management of FIs should review and strengthen their credit mitigation factors related to credit limits, collateral, interest and credit review committees.

The management of banks should also proactively and reactively act on the corrective actions on raised credit in the credit risk monitoring practices. Continuous training and allocations of necessary resources for the credit recovery team is recommended.

### **5.5 Limitations of the Study**

The study sample was fairly small given the small number of staff who are engaged in credit risk management. Similarly the study relied on primary data without consideration of secondary data on the risk management practices and financial performance because such data could not be easily accessed due to fear of dilutions of the banks competitive strategy. Never the less, the study findings provided an insight in to the risk management practices of the bank and how they affect the financial performance of the bank which could be generalized to other related institutions.

### **5.6 Contributions of the Study**

The study has helped develop credit risk managerial contributions in the banking sector of Uganda demanding the use of adequate risk identification by exploration of possible origins and their risk classification; risk assessment demanding use of reliable risk data and risk classification; risk control requiring the use of adequate risk mitigation and monitoring. Similarly, the study has also helped cover literature gaps by providing empirical evidence on the extent to which credit risk management affects financial performance of commercial banks.

### **5.7 Recommendations for Further Studies**

The study found out that credit risk management predicted 73.5% of the variance in the financial performance while other variable predicted the remainder of 26.5% of the variance in the financial performance. Other studies need to examine the extent to which an asset leasing affects the financial performance of commercial banks as it is one of the new products being promoted by the bank.

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TO WHOM IT MAY CONCERN

Name: ASIMWE EWAN Reg. No. 920833/002

A bachelor's student who is seeking permission from your office to collect data for his/her dissertation titled

"THE EFFECT OF CREDIT RISK MGT. OF FINANCIAL PERFORMANCE IN BANKS....."  
A CASE STUDY OF CENTENARY BANK

We shall be grateful if you could render assistance to him/her in collecting the necessary data for his/her dissertation

The Uganda Christian University School of Business thanks you in advance

Mukisa Simon Peter  
Research coordinator