



**CREDIT RISK MANAGEMENT AND FINANCIAL PERFORMANCE IN
HOUSING FINANCE BANK, UGANDA**

BY

TONNY MALIISA

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DECLARATION

I Tonny Maliisa declare that, this dissertation is my original work and has never been published and or submitted for any award in any other institute or University.

Signed

Tonny Maliisa

Date

APPROVAL

This study was done under our supervision and the dissertation has been submitted for examination with our approval.

Signed:

Mr. Paddy Mugambe

Date:

Signed:

Mr. Michael Kiwanuka

Date:

DEDICATION

To my wife, Patricia
And children Maxine, Matthew and Melanie

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To God Almighty. Glory to thy name. My special thanks go to my employer-Bank of Uganda-who enabled me to pursue a degree of Masters in Management studies in Financial Management. My special thanks also go to my supervisors Mr. Paddy Mugambe and Mr. Michael Kiwanuka for their commitment and guidance that has made this work a success.

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TABLE OF CONTENTS

DECLARATION.....	i
APPROVAL	ii
DEDICATION.....	iii
ACKNOWLEDGEMENT	iv
LIST OF FIGURES	viii
LIST OF TABLES	ix
LIST OF ACRONYMS AND ABBREVIATIONS	x
ABSTRACT.....	xi
CHAPTER ONE	1
INTRODUCTION.....	1
1.1. Introduction	1
1.2 Background to the study	2
1.2.1 Historical Background.....	2
1.2.2 Theoretical background	4
1.2.3 Conceptual background	4
1.2.4 Contextual background.....	6
1.3 Statement of the problem.....	8
1.4 General Objective.....	9
1.5 Specific Objectives of the study	9
1.6 Research Questions	9
1.7 Research Hypothesis	9
1.8 Conceptual frame work	9
1.9 Significance of the study	10
1.10 Justification of the study.....	11
1.11 Scope of the study	11
1.11.1Content Scope	11
1.11. Time Scope.....	12
1.11. Geographical Scope.....	12
1.11 Operational Definitions	11

CHAPTER TWO	13
LITERATURE REVIEW	13
2.1 Introduction	13
2.2 Theoretical Review.....	13
2.3 Actual Literature Review	14
2.3.1 Credit Risk Identification and Financial Performance	14
2.3.2 Credit Risk Assessment and Financial Performance.....	19
2.3.3 Credit Risk Control and Financial Performance	25
2.4 Summary of the Literature Review	30
CHAPTER THREE	30
METHODOLOGY	30
3.1 Introduction	30
3.2 Research Design	31
3.3 Study Population	31
3.4 Sample Size and Selection.....	31
3.5 Sampling techniques and procedures	32
3.6 Data Collection Methods.....	32
3.6.1 Questionnaires Method.....	33
3.6.2 Face to Face interviews Method.....	33
3.7 Data Collection Instruments	33
3.7.1 Questionnaires	33
3.7.2 Interview Guide.....	33
3.8 Pretesting of data collection instruments.....	34
3.8.1 Validity tests.....	34
3.8.2 Reliability tests	34
3.9 Procedure of data collection	35
3.9.1 Procedures of data collection.....	35
3.10 Data Analysis.....	36
3.10.1 Quantitative data analysis	36
3.10. Qualitative data analysis.....	37
3.11 Measurement of variables.....	37

CHAPTER FOUR	38
PRESENTATION, ANALYSIS AND INTERPRETATION OF RESULTS	38
4.1 Introduction	39
4.2 Response rate.....	39
4.3 Background information.....	39
4.3.1 Findings on the level of education of the respondents	40
4.3.2 Findings on the Job title of the respondents	40
4.3.3 The term of service	41
4.4. The effect of Risk identification on financial performance of Housing finance bank. ..	42
4.5. The effect of Risk assessment on financial performance of Housing finance bank.....	48
4.6. The effect of Risk controls on financial performance of Housing finance bank.....	52
CHAPTER FIVE	59
SUMMARY, DISCUSSION, CONCLUSIONS AND RECOMMENDATIONS	59
5.1 Introduction	59
5.2 Summary of the study findings.....	59
5.3 Discussion of the study findings.....	60
5.4 Conclusions	65
5.5 Recommendations of the study	67
5.6 Limitations of the study.....	68
5.7 Contributions of the study	68
5.8 Recommendations for further studies.....	69
REFERENCES	70
Appendix I: Credit Risk Management and Financial Performance Questionnaire.....	i
Appendix II: Interview guide for Risk Manager and Internal Auditor	i

LIST OF FIGURES

	Page
Figure 1: Conceptual framework.....	10
Figure 2: showing the level of education of the respondents.....	40
Figure 3: Findings on the term of service.....	42

LIST OF TABLES

	Page
Table 1: Trend of Housing Finance Bank financial performance 2010-2011 in billions.....	7
Table 2: Study population and sample structure.....	32
Table 3: Content Validity Results.....	34
Table 4: Reliability Results.....	35
Table 5: Findings on the Job title of the respondents.....	41
Table 6: Showing the mean and standard deviation of credit risk identification in HFB.....	43
Table 7: Correlation Matrix between Credit Risk Identification and Financial Performance.....	47
Table 8: Regression results between on the credit risk identification and financial performance.....	48
Table 9: showing the mean and standard deviation of credit risk assessment in HFB.....	49
Table 10: Correlation Matrix between Credit Risk Identification and Financial Performance.....	51
Table 11: Regression results between on the credit risk assessment and financial performance.....	52
Table 12: showing the mean and standard deviation of credit risk control in HFB.....	53
Table 13: Correlation Matrix between Credit Risk control and Financial Performance.....	56
Table 14: Regression results between on the credit risk control and financial performance.....	57
Table 15: Multiple regression results between credit risk management and financial performance....	57

LIST OF ACRONYMS AND ABBREVIATIONS

HFB	:	Housing Finance Bank
BOU	:	Bank of Uganda
NPL	:	Non performing loans
CBs	:	Commercial Banks
ROA	:	Return on Assets
ROE	:	Return on Equity
FIs	:	Financial Institutions
GDP	:	Gross Domestic Product
CDO	:	Collateralized Debt Obligation
SMEs	:	Small and Medium sized Enterprises.
SD	:	Standard Deviation
CDO	:	Collateralized Debt Obligation
IRB	:	Internal Ratings Based
PD	:	Probability of Default
AIRB	:	Advanced Internal Rating-Based Approach.

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 HFB. 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 analysed using measurement of central tendency and qualitative data was analysed 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

1.1. Introduction

This study was about how credit risk is managed and how it affects financial performance of financial institutions in Uganda. In this study, credit risk management was the independent variable while financial performance was the dependent variable. In Credit Risk Management, three dimensions of Risk identification, Risk Assessment and Risk Control were used while in Financial Performance, the study considered two indicators of Sales growth and Profitability.

Commercial banks are Financial Institutions and are key providers of financial information to the economy. They play even a most critical role to emergent economies where borrowers have no access to capital markets (Cornett and Saunders, 1999). There is evidence that well-functioning commercial banks accelerate economic growth, while poorly functioning commercial banks impede economic progress and exacerbate poverty (Barth, Caprio and Levine, 2004).

Cassola, Drehmann Hartmann, Ducan and Scheicher (2008) opined that credit management greatly influences the success or failure of commercial banks. This is because the failure of deposit banks is influenced to a large extent by the quality of credit decisions and thus the quality of the risky assets. He further notes that, credit management provides a leading indicator of the quality of deposit banks credit portfolio. Therefore, effective credit management includes; a well-developed credit policy framework and procedure.

This chapter presents the background to the study, the statement of the problem, the objectives of the study, the research questions, the hypotheses, the scope of the study, the significance and justification of the study.

1.2 Background to the study

1.2.1 Historical Background

Brindley (2004) asserts that credit risk management emerged in the 1960s and this was mainly due to the global competition, technological change and the continuous search for competitive advantage. John (2004) asserts that back in 1980s, there was no risk management department in the banking institution and only the bank head trader had the experience and authority to rule on poor trades and have them unwound. In the 1990s, the banking institutions began to realise the impact of credit risk management by setting up risk management departments which were charged with measuring risk, and not managing it. With all the authority of decision making left to the head of trader, this made credit risk management powerless (Economic intelligence report, 2009). Credit risk management however became a booming industry in earlier nineties as a result of increasing volatile financial markets and derivatives leading to important financial losses suffered by companies without credit risk management system (Bofondi and Gobbi, 2003).

The objective of any financial institution is to maximise profits and share holder value added by providing different financial services mainly by managing risks (Khan & Ahmed, 2001). Managing risk and doing it well is important for strategic managers in any organisation (Dickinson, 2002). Risk is a reality and is present in virtually every industry, geography and business process. It may vacillate with economic and social conditions but risk never vanishes (Uryema and Deventer, 1993). Furthermore, it has

been widely reported of organisations which collapse despite the presence of risk management systems. The Enron failure together with other high profile corporate collapses hassled to the debate concerning the efficiency and role of corporate governance (Bester, 1994). These corporate governance failures culminated in to the passage of the Sarbanes Oxley Act (SOX) July 30, 2002 which have emphasised the importance of Enterprise Risk Management in preventing fraudulent reporting. (Bester, 1994).

Risk management has become so prominent in recent years especially after the traumatic events like the September, 11 attack on the USA (Williams, Smith and Young, 1998) and business scandals including Enron and WorldCom (Baranoff, 2004). Today, credit risk in the banking sector maybe increasing due to technological innovation, increasing dependency on third parties to provide necessary information technology, services, competition from other players in banking institutions, wide customers expectation and demands (Hassan Al-Tamimi and Al-Mazrooei, 2007)

In Uganda, failure of commercial banks to manage their credit risk well resulted in to serious catastrophes like bank closure. Greenland bank for example did not follow its laid down lending policy and as a result, much credit had been extended to a small group of borrowers mainly insiders and Greenland group related companies, generally without sufficient security and in violation of limits on concentration of lending. It was discovered that in some cases credit had been extended on the sole instruction of the then Managing Director and without any or very minimal documentation. A substantial portion of the loan portfolio was classified as non-performing as both principal and interest payments were in arrears for a considerable time. The report of November 30,

1998 revealed that insider loans accounted for over 40 percent of the gross loan portfolio (Bank of Uganda Report, 1999).

1.2.2 Theoretical background

This study was underpinned by the moral hazard or adverse incentives first proposed by (Vaubel, 1983). He posits on the adverse incentives on bank owners to act in ways which are contrary to the interests of the bank's creditors mainly depositors or the government if it explicitly or implicitly insures deposits, by undertaking risky investment/lending strategies such as lending at high interest rates to high-risk borrowers which, if unsuccessful, would jeopardize the solvency of the bank.

Milton (2000) while building on the moral hazard effect observed that there are three processes in assessment of credit in commercial banks which include Loan Approval Process, Loan Monitoring Process, and Loan Termination Process all aimed at effective credit risk management.

The moral hazard theory therefore guided this study as it suggests likelihood of management and staff offering risky credit facilities which calls for effective credit risk identification, assessment and monitoring to mitigate the Bank's solvency problems leading to achievement of the bank's desired sales revenue and profitability.

1.2.3 Conceptual background

As identified in the theory, the study identified four concepts namely; risk identification, risk assessment, risk control and financial performance.

A risk is any threat or event that is currently occurring or that has a reasonable chance of occurring in the future which could undermine the institutions pursuit of its goal and objectives (coyle, 2000).

Risk management is defined as the process that a bank puts in place to control its financial exposures. The process of risk management comprises the fundamental steps of risk identification, risk analysis and assessment, risk audit monitoring, and risk treatment or control (Bikker and Metzmakers, 2005).

Risk can be defined as the probability of losses associated with diminution in the credit quality of borrowers/counterparties or potential losses resulting from the refusal or inability of a customer to pay what is owed in full and on time. It remains the most important risk to manage till date (Bofondi and Gobbi, 2003). Credit risk arises when the borrower is unable to repay the loan or when the credit rating deteriorates (Bofondi and Gobbi, 2003).

Credit risk management is defined as the identification, measurement, monitoring and control of risk arising from the possibility of default in loan repayments (Coyle, 2000). Credit risk management was equally conceptualised to include three dimensions of risk identification, risk assessment and risk control.

Risk identification is a process that reveals and determines the possible organisational risks as well as conditions, arising risks. By risk identification the organisation is able to study activities and places where its resources are exposed to risks (Williams, Smith and Young, 1998). This study conceptualised risk identification to include two indicators involving credit risk origin and the consequential classification of the identified risk.

Risk assessment is the identification and analysis of relevant risks to the achievement of an organization's objectives, for the purpose of determining how those risks should be managed. Risk assessment implies an initial determination of operating objectives,

then a systematic identification of those things that could prevent each objective from being attained. In other words, it's an analysis of what could go wrong (Holton, 2003). Credit analysis is used to describe any process for assessing the credit quality of counterparty. One or more people, called credit analysts, will review information about the counterparty. This might include its balance sheet, income statement, recent trends in its industry, the current economic environment, etc. They may also assess the exact nature of an obligation. For example, senior debt generally has higher credit quality than the subordinated debt of the same issuer (Holton, 2003).

This study conceptualised risk assessment to include two indicators of risk data and risk estimation.

Risk control is defined as hedging or neutralising the financial risks that result from one or a series of transactions. Risk control can also be looked at as the entire process of policies, procedures and systems an institution needs to manage prudently all the risks resulting from its financial transactions, and to ensure that they are within the bank's risk appetite (Holton, 2003). This study conceptualised risk control to include two indicators of mitigation and monitoring.

1.2.4 Contextual background

Housing Finance Bank (here after, HFB) is one of the 24 commercial banks currently operating in Uganda (Bank of Uganda Report, 2012). It was incorporated as a private company under the Companies Act in December 1967 and ever since then; HFB has been and is still in the business of mortgage and credit lending (Bank of Uganda Report, 2012). HFB has in place a credit risk management team, proper and clear guidelines for managing Credit Risk which represent the preeminent source of reference and guidance on credit risk management practices in the banking industry. The team aims to support

the objective of HFB through providing information and guidance to enable the implementation and maintenance of an effective Credit Risk Management system to identify, analyse and mitigate the credit risks that threaten the attainment of the bank’s objectives of profitability and sales growth.

However, even with the good risk management department in place, housing finance bank still has challenges with managing credit risk among its creditors, and yet the bank has to float along with the stiff competition in the banking sector, meaning that it’s offering good interest rates, training it’s loan officers to be competent in loan disbursement and recovery, but this isn’t in line with the reality that the bad loan portfolios keep increasing steadily, defaulters and write – offs are many. The study therefore intended to examine the relationship between credit risk management and financial performance in HFB.

Table 1: Trend of Housing Finance Bank financial performance 2010-2011 in billions

Particular/ Year	2011 Ushs `000	2010 Ushs `000
Shareholder capital	61,000,000	61,000,000
Loans & advances	337,400,022	245,284,702
Total of non- performing loans	10,927,882	7,657,058
Bad debts	825,649	723,013

Source: KPMG Industrial analysis, 2010.

Table 1 above shows the trend in some parameters used to measure financial performance at HFB. The trend shows that as the figure for non performing loans rises, the figure for bad debts also rises (KPMG Industrial analysis, 2010).

1.3 Statement of the problem

Credit risk management is core to the performance of any financial institution and its existence is expected to lead to good performance of a financial institution (Hassan Al-Tamimi, Al-Mazrooei, 2007). Indeed HFB Uganda has had a long term commitment to credit risk management strategies intended to step up her performances. Strategies like the credit risk management policy that elaborates the products offered and all activities that have to be performed to manage the risk, credit manuals formulated in compliance with the bank credit policy aimed at managing credit risk and also constant training of staff in the field of credit management. However despite all the above measures that HFB has undertaken to mitigate credit risk, it is unfortunate that the bank continues to experience increasing bad debts and declining profitability levels as illustrated in table 1 above. Total of non- performing loans increased to 10,927,882 in the FY 2010/2011 from 7,657,058 in the FY 2009/2010. Bad debt increased to 825,649 in the FY2010/2011 from 723,013 in the FY 2009/2010 a situation associated to an ill-managed credit risk management system in the bank. The increases in NPL and bad debts have had an adverse effect of reducing on the sales revenue and profitability of the bank. This problem if unabated, could lead to a high insolvency risk of the bank.

Given the fact that credit is the biggest line of business for commercial banks (Kitua, 1996), this problem calls for an urgent response and if not attended to in time, it can cause bank failure. This is because the level of loss caused by credit risk compared to other bank risks is severe (Chijoriga, 1997). It is on this basis that this study was undertaken to examine the effect of credit risk management on the financial performance of commercial banks in Uganda.

1.4 General Objective of the study

The general objective of this study was to examine the effect of credit risk management on financial performance of HFB.

1.5 Specific Objectives of the study

- a) To examine the effect of Credit Risk identification on financial performance of HFB
- b) To analyse the effect of Credit Risk assessment on financial performance of HFB
- c) To investigate the relationship between Credit Risk control and financial performance of HFB

1.6 Research Questions

- d) What is the effect of Credit Risk Identification on financial performance of HFB?
- e) What is the effect of Credit Risk assessment on financial performance of HFB?
- a) What is the relationship between Credit Risk control and financial performance of HFB?

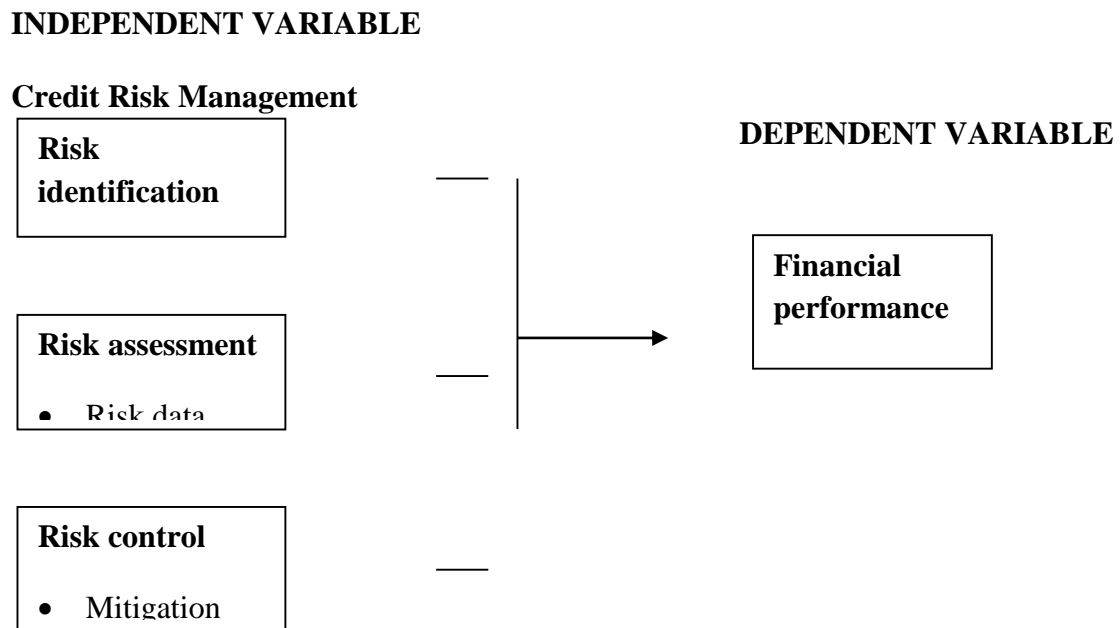
1.7 Research Hypothesis

- a) There is a positive relationship between Credit Risk Identification and the performance of Financial Institutions in Uganda.
- b) There is a positive relationship between Credit Risk Assessment and performance of Financial Institutions in Uganda.
- c) There is a positive relationship between Credit Risk Control and performance of Financial Institutions in Uganda.

1.8 Conceptual frame work

The conceptual framework below contains two concepts which are credit risk management in terms of risk identification, risk assessment and risk control and its impact on financial performance in terms of sales revenue and profitability.

Figure 1: Conceptual framework



Source: *Adopted and modified from the works of Vaubel (1983)*

The conceptual framework shows that the financial performance of a commercial bank depends on the degree to which the management and officials of the bank undertake Risk Identification, Risk Assessment and Risk Control. Financial Performance had indicators of Sales revenue and Profitability. Credit risk identification had indicators of efforts undertaken to identify credit risk origin and classification of credit risks. Credit risk assessment had indicators of use of appropriate risk data and estimation of the likely risk in the credit risk management efforts. Furthermore, credit risk control had indicators of risk mitigation and risk monitoring.

1.9 Significance of the study

The study helped to reveal the gaps that HFB needed to explore in credit risk management to fully utilise the credit asset to yield the desired results which is a clean credit portfolio.

The results of this study would also be used by management of commercial banks to make decisions on how to improve the management of credit risk identification, credit risk assessment and credit risk control in order to improve their financial performance.

To the academia, the study would also added to the knowledge on credit risk management and performance of financial institutions and covering literature gaps on the relationship between credit risk identification, assessment, controls and financial performance of commercial banks in a developing country-Uganda.

1.10 Justification of the study

The study was important because there was an information gap in credit risk management; how credit risk identification, credit risk assessment and credit risk control were being done and how the different roles interacted and affected financial performance of financial institutions. The gap was filled by adding more knowledge to the already available one and was to be adopted by various banks to improve their credit risk management and in turn increase their financial performance as that is the main objective of the bank.

1.11 Scope of the study

1.11.1 Content Scope

The study concentrated on Credit Risk Management dimensions of Risk identification, Risk assessment and Risk control as the independent variable and financial performance as the dependent variable.

1.11.2 Time Scope

The period in focus was 2010 and 2011.

1.11.3 Geographical Scope

The study was limited to Housing Finance Bank Offices located at lower Kololo terrace, Kampala, Uganda.

1.12 Operational definitions

This is what these words or group of words mean in this study.

Bad debts: debts that may not be recovered by the bank due to the borrowers' poor Financial position or when debtor cannot be traced.

Credit risk: the potential of loss resulting from the failure of borrowers to repay their loans.

Credit terms: the condition under which credit will be extended to the customer for example amount, period, interest rate.

Moral hazard: is a situation where the behaviour of one party may change to the detriment of another after the transaction has taken place.

Adverse selection: is a situation where the bank ends up selecting bad clients that will end up defaulting on the loans.

Loan provision: entries against value of assets, such as loan provision reflecting a reduced likelihood of full payment; preparing for a future loss.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the existing body of knowledge on credit risk management and financial performance of financial institutions. It is structured under the headings of introduction, theoretical review, actual literature review and summary of the chapter.

2.2 Theoretical Review

This study was underpinned by the moral hazard or adverse incentives first proposed by (Vaubel, 1983) which posits on the adverse incentives on bank owners to act in ways which are contrary to the interests of the bank's creditors mainly depositors or the government-if it explicitly or implicitly insures deposits- by undertaking risky investment/lending strategies such as lending at high interest rates to high-risk borrowers which, if unsuccessful, would jeopardize the solvency of the bank. Through lending under high risk, loan quality suffers when officers' loans are rewarded on the basis of the volume of loans without sufficient attention to risk (Hawkins and Turner, 1999).

While offering a solution to moral hazard effect, Koch and MacDonald (2000) noted that effective credit risk management begins with oversight of the risk in individual loans. Prudent risk selection is vital to maintaining favourable loan quality. Therefore, the historical emphasis on controlling the quality of individual loan approvals and managing the performance of loans continues to be essential (Comptroller's Handbook, 2000). Milton (2000) while building on the moral hazard effect observed that there are three processes in the assessment of credit in commercial banks which include; Loan Approval Process, Loan Monitoring Process, and Loan Termination Process all aimed

at effective credit risk management. Although banks today secure their entire loan portfolio, its ability to mitigate loan default has always been a bank's upsetting experience.

The moral hazard theory therefore guided this study as it suggests likelihood of management and staff offering risky credit facilities which calls for effective credit risk identification, assessment and control to mitigate the bank's solvency problems leading to achievement of the bank's desired sales revenue and profitability.

2.3 Actual Literature Review

2.3.1 Credit Risk Identification and Financial Performance

The first critical step of the risk management process includes the identification of risks (Kleindorfer and Saad, 2005). Only the identification of risks is triggering any further risk management activity. Risk identification aims therefore to discover all relevant risks. This implies that an early judgment is needed to decide whether a risk is considered to be relevant – and thus will be further assessed – or not. Therefore, risk identification needs to follow a holistic approach (Buhman, Kekre, and Singhal, 2005) but this study focused on the efforts to identify credit risk origins and classification of risk.

2.3.1.1 Identification of Credit Risk Origin and financial performance.

Craighead, Blackhurst, Rungtusanatham, and Handfield, (2007) argue that the disruption severity is influenced by the time it takes for a company to learn about a risk or to predict the respective disruption. In support, Craighead et al., (2007) noted that Companies need to develop an ability to predict disruptions early so that risks can be duly assessed and mitigation efforts can take effect. By carefully scanning the

environment for early indicators, relevant risks are thus recognized in time and mitigation actions can be initiated.

On the extent to which credit risk origin influence financial performance of commercial banks, Brownbridge (1998) contended that the single biggest contributor to the bad loans of many of the failed local banks in Africa was insider lending accounting for a substantial proportion of the bad debts. The threat posed by insider lending to the soundness of the banks was exacerbated because many of the insider loans were invested in speculative projects such as real estate development, breached large-loan exposure limits, and were extended to projects which could not generate short-term returns (such as hotels and shopping centres), with the result that the maturities of the bank's assets and liabilities were imprudently mismatched.

In Uganda Brownbridge (1998) contends that lending was at high interest rates, to borrowers in high-risk segments of the credit market. The high cost of funds meant that the local banks had to generate high earnings from their assets; for example, by charging high lending rates, with consequences for the quality of their loan portfolios. The local banks almost inevitably suffered from the adverse selection of their borrowers, many of whom had been rejected by the foreign banks (or would have been had they applied for a loan) because they did not meet the strict creditworthiness criteria demanded of them. Within the segments of the credit market served by the local banks, there were probably good quality (i.e. creditworthy) borrowers as well as poor quality borrowers. The problem for many of the failed banks was that they did not have adequate expertise to screen and monitor their borrowers, and therefore distinguish between good and bad risks. In addition, credit procedures, such as the documentation of loans and loan Securities and internal controls were frequently very poor.

Llewellyn (2008) also provides further support for over lending as a cause of NPL and notes that a hazardous business model which is not sufficiently monitored by the supervisory authority leads to high default rates leading to the banks insolvency. Paul (2007) equally suggests that Economic conditions, capital availability and the industry sector/market in which firms operate all influence trade credit decisions. Similarly, seasonal businesses tend to demand more credit to deal with uncertain cash flow patterns. Recession and other periods of financial distress may lead to increased demand for trade credit. Finally, firms with longer production cycles or substantial inventories, such as manufacturers, may have greater need for trade credit, pushing it up the pecking order (ibid).

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. They prevail in good times, in times of turmoil and especially during bubbles lead to defaults in real estate business-often times risk an outcome of indulgent regulations. The literature although rich in highlighting the different credits risk origins, it remains speculative of the effects of credit risk origins on the current financial performance of commercial banks in Uganda. This study therefore bridged the literature gaps by providing empirical evidence on the credit risk sources in HFB and their effect on financial performance.

2.3.1.2. Credit Risk classification and financial performance

It is important to note that only risks that are identified in the first step can be assessed and managed in the subsequent process (Berg, Knudsen, and Norrman, 2008).

Literature suggests that the critical first step of a risk management process is risk identification (Kleindorfer and Saad, 2005). Thus, the quality of the risk identification activities is crucial for the overall credit risk management process. Therefore, the subsequent step – namely risk assessment – highly depends on the activities and results of the first step. Only events that have been identified as risks can be evaluated for their actual potential to harm the organization’s credit risk management system.

Llewellyn (2008) contends that for most banks, loans are the largest and most obvious source of credit risk; however, credit risk could stem from activities both on and off balance sheet. In addition to direct accounting loss, credit risk should be viewed in the context of economic exposures. This encompasses opportunity costs, transaction costs and expenses associated with a non-performing asset over and above the accounting loss. 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. A close challenge related to the management of credit risk is that credit risk does not necessarily occur in isolation in that the same source that endangers credit risk for the institution may also expose it to other risk. For instance a bad portfolio may attract liquidity problem.

Sellers who extend trade credit can use it to gather valuable information about customers’ financial health through their payment patterns and their ability to take advantage of any discounts proffered for early payment (Paul and Boden, 2008). Marrison and White (2002) articulate that the main activity of bank management is not deposit mobilization and giving credit. Effective credit risk management reduces the risk of customer default. They add that the competitive advantage of a bank is dependent on its capability to handle credit valuably. Bad loans cause bank failure as

the failure of a bank is seen mainly as the result of mismanagement because of bad lending decisions made with wrong appraisals of credit status or the repayment of nonperforming loans and excessive focus on giving loans to certain customers.

Amato and Remolona (2003) argue that undiversified risk explains the “credit risk puzzle”. Since the returns on bonds are highly negatively skewed, unexpected losses can be diversified away only with large portfolio sizes (PSs) that are very difficult to attain. Consequently, bondholders need to be compensated for bearing this risk. Amato and Remolona (2003) support their argument by examining the collateralized debt obligation (CDO) market where managers have strong incentives to diversify. They find that a relatively small number of bonds are included in the collateral pool, which supports the view that diversification is difficult to achieve.

Bevan and Garzarelli (2000) identify a relationship between the spreads for Moody’s Baa yield-spread indexes and the growth in the GDP. Contrary to the literature, they find a positive relationship between government bond yields and this spread. With the inclusion of other explanatory variables (such as leverage, cash flow needed to finance investment plans, and volatility of stock returns), more than half of the variation in yield spreads is explained. In contrast, Bewley, Rees and Berg (2004) find no relationship between credit spreads and implied stock market volatility for Australia.

Longstaff, Mithal and Neis (2005) investigate the components of individual default-swap spreads using a reduced-form model where the intensity process has a jump risk to measure the size of the default component in credit spreads. For a sample of 68 issuers that have liquid default-swap trading data, Longstaff et al. (2005) found that default risk, contrary to the literature, accounts for more than 50 percent of credit

spreads, and that bond-specific illiquidity (such as the bid/ask spread and the outstanding principal amount) are strongly correlated with spreads. Chen, Lesmond and Wei (2007) examine a large sample of investment grade and speculative bonds and find that liquidity explains a material portion of the variations in credit spreads. They also find that the importance of liquidity increases for speculative grade bonds where liquidity explains as much as one-quarter of the variation in yields.

The above authors views although rich in highlighting the different credit risk classifications, they did not provide empirical evidence on the different credit risk classification among commercial banks in Uganda and the extent to which the different classifications influence the current financial performance of commercial banks in Uganda. This study therefore conceptualised credit risk classification and assesses how the HFB observed the different forms of credit risks and cover literature gaps on the credit risk classification and their effect on financial performance of commercial banks in Uganda.

2.3.2 Credit Risk Assessment and Financial Performance

The main element includes identifying, measuring, monitoring and managing various exposes 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

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, Ellram, Carter

and Cavinato, 2004). Special attention needs to be paid to the inter-relatedness of risks and trigger events (Kleindorfer and Saad, 2005).

A credit risk management system should include policy and strategies (guidelines) that clearly outline the scope and allocation of bank credit facilities and the manner in which a credit portfolio is managed that's to say how loans are originated, appraised, supervised and collected (Basel, 1999; Greuning and Bratanovic, 2003; PriceWaterhouse, 1994).

Clear established process for approving new credits and extending the existing credits has been observed to be very important while managing credit risk (Heffernan, 1996). From a managerial perspective, the accuracy of credit risk assessment serves two key purposes; first it removes from consideration borrowers who present excessive credit risk. Second, for those borrowers who pass the first screen, it is used to determine how much credit should be extended and what price should be attached to an extension of credit. In this way credit risk assessment serves the purpose of helping institutions align expectations of risk and return with constraints on portfolio performance (Cole, Glenn and Brent, 2005).

Ralston and Wright, (2003) highlighted that sound lending practices require the systematic identification of the individual loan applicants, the adjustment of lending conditions to compensate for the risk prior to loan approval; and the implementation of timely arrears procedures when payments are missed. Abdou and Pointon (2009) noted that, in mainstream financial intermediation, there are two broad means of evaluating creditworthiness: *appraisal of repayment capacity*, and *asset-backed lending*. The former approach focuses on investigating the integrity, moral character, management ability, and debt paying capacity of a potential borrower either by staff or statistical

models (track records) or both, while the latter focuses on the quality and quantity of assets that can be pledged as collateral and quickly liquidated in the event of a default. The principal means that a financial institution uses to control credit risk is a solid credit evaluation done by a trained professional. Abdou and Pointon (2009) further noted that as business lending has expanded from the acquisition of fixed assets to financing working capital, the focus of analysis has shifted from the static balance sheet to cash flow, a set of financial ratios, and a consideration of the competitiveness of the borrowing firm. The analyst's main concern is how the injection of capital will be used, how competitive the borrower is within the sector or industry in question, how sensible the pursued business strategy is, how good the management team is in delivering results, and, ultimately, if the borrower will generate sufficient revenue to service the acquired new debt while confronting the hiccups and shocks that are likely to occur during the course of conducting business.

To aid the analysis, the credit officer usually employs a set of standard and specialized industry-specific ratios that are used to compare the potential borrower to industry benchmarks. Expert-based credit risk analysis methodologies work, but they can also be problematic and fail from time to time due a number of reasons: poor selection of analysts, poor training, failure to follow agreed upon procedures, overly bureaucratic institutional structures wherein the sense of individual responsibility of each analyst is diluted, and natural tendencies to over-concentrate the portfolio.

Basel II aims to increase the alignment between banks' minimum capital requirements and the risk profiles of the loans they have extended. Therefore, banks often compute minimum capital requirements using an internal ratings-based (IRB) approach that reflects the most sophisticated credit risk models they can develop (Jacobson, Lindé

and Roszbach, 2006). According to Haber (2007), most banks prefer an IRB approach and want to assess the credit risk of their customers as precisely as possible. In turn, Basel II might increase the cost of borrowing for SMEs or even reduce the supply of credit, because capital regulations that depend on the creditworthiness of the borrower likely affect the financing conditions for these SMEs. Not only is this focus critical in terms of the prevalence of SMEs in national economies, but it also reflects the importance of bank loans as a source of financing for SMEs (Esperance, Ana and Mohamed, 2003).

On the extent to which credit risk data influenced financial performance, 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. From a credit risk perspective, SMEs differ from large corporations, particularly in terms of the severe agency problems they face. Small firms often have difficulty signalling their quality to financial statements (Blumberg and Letterie, 2008) as they rarely are listed, do not need to provide audited financial statements, and virtually never are followed by analysts (Berger and Black, 2011).

Moreover, many small firms are reluctant to release financial information, which is a time-consuming and possibly risky occupation (Blumberg and Letterie, 2008). Finally, the data that small business owners provide banks for review often are of poor quality, because of their lack of management experience or insufficient staff capable of producing useful reports (Berger and Udell, 2002). Thus, the credit scoring process is critical for banks, which must find a way to discriminate “good” from “bad” SMEs, in terms of their creditworthiness. A failure to assess the risk profile of an SME correctly will lead to inefficient resource allocations. In response, banks need credit risk models that pertain specifically to SMEs, to minimize their expected and unexpected losses.

2.3.2.2 Credit Risk Estimation and financial performance

Screening of borrowers in the banking sector is an activity that has widely been recommended (Derban, Binner and Mullineux, 2005). The technique cannot only minimize processing costs but also reduce subjective judgments and possible biases (Derban, Binner, and Mullineux, 2005). The rating systems if meaningful should signal changes in expected level of loan loss (Santomero, 1997). Chijoriga (1997) concluded that quantitative models make it possible among others, to numerically establish which factors are important in explaining default risk, evaluate the relative degree of importance of the factors, improve the pricing of default risk, be more able to screen out bad loan applicants and be in a better position to calculate any reserve needed to meet expected future loan losses.

The resulting business impact of a disruption highly depends on how fast a specific risk unfolds and upon the duration of the risk event (Hendricks & Singhal, 2003). Therefore, the outcome of the risk assessment activities need to provide a classification of all identified risks and put them into a prioritizing order.

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 loosing 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.

Abdou and Pointon (2009) observed that Asset-backed lending places a premium on valuing and understanding assets and their resale value and markets. Nonetheless, heavy reliance on asset backed financing has three attendant risks: collateral illiquidity, collateral depreciation, and legal risks. The longer it takes to liquidate pledged assets,

the worse off the lender will be. Likewise, the lender loses if collateral or pledged inventory suddenly loses market value, deteriorates in storage, or is damaged. Lastly, because asset-based financing requires complex documentation, public findings, strict compliance with commercial codes, and certain borrower impositions, legal errors can prove to be very costly to the lender.

Because banks prefer accurate assessments of the credit risk of their customers, most have implemented AIRB (Haber, 2007). Under Basel II, banks must categorize their risk exposures into five broad classes of assets with different underlying characteristics: corporate, sovereign, bank, retail, and equity (Jacobson et al., 2006). The PD equals the one-year long-term average default probability. Default differs from wholesale to retail exposures; a wholesale exposure implies a credit exposure for a company, individual, or government entity, whereas a retail exposure is a credit exposure for an individual or small business, managed as part of a portfolio of similar exposures (Posner and Véron, 2010). Therefore, a wholesale exposure is in default if the bank determines that the borrower is unlikely to pay or the borrower is at least 90 days past due on a coupon or principal payment. A retail exposure is in default if it is 120 days past due (unless it is a revolving retail exposure, in which case it must be 180 days past due) (Jarrow, 2007). Because small business loans and retail credit are less sensitive to systematic risk and their maturities are shorter (Jacobson et al., 2006), under Basel II, retail credit and loans to SMEs are treated differently than corporate loans, such that they require less regulatory capital for given probabilities of defaults. However, Basel II also assumes that a smaller borrower suffers a greater PD (Saurina and Trucharte, 2004), so banks may consider SMEs as retail or corporate entities, depending on their total exposure.

Berger and Black (2011) similarly conclude that small business lending has a strong positive effect on bank profitability. However, Saurina and Trucharte (2004) offer a contrary interpretation, in which lending to SMEs appears riskier than lending to large corporations.

2.3.3 Credit Risk Control and Financial Performance

Credit risk control makes use of the data collected in the previous step to address potential risks with the right countermeasures. This includes classic mitigation strategies (before the risk event), risk monitoring and contingency plans (after the risk event). For each relevant risk, an appropriate Credit risk control strategy needs to be developed and executed. Credit risk control includes the development as well as the evaluation of diverse mitigation strategies towards their potential value and required investments (Kleindorfer and Saad, 2005). This study specifically focused on credit risk mitigation and monitoring.

2.3.3.1. Credit Risk Mitigation and financial performance

Kleindorfer and Saad, (2005) argue that prevention is better than cure, requiring risk managers to act fast and treat urgent risks first. However, fast action can only be achieved when managers prioritize risk management activities and understand risk management as one of their core management tasks. Thus, risk management activities need to be seen as an important task within the company (Zsidisin et al., 2004). Credit risk control also needs to be supported from various functions within the firm. This requires support from senior executives enabling holistic thinking, joint decision making and fast implementation activities (Berg et al., 2008). While the previous steps of the risk management process contribute to better risk control, only suitable and well-executed risk control activities can directly contribute to risk performance in the form

of lower probabilities for specific risks or a reduced impact of occurred risks affecting the performance of an organisation.

It has always been assumed that collateral could serve to secure the loan that on default, the collateral is converted for the outstanding loan balance. Thus, collateral is used mainly as a loss-mitigating tool for financiers thereby countering loan losses arising from default, (De Laurentis and Mattei, 2009). Commercial banks usually take into consideration the use of loan loss provision and research on the determinants of loan-loss provisioning distinguishes between non-discretionary and the discretionary components of loan loss provisioning (Pinho and Martins, 2009).

In most countries, provisions are set up between the specific and general provisions, where the former represents identified loss in an individually assessed loan, or the amount of defaulted loans, while the latter is made against a portfolio of loans, and the computation of which varies significantly across countries (Borio and Lowe, 2001). Perez, Salas-Fumas and Saurina (2008) noted that general provisions usually rise during an economic upturn, as banks give out more loans and the demand for credit is high during this period. During a downturn, loans to riskier companies would incur larger loan losses as risks materialize, and therefore higher specific loan-loss provisions follow.

Herrero (2005) study on Venezuela Banking Crisis found that among the reasons for Bank Latino's failure was 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), argues 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.

2.3.3.2. Credit risk monitoring and financial performance

Derban et al., (2005) observed that risk monitoring of borrowers is very important as current and potential exposures change with both the passage of time and the movements in the underlying variables, and also very important in dealing with moral hazard problem. Monitoring involves, among others, frequent contact with borrowers, creating an environment that the bank can be seen as a solver of problems and trusted adviser; develop the culture of being supportive to borrowers whenever they are recognized to be in difficulties and are striving to deal with the situation; monitoring the flow of borrower's business through the bank's account; regular review of the borrower's reports as well as an on-site visit; updating borrowers credit files and periodically reviewing the borrowers rating assigned at the time the credit was granted (Mwisho, 2001).

Tools like covenants, collateral, credit rationing, loan securitization and loan syndication have been used by banks in the developing world in controlling credit losses (Hugh, 2001). It has also been observed that high-quality credit staffs are critical to ensure that the depth of knowledge and judgment needed is always available, thus successfully managing the CR in the commercial banks (Koford and Tschoegl, 1997; Wyman, 1999). Donaldson (1994) observed that computers are useful in credit analysis, monitoring and control, as they make it easy to keep track on trend of credits within the portfolio. Marphatia and Tiwari (2004) argued that risk management is primarily about people – how they think and how they interact with one another. Technology is just a tool; in the wrong hands it is useless. This stresses further the critical importance of qualified staff in managing credit risk. In sum, risk control activities aim to reduce the

probability of risk occurrences and reduce the negative impact of an occurred risk (Tomlin, 2006).

Sheehan (2010) equally noted that for 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 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 firm should not take any action, other than to acknowledge the risk and monitor it. By first identifying which events pose the greatest threat to the firm, managers can employ its management control system to its maximum benefit. It allows managers to design the management control system to align the firm's risk exposure with the board of directors risk appetite.

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 organisations. The costs of managing late payment can erode profitability, especially when profit margins are tight (Paul, 2007). Unlike statutory interest provisions, firms have a significant degree of agency regarding the management of trade debtors. The data presented below suggests that most SMEs have failed to develop an appropriate and effective capacity in this regard, compounding the regulatory failures. Firms with high business risk are

more likely to face bankruptcy and such firms are expected to face greater agency problems and hence need more intensive monitoring. Institutional investors are considered to have a key role in mitigating the agency problems and thus minimizing bankruptcy costs (Maug, 1998).

Furthermore, Credit insurance may be a sound option for SMEs: it can transfer risks and reduce earnings uncertainty (Wilson, 2008). It also provides some related services such as: “continuous monitoring of creditworthiness of the insured’s customers, maintaining account receivables, suggesting payment and delivery conditions and supporting debtors collection” (Wilson, 2008, p. 149). Wilson argues that it enhances access to finance, as firms with credit insurance may get better terms from banks because the value of debtors is used as collateral.

Paul and Boden (2008) results showed that credit staff spent most of their time on back-end activities, such as chasing late payment, despite the evident importance of the front-end operations such as customer risk assessment. As might be expected, those that spend more effort at the front-end reduce the time spent on collection activities and resolving disputed billing. 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.

Mazumder and Ahmad (2010) noted that financial institutions are equally faced with the challenge of credit monitoring in that after the loan is approved and draw down allowed, the loan should be continuously watched over. These include keeping track of borrowers’ compliance with credit terms, identifying early signs of irregularity,

conducting periodic valuation of collateral and monitoring timely repayments. This has not been easily observed and achieved in most financial institutions due to lack of adequate resources infrastructures. Siddiqui, Malik and Shah (2012) in their study of NPL in Pakistan, noted critical challenges of limited resources in loan recovery effort of banks. This necessitates the importance of putting emphasis on recovery of big loans and unless it can be demonstrated very clearly through action that these top defaulters are pursued with success, there would be little incentives for small defaulters to settle their debts.

2.4 Summary of the Literature Review

In line of the above studies carried out in relation to performance of financial institutions, it was observed that lending is indeed the principle activity for most commercial banks and hence the riskiest. Sweet (2004) emphasises that a successful loans department will positively impact on the bank's profit and loss account through high recovery rates. There is a need to minimise losses through bad debts. Most studies have however concentrated on evidence from developed countries and less has been done with the developing countries. It is on this basis that this research set out to identify the relationship between credit risk management and financial performance in Housing Finance Bank of Uganda.

CHAPTER THREE

METHODOLOGY

3.1 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 Housing Finance Bank at kololo headquarter offices. 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 totalling 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:

Table 2: Study population and sample structure

Category of Staff	Population	Sample size	Sampling Technique
Senior Management	8	8	Purposive
Loan pricing staff	2	2	Purposive
Retail credit staff	60	52	Simple random sampling
Total	70	62	

Source: Primary 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 utilised 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 analyse. 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 analysing 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, neighbourhood, 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.

3.8.1 Validity tests

The study used a content validity index (CVI) based on expert judgment taking only variables scoring above 0.70 accepted for social sciences (Amin, 2005) to establish the validity of the study instrument and the results are tabulated below

Table 3: Content Validity Results

Variable	Total No of items	Number of valid items	CVI
Credit risk identification	10	7	0.70
Credit risk assessment	10	8	0.80
Credit risk control	10	9	0.90
Financial performance	05	04	0.80

Source: Expert Judgment

Table 3 above shows that credit risk identification yielded CVI of 0.70, assessment yielded a CVI of 0.80, and controls yielded a CVI of 0.90, while financial performance yielded a CVI of 0.80. Since all variables yielded a CVI above 0.70 accepted for social sciences, it was inferred that the instrument was relevant in measuring credit risk management and financial performance in the commercial bank.

3.8.2 Reliability tests

Reliability measures the degree to which a research instrument yields consistent results or data after repeated trials (Amin, 2005). The reliability of a measure indicates the extent to which it is without bias and hence ensures consistency measurement across

time and across the various items in the instrument (Sekaran, 20003). In this study a Cronbach's alpha coefficient was used to show how reliable the data is using Software Package for Social Sciences (SPSS) and the results are presented below.

Table 4: Reliability Results

Variable	Total No of items	Reliability
Credit risk identification	10	0.70
Credit risk assessment	10	0.84
Credit risk control	10	0.88
Financial performance	05	0.89

Source: Primary data

Table 4 above shows that credit risk identification yielded Cronbach's alpha value of 0.70, assessment yielded alpha value of 0.84; credit risk control yielded alpha value of 0.88 while financial performance yielded alpha value of 0.89. Since all variables yielded an alpha value higher than 0.70 accepted for social sciences, it was concluded that the instrument was consistent in measuring Credit risk management and financial performance of a commercial bank and therefore reliable.

3.9 Procedure of data collection

After the proposal had been approved by the supervisors and successfully defended before a panel, any adjustments pointed out by the panel were made and presented to the supervisors. A recommendation letter for commencement to the field was issued. Questionnaires was pre-tested and the Cronbach's Alpha determined to check the validity and reliability of the research instruments. Adjustments were made before administering it on the target respondents.

3.9.1 Procedures of data collection

Prior to primary data collection, an introductory meeting was held with the credit management team of Housing Finance Bank to explain the purpose of the study. An accompanying letter from Uganda Management Institute explaining the purpose of the study was presented by the researcher to provide further proof of the researcher`s intention and to seek permission to carry out the study. Questionnaires were then personally distributed to the subjects and then later collected after one week for sorting, coding and data analysis. Appointments for interviews were sent via email for the two interviewees to be interviewed each one separately so as to allow for individual opinions and openness during the interview. All data was compiled, sorted, edited and organised and then written in a meaningful manner for presentation.

3.10 Data Analysis

Data was organised 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.

3.10.1 Quantitative data analysis

The data collected was summarised 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). The formula is

$$r = \frac{n\sum xy - (\sum x)(\sum y)}{\sqrt{n(\sum x^2) - (\sum x)^2} \sqrt{n(\sum y^2) - (\sum y)^2}}$$

Where; n is the number of pairs of data.

3.10.2 Qualitative data analysis

Qualitative data collected was compiled, edited, coded and categorised through finding patterns, trends and relationships from the information gathered. Primary data collected like interviewees responses was analysed 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

4.1 Introduction

This chapter presents analyses and interprets the study findings on credit risk management and financial performance in HFB. 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.

4.2 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.

$$\text{Response rate} = \frac{\text{received questionnaires}}{\text{Total questionnaires distributed}} = \frac{59}{62} * 100 = 95.2\%$$

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.

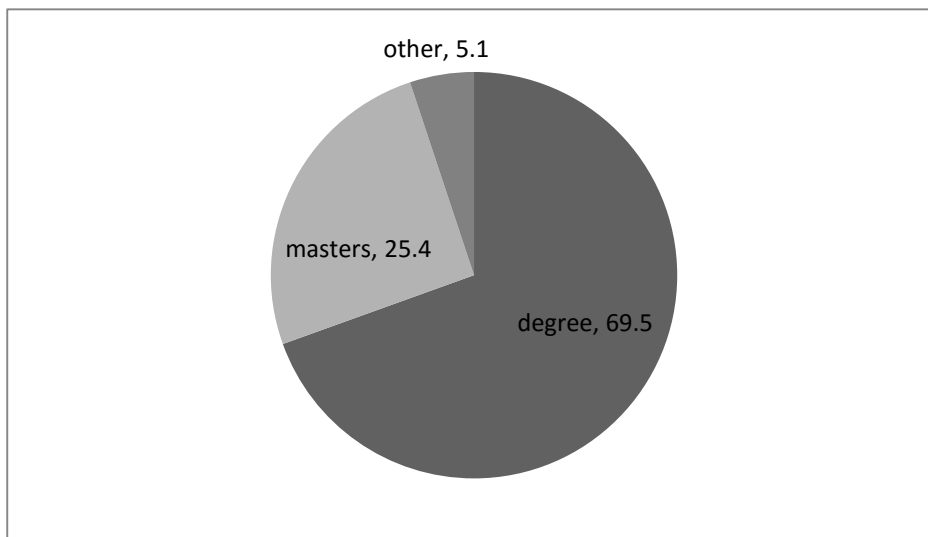
4.3 Background information

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;

4.3.1 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. The findings are presented in the figure below;

Figure 2: showing the level of education of the respondents



Source: Primary data

Figure 2 above shows that majority of 41(69.5%) of the respondents were degree holders while 15(25.4%) had attained a master degree yet 3(5.1%) indicated that they had attained other professional qualifications such as ACCA, CPA, CIA and the like. This high education level for respondents was so probable because of the technical nature of banking operations. The implication of this high education levels among respondents was that majority of them would understand and appreciate the importance of the study.

4.3.2 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 5: Findings on the Job title of the respondents

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

Source: Primary data

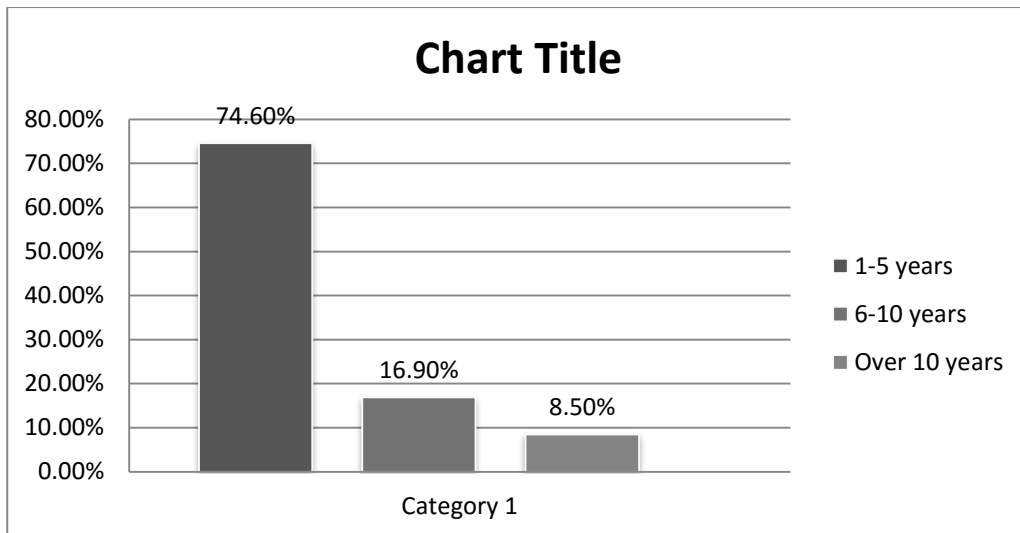
Table 5 above shows that majority of 31(52.5%) of the respondents were banking officers, 5(8.5%) were branch managers, 4(6.8%) were assistant managers banking operations. A total of 19(32.2%) or the respondents held other job titles other than those above. This particular finding suggested that the responses 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.

4.3.3 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.

The term of service of the respondents was arrived at by asking them to indicate their length of service with HFB on the questionnaire of which the findings are presented in the figure below;

Figure 3: Findings on the term of service



Source: Primary data

The figure 3 above shows that majority of 44(74.6%) of the respondents had served the bank for a period of 1-5 years, 10(16.9%) of the respondents had served the bank for a period of 6-10 years and 5(8.5%) of the respondents had served the bank for over 10 years. This particular finding suggested that the responses were collected from individuals who had rich hands on experience because of the number of years in service and they therefore possessed adequate experiences on credit risk management and its impact on the financial performance of the bank.

4.4. The effect of Risk identification on financial performance of HFB

The first objective of the study was to examine the effect of credit risk identification on financial performance in Housing finance 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 analysed the credit risk identification practices at HFB and the findings are presented in the table 6 below.

Table 6: showing the mean and standard deviation of credit risk identification in HFB

Response	Mean	S.D
1. Adequate effort is undertaken to identify existing sources of credit risks to HFB	4.20	.738
2. HFB always strive to establish consumer credit risk sources	4.19	.730
3. HFB always strive to establish corporate credit risk sources	3.93	.828
4. HFB 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 emphasised in indentifying how credit loss was likely to occur	4.17	.746
7. HFB has undertaken efforts to classify Bond related risks	1.98	1.042
8. HFB has undertaken efforts to classify retail lending related risks	3.71	.983
9. HFB has undertaken efforts to classify corporate lending related risks	4.14	.840
10. HFB has undertaken efforts to classify money markets related credit risks	1.90	.977

Source: Primary data

Table 6 above shows that the respondents agreed and as well as disagreed with the questions on risk origin in HFB. 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 HFB received the highest mean of 4.20 followed by item 2 which asked

if the HFB 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 HFB 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. The failure to identify regulatory and the bank's ability to absorb the credit risk constrain the achievement of the desired financial performance expectations in the event that that the bank is exposed to such unknown credit risk origins. It was necessary that the management of the bank adequately considers the regulatory credit risk sources and the bank's ability to absorb credit risk to foster a health financial performance.

Similarly Table 6 above shows that the respondents agreed and as well as disagreed with the questions on risk classification in HFB. 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 6, the respondents agreed that HFB 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 un-catered 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.

In an interview with the Internal Auditor to describe the credit risk identification practices in HFB, he explained that:

Credit risk in the bank is indentified through various avenues but mainly through performance of existing facilities such as loan products; secondary reports like news papers, Televisions and radio; visits to both the projects financed and those to be financed; litigation cases. These show the loopholes in the credit product. We also generate client Credit Reference Bureau (CRB) reports and analyse them to establish the credit risk exposure.

Asked to describe the challenges in credit risk management, the Internal Auditor identified challenges related to:

“Management Information system which is not well enhanced, influence peddling especially from top management, collusion of staff to hide important information especially business originating units, and errors in Credit Reference Bureau reports”.

The qualitative and quantitative findings suggest efforts to identify credit risk origins and their classification but such efforts to identify credit risk in the bank were constrained by the pertinent MIS and moral challenges that management needed to address to enhance the effectiveness of the credit risk management practices in the bank.

4.4.1. Correlation results

To test the relationship between risk identification and financial performance of HFB, Pearson’s correlation analysis was conducted at the 2-tailed level and the findings are presented below:

Table 7: 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: Primary data

Table 7 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 HFB 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.

4.4.2. Regression Results

To establish the extent to which the credit risk identification influenced financial performance of HFB, 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 8: 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 ^a	.245	.231	4.297	18.468	0.000	0.767
a. Predictors: (Constant), credit risk identification							

$P \leq 0.05$

Source: Primary data

The regression model in Table 8 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 HFB. 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 HFB. The study therefore confirmed the hypothesis that there is a

positive relationship between Risk Identification and the performance of Financial Institutions in Uganda.

4.5. The effect of Risk assessment on financial performance of Housing finance bank.

The second objective of the study was to examine the effect of credit risk assessment on financial performance in Housing finance 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 analysed the credit risk assessment practices at HFB and the findings are presented in the table 9 below.

Table 9: showing the mean and standard deviation of credit risk assessment in HFB

Response	Mean	S.D
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 HFB 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. HFB boosts of responsive credit risk estimation techniques/models	4.32	.797
9. Adequate effort is undertaken to estimate the frequency of credit loss to HFB	4.51	.626
10. Adequate effort is undertaken to estimate the severity of credit loss to HFB	4.39	.810

Source: Primary data

Table 9 above shows that the respondents agreed and as well as disagreed with the questions on credit risk data consideration of risk analysis in HFB. 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 HFB 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 9 above shows that the respondents agreed that HFB 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 HFB (mean = 4.51) while they also agreed that the bank adequately estimated the severity of credit loss to HFB (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 HFB, 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.

The internal auditor when asked to identify the challenges in credit risk assessment put it:

“The MIS system not well enhanced, influence peddling by top management, collusion of staff especially front line staff who interface with clients and hide some information and credit management skills gaps among some staff”.

The qualitative findings seem to agree with the quantitative findings which point to the positions that although reasonable effort was undertaken to assess risk, credit assessment experienced some challenges related to the data generated by information system and personnel and a moral hazard effect by management and staff of the bank.

4.5.1. Correlation results

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

Table 10: 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: Primary data

Table 10 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 HFB 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.

4.5.2. Regression Results

To establish the extent to which on the credit risk assessment influenced financial performance of HFB 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 11 below.

Table 11: 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 ^a	.656	.650	10.436	108.920	0.000	0.517
a. Predictors: (Constant), credit risk assessment							

$P \leq 0.05$

Source: Primary data

The regression model in Table 11 above shows adjusted R^2 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 HFB. The adjusted $R^2 = 0.650$, $t = 10.436$, $F = 108.920$ and significance 0.000 suggested that the credit risk assessment was a significant predictor of the variance in financial performance of HFB. The study therefore confirmed the hypothesis that there is a positive relationship between Risk assessment and the performance of Financial Institutions in Uganda.

4.6. The effect of Risk controls on financial performance of Housing finance bank.

The third objective of the study was to examine the effect of credit risk control on financial performance in Housing finance 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 analysed the credit risk assessment practices at HFB and the findings are presented in the table 12 below:

Table 12: showing the mean and standard deviation of credit risk control in HFB

Response	Mean	S.D
1. The use of individual credit limits has been effective in mitigating credit risk in HFB	2.22	1.190
2. The use of collateral has been effective in mitigating credit risk in HFB	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 HFB	2.41	1.261
5. The credit granting function in HFB has adequate internal controls	2.24	1.165
6. HFB boasts of a system which can monitor the condition of individual credit to customers	3.78	.852
7. HFB 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 HFB takes prompt action on identified credit risks	2.27	1.257

Source: Primary data

Table 12 above shows that the respondents disagreed with the questions on credit risk mitigation in the risk control practices of HFB. 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 HFB (mean = 2.22), disagreed that the use of collateral was effective in mitigating credit risk in HFB (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 HFB 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 12 above shows that the respondents disagreed and as well as agreed with selected questions on credit risk monitoring in the risk control practices of HFB. 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 HFB 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 none performing loans (mean = 2.17) while they also disagreed that senior management of HFB 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 revenue losses and failure to achieve the desired profitability.

The internal Auditor however identified challenges in credit risk control experienced by the bank to include:

“Influence peddling, MIS not well enhanced, Skills gaps, Mortgage Act which has to be followed to the later to avoid litigation, Litigation from customers, Poor credit culture where customers feel they should not be pressurised to pay within a month or two”.

The quantitative and qualitative findings seem to suggest that although efforts were 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.

4.6.1. Correlation results

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

Table 13: 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: Primary data

Table 13 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 HFB 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.

4.6.2. Regression Results

To establish the extent to which on the credit risk controls influenced financial performance of HFB, 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 14: 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 ^a	.337	.326	5.386	29.007	0.000	0.718
a. Predictors: (Constant), credit risk control							

$P \leq 0.05$

Source: Primary data

The regression model in Table 14 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 HFB. 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 HFB. The study therefore confirmed the hypothesis that there is a positive relationship between Risk controls and the performance of Financial Institutions in Uganda.

Table 15: Multiple regression results between credit risk management and financial performance

Adjusted R ² = 0.735		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		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 R² 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 HFB 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

5.1 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.

5.2 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 HFB based on the study finding in chapter four.

5.2.1. 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.

5.2.2. 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.

5.2.3. 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.

5.3 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, view points and recommendations from the literature review.

5.3.1. Credit risk identification and financial performance of HFB

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 HFB 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.

5.3.2. Credit risk assessment and financial performance of HFB

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 Husseini (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 HFB had deployed a reliable information system which provided a rich credit risk data base with potential to indentify 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 HFB 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 Hussein (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 HFB 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.

5.3.3. Credit risk control and financial performance of HFB

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 HFB 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 HFB 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 organisations. 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 HFB 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.

5.4 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 HFB

5.4.1 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.

5.4.2 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.

5.4.3 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.

5.5 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.

5.5.1 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.

5.5.2 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.

5.5.3 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.

5.6 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 generalised to other related institutions.

5.7 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.

5.8 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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Appendix I: Credit Risk Management and Financial Performance Questionnaire

Dear respondent,

I am a student pursuing a Masters in Management Studies at Uganda Management Institute. My topic of study is Credit Risk Management and Financial performance in HFB. You have been selected to participate in this study which is intended to investigate the problems surrounding the management of credit risk in financial institutions. This research information is purely for academic purposes and will be treated with utmost confidentiality.

SECTION A: Background Information

Circle or tick the most appropriate answer.

1. **Gender:** a) Female..... b) Male.....
2. **Age:** a) 18-24..... b) 25-31..... c) 32-38..... d) 39-45..... e) 46 and above...
3. **Highest level of education:**
a) Diploma..... b) Degree..... c) Masters..... d) Others specify.....
4. **What is your current occupation?**
5. a) Branch Manager.... b) Assist manager credit..... c) Assist manager banking operations..... d) Banking Officer..... d) Others specify.....
6. **How long have you stayed in this company?**
a) 1-5 years..... b) 6-10 years..... c) 10 years and above.....
7. **For how long have you known about risk management in your organisation?**
a) Never..... b) 1-2yrs..... c) 2-4 yrs.....d) 4yrs & above.....

SECTION B: Credit Risk Management

Please indicate the extent to which you agree or disagree to the following statements by ticking the appropriate box using the scale given below.

Strongly agree	agree	Not sure	Disagree	Strongly disagree
5	4	3	2	1

	5	4	3	2	1
A. Risk Identification					
<i>Risk origin</i>					
11. Adequate effort is undertaken to identify existing sources of credit risks to HFB					
12. HFB always strive to establish consumer credit risk sources					

13. HFB always strive to establish corporate credit risk sources					
14. HFB always strive to establish regulatory risk related to loan advances to customers					
15. Effort is undertaken to establish the bank's ability to absorb credit losses					
16. Past records are always emphasised in indentifying how credit loss was likely to occur					
<i>Classifications of risk</i>					
17. HFB has undertaken efforts to classify Bond related risks					
18. HFB has undertaken efforts to classify retail lending related risks					
19. HFB has undertaken efforts to classify corporate lending related risks					
20. HFB has undertaken efforts to classify money markets related credit risks					
B. Risk Assessment					
<i>Risk data</i>					
11. The credit risk rating system provides adequate qualitative data necessary for decision making on credit to borrowers					
12. The credit risk rating system provides adequate quantitative data necessary for decision making on credit to borrowers					
13. Effort is undertaken to collect risk data on new credit products					
14. The credit application evaluations in HFB is effective in ensuing a good portfolio quality					
15. The bank information system can adequately identify concentrations of credit risk					
16. The bank information system is reliably in providing information for early remedial action on deteriorating or problem credit					
17. The bank information system is reliably in providing information on credit quality					
<i>Risk estimation</i>					
18. HFB boosts of responsive credit risk estimation techniques/models					
19. Adequate effort is undertaken to estimate the frequency of credit loss to HFB					
20. Adequate effort is undertaken to estimate the severity of credit loss to HFB					
C. Risk Control					

<i>Mitigation</i>					
5 The use of individual credit limits has been effective in mitigating credit risk in HFB					
6 The use of collateral has been effective in mitigating credit risk in HFB					
7 The use of credit committee reviews credit applications has been effective in mitigating risk					
8 The consideration of risk in determining interest rates has been effective in mitigating credit risk in HFB					
9 The credit granting function in HFB has adequate internal controls					
<i>Monitoring</i>					
10 HFB boasts of a system which can monitor the condition of individual credit to customers					
11 HFB has a well established process for monitoring approval of new credit to borrowers					
12 The credit monitoring information system is reliable in monitoring credit risk					
13 The credit recovery team has been effective in recovering none performing loans					
14 Senior management of HFB takes prompt action on identified credit risks					

SECTION C: FINANCIAL PERFORMANCE

FINANCIAL PERFORMANCE	5	4	3	2	1
<i>Sales revue</i>					
1. HFB achieved the targeted sales revenue for the first quarter in the last financial year					
2. HFB achieved the targeted sales revenue for the second quarter in the last financial year					
3. HFB achieved the targeted growth in its revenue for the third quarter in the last financial year					
<i>Profitability</i>					
4. HFB has achieved a higher growth in its ROA from the previous financial year					
5. HFB has achieved a higher growth in its ROE from the previous financial year					

Appendix II: Interview guide for Risk Manager and Internal Auditor

1. Describe the credit risk identification practices in HFB?
2. What are the challenges in credit risk identification?
3. Describe credit risk assessment practices in HFB?
4. What are the challenges in credit risk assessment?
5. Describe the credit risk control mechanism used in HFB?
6. What are the challenges in credit risk control experienced by the bank?