THE ROLE OF CREDIT MANAGEMENT IN FINANCIAL PERFORMANCE OF COMMERCIAL BANKS

A CASE STUDY OF STANBIC BANK – MPIGI BRANCH



APRIL, 2015

THE ROLE OF CREDIT MANAGEMENT IN FINANCIAL PERFORMANCE OF COMMERCIAL BANKS

A CASE STUDY OF STANBIC BANK – MPIGI BRANCH

BY

JUDITH NALWOGA 2012-B021-10167

A DISERTATION SUBMITTED TO THE FACULTY

OF BUSINESS ADMINISTRATION AND MANAGEMENT IN PARTIAL

FULFILMENT OF THE REQUIREMENT FOR AWARD OF A BACHELORS

DEGREE OF BUSINESS ADMINISTRATION OF

UGANDA MARTRYS UNIVERSITY

APRIL, 2015

DEDICATION

This dissertation is dedicated to my parents Mr. and MS Kiwanuka Jimmy Muto, my brothers Joel, Joshua ,Jeremiah, Joachim , my sister Loselyn Muto and to my friends Mansa betty, Tusiime Marion, Mirembe sherry, Woyaga derrick, Isaac, Ian Jonathan and Andrew whom through their struggles I have managed to make a difference

ACKNOWLEDGEMENT

I thank the Almighty God the provider of knowledge and wisdom for seeing me through my studies and for enabling me to undertake my research successfully, without His grace I would not have made it.

I extend my deep appreciation to my supervisor MR Kibrai Moses for the guidance and advice provided during the study that made it possible for me to successfully complete this report.

Special thanks go my friends Muto Joshua, Mansa Betty, Tusiime Marion, Mirembe sherry, Akanyo Sharon, and Woyaga derrick.

I wish to express my sincere gratitude to all those who made tremendous contributions to this study: my family- Mr.and MS Kiwanuka jimmy Muto and all my brothers Joel, Joshua, Jeremiah, Joachim and sister Joslyn. I appreciate your encouragement and moral support.

May the Almighty Lord bless you abundantly!!

TABLE OF CONTENTS

DECLARATION	i
DEDICATION	iii
ACKNOWLEDGEMENT	iv
LIST OF FIGURES	viii
LIST OF TABLES	ix
LIST OF ABBREVIATIONS	ix
ABSTRACT	xi
CHAPTER ONE: GENERAL INTRODUCTION	1
1.0 Introduction	1
1.2 Background to the Study	2
1.3 Statement of the Problem	4
1.4 Objectives of the Study	5
1.4.1 General Objective	5
1.4.2 Specific Objectives	5
1.5 Research Questions	5
1.6 Hypothesis of the study	6
1.7 Scope of the Study	6
1.7.1 Subject Scope	6
1.7.2 Geographical Scope	6
1.7.3 Time Scope	6
1.7 Justification of the Study	6
1.8 Significance of the Study	8
1.9 Conceptual frame work	9
1.10 Definition of key terms:	10
CHAPTER TWO	
LITERATURE REVIEW	
2.0 Introduction	
2.1 Definition of terms	
2.2 Credit Worthiness and Financial Performance	
2.3 Credit Approval Process and Financial Performance	15
2.4 Credit risk management and financial performance	
2.5Financial Performance	
2.5.1 Market Share	
2.5.2 Return on Assets	
2.6 Conclusion	24
CHAPTER THREE	25
RESEARCH METHODOLOGY	
3.0 Introduction	25
3 1 Research Design	
3.2 Area of Study	

3.3 Study Population	26
3.4 Sampling Procedures	26
3.4.1 Sample Size	26
3.4.2 Sampling Techniques	27
3.5 Data sources.	27
3.5.1 Primary sources.	27
3.5.2 Secondary sources.	28
3.6 data collection methods	28
3.6.1 Questionnaires	28
3.6.2 Interviews	28
3.7 Measurement of Variables	29
3.8 Quality Assurance	29
3.8.2 Validity	29
3.8.2 Data Reliability.	29
3.9 Data Analysis and presentation	30
3.9.1 The quantitative data analysis.	30
3.9.2 Qualitative data analysis	30
3.10 Ethical Considerations	30
3.11 Limitations of the study	31
CHAPTER FOUR	32
DESENTATION OF DESLITE AND DISCUSSION OF THE FINDINGS	32
PRESENTATION OF RESULTS AND DISCUSSION OF THE FINDINGS	
4.0. Introduction	32
4.0. Introduction	32 32
 4.0. Introduction	32 32 32
 4.0. Introduction	32 32 32 32 33
 4.0. Introduction	32 32 32 33 34
 4.0. Introduction	32 32 32 33 34 35
 4.0. Introduction	32 32 32 33 34 35 36
 4.0. Introduction	32 32 32 33 34 35 36 36
 4.0. Introduction	32 32 32 33 34 35 36 36 36
 4.0. Introduction	32 32 32 33 34 35 36 36 36 37
 4.0. Introduction	32 32 32 33 34 35 36 36 36 36 37 38
 4.0. Introduction	32 32 32 33 34 35 36 36 36 36 37 38 38
 4.0. Introduction	32 32 32 33 33 34 36 36 36 36 36 38 38 38 39
 4.0. Introduction	32 32 32 33 34 35 36 36 36 36 37 38 38 39 39
 4.0. Introduction	32 32 32 33 33 34 35 36 36 36 36 36 38 38 38 39 39 40
 4.0. Introduction	32 32 32 33 34 35 36 36 36 36 36 37 38 38 39 39 40 41
4.0. Introduction 4.1 General information 4.1.1Gender of the Respondents 4.1.2 Age group of the Respondents 4.1.3 Education Qualification of the Respondents 4.1.4 Time Spent by the Respondents in Service 4.2 Presentation according to study objectives 4.2.1 Credit Worthiness and Financial Performance of Commercial Banks 4.2.1.2 Effective risk identification 4.2.1.3 Character of a potential debtor 4.2.1.5 Achieving effective financial performance 4.2.2 Credit approval process and financial performance of commercial banks 4.2.2.1 Rating effective performance 4.2.2.2 Managing the credit risk profile 4.2.2.3 Determines reliability of approval results	32 32 32 33 34 35 36 36 36 36 36 36 37 38 38 39 39 40 41 41
 4.0. Introduction	32 32 32 33 34 35 36 36 36 36 36 37 38 38 39 39 40 41 41 41
 4.0. Introduction 4.1 General information 4.1.1 Gender of the Respondents 4.1.2 Age group of the Respondents 4.1.3 Education Qualification of the Respondents 4.1.4 Time Spent by the Respondents in Service. 4.2 Presentation according to study objectives 4.2.1 Credit Worthiness and Financial Performance of Commercial Banks 4.2.1.1 Determining the loan size 4.2.1.2 Effective risk identification. 4.2.1.3 Character of a potential debtor. 4.2.1.4 Assessment of the Loan Review Function 4.2.2.1 Credit approval process and financial performance of commercial banks. 4.2.2.1 Rating effective performance. 4.2.2.2 Managing the credit risk profile. 4.2.2.4 Assessment of the loan review function 4.2.2.5. Capability of the loan borrower 	32 32 32 33 33 34 35 36 36 36 36 36 37 38 38 39 39 40 41 41 42 42
 4.0. Introduction. 4.1 General information	32 32 32 33 34 35 36 36 36 36 36 37 38 38 39 40 41 41 41 42 42 42
 4.0. Introduction 4.1 General information 4.1.1 Gender of the Respondents 4.1.2 Age group of the Respondents 4.1.3 Education Qualification of the Respondents 4.1.4 Time Spent by the Respondents in Service 4.2 Presentation according to study objectives 4.2.1 Credit Worthiness and Financial Performance of Commercial Banks 4.2.1.2 Effective risk identification 4.2.1.3 Character of a potential debtor 4.2.1.4 Assessment of the Loan Review Function 4.2.1.5 Achieving effective financial performance of commercial banks 4.2.2.1 Rating effective performance 4.2.2.2 Managing the credit risk profile 4.2.2.3 Determines reliability of approval results 4.2.2.4 Assessment of the loan review function 4.2.2.5. Capability of the loan borrower 4.2.2.6 Minimizes the rate of loan loss 4.2.3: Credit risk management on financial performance of commercial banks 	32 32 32 33 33 34 35 36 36 36 36 36 37 38 39 39 40 41 41 42 42 42 42

4.2.3.2 Proper identification and measurement	44
4.2.3.3 Framework to ensure consistency	44
4.2.3.4 Minimizes the danger of bank insolvency	45
4.2.4 Financial Performance	45
4.2.4.1 Market Share	45
4.2.4.1.1 Increase on the customer base	46
4.2.4.1.2 Improved sales over period of time	46
4.2.4.1.3 Credit markets have been standardized	46
4.2.4.1.4 Liquidity and quality of credit	46
4.2.4.2 Return on Assets	47
4.2.4.2.1 Efficiency at generating profits	47
4.2.4.2.2 Fund the operations	47
4.2.4.2.3 Realized profitable of the bank	48

CHAPTER FIVE	49
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	49
5.1 Introduction	49
5.2 Summary of the findings	49
5.2.1Credit Worthiness and Financial Performance of Commercial Banks	49
5.2.2 Credit approval process and financial performance of commercial banks	49
5.2.3 Credit risk management on financial performance of commercial banks	49
5.3 Conclusions	50
5.4 Recommendations	51
5.5 Suggestions for further study	52
REFERENCES	53
Appendix I: Questionnaire	56
Appendix I: Interview Guide	61
APPENDIX III: KREJCIE & MORGAN TABLE FOR DETERMINING SAMP	LE
SIZE	62
Appendix iv: Introductory letter	63

LIST OF FIGURES

Figure 1. 1	1: conceptual 1	frame work of	credit manag	gement and fina	incial performan	ce
of comme	rcial banks					9

LIST OF TABLES

Table 4.1: showing the Gender of the Respondents	.32
Table 4.2: showing the Age group of the Respondents	.33
Table 4.3: showing the Education Qualification of the Respondents	.34
Table 4.4: Showing the time Spent by the Respondent in Service	.35
Table 4.5:Mean and standard Deviation for Credit Worthiness	.36
Table 4.6: Mean and standard Deviation for Credit Approval Process	.40
Table 4.7:Mean and standard Deviation for credit risk management	.43
Table 4.8:Mean and standard Deviation for showing Market Share	.45
Table 4.9: Return on Assets	.47

LIST OF ABBREVIATIONS

IMF:	International Monetary Fund
IV:	Independent Variable
N:	National Bank of India
ROA:	Return on Assets
SBU:	Stanbic Bank (Uganda)
UCB:	Uganda Commercial Bank
V:	Dependent Variable
CAF:	Charity aid foundation

ABSTRACT

This study investigated the role of credit management in financial performance of commercial banks. The specific objectives of the study were; to establish the relationship between credit worthiness and financial performance of commercial banks, to evaluate the relationship between credit approval process and financial performance of commercial banks and to assess the role of credit risk management in financial performance of commercial banks. The study adopted the case study design with quantitative and qualitative research techniques. A total sample size of 44 respondents from Stanbic Bank Mpigi Branch was used. Self-administered questionnaires and interviews were used to collect data. Data was coded and later processed and analyzed and presented using means and standard deviation. From the study it was revealed that credit worthiness can also help the commercial institutions in determining the character of a potential debtor which is an important consideration used by lenders in loan grant. The greater the risk, higher the profit and hence the business unit must strike a tradeoff between the two. The essential functions of risk management are to identify measure and more importantly monitor the profile of the banks.

In conclusion, it is worth noting that credit worthiness and credit approval greatly relate a lot to financial performance of commercial banks. Credit risk management involved managing the change before the risk occurs which enhances the financial performance of commercial banks. It is recommended that the banks should develop proper credit management policies. This may involve setting some clear boundaries in assessment of credit potential for what the bank can and cannot compromise in a bid to promote proper financial performance. Banks are also recommended to carry out risk management regarding credit. This involves developing procedures to ensure that there are no defaulters and delinquents in credit repayment.

CHAPTER ONE: GENERAL INTRODUCTION

1.0 Introduction

Credit management is used by many financial institutions because its main advantage of extending credit that will attract additional customers and increase sales volume. Credit management is needed to control the risks associated with credit sales. Gathering, analyzing and making decisions based on that knowledge is credit management (Edwards, 2004). In this study credit worthiness, credit approval and credit risk management are used as parameters for credit management. In order to avoid unnecessary bad debts and costs related to late credit payments, it is important to assess the credit worthiness of a customer. Credit approval is the process a business or an individual undergoes to become eligible for a loan or pay for goods and services over an extended period. Credit risk management, is the practice of mitigating those losses by understanding the adequacy of both a bank's capital and loan loss reserves at any given time, a process that has long been a challenge for financial institution.

On the other hand, financial performance involves measuring the results of a firm's policies and operations in monetary terms. These results are reflected in the firm's return on investment, return on assets, value added, etc. Therefore, this study sought to establish the role of credit management in financial performance of commercial banks. This chapter covers the introduction, background to the study, statement of the problem, objectives of the study, scope of the study, significance of the study, justification of the study and the conceptual frame work.

1.2 Background to the Study

According to (farlex, 2012) defines financial performance as any of many mathematical measures to evaluate how well the company is using its resources to make profits. Common examples of financial performance include operating income, earnings, before interests and taxes and net assets values. It's important to note no one measure of financial performance should be taken on its own.

Over the last decade 1980 – 1990 the understanding of the place of commercial banks within then financial sector has improved substantially. Over this time, much has been written on the role of commercial banks in the financial sector, both in the academic literature and in the financial press (Economist 2004). Baron and Lynch (1999), believe that the best warning signs of financial crises are proxies for the vulnerability of the banking and corporate sector. He adds that the most obvious indicators that can be used to predict banking crises are those that relate directly to the soundness of the banking system.

According to the Charity Aid Foundation annual report, (2012) the external economic and financial environment continued to be very challenging for banks generally during 2012/13 with short term interests rates falling further during the year, the primary focus for CAF bank during this period continued to be on diversifying income stream with an aim of being less reliant on whole sale interest income. Given the on-going financial uncertainty the bank's investment continues to be conservative. in response to the market rates. Deposit balances contracted by 47million pounds as a result of increasing completion for retail deposit from major United Kingdom banks in the early parts of the year. And move by customers to invest short term cash balances into a broader range of assets.

According Bonin (2009), based on data of 1996 to 2000 argue that our unbalanced panel consist of 220 banks and 830observation.using stochastic frontier estimation procedure we compute profit and scores. We calculate efficiency scores for a bank relative to mean score of other banks in the same industry. we use for financial indicators, return on assets as dependent variables in a set of regression having ownership type, year and bank size as explanatory variable .to check for robustness we include GDP growth to control for control for country –specific effects in both types of regressions and balance sheet financial data in return to asset regression only.

According (Kwan,1998), after controlling for loan quality liquidity ,capitalization, and output per unit bank operating cost are found to vary significantly across Asian countries and over time Asian banks financial cost were found to decline from 1992 to 1997 indicating that banks were improving their financial performance over time .since 1997 the run –up in financial costs coincided with the Asian financial crisis ,suggesting the banks were incurring additional costs in dealing with their problem loans while declining simultaneously.

According to (kumbirai and Webb,2009) the performance of commercial banking sector in south Africa for the period 2005-2009 .financial ratio are employed to measure the profitability ,liquidity and credit quality performance of the five the large south Africa based commercial banks . the study found the overall bank performance increased considerably in the first two years of the analysis .a significant change in trend is noticed at the onset of the global financial crisis in 2007 ,reaching its peak during 2008-2009.this resulted in falling profitability low liquidity and deteriorating credit quality in the south Africa banking sector.

Stanbic Bank (Uganda) Limited (SBU) is a commercial bank in Uganda. It is one of the commercial banks licensed by Bank of Uganda, the national banking regulator. The bank was founded in Uganda as the National Bank of India in 1906. After several name changes, it became Grindlays Bank. In 1991, Standard Bank bought the Grindlays Bank network in Africa. The new owners renamed the bank Stanbic Bank (Uganda) Limited. In February 2002, Standard Bank acquired 90% shareholding in Uganda Commercial Bank, (UCB) a government- owned retail banking operation with sixty-five branches. The new owner merged their new acquisition with their existing Stanbic Bank (Uganda) limited to form Uganda's largest commercial bank by assets and branch network (Mukokoma, 2012).

1.3 Statement of the Problem

Over a number of years there has been increased number of bank problems in mature and emerging economies (Brown bridge and Harvey, 1998; Basel, 2004). Failures and financial distress have afflicted numerous banks, many of which have been closed down by the regulatory authorities, as stated in the(NEWVISION,2014) GLOBAL TRUST BANK was closed by BANK OF UGANDA in July 2014, due to its failure to maintain a standard financial performance, the bank was only making losses which had accumulated to over 60billion Shillings. Among other factors, weakness in credit risk management has all along been cited as the main cause for poor financial performance in the commercial banks (Richard et al., 2008). Therefore, the researcher was prompted to investigate the role of credit management plays in financial performance of commercial banks using Stanbic Bank Mpigi Branch as a case study.

1.4 Objectives of the Study

1.4.1 General Objective

To investigate the role of credit management in financial performance of commercial bank

1.4.2 Specific Objectives

- i. To establish the relationship between credit worthiness and financial performance of commercial banks
- ii. To evaluate the relationship between credit approval process and financial performance of commercial banks
- iii. To assess the role of credit risk management on financial performance of commercial banks

1.5 Research Questions

- i. What is the relationship between credit worthiness and financial performance of commercial banks?
- ii. What is the relationship between credit approval processes and financial performance of commercial banks?
- iii. What is the role of credit risk management in financial performance of commercial banks?

1.6 Hypothesis of the study

There is no relationship between credit management and financial performance.

1.7 Scope of the Study

1.7.1 Subject Scope

The study will be focused on credit management and financial performance of commercial banks having credit management as the independent variable and financial performance as the dependent variable. The study will then be refocused on establishing the contribution of credit worthiness, credit approval process and credit risk management on financial performance of commercial banks.

1.7.2 Geographical Scope

The research will be carried out at the Stanbic Bank Ltd Mpigi Branch which is located 32 kilometers from the main city Kampala and 10 kilometers off Kampala -Masaka road to Mpigi Town, Mpigi District in Central Uganda.

1.7.3 Time Scope

The research covered a period of three years, considering banks' information for a period of 3years from 2013 to date mainly. This period was considered because it has enough relevant information of the past, present statistics and trends relevant to the topic under investigation to ensure data reliability and validity.

1.7 Justification of the Study

Generally, banks occupy an important position in the economic equation of any country such that its (good or poor) performance invariably affects the economy of the country. Poor credit management may contribute to bank failures, which can increase credit risks significantly and consequences due to their potential impact on the financial performance. From the preceding discussions, it is evident that the question of ideal credit management (worthiness, credit approval and credit risk management) is highly debatable. Since financial performance of a bank, as identified by Richard et al., (2008) depends on the effectiveness of these mechanisms, there is a need to further explore this area.

Although researchers have tried to find out the effects of credit management and other variables on the financial performance of firms, they are mostly in context of developed markets. To the best of the researcher's knowledge based on the literatures reviewed, only few studies were found in the context of Ugandan banks such as Stanbic Bank Ltd. Due to neglect of banking sector by other studies and with radical changes in Ugandan banking sector in the last few years, present study aims to fill the existing gap in credit management and financial performance literature. This necessitates the study on credit management and financial performance of commercial banks.

Due to its operations, Stanbic Bank Mpigi Branch needs proper credit management to control the risks associated with credit sales. Its purpose is to manage both the financial and the political risks. Hence, credit management that is too strict will turn away potential customers, reduce sales and finally lead to a decrease in the amount of cash inflows to the business. On the other hand, credit management that is too liberal will attract slow paying (even non-paying) customers, increase in the business average collection period for accounts receivables ,and eventually lead to cash inflow problems in the bank. Proper and good credit management should help management to attract and retain customers, without

having negative impact on cash flow. Therefore, the researcher sought to investigate the role of credit management on financial performance of commercial banks using Stanbic

1.8 Significance of the Study

The research will be of great importance to various groups of people like to the government, institutions and organizations and the researcher. This is discussed further as shown below.

To the government: The study will benefit the government to come up with effective credit policies and regulations of governing the banking sector

To the Institutions: The research will also help banking institutions to identify weaknesses in credit management policies. This will help bank managements to find means of strengthening their operations and other necessary remedial actions.

To the other researchers: The research will benefit the future researchers who will carry out research about the same topic of credit management and financial performance

To the researcher: The research will be of great importance to the researcher because she will acquire research skills which can be applied to conduct research in other subjects. It will also enable the researcher to achieve the requirements for the award of a Bachelor's Degree in Business Administration and Management of Uganda Martyrs University.

1.9 Conceptual frame work

(Sekeran, 2003) states that, a conceptual framework helps to postulate or hypothesize and test certain relationships which improve the understanding of a situation.

Figure 1. 1: conceptual frame work of credit management and financial performance of commercial banks



Source: Adopted and modified by researcher from Heinola and Edwards (2010)

The conceptual framework describes the relationship between the independent variable and the dependent variable. In this conceptual framework, Credit management is the independent variable while financial performance is the dependent variable. In this study, it is assumed that credit management has a significant contribution on financial performance as argued by (Heinola and Edwards, 2010). In the conceptual frame work, Credit management is operationalized into credit worthiness, credit approval process and credit risk management. On the other hand financial performance is considered as the dependent variable. However, an organizations financial performance can also be affected by a number of intervening variables, such as organizational policies, regulations, and government policies. Despite this, the study will only focus on the independent variable of credit management and the impact it has on the financial performance on commercial banks.

1.10 Definition of key terms:

Credit Management is the process of controlling and collecting payments from customers.

Financial performance is defined as any of many mathematical measures to evaluate how well the company is using its resources to make profits.

Credit worthiness is an assessment of the likelihood that a borrower will default on their debt obligations.

Credit risk management this is the potential that a potential borrower or counterparty will fail to meet its obligations in accordance with agreed terms.

Credit approval it is a Process by which customers' orders are examined and sanctioned.

Market Share is the percentage of an industry or market's total sales that is earned by a particular company over a specified time period.

Return on Assets is an indicator of how profitable aninstitution is relative to its total assets.

10

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter deals with the review of the related literature on the study variables of Credit management and financial performance of the organization. The review then was focused on the major themes of the study: which is the relationship between credit worthiness and financial performance, the relationship between credit approval process and financial performance.

2.1 Definition of terms

Credit Management: Credit management is the process of controlling and collecting payments from customers. This is the function within a bank or company to control credit policies that will improve revenues and reduce financial risks. It is usually regarded as assuring that buyers pay on time, credit costs are kept low, and poor debts are managed in such a manner that payment is received without damaging the relationship with that buyer. Credit management normally encompasses a function performed within a company to improve and control credit policies that will lead to increased revenues and lower risk including increasing collections, reducing credit costs, extending more credit to creditworthy customers, and developing competitive credit terms (Blaise and Blasdell, 2005)

Credit worthiness: Credit Worthiness' is an assessment of the likelihood that a borrower will default on their debt obligations. It is based upon factors, such as their history of repayment and their credit scores (Scott, 1995). Several firms have developed rating

systems to determine an individual or company's credit worthiness. It is important for each person to keep track of their credit score because this is the main metric used by institutions when determining if the individual is worthy of a favourable rate

Credit approval: it is a Process by which customers' orders are examined and sanctioned. In other words Credit approval is the process a business or an individual must go through to become eligible for a loan or to pay for goods and services over an extended period. It also refers to the process businesses or lenders undertake when evaluating a request for credit. Granting credit approval depends on the willingness of the creditor to lend money in the current economy and that same lender's assessment of the ability and willingness of the borrower to return the money or pay for the goods obtained, plus interest in a timely fashion (Scott, 1995)

Credit risk management: This is the potential that borrower or counterparty will fail to meet obligations in accordance with agreed terms. The goal of credit risk management is to maximise risk-adjusted rate of return by maintaining credit risk exposure within acceptable parameters (Brown bridge and Harvey, 1998). It is simply the potential for loss due to failure of a borrower to meet his/her contractual obligation to repay a debt in accordance with the agreed term

2.2 Credit Worthiness and Financial Performance

According to Anderson, (2000), the granting of credit depends on the confidence the lender has in the borrower's credit worthiness. Credit worthiness, which encompasses the borrower's ability and willingness to pay, is one of many factors defining a lender's credit policies. Creditors and lenders utilize a number of financial tools to evaluate the credit

worthiness of a potential borrower. When both lender and borrower are businesses, much of the evaluation relies on analyzing the borrower's balance sheet, cash flow statements, inventory turnover rates, debt structure, management performance, and market conditions. Creditors favour borrowers who generate net earnings in excess of debt obligations and any contingencies that may arise.

(Scott, 1995), pointed out that creditworthiness encompasses the presumed ability to meet agreed deadlines related to repaying the credit and the interest accrued without affecting the vitality of the borrower, i.e. the repayment process should be based on the income received in the process of the borrower's usual activity, without affecting adversely his financial situation, his financial results as well as other business entities.

An important point in conducting the credit activity is the thorough analysis of the business activity and the income received in this business activity is taken as a fulcrum (Heinola and Edwards, 2010). It is necessary that a number of conditions be observed, namely: The credit extended as an absolute value should meet the real needs of the borrower; The credit period should correspond exactly to the circulation speed of the resources for the securing of which it has been extended; the profitability of the borrower's business activity should entirely cover the credit amount, the interest rate, the charges and the risks, calculated in the credit analysis (Shleifer and Vishny, 1992).

Scott,(1995) noted that when analyzing creditworthiness, along with the required prerequisites for creditworthiness, it is necessary to carry out a comprehensive study of the factors that determine it. It is believed that creditworthiness depends on several major factors: the borrower's efficiency, his reputation, his capacity for profit making, the value

of his assets, the state of the economic situation, his profitability, etc. In order to conduct a thorough study of the above mentioned, it is necessary to use a number of indicators for the credit analysis(Shleifer and Vishny, 1992).

Credit worthiness enables the institution to set proper quality indicators for financial performance. The exact calculation of the creditworthiness of the company, which is expressed as its creditworthiness when calculating financial indicators, as well as in the case of qualitative indicators, is done by choosing separable indicators, which in the course of determining the creditworthiness, by using the methods of analysis and synthesis, are subjected to systematic evaluation. The conducted study sought to determine the significance of quality indicators and their importance in assessing the creditworthiness under current harsh economic conditions(Scott, 1995).

The information on the creditworthiness of business partners is an indispensable assumption for bringing high quality business decisions (Scott, 1995). In the scientific and business practice the term creditworthiness expresses validity, dependability, business and credit capability of an entity.

The reason for the assessment of creditworthiness is the assessment of business risks that might be taken in case of establishing a business relationship. Users of prudential information in general are the companies, they produced by specialized companies. Banks also develop their own systems for assessing the creditworthiness of companies. In evaluating the creditworthiness information about the company's liquidity, profitability and debt data obtained from financial statements, and components related to the

14

assessment of management, ownership structure, market position and other information on the basis of subjective criteria are used (Scott, 1995)

Inclusion of financial and qualitative indicators in the final creditworthiness grade of the company gives better insight and a more complete picture of the company's situation, which in addition to standard financial indicators points toward other factors that directly affect the company, and ultimately the achievement of financial results (Koch, 1998)

In general, the granting of credit depends on the confidence the financial institution has in the borrower's credit worthiness. Credit worthiness, which encompasses the borrower's ability and willingness to pay, is one of many factors defining a lender's credit policies. Creditors and lenders utilize a number of financial tools to evaluate the credit worthiness of a potential borrower. When both lender and borrower are businesses, much of the evaluation relies on analyzing the borrower's balance sheet, cash flow statements, inventory turnover rates, debt structure, management performance, and market conditions. Creditors favor borrowers who generate net earnings in excess of debt obligations and any contingencies that may arise (Koch, 1998).

Credit worthiness enables the commercial bank to know the history of trustworthiness, a moral character, and expectations of continued performance demonstrate a debtor's ability to pay. Creditors give more favorable terms to those with high credit ratings via lower point structures and interest costs (Blaise and Bilardello, 2005)

2.3 Credit Approval Process and Financial Performance

Loan approval refers to the formal authorization to get a loan (usually from a bank). Approval process is also important on the success of loan portfolio performance. This is

15

because it helps to determine who is accountable for the accuracy of loan ratings. The credit officer is a logical choice because he or she knows more about the credit than anyone else and should have access to timely financial information from the borrower (Scott, 1995).

(Shleifer, and Vishny, 1992) argue that efficient approval process helps the officers in charge of the credit management system in rating responsibility which heightens his or her accountability for credit quality and has derivative benefits for loan approvals and account management. Some banks assign risk rating responsibility to a credit officer, loan review officer, or a more senior bank officer. While these officers may be more objective and experienced, they may be less sensitive to subtle changes in the borrower's condition, and their ratings changes may be less timely. Perhaps most important, making someone other than the account officer accountable may diminish his or her sense of responsibility for identifying and controlling credit risk.

Approval can also enable financial institutions in managing their portfolios. This is because before they approve, the bankers must understand not only the risk posed by each credit but also how the risks of individual loans and portfolios are interrelated. These interrelationships can multiply risk many times beyond what it would be if the risks were not related (Blaise and Bilardello,2005). Until recently, few banks used modern portfolio management concepts to control credit risk. Now, many banks view the loan portfolio in its segments and as a whole and consider the relationships among portfolio segments as well as among loans (Scott, 1995). These practices provide management with a more complete picture of the bank's credit risk profile and with more tools to analyze and control the risk.

Effective loan portfolio management considers how results are achieved to approve the loan, the likelihood those results will continue, and whether the institution is maximizing opportunities and providing the greatest benefit practicable to borrowers/members. A principal objective of the approval and examination process is to thoroughly understand and evaluate the loan portfolio management system that controls, and the factors that influence, performance of the loan portfolio(John and Tracy,1997)

Loan Approval process contributes a lot in the analysis of internal and external factors. This analysis considers factors that may impact the institution's loan portfolio. An analysis is completed to identify risks in the loan portfolio, threats to the loan portfolio, and opportunities that the institution may want to consider for enhanced profitability or growth. Once identified, the analysis determines the impact of those factors on the loan portfolio so that appropriate goals, objectives, and strategies can be established (Thorburn, 2000).

Credit approval can also help the commercial institutions in determining the character of a potential debtor which is an important consideration used by lenders in loan grant. A thorough check of the lifestyle of the potential debtor can be undertaken on the part of the lender during the investigation. The character of a person applying for a loan is a big factor to the decision for loan approval. A person with a sound financial objective is likely to be granted a loan quickly and more possibly than an individual who is in bad shape, not just on the financial facet, but also on other aspects(Scott, 1995).

Credit approval involves the process a business or an individual must go through to become eligible for a loan or to pay for goods and services over an extended period. Granting credit approval depends on the willingness of the creditor to lend money in the current economy and that same lender's assessment of the ability and willingness of the borrower to return the money or pay for the goods obtained, plus interest, in a timely fashion.

2.4 Credit risk management and financial performance

Foremost thing is to understand the risks run by the bank and to ensure that the risks are properly confronted, effectively controlled and rightly managed. Each transaction that the bank undertakes changes the risk profile of the bank. The extent of calculations that need to be performed to understand the impact of each such risk on the transactions of the bank makes it nearly impossible to continuously update the risk calculations. Hence, providing real time risk information is one of the key challenges of risk management exercise. (Thakor, 1993)

Business grows mainly by taking risk. Greater the risk, higher the profit and hence the business unit must strike a tradeoff between the two. The essential functions of risk management are to identify measure and more importantly monitor the profile of the bank. While Non-Performing Assets are the legacy of the past in the present, Risk Management system is the pro-active action in the present for the future. Managing risk is nothing but managing the change before the risk manages. While new avenues for the bank has opened up they have brought with them new risks as well, which the banks will have to handle and overcome(Thakor, 1993).

The banking industry recognizes that an institution need not engage in business in a manner that unnecessarily imposes risk upon it; nor should it absorb risk that can be efficiently transferred to other participants (Bidani, 2002). Rather, it should only manage risks at the firm level that are more efficiently managed there than by the market itself or by their owners in their own portfolios. In short, it should accept only those risks that are uniquely a part of the bank's array of services.

Commercial banks are in the business of managing risk, not avoiding it. Risk is the fundamental element that drives financial behavior. Without risk, the financial system would be vastly simplified. However, risk is omnipresent in the real world. Financial Institutions, therefore, should manage the risk efficiently to survive in this highly uncertain world and in so doing improve their performance. The future of banking will undoubtedly rest on risk management dynamics(Koch, 1998).

Only those banks that have efficient risk management system will survive in the market in the long run. The effective management of credit risk is a critical component of comprehensive risk management essential for long-term success of a banking institution. Therefore, a bank's success lies in its ability to assume and aggregate risk within tolerable and manageable limits (Saunders, 1996)

Credit risk is the oldest and biggest risk that bank, by virtue of its very nature of business, inherits. This has however, acquired a greater significance in the recent past for various reasons. Foremost among them is the wind of economic liberalization that is blowing across the globe. Uganda is no exception to this swing towards market driven economy. Competition from within and outside the country has intensified. This has resulted in multiplicity of risks both in number and volume resulting in volatile markets(Thakor, 1993). A precursor to successful management of risk is a clear understanding about risks

involved in lending, quantifications of risks within each item of the portfolio and reaching a conclusion as to the likely composite credit risk profile of a bank.

The corner stone of risk management and improving performance of commercial banks is the establishment of a framework that defines corporate priorities, loan approval process, credit risk rating system, risk-adjusted pricing system, loan-review mechanism and comprehensive reporting system(Koch, 1998).

Better and effective strategic risk management process is a better way to manage portfolio credit risk. The process provides a framework to ensure consistency between strategy and implementation that reduces potential volatility in earnings and maximize shareholders wealth (Angbazo, 1997). Beyond and over riding the specifics of risk modeling issues, the challenge is moving towards improved risk management lies in addressing banks' readiness and openness to accept change to a more transparent system, to rapidly metamorphosing markets, to more effective and efficient ways of operating and to meet market requirements and increased answerability to stake holders.

In a bid to improve performance of commercial banks, the banks must apply efficient and effective risk management strategies. One of the most crucial methods of risk control in banks and financial institutions around the world is regulatory capital requirement, which is vital in reducing the risk of bank insolvency and the potential cost of a bank' s failure for its customers(Angbazo, 1997).

20

Effective risks management systems can surely improve the performance and competitiveness of commercial banks that can only occur if the banking industry since it is clearly evolving to a higher level of risk management techniques and approaches than had been in place in the past(Thakor, 1993).

2.5Financial Performance

2.5.1 Market Share

Market Share is the percentage of an industry or market's total sales that is earned by a particular company over a specified time period. Market share is calculated by taking the company's sales over the period and dividing it by the total sales of the industry over the same period. Banks are still important to certain borrowers—particularly households and businesses that continued to rely on banks for credit.(Samolyk, 1994) analyzed bank market share from this perspective, distinguishing between bank lending and other asset holdings (such as securities holdings) and arguing that lending involves more intermediation services than holding securities does. Looking at the markets where households and businesses borrow, (Samolyk, 1994) found shifts in howbanks were funding private borrowers, but the overall decline in market share was less than might have been expected.

The commoditization of credit markets; that is, the standardization, unbundling, and repackaging of payments and risks associated with credit flows, makes it harder to measure the importance of banks as well as other intermediaries in providing credit related services (Koch, 1998).. Balance-sheet data on who is funding loans can be a poor proxy for who is providing the financial services associated with the credit flows. Commercial banks, particularly larger institutions, provide significant services in originating, servicing, and enhancing the liquidity and quality of credit that is ultimately funded elsewhere. Hence, market-share measures based on balance-sheet data are likely to understate the importance of banks to a greater extent than even a decade ago.

Commercial banks, particularly larger institutions, often provide important credit-related services to borrowers that are ultimately funded elsewhere, but the provision of these services is reflected in bank earnings. Indeed, when one looks at income-based measures of bank market share, one does not see evidence of a secular decline in commercial banking (Koch, 1998). Thus, although the importance of banks depends on how one defines banking, from a variety of perspectives the commercial banking industry remains far from extinct as a force in credit market(Thakor, 1993).

2.5.2 Return on Assets

Return on Assets is an indicator of how profitable an institution is relative to its total assets. ROA gives an idea as to how efficient management is at using its assets to generate earnings. Calculated by dividing institutions annual earnings by its total assets, ROA is displayed as a percentage. Sometimes this is referred to as "return on investment" Return on assets (ROA) measures the rate of return on the total assets (shareholder equity plus liabilities) (Terry, 1995). It measures a firm's efficiency at generating profits from shareholders' equity plus its liabilities. ROA shows how well a company uses what it has to generate earnings. ROAs can vary drastically across industries. Therefore, return on assets should not be used to compare companies in different industries (Edwards,2004)

Return on assets, show management's effectiveness reveals how much profit an instructions, earns for every dollar of its assets. Assets include things like cash in the bank, accounts receivable, property, equipment, inventory and furniture (Scott, 1995)

It is worth noting that credit management is an important variable in enabling commercial institutions such as commercial banks to improve on their return on assets thus enhanced

performance (Terry, 1995).ROA shows earnings that are generated from invested capital (assets). Institutions' assets consist of both debt and equity, which are used to fund the operations of the institution. ROA gives investors some idea of how effectively the organization is converting the money it has into net income. The higher the ROA, the more institutions earns on a smaller investment (Thorburn, 2000)

2.6 Conclusion

Banking is nothing but financial inter-mediation between the financial savers on the one hand and the funds seeking business entrepreneurs on the other hand. The reputation of a bank is very important for corporate clients. A corporation seeks to develop relationship with a reputable banking entity with a proven track record of high quality service and demonstrated history of safety and sound practices (Angbazo, 1997). Therefore, in this very complex global banking environment, Ugandan commercial banks need to prepare themselves to be competed among the world's largest banks. As our large banks consolidate their balance sheets size and peruse aspirations of large international presence, it is only expected that they adopt the international best practices in credit management so as to be able to boost their performance. This could be done through proper determination of credit worthiness, credit approval and credit risk management.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter deals with the methods and tools the researcher used in data collection and analysis. It describes the research design that was used by the researcher, data sources and collection tools, processing, analyzing and the challenges that the researcher faced

3.1 Research Design

According to (Wiersma, 2000) a research design is a plan for conduction of research. This suggests a set of things to be done in order that a planned research can be conducted. The researcher used a case study which is Stanbic bank Mpigi Branch. The study was focus on employees of Stanbic bank, where an in-depth analysis was made on the role of credit management on financial performance. A case study approach implied that a single unit of analysis such as an organization or group of workers. It involved gathering detailed information about the unit of analysis with a view of obtaining an in depth knowledge and using it to generalize findings and conclusions. Both Qualitative and quantitative approaches were used in the study.

3.2 Area of Study

The study was conducted at Stanbic Bank Mpigi Branch. The branch was selected because it carries out most business, have a big customer base and employees thus credit management is crucial.
3.3 Study Population

According to (Polit and Hungler, 1999) the study population is defined as an aggregate or totality of all the objects, subjects or members that conform a set of specifications.

The population of the study consisted of supervisors, banking officers, and credit officers that provide the services to the customers in Stanbic Bank-Mpigi Branch. This population consists of 50 employees who will be the respondents of the study. (Source: primary data).

3.4 Sampling Procedures

3.4.1 Sample Size

The study used a sample size of 44 respondents from a population of 50 employees as estimated using the Krejcie and Morgan's table(1997). So from the krejcie and Morgan table a population size of 50 respondents has a sample size of 44 respondents. This sample size was estimated from the table of Krejice and Morgan Table where sample sizes are estimated using the formula.

 $S=X^2 NP (1-P) + d^2(N-1) + X^2P (1-P)$

Where;

S= required sample size

 X^2 =the table value of chi-square for 1 degree of freedom at the desired confidence level (3.41).

N= the population size.

P=the population proportion (assumed to be .50 since this would provide maximum sample size).

d= the degree of accuracy expressed as a proportion (.50).

Where N is the population and n is the sample size, e= confidence level (0.05).

3.4.2 Sampling Techniques

According to (polit and hungler, 1999) sampling is the process of selecting a portion to represent the entire population.

The researcher used purposive sampling for selecting respondents. Employee respondents were purposely selected because of their knowledge and relevant information regarding this topic under investigation. The research was directed towards Reponses from the supervisor ,credit officers and banking officers

3.5 Data sources.

The researcher used both primary and secondary sources of data collection for the study. In using primary sources, the researcher used questionnaires and interviews. Secondary data collection was done by viewing books, journals and bank records.

3.5.1 Primary sources.

Primary data was collected directly from the respondents through use of questionnaires, the respondents were able to interpret the questions and give relevant information. Also face to face interviews were used to collect data from the respondents guided by the researcher.

3.5.2 Secondary sources.

Secondary data was collected form viewing of books, journal, and bank records which were in line with the study objectives

3.6 data collection methods

3.6.1 Questionnaires

Questionnaire is simply a tool for collecting and recording information about a particular issue of interest.

This was formulated through a written set of questions that were used to obtain information about the study objectives from selected respondents. Questionnaires were used to collect quantitative data, from the respondents because they can contact a larger number of people. The researcher formulated a structured questionnaire guide for the key informants that comprised of the employees of Stanbic Bank. The questionnaire was divided into sections in line with the study objectives. The use of questionnaires enabled the researcher to get information from a large population and also at cheaper costs.

3.6.2 Interviews

An interview is a conversation between two people (the interviewer and the interviewee) where questions are asked by the interviewer to obtain information from the interviewee (Holstein, & Gubrium, 1995). The researcher conducted oral face to face interviews with senior, deputy loans and credit officers. The interviews provided an opportunity for the researcher to interact directly from the respondents. The researcher used an interview guide to collect the data from the targeted respondents and all responses were captured by

the researcher herself. The interview guide was used to collect qualitative data to supplement the information that was obtained from the questionnaires to enable the researcher to get information from respondents easily and at an affordable cost.

3.7 Measurement of Variables

The dimensions under the variables were measured using the Likert scale that consisted of statement such as strongly disagree, disagree, not sure, agree and strongly agree. These were computed and, where mean is above 3.0 means the respondents are agreeing to the statement and below 3.0, means the respondents are disagreeing to the statement.

3.8 Quality Assurance

3.8.2 Validity

According to (Burns and Grove 2001) validity is defined as a measure of truth or falsity of the data obtained through using the research instruments.

Data validity was ensured through subjecting the draft tools such as questionnaires question to be reviewed by experts to ensure that the right questions for research study are asked. The questionnaire was reviewed by my supervisor before I was granted permission to go and collect data. The research also ensured that right questions for the study were guided by the objectives.

3.8.2 Data Reliability.

According to (Colin andJulie, 2006), reliability is the degree to which an assessment tool produces stable and consistent results.

In ensuring the reliability, the researcher carried out a pilot study where a few respondents were given questionnaire to rate themselves on applicability of the instruments.

3.9 Data Analysis and presentation

3.9.1 The quantitative data analysis.

Qualitative data collected by use of questionnaires was edited, coded and later was Data analyzed by statistical packages for social scientists software. The results were presented in form of Pearson correlation coefficient table.

3.9.2 Qualitative data analysis

Qualitative data analysis involved identification and transcribing the qualitative findings into different themes (Mugenda and Mugenda, 1999). The themes were then edited, coded and arranged in different categories to generate useful conclusions and interpretations on the research objectives which were deduced for reporting in a narrative form

3.10 Ethical Considerations

The goal of ethics in research is to ensure that no one is harmed or suffers adverse consequences from research activities. The researcher therefore had to put the following ethical issues into consideration;

The researcher obtained an introductory letter from the faculty of business administration and management to inform the respondents the research being carried out was purely academic. The data obtained from the respondents was treated purely as academic and confidential for the safety, social and psychological well-being of the respondents.

Questionnaires were guaranteed anonymity as no one of the respondents was named at any time during the research or in the subsequent study.

Respondents were selected for their willingness to participate without compulsion and no risks to the respondents were identified at any stage during the research.

3.11 Limitations of the study

The researcher experienced a problem of limited finances with respect to this study. Costs regarding this limitation include transport, printing and photocopying of relevant materials. However, the researcher had to borrow some money from relatives, friends and use it sparingly so as to overcome the cost constraint.

The researcher experienced a time constraint in data collection, analyzing of data and in final presentation of the report. However, the researcher overcame this problem by ensuring that the time element is put into consideration and that all appointments agreed upon with respondents are fully met.

The researcher could not probe deeper into the subject matter because some respondents might withdraw some information because it is regarded as confidential. However, the researcher assured the respondents that any information given would be treated with maximum confidentiality

31

CHAPTER FOUR

PRESENTATION OF RESULTS AND DISCUSSION OF THE FINDINGS

4.0. Introduction

This chapter presents the findings of this study. It highlights the characteristics of the respondents and presents the findings that were generated from interactions the findings on the role of credit management on financial performance of commercial banks. The study was based on the objectives and the following results were established;

4.1 General information

The study involved 44 respondents and they were categorized as shown in Table 4.2 below.

4.1.1Gender of the Respondents

Table 4.1: showing the Gender of the Respondents

 Responsibility	Frequency	Percent
 Male	25	56.8
Female	19	43.2
Total	44	100.0

Source: Primary data, 2015

As observed from the table 4.1 above, both males and females participated in the study since it (the study) was not limited to a particular sex. The findings indicate that majority (56.8%) of the respondents were male compared to the (43.8%) who were female. Therefore, the females were slightly more than males. These findings were not

deliberately controlled since all the units in the population had the same probability of being selected for the sample. The findings on the respondent's gender were found relevant because respondents in different sexes have varying views and knowledge on the role of credit management on financial performance of commercial banks.

4.1.2 Age group of the Respondents

Age group	Frequency	Percent
18-30	14	31.8
31-40	21	47.7
41 – 49	6	13.7
Above 50	36.8	
Total	44	100.0

Table 4.2: showing the Age group of the Respondents

Source; primary data, 2015

Results from table 4.2 show that the majority of the respondents (47.7%) were in the age group of 31 - 40 years, (31.8%) were in the age group of 18 – 30 years, (13.6%) were in the age group of 41- 50 years and the minority (6.8%) above 50 years. Though there was no written rule against the age at which an organization should employ, the lowest age of the respondents was found to be 18 and the eldest above 50 years. The findings further reveal that Stanbic Bank Mpigi branch relies mostly on the services of young individual between 18 -30 years. These results imply that majority of the employees in Stanbic Bank are young energetic and youthful who are hard working. These findings were found

relevant because respondents in different age groups have varying views and knowledge on the role of credit management on financial performance of commercial banks

4.1.3 Education Qualification of the Respondents

Т	able	4.3	: sh	owing	the	Educa	ation	Oualific	ation	of	the	Res	pond	lent	iS
				· · · ·						-					

 Education Qualification	Frequency	Percent
Degree	41	93.2
Masters	3	6.8
 Total	44	100.0

Source; primary data, 2015

Findings in table 4.3 indicate that the majority (93.2%) of the respondents had attained degrees. This could be because most of the positions in the organization require educated personnel with a minimum requirement of degree, while (6.8%) had masters these results therefore imply that Stanbic bank employs educated personnel and have enough skills and proficiency to run the Bank's operations. The education background was found relevant because respondents with different educational backgrounds have different attitudes, knowledge and experiences with regards to the credit management and service delivery in Stanbic Bank.

4.1.4 Time Spent by the Respondents in Service

Time Spent	Frequency	Percent
Less than 2 years	12	27.3
2 – 10 years	23	52.3
10 – 15 years	6	13.6
Above 15 years	3	6.8
Total	44	100.0

Table 4.4: Showing the time Spent by the Respondent in Service

Source; primary data, 2015

Results from table 4.5 indicate that majority of the respondents 52.3% have spent 2 -10 years in service, 27.3% have spent less than 2 years, 13.6% have spent 10 -15 years and 6.8% have spent over 15 years. These results were found relevant because respondents with different experiences have varying views and knowledge the role of credit management on financial performance of commercial banks. It also implied that majority of the respondents are young and fresh in service and therefore are hardworking thus represent a significant position in the service delivery in Stanbic bank.

4.2 Presentation according to study objectives

In this study, analysis was also based on the study objectives and the results are presented in the following statements.

4.2.1 Credit Worthiness and Financial Performance of Commercial Banks

The first objective of the study was to establish the contribution of credit credit worthiness on financial performance of commercial banks. The findings were presented, analyzed and interpreted using a number of indicators as shown below. Table 4 comprises of questions posed to respondents about data collection with answers obtained in terms of response rates and means and standard deviation.

Credit Worthiness	Ν	Min	Ma	x Mean	Std. Dev.
Determining the loan size	44	1	5	4.46	0.582
Effective risk identification	44	1	5	4.44	0.501
Character of a potential debtor	44	1	5	4.08	1.069
Assessment of the loan review function	44	1	5	4.42	0.539
Effective financial performance	44	1	5	4.46	0.544

 Table 4.5:Mean and standard Deviation for Credit Worthiness

Source primary data 2015

4.2.1.1 Determining the loan size

Findings from table 4.6 that the fact that credit worthiness helps financial institutions in determining the loan size had a minimum of 2 and a maximum of 5 with a mean of 4.46

and standard deviation. This showed that most of the most of the respondents were distributed between those who agreed and those who strongly agreed. This implies that in Stanbic back, it is vital that there is credit worthiness for better loan performance. The granting of credit depends on the confidence the lender has in the borrower's credit worthiness. one of the respondents interview pointed out that,

"Credit worthiness, which encompasses the borrower's ability and willingness to pay, is one of many factors defining a lender's credit policies. Creditors and lenders utilize a number of financial tools to evaluate the credit worthiness of a potential borrower"

4.2.1.2 Effective risk identification

With regards to the statement that the credit worthiness enables effective risk identification, results in the table above indicates that, the minimum was 1 and maximum 5 with a mean of 4.44 and standard deviation of 0.501. The Standard deviation 0.501 shows that the spread of distribution of the respondents from the mean as 3.939 (that is mean scorestandard deviation) to 4.941(that is mean score + standard deviation). This is important because credit worthiness is essential in risk prevention and management thus enabling better financial performance in Banks. One of the respondents mentioned that,

"In evaluating the creditworthiness information about the company's liquidity, profitability and debt data obtained from financial statements, and components related to the assessment of management, ownership structure, market position and other information on the basis of subjective criteria are used. This is key in risk identification at Stanbic bank.

4.2.1.3 Character of a potential debtor

Results from the table4.6 indicate that, minimum of 1 and maximum of 5 was observed with the statement that Credit worthiness can also help the institutions in determining the character of a potential debtor. This statement had a mean of 4.08 and standard deviation of 1.069 which signified that most of the respondents generally agreed that credit worthiness can help the institutions in determining the character of a potential debtor. This is because banks are usually faced with problems associated with delinquency and defaulting. This was in conformity with one of the respondents, who attested that,

"creditworthiness depends on factors of which the borrower's efficiency, his reputation, his capacity for profit making, the value of his assets, the state of the economic situation, his profitability are all essential in determining his potential"

4.2.1.4 Assessment of the Loan Review Function

On whether Credit worthiness contributes a lot in assessment of the loan review function, the majority of the respondents, the findings revealed a maximum of 5 and minimum of 1 with a standard deviation of 0.539 and mean of 4.42. This implied that credit worthiness plays an important role in performance of stanbic bank since the mean of 4.42 shows that generally most of the respondents agreed. The results are in agreement with Scott, (1995) who pointed out that creditworthiness encompasses the presumed ability to meet agreed deadlines related to repaying the credit and the interest accrued without affecting the vitality of the borrower

4.2.1.5 Achieving effective financial performance

Results from the table 4.6 show that, the statement that credit worthiness contributes to achieving effective financial performance agreed had a minimum of 1 and maximum of 5 with a mean of 4.46 and standard deviation of 0,544. This implied that the respondents perfectly understand that financial institutions can use the wornness of the clients to enhance their financial performance. These findings are also in conformity with one of the respondents interviewed at Stanbic Bank who said that

"We conduct assessments based on analyzing the borrower's balance sheet, cash flow statements, inventory turnover rates, debt structure, management performance, and market conditions and hence favor borrowers who generate net earnings in excess of debt obligations and any contingencies that may arise which enhance our financial performance"

4.2.2 Credit approval process and financial performance of commercial banks.

The second objective of the study was to establish the contribution of credit approval process on financial performance of commercial banks. Table 4.6 comprises of questions posed to respondents about data collection with answers obtained in terms of response rates and minimum, maximum, mean and standard deviation.

Credit Approval Process	Ν	Min	Max	Mean	Std. Dev.
Rating effective performance	44	1	5	4.52	0.618
managing the credit risk profile	44	1	4	3.62	0.306
Determines reliability of approval results	44	1	5	4.44	0.616
Assessment of the loan review function	44	1	5	4.48	0.505
capability of the loan borrower	44	1	4	3.42	0.498
minimizes the rate of loan loss	44	1	5	4.50	0.715

Table 4.6: Mean and standard Deviation for Credit Approval Process

Source primary data 2015

4.2.2.1 Rating effective performance

Results from the table 4.7 above indicate that most of the respondents as shown by the mean of 4.52 and standard deviation of 0.618 generally agreed thatApproval process helps the officers in charge of the credit management system in rating effective performance of responsible officers in the work. This may be due to the fact that the bank is committed to credit service delivery, whereby the officers spend the time to effectively improve financial performance. These results are in agreement with Shleifer, &Vishny, (1992): who asserted that credit approval helps to determine who is accountable for the

accuracy of loan ratings. The credit officer is a logical choice because he or she knows more about the credit than anyone else and should have access to timely financial information from the borrower.

4.2.2.2 Managing the credit risk profile

The findings from the study also revealed that credit approval process enables financial institutions in understanding and managing the credit risk profile and with more tools to analyze and control the risk as evidenced by the minimum of 1 and maximum of 4. The mean of 3.62 and standard deviation of 0.306 shows that the spread of distribution of the respondents from the mean as 3.294 (that is mean score - standard deviation) to 3.926 (that is mean score + standard deviation). The findings were in line with (Scott,1995) who argued that credit approval process provides management with a more complete picture of the bank's credit risk profile and with more tools to analyze and control the risk.

4.2.2.3 Determines reliability of approval results

Finding in the table 4.7 show that a minimum of 1 and maximum of 5 was evidenced for the fact that credit approval determines reliability of approval results; there were no respondents who disagreed. This had a mean of 4.44 and standard deviation of 0/616. This implied that effective loan portfolio management at Stanbic bank considers how results are achieved to approve the loan, the likelihood those results will continue, and whether the institution is maximizing opportunities and providing the greatest benefit practicable to borrowers/members. This is in line with one of the interview respondents who mentioned that

"Credit approval ensures that the bank's loan processes flow smoothly and output keeps in line with the Bank's objectives."

4.2.2.4 Assessment of the loan review function

The findings revealed that credit approval is that it contributes a lot in the assessment of the loan review function. The minimum of 1, maximum of 5, mean of 4.48 and standard deviation of 0.505 explains the reason to why majority of the respondents generally agreed. This is conformity with(Thorburn, 2000) who asserts thatan approval is completed to identify risks in the loan portfolio, threats to the loan portfolio, and opportunities that the institution may want to consider for enhanced profitability or growth. Once identified, the analysis determines the impact of those factors on the loan portfolio so that appropriate goals, objectives, and strategies can be established.

4.2.2.5. Capability of the loan borrower

Results in the table 4.7 indicate that majority of the respondents were distributed between those whoagreed and not sure as shown by the mean of 3.42 and standard deviation of 0.498 that credit approval determines the legibility and capability of the loan borrower. This was found relevant because the character of a person applying for a loan is a big factor to the decision for loan approval and a person with a sound financial objective is likely to be granted a loan quickly and more possibly than an individual who is in bad shape, not just on the financial facet, but also on other aspects.

4.2.2.6 Minimizes the rate of loan loss

From the table 4.7, majority of the respondents generally agreed that approval minimizes the rate of loan loss since all the loans are approved after credit worthiness has been determined. This was evidenced with a mean 4.50 and standard deviation of 0.715..One of the interviewed respondents commented that; "This is because before they approve, the bankers must understand not only the risk posed by each credit but also how the risks of individual loans and portfolios are interrelated."

These findings embrace the significance of the practices that provide management with a more complete picture of the bank's credit risk profile and with more tools to analyze and control the risk.

4.2.3: Credit risk management on financial performance of commercial banks Table 4.7:Mean and standard Deviation for credit risk management

credit risk management	Ν	Min	Max	Mean	Std. Dev.
Managing the credit risk profile	44	1	4	4.46	0.651
Proper identification, measurement	44	1	5	4.58	0.919
Framework to ensure consistency	44	1	5	4.62	0.981
Minimizes the danger of insolvency	44	1	5	4.67	0.715

Source primary data 2015

4.2.3.1 Manage the risk efficiently

The mean of 4.25 shows that generally, most of the respondents agreed with it. This is because a financial institution, needs to manage the risk efficiently to survive in this highly uncertain world and in so doing improve their performance. These results are in agreement with (Koch, 1998) who reveals that the future of banking will undoubtedly rest on risk management dynamics.

The findings are in conformity with (Saunders, 1996) who mentions that the effective management of credit risk is a critical component of comprehensive risk management essential for long-term success of a banking institution.

4.2.3.2 Proper identification and measurement

Concerning the fact that credit risk management enables proper identification, measurement and more importantly monitor the profile of the bank, whereas no respondents were neutral, disagreed and strongly disagreed respectively. It respectively had a mean and standard deviation of 4.46 and 0.651 together with a minimum of 1 and maximum of 5. This is because new avenues for the bank have opened up and they have brought with them new risks, which the banks have to handle and overcome. This is in conformity with one of the respondents who mentioned that

"The greater the risk, the greater the profit and hence the bank must find efficient measures to manage the magnitude of the risk."

4.2.3.3 Framework to ensure consistency

The study revealed that a minimum of 1 and maximum of 5 in addition to the mean of 4.62 and standard deviation of 0.981 was revealed for the fact that credit risk management provides a framework to ensure consistency between strategy and implementation that reduces potential volatility in earnings and maximize shareholders This shows that majority of the respondents were distributed between those who agreed and strongly agreed. All these results signify the important role that credit risk management in contributing to the effectiveness of service delivery of stanbic bank. This was in agreement with (Peltoniemi ,2006) who noted that beyond and over riding the

specifics of risk modeling issues, the challenge is moving towards improved risk management lies in addressing banks' readiness and openness to accept change to a more transparent system that caters all levels of stakeholders in the bank.

4.2.3.4 Minimizes the danger of bank insolvency

Lastly majority of the respondents agreed, that credit risk management minimizes the danger of bank insolvency and the potential cost of a bank's failure for its customers. This was evidenced by the minimum of 1 and maximum of 5 and mean of 4.67 and standard deviation of 0.7424. This is because one of the most crucial methods of risk control in banks and financial institutions around the world is regulatory capital requirement. This is in line with,(Thakor, 1993) who points effective risks management systems can surely improve the performance and competitiveness of commercial banks that can only occur if the banking industry since it is clearly evolving to a higher level of risk management techniques and approaches than had been in place in the past.

4.2.4 Financial Performance

4.2.4.1 Market Share

Table 4.8:Mean and standard Deviation for showing Market Share

	Ν	Min	Max	Mean	Std. Dev.
Increase on the customer base	44	1	5	4.14	0.919
Improved sales over period of time	44	1	5	4.48	0.652
Credit markets have been standardized	44	1	5	4.46	0.538
Liquidity and quality of credit	44	1	5	4.01	0.881

Source primary data 2015

4.2.4.1.1 Increase on the customer base

Results from the table 4.9 above reveal most if the respondents agreed that they have been able to increase on the customer base as evidenced by the minimum of 1 maximum of 5 and mean of 4.14 and standard deviation of 0.919. This could be because banks are still important to certain borrowers, particularly households and businesses that continued to rely on banks for credit thus increasing their customer base.

4.2.4.1.2 Improved sales over period of time

The findings also revealed that most respondents were distributed between those who agreed and strongly agreed as evidenced with the mean of 4.48 and standard deviation of 0.652 that the market's total sales earned have improved over period of time This had a minimum of 1 and maximum of 5.(Samolyk, 1994) found shifts in how banks were funding private borrowers, in a bid to expand and improve their market share over time

4.2.4.1.3 Credit markets have been standardized

It was revealed from the study with a minimum of 1 and maximum of 5, mean of 4.46 and standard deviation of 0.538 that credit markets have been standardized and this showed that majority of the respondents agreed. This shows how effective the institution is in management of risks

4.2.4.1.4 Liquidity and quality of credit

From the study, a mean of 4.01 and standard deviation of 0.881 signified that most of the respondents agreed that they provided significant services in enhancing the liquidity and quality of credit as compared to the (16%) who were not sure and the (5%) who disagreed. The findings were in line with Koch, (1998) who documented that commercial

banks, particularly larger institutions, provide significant services in originating, servicing, and enhancing the liquidity and quality of credit that is ultimately funded elsewhere.

4.2.4.2 Return on Assets

	Ν	Min	Max	x Mean	Std. Dev.	
Efficiency at generating profits	44	1	5	4.00	0.919	
Fund the operations	44	1	5	4.44	0.652	
Realized profitable of the bank	44	1	5	4.69	0.538	
a i i oois						

Table 4.9: Return on Assets

Source primary data 2015

4.2.4.2.1 Efficiency at generating profits

As can be observed from the table above, majority of the respondents generally agreed that they had attained efficiency at generating profits from shareholders' equity. This was shown by the mean of 4.00 and standard deviation of 0.919. It also had a minimum of 1 and maximum of 5. These findings were in line with, (Edwards, 2004) who noted that ROA shows how well a company uses what it has to generate earnings.

4.2.4.2.2 Fund the operations

Asked whether the generated ROA is used to fund the operations of the institution the findings revealed that the mead and standard deviation of 4.44 and 0.652 respectively proved that most of the respondents agreed with it. It also had a minimum of 1 and maximum of 5.0ne of the interviewed respondents commented that;

"our bank's assets consist of both debt and equity, which are used to fund the operations of this financial institution".

4.2.4.2.3 Realized profitable of the bank

The findings revealed that there are realized profitability of the bank as seen by a mean of 4.69 and standard deviation of 0.538. In the same line (Terry, 1995) commented that credit management is an important variable in enabling commercial institutions such as commercial banks to improve on their return on assets thus enhanced performance since all the profits from the invested assets are reinvested in the organization

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter generates the summary and conclusions drawn from the study based on the findings presented in data analysis and the study objectives. The chapter also advances the recommendations, as well as identifying the areas for further studies.

5.2 Summary of the findings

5.2.1 Credit Worthiness and Financial Performance of Commercial Banks

The findings discovered that with credit worthiness in the bank, there is a strong performance measured by determination the loan size evidenced by the majority who strongly that Credit worthiness can also help the institutions in determining the character of a potential debtor.

5.2.2 Credit approval process and financial performance of commercial banks

Majority of the respondents argued that the credit approval minimizes the rate of loan loss since all the loans are approved after credit worthiness has been determined. These findings embrace the significance of the practices that provide management with a more complete picture of the bank's credit risk profile and with more tools to analyze and control the risk

5.2.3 Credit risk management on financial performance of commercial banks

The study revealed that risk management is an important parameter in the financial performance of a financial institution as evidenced by the majority who agreed that it

Minimizes the danger of bank insolvency and the potential cost of a bank's failure for its customers. this is in addition to providing a framework to ensure consistency between strategy and implementation that reduces potential volatility in earnings and maximize shareholders wealth who agree to it.

5.3 Conclusions

In conclusion, in a bid to improve performance of commercial banks, the banks must apply efficient and effective credit assessment strategies; credit approval strategies risk management strategies. One of the most crucial methods of risk control in banks and financial institutions around the world is regulatory capital requirement, which is vital in reducing the risk of bank insolvency and the potential cost of a bank' s failure for its customers. Additionally, Credit worthiness can also help the commercial institutions in determining the character of a potential debtor which is an important consideration used by lenders in loan grant. A thorough check of the lifestyle of the potential debtor can be undertaken on the part of the lender during the investigation leading effective financial performance of a bank.

It can also be concluded that credit approval process helps the officers in charge of the credit management system in rating effective performance of responsible officers in the work and that it also enables financial institutions in understanding and managing the credit risk profile and with more tools to analyze and control the risk and it determines reliability of approval results.

It can also be concluded that business grows mainly by taking risk. Greater the risk, higher the profit and hence the business unit must strike a tradeoff between the two. The essential functions of risk management are to identify measure and more importantly monitor the profile of the bank. While Non-Performing Assets are the legacy of the past in the present, Risk Management system is the pro-active action in the present for the future. Managing risk is nothing but managing the change before the risk manages.

5.4 **Recommendations**

Based on this study, the researcher made the following recommendations;

The researcher recommends that the bank managements should develop good proper and credit management. This may involve setting some clear boundaries in assessment of credit potential for what the bank can and cannot compromise in a bid to promote proper financial performance.

In order to get the best out of credit management, the researcher recommends banks to do research and look up the other party's details, study the market, and get familiar with the details of transactions similar to the one you're working on.

Banks are also recommended to carry out risk management regarding credit. This involves developing procedures to ensure that there are no defaulters and delinquents in credit repayment. All this leads to effective financial performance of a bank.

The researcher recommends that bank managements need to enhance and develop credit management guidelines so as to lead the Bank through a planning process for products and service ensure better service delivery.

There is need for improving the staff capacity is very important. This involves training staff and the researcher recommends that the perceived or anticipated risks should be identified in advance when training the staff in credit management.

5.5 Suggestions for further study

More study and research should be made on the following areas and topics

The impact of credit appraisal on performance of microfinance

The effect of credit management on loan portfolio performance

Impact of risk management on performance of banks

REFERENCES

ANDERSON, 2000, *Rewards for the Way You Run Your Account*." New Statesman 18 September.

ANGBAZO, 1997; *The theory of value distribution* and welfare economics, page 396, Vikas publishers. 36

BARON AND LYNCH 1999, *Economics2nd* Edition, page 329 by Irwin publishers.

BASEL, 2004.Economic Capital Allocation with Basel II.Cost and Benefit Analysis, Butterworth-Heinemann, London.

Blaise & Bilardello (2005): *Fundamentals of corporate credit analysis*; The McGraw-Hill companies, Inc.

BLAISE & BILARDELLO2005; *The Management of loan portfolios and the performance of indigenous commercial banks in Uganda*: A case study of Uganda Commercial Bank and Centenary Rural Development Bank, MBA.Thesis, Makerere University, Kampala

BROWNBRIDGE AND HARVEY, 1998; *Credit Risk Management*: How to avoid lending disasters and maximise earnings. McGraw-Hill Companies

ECONOMIST 2004, *Salomon Brothers and Goldman* Sachs Equity Research Reports on the banking sector

EDWARDS 2004; *Basic Financial Management*, Makerere University Business school publication

HEINOLA M. AND EDWARDS 2010 Credit Management Handbook. Hants: Gower PublishingLimited

International Monitory Fund Report, (IMF) – 1998)

JOHN AND TRACY 1997) *Bankruptcy Auctions*: Costs, Debt Recovery and Firm Survival, Journal ofFinancial Economnics 58, 337-368

KOCH, 1998;*Suddenly Structure mattered*: Insights intoRecoveries from Defaulted, Standard & Poor's Credit Week, 61-68.

MUKOKOMA, M. N. 2012. Assessment of Foreign and Domestic Commercial Bank Efficiency in Uganda using a Data Envelopment Analysis Approach.*Business Journal*, 13.

PELTONIEMI 2006, pg10 Commercial bank risk management: an analysis of the process. *Journal of Financial Services Research*, *12*(2-3), 83-115

RICHARD et al., 2008 Credit risk management in and out of the financial crisis: new approaches to value at risk and other paradigms (Vol. 528). John Wiley & Sons

SCOTT, 1995; Blazing New Trails."Kiplinger's Personal Finance Magazine." January

SEKARAN, U 2003.*ResearchMethods for Business*: A skill Building Approach, 4th Edition . John Willey & Sons ltd.

SHLEIFER, A.; VISHNY, R. W. (1992): *Liquidation Values and Debt Capacity*: A MarketEqulibrium Approach, The Journal of Finance 4, 1343-1366.

TERRY, 1995.*Multinational financial management*. (7th Ed).Chennai: Multivista Global Ltd. Pg 328-416.

THORBURN (2000): *Bankruptcy Auctions*: Costs, Debt Recovery and Firm Survival, Journal ofFinancial Economics 58, 337-368

Appendix I: Questionnaire

I am JUDITHNALWOGA, a student of Uganda MartyrsUniversity pursuing a bachelor's degree in Business Administration of Uganda MartyrsUniversity. I am carrying out a research study on the topic: "THE ROLE OF CREDIT MANAGEMENT IN THE FINANCIAL PERFORMANCE OF FINANCIAL INSTITUTIONS"

This questionnaire is therefore intended to seek information on the above subject matter. The information is purely for academic purposes and all the answers will be handled with utmost confidentiality

I therefore kindly request you tospare sometime and fill this questionnaire by ticking appropriate options and filling in the blank spaces where necessary. All information will be kept confidential and will never in any circumstance be personalized.

Thank you

SECTION A: BACKGROUND CHARACTERISTICS

1. Gender

(a) Male	(b) Female		
2. Age Group			
(a) 18-30 years	(b) 31 -40 years (c) 41-50 years	(d)Above	
50 years			

3. Education qualification

(a) Certificate		(b) Diploma		(c) Degree	(d) othe	ers]
5 How long have you	been ii	n service at this	unit?				
(a) Less than 2 years		(b) 2 – 10 yea	ars	(c) 10-15years	(d)	Above	
15 years							

Please indicate the extent to which you agree or disagree with the following statements'

by ticking the appropriate space provided. The following abbreviations are used

Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
SA	Α	NS	D	SD

CREDIT WORTHINESS AND FINANCIAL PERFORMANCE		SA	A	NS	D	SD
1.	Credit worthiness helps financial institutions in determining the loan size					
2.	Enables effective risk identification					
3.	Credit worthiness can also help the institutions in determining the character of a potential debtor					
4.	credit worthiness contributes a lot in assessment of the loan					

	review function					
5	Contributes to achieving effective financial performance					
CREDIT APPROVAL PROCESS AND FINANCIAL PERFORMANCE			A	NS	D	SD
6	Approval process helps the officers in charge of the credit management system in rating effective performance of responsible officers in the work.					
7	it enables financial institutions in understanding and managing the credit risk profile and with more tools to analyze and control the risk					
8	Determines reliability of approval results					
9	credit approval process contributes a lot in the analysis of internal and external risk factors					
10	Approval determines the legibility and capability of the loan borrower					
11	Approval minimizes the rate of loan loss since all the loans are					

	approved after credit worthiness has been determined					
CREDIT RISK MANAGEMENT AND FINANCIAL PERFORMANCE			A	NS	D	SD
12	Credit risk management enables proper identification, measurement and more importantly monitor the profile of the bank.					
13	It enhances better and effective strategic risk management					
14	It provides a framework to ensure consistency between strategy and implementation that reduces potential volatility in earnings and maximize shareholders wealth					
15	Minimizes the danger of bank insolvency and the potential cost of a bank' s failure for its customers					
MARKET SHARE		SA	A	NS	D	SD
16	We have been able to increase on the customer base					
17	market's total sales earned have improved over period of time					
18	Credit markets have been standardized					

19	We provide significant services in enhancing the liquidity and quality of credit					
RETURN ON ASSETS		SA	Α	NS	D	SD
20	We have attained efficiency at generating profits from shareholders' equity					
21	Generated ROA is used to fund the operations of the institution					
22	We have realized profitable of the bank in relative to its total assets					

END

THANKS FOR YOUR TIME

Appendix I: Interview Guide

I am a student of UMU and currently collecting data for compilation for my dissertation as a partial requirement for the award of Bachelors Degree in Business AdministrationOf Uganda Martyrs University Nkozi. I am here to conduct an interview for a maximum of 15 minutes. The interview I am conducting relates to the effect of credit management on the financial performance commercial banks.

You have been selected to share with us your experience and make this study successful. The Interview I am conducting is basically aimed at obtaining qualitative information to compliment the quantitative information which I am also collecting from this institution. Information given will be treated with utmost confidentiality.

1. In you view, how has credit approval helped your financial institutions in determining the loan size?

2. What roles has credit risks management played in improving the financial performance?

3. How do you determine credit worthiness of your clients?

4. To what extent is approval process in your financial institution effective?

5. In you view how credit risk management improves financial performance of your institution?

6. How can the credit risk management policies in your institution be improved?

7. What recommendations can you give related to the topic under investigation?

END

THANK YOU FOR YOUR TIME

61
APPENDIX III: KREJCIE & MORGAN TABLE FOR DETERMINING SAMPLE

SIZE

N	S	N	S	N	S	Ν	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

Note: "N" is population size

"S" is sample size.

From :Krejcie, Robert V., Morgan, Daryle W., "Determining Sample Size for Research Activities", <u>Educational and Psychological Measurement</u>, 1970.

Appendix iv: Introductory letter