FACTORS AFFECTING NON- PERFORMING LOANS: A CASE STUDY OF EQUITY BANK (K) LIMITED, LIMURU TOWN, KIAMBU COUNTY

By

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This Dissertation is submitted in partial fulfillment of the requirements for the award of a Master of Development Studies (MDS) from St. Paul's University

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DECLARATION

This dissertation is a product of my own work and is not the result of anything done in collaboration. It has not been previously presented to any other institution. I agree that this dissertation may be available for reference and photocopying, at the discretion of the University.

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DEDICATION

This work is dedicated to my dear husband Joseph, my sister Beatrice and my children Evelyn, Shalom and Shadrack for their love, patience, encouragement, understanding and support which gave me the will and determination to pursue my post-graduate studies. May the Almighty God bless you all abundantly.

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Finally and above all I wish to thank the Almighty God who has been faithful and gracious to me and who has given me strength to this end. To God be the glory, great things He has done.

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ABSTRACT

This research sought to investigate the factors affecting non-performing loans using a Case Study of Equity Bank (k) Limited in Limuru Town, Kiambu County**.** The objectives were to assess how interest rates, number of lending institutions, literacy levels and collateral requirements by Equity Bank affect non-Performing Loans. The research methodology used was a descriptive survey design and the population of the study consisted of the Clients of Equity Bank in Limuru Town, the credit Staff, and some government officials**.** Information collected was by use of questionnaires which made use of both open and closed ended questions and Interview Schedules for the Credit Staff and government officials. The questionnaire used a five point liker scale which ranged from strongly agree to strongly disagree. Data was edited for accuracy, uniformity, consistency and completeness and arranged to enable coding and tabulation for final analysis. Purposive sampling techniques was applied in selecting key informants particularly experts in the Banking Industry, government Officials from the financial Departments and Credit Officers from Equity bank while stratified sampling technique was employed in recruiting clients of Equity Bank within Limuru. The findings revealed that interest rates charged and non-performing loans are inter-related. In particular, it increased the cost of loans charged on the borrowers hence they are most likely to default these loans. The results also disclosed that non-performing loans were indeed affected by the clients' literacy levels because understanding of credit terms is crucial in loan repayment. The study also concluded that the number of lending institutions had some influence on non-performing loans in that it increases them especially due to Multi-borrowing. Finally the findings revealed that collateral demanded by the bank had a strong influence in controlling the rate of non-performing loans as people fear losing their assets. The study recommends that there is need for central Bank to put regulations on interest rates charged by financial institutions. In addition, there is need for financial literacy trainings for both customers and Credit Officers as well for clear understanding of credit terms. Finally, the financial institutions need to adopt a default risk model which can help ascertain the level of risk and mitigate these risks while giving Loans.

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TABLE OF CONTENTS

DECLARATION ii
DEDICATION iii
ACKNOWLEDGMENT iv
ABSTRACT iv
LIST OF TABLES viii
LIST OF FIGURES ix
LIST OF ABBREVIATIONS x
CHAPTER ONE 1
INTRODUCTION 1
1.1. Background of the Study 1
1.2. Statement of the Problem 2
1.3. Main Objective 3
1.3.1. Specific Objectives 3
1.4. Research Questions 4
1.5. The Importance of the Study 4
1.6. Scope of the Study 5
1.7. Limitation of the Study 5
1.8. Delimitations of the Study 5
1.9. Operationalization of Key Terms 6
CHAPTER TWO 7
THEORETICAL AND EMPERICAL LITERATUR REVIEW 7
2.1. Introduction 7
2.2. Non-Performing Loans 7
2.3. Equity Bank 13
2.3.1. Loan Services Offered by Equity Bank 13
2.4. The Role of Interest Rate Charged on Repayment Default on Non-Performing Loans 16
2.5. The link between literacy rates and repayment default on non-performing loans 23
2.6. Contribution of the number of lending institutions on non-performing loans 27
2.7. The relationship between Demands for collateral and effect to non-performing loans .. 32
2.8. Theoretical Framework 36
2.8.1. The prospect Theory 36
2.8.2. Relevance of the Theory 37
2.9. Conceptual Framework 37
CHAPTER THREE 39
RESEARCH METHODOLOGY 39
3.1. Introduction 39
3.2. Research Design 39
3.3. Study Area 39
3.4. Target Population 40
3.5. Methods of Data Collection and Sampling 40
3.5.1. Sampling 40
3.5.2. Data collection Procedures 41
3.6. Data Analysis and Information Presentation 42
3.7. Ethical Considerations 42

ST. PAUL'S UNIVERSITY

CHAPTER FOUR **43**
RESEARCH FINDINGS, ANALYSIS AND DISCUSSIONS **43**
4.1. Introduction 43
4.2. Response Rate 43
4.3. Socioeconomic Characteristics 43
4.3.1. Gender 44
4.3.2. Age 45
4.3.3. Level of Education 46
4.3.4. Marital Status 47
4.3.5. Main Occupation 48
4.4. The link between interest rates charged on loans lead and repayment default on non-performing loans 48
4.3.1. Loan History 48
4.3.2. Interest charged on Loans and NPLs 49
4.5. Whether the level of education and knowledge of the borrowers contribute to repayment default on non-performing loans 50
4.5.1. Whether the Respondent has failed to pay loan 51
4.5.2. Understanding of Credit Terms 52
4.5.3. Literacy levels and their impacts on NPLs 53
4.6. The effect of the number of lending institutions available on non-performing loans 55
4.6.1. Availability of lending Institutions in the area 55
4.6.2. Lending institutions and their impacts on NPLs 56
4.7. The link between the demand for collateral by the bank and non-performing loans 60
4.7.1. Chances of NPLs from banks which easily admits borrowers 60
4.7.2. The link between Collateral and NPLs 61
CHAPTER FIVE **64**
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS **64**
5.1. Introduction 64
5.2. Summary of the Main Findings 64
5.2.1. Socioeconomic Profiles 64
5.2.2. The effect of interest rates charged on repayment default of non-performing loans. 65
5.2.3. The link between the level of education /knowledge of the borrowers and repayment default on non-performing loans. 65
5.2.4. The link between the number of lending institutions available and non-performing loans 66
5.2.5. The effect of collateral demanded by the bank on non-performing loans 67
5.3. Conclusion 67
5.4. Recommendations 69
5.5. Suggestion for Further Research 70
REFERENCES **71**
APPENDICES **76**
Appendix 1. Questionnaire for the Respondents 76
Appendix 2. Interview Schedule 81

ST. PAUL'S UNIVERSITY

LIST OF TABLES

Table 4.1. Response Rate 43

Table 4.2. Respondents' Age Brackets 45

Table 4.3. Distribution of respondents according to their levels of Education 46

Table 4.4. Respondent's Main Occupation 48

Table 4.5. Respondents' Opinions on interest rates charged on Loans from Equity Bank 49

Table 4.6. Respondents' failure to pay loan in Time 51

Table 4.7. Effects of Literacy levels on NPLs 53

Table 4.8. Opinions on collateral and occurrence of NPLs 62

ST. PAUL'S UNIVERSITY

LIST OF FIGURES

Figure 2.1 showing conceptual Framework of independent, dependent and intervening variables 37

Figure 4.1 showing Gender of the Respondents 44

Figure 4.2 showing Distribution of Respondents according to their Marital Status 47

Figure 4.3 showing whether respondent has borrowed loan from Equity Bank in the recent Past 49

Figure 4.4 showing opinions on inadequate understanding of loans and NPLs 52

Figure 4.5 showing respondents' opinions on the availability of Lending Institutions in the Area 55

Figure 4.6 showing the effect of Lending Institutions on Non-performing loans 56

Figure 4.7 showing opinion on whether a bank which easily admits borrowers has high chances of NPLs 60

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LIST OF ABBREVIATIONS

AGRA	Green Revolution in Africa
bn	Billion
CEO	Chief Executive Officer
DFI	Deposit Financial Institutions
ERS	Enterprise Resource Systems
FiKA	Financial Knowledge for Africa
GOK	Government of Kenya
HSNP	Hunger Safety Net Programme
Kes	Kenya Shillings
KYC	know your customer
LLPs	Loan Loss Provisions
MFIs	Micro-financial Institutions
MOA	Ministry of Agriculture
NDFI	Non Deposit Financial Institutions
NPAs	Non-Performing Assets
NPL	Non-Performing Loans
NYDA	National Youth Development Agency
SSA	Sub-Saharan Africa
UN	United Nations
VLB	Vukisha Loaned Businesses
YEDF	Youth Enterprise Development Fund

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CHAPTER ONE
INTRODUCTION

1.1. Background of the Study

Non-performing loans (NPLs), referring to loans which have not been repaid within stipulated time usually three months/90 days (Collins and Wanjau, 2011) form one of the biggest challenges facing the banking industry (Socuvkova, 2012). NPLs becomes more critical since loans are the backbone of the banking sector both in developed and developing countries and therefore their stability is linked to rate of economic growth and macro-economic health of any given country. In situations of high ratio of NPLs, financial stability is often under threat and banks become unable to play their intermediary roles as the main avenues of financing the economy.

NPLs are partly associated with some of the worst financial crisis in the banking industry including The 1930s Great Depressions in the US as well as the 2010 credit crunch experienced in America and by extension, the rest of the world (Hardy, 2006). The need to reduce NPLs and clean up the banking industry therefore represents a cross-cutting issue for academicians and the economy at large.

Recently, there have been many cases of NPLs in Kenya's banking sector with significant effects not only on the banking industry but also the country's economic status at large (Collins and Wanjau, 2011). For instance, Data from the Central Bank of Kenya indicates that the value of NPLs in 2013 was Kshs. 70 billion, a 14.1% increase from the Kshs. 61.6 billion NPLs in 2012. This was due to the subsiding of the government and private sectors' spending in the

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electioneering period (Onsarigo, et al., 2013). According to the latest report by CBK (2016), the non-performing loans in possession of the local commercial banks increased to US$1.2bn during the third quarter of 2015. The increasing cases of NPLs, the related factors on the prevailing economic environment and its effects on the economic stability have attracted much attention of researchers and the need to investigate the key causes. They found that the rate of NPLs was affected by real economic growth rates and inflation rates as well as competition within the banking sector. According to Collins and Wanjau (2011), when interest rates are very high, the borrowers have a challenge in servicing their loans, which mean that an increase in the levels of Non-performing loans is the result.

However, there are still research gaps in relation to factors influencing NPLs dynamics especially for developing countries. Also, the issues of interest rates, lending institutions, literacy levels and collateral requirement by the banks have not been considered in their influence on non -performing loans. As per the researcher's knowledge, there is no study so far done about NPLs with a focus on Equity Bank (K) Limited in Limuru. It is against this background, that the current study is proposed.

1.2. Statement of the Problem

Giving loans is one of the traditional roles of banking sector and this aspect remains up to date. However, NPLs cases pose a world-wide headache and a major concern at both international and local levels (Issa, 2009). As far as NPLs problems remain unsolved, the smooth functioning of banks will be compromised. This is partly attributed to the fact that it may erode the banks'

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asset and lead to a reduction of income via accumulation of losses as well as increased provisions as compensation for the losses (Issa, 2009).

In Kenya, the banking sector has undergone many regulatory and financial reforms like other African countries, with the aim of encouraging efficiency and profitability (Nkurrunah, 2014). Despite these changes, issues of NPLs still pose financial challenges to many banks (Onsarigo, *et al.,* 2013). Like the rest of Banks in Kenya, Equity has been experiencing increased cases of NPLs. The reasons behind the increased cases of NPLs are not yet clear.

Existing studies conducted both in Kenya (Nkurrunah, 2014; Grades, 2007), and outside (Dinh and Kleimeier, 2007; Harrison and Colin, 2005) have mainly focused on microfinance in general ignoring the issue of NPLs, yet these pose a threat not only to the banking sector but also the country's economy. Therefore, there was a need for extensive research aimed at understanding the causes of NPLs.

1.3. Main Objective

This study aimed at investigating factors contributing to Non-Performing loans using a case study of Equity Bank (K) Limited in Limuru Town, Kiambu County.

1.3.1. Specific Objectives

(i). To assess the effect of interest rates charged on repayment default of non-performing loans.

(ii). To find out if the level of education and knowledge of the borrowers contributed to repayment default on non-performing loans.

ST. PAUL'S UNIVERSITY

(iii). To establish the link between the number of lending institutions available and non-performing loans.

(iv). To assess the effect of collateral demanded by the bank on non-performing loans.

1.4. Research Questions

(i). Do the interest rates charged have any effect on repayment default on non-performing loans?

(ii). Does the level of literacy of the borrowers contribute to repayment default on non-performing loans?

(iii). Is there any link between the number of lending institutions available and non-performing loans?

(iv). What is the effect of collateral demanded by the bank on non-performing loans?

1.5. The Importance of the Study

This study sought to uncover reasons for the rising cases of Non Performing Loans and this could help banks and any other financial institution to put appropriate measures to deal with such cases. It would also add additional information on existing literature on the factors influencing Non Performing Loans in developing countries.

Future researchers may also find the study findings useful as they would be able to use the findings as reference in relation to Non Performing Loans. In addition, the study may encourage academicians to re-focus the main factors influencing NPLs.

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1.6. Scope of the Study

This study adopted a descriptive survey design to assess factors contributing to non- performing loans in Limuru sub-county, Kiambu County. The study narrowed down to interest rate levels, levels of education/literacy, and the available lending/financial institutions. It also looked at the role played by the demand for Collateral by the bank in relation to non-performing loans

Participants of the study were mainly recruited purposively and by the use of stratified sampling approaches. The study was also restricted to the use of observations, questionnaires, and interviews in collecting primary data, and journals, articles as well as electronic books as secondary sources of data.

1.7. Limitation of the Study

It was the researcher's anticipation that the respondents would be not be open in sharing or giving accurate information hence impacting negatively on the quality of data collected.

Another problem encountered was the language barrier because some of the clients of Equity Bank came from the local community. Besides, most of the respondents had low levels of education. This made communication ineffective between the researcher and the respondents.

1.8. Delimitations of the Study

Despite the challenges cited above, the study was successfully carried out. The researcher explained the reasons for the study and assured respondents of confidentiality. This was aimed at countering their unwillingness to give accurate information. The researcher also used the help of local research assistants to counter the issue of language barrier.

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1.9. Operationalization of Key Terms

Collateral: This means specific properties or assets pledged by a given borrower in order to secure a loan (Leitner, 2006).

Interest rates: This is the rate that borrowers pays for using a given amount of money the borrow from the lending institution (Collins and Wanjau, 2011)

Lending Institutions: This refers to the government agency or privately owned entities which collect funds from the public and other institutions in order to invest these funds in loans and other financial assets (Kamecka, 2010).

Literacy Levels: This is concerned about the ability to read, write and speak. It is particularly concerned with ability to read and understand basic information about loans (Beck et al., 2010).

Non-Performing loans: This as used in this study refers to loan whose borrower has not made any repayments hence breaching his or her contractual obligations (Bholat et al., 2016).

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CHAPTER TWO
THEORETICAL AND EMPERICAL LITERATUR REVIEW

2.1. Introduction

In this chapter, a broad review of the pertinent literature along study objectives is provided. The review is mainly done along the research objectives and questions namely: The effect of Interest Rate Charged on Repayment Default on NPLs, the effect of literacy rates on repayment default on NPLs, the effect of the number of lending institutions on NPLs and the effect of Demands for collateral on NPLs. This chapter also presents theoretical and conceptual framework upon which the study is formulated.

2.2. Non-Performing Loans

The terms Non-performing Loans lack standard definition which could be applicable to world economies (Hou, 2006). According to Bholat, Lastra, Markose, Miglionico and Sen (2016) there is no common definition of non-performing loans (NPLs) in existence. There are wide ranges of definitions as dictated by the different classification system and the scope as well as contents which bring additional uncertainty on the meaning of NPL (Hou, 2006). This study documents differences in the definition of NPLs across countries.

In general, a Non-Performing Loan is a loan whose borrower is not making repayments and thus breaching contractual obligations (Bholat et al., 2016). Banks do not receive interest and/or payments of installment any longer as scheduled from these financial assets. They are known as non-performing for the fact that the loan fails to "perform" or in other words fails to generate revenue for the bank. NPLs become impaired when the amount expected to be paid back happens

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to be lower than the contracted value held on bank's balance sheet. At this instance, loan loss provisions (LLPs) are made. LLPs are an accounting deduction that totals to the difference between the amount the bank's borrowers have agreed to pay back, and most current estimate of the bank of the amount they will in fact receive (Davis and Karim 2008).

Choudhury et al. (2002,p. 21-54) assert that the non-performing loan is not a "uniclass" but more precisely a "multiclass" concept, meaning that NPLs can be categorized into different classes commonly based on the "length of overdue" of the said loans. These classes are categorized in three areas: Sub-standard classification referring to loans that have not been paid for 90 to 180 days, Doubtful classification referring to loans that have not been paid for a period of 181 to 365 days and finally Loss classification referring to loans that have not been paid for more than 365 days and hence their chances of being paid are almost nil.

NPLs are viewed as a characteristic byproduct of financial crisis: they are not a main result of the lending function but simply an inadvertent occurrence of the lending process, one that has huge potential to deepen the severity and length of time financial crisis will take and further make macroeconomic management difficult (Woo, 2000). NPLs can weaken investors' confidence in the banking system, accumulating unproductive economic resources albeit depreciations being taken care of, and slowing down the process of resource allocation as a result.

Moreover, non-performing loans have been defined as a risk threshold that describes the point in the repayment history of the borrower where he or she failed to repay at least three installments

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within a 24 month period, as noted by Pearson and Greeff (2006). This represents a point in time and indicator of behaviour, wherein there is a demonstrable increase in the risk that the borrower eventually will truly default, by ceasing all repayments. The definition is in harmony with international standards, and was essential for the reason that consistent analysis necessitated a common definition. This definition does not suggest that the borrower had totally stopped paying the loan and hence been referred to collection or legal processes; or that the loan had been categorized as bad or doubtful, or actually written-off from an accounting point of view. Loan default can be defined as the failure of a borrower to act in accordance with his or her loan obligation as at when due.

By focusing also on the period associated with Non-Performing Loans, Rose (2002, p.118) conceptualized it as "a credit given and scheduled repayment period exceeding 90 days or three months. Others scholars understand the concept of Non-Performing Loans as a borrower's reluctance to repay the installments within a stipulated time of about six months. One of these scholars is Cho (2002 p.10) who says that a loan can be considered NPLs only if it is past due six months."

Fatemi and Fooladi (2006) define NPLs as those which are unrecoverable within the time stipulated by the country's legal system or as agreed to by both the borrower and lending institutions. The International Monetary Fund (IMF, 2009), explains that Non Performing Loans are loans with their interest and principal payments going beyond 90 days deadlines. Collins and Wanjau (2011) assert that NPLs in Kenya are credit given to individuals, groups or organizations which have overstayed beyond their repayment period of 90 days.

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But away from this general definition, the particular conditions for loans to be categorized either as 'impaired' or as 'non-performing' differ across jurisdictions and firms, and within firms and across time (Bholat et al., 2016). The threshold for impairment and provisions is different as a consequence. This is of importance for the reason that it makes meaning comparing the quality of different banks' assets difficult. There are also wider repercussions. Many banking crisis are caused by bad lending. A good example is Chase Bank in Kenya where inside lending led to collapse of the institution. These consequently often bring about wider economic contractions (Bholat et al., 2016). Therefore, provisioning for loan losses can play a considerable role in contributing to the formation of crisis. Also, uncertainty about the definition of non-performance can worsen them because it makes it complicated for outsiders to decide whether recapitalization and recovery of the firm can occur.

An increase in the number of non-performing loans is bad news all round. The funding costs for banks with bad loans on their books do increase as NPLs increase. These costs usually are as a consequence pushed onto firms and households, possibly slowing economic growth as credit shrink (European Banking Coordination Vienna Initiative 2012). In the worst case, NPLs cause bank and borrower insolvencies as a result of systemic failures, with worse effects on third parties through direct inter-linkages, and indirect effects as asset prices go down in the course of liquidations and overextended borrowers refrain from spending, reducing income down the line for others, including even for those that are not heavily indebted (Bholat et al., 2016).

NPLs can further impede economic recovery by reducing operating margin and eroding the banks' capital base to advance new loans in a bank-centered financial system. This is at times referred to as "credit crunch" (Bernanke et al., 1991: 204-248). NPLs, moreover, if created

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willingly and left unresolved by the borrowers, might become like a contagious financial disease causing the exit of good borrowers off the financial market.

Further, Muniappan (2002) argues that a bank with high level of NPLs is compelled to incur carrying costs on non-revenue producing assets that not only affect profitability but also at the capital adequacy of a bank, and as a result, the bank is faced with problems of how to supplement capital resources. Bholat et al. (2016) state that if financial risk is not done away with swiftly, the higher chances of the occurrence of banking crisis. Such crisis not only lowers living standards but can also eliminate many of the achievements of economic reform overnight.

NPL create a drag on economic activity, particularly for countries that depend mainly on bank financing, as is the case in the euro area (Mesnard, Margerit, Power, and Magnus, 2016). High NPL decrease profitability, raise funding costs and lock up bank capital, which negatively affect credit supply and eventually growth. More specifically, Mesnard et al., (2016) argue that banks' balance sheet with non-performing debt impedes their ability to lend to the real economy through essentially three channels:

First, the authors argue that NPLs lowers profitability because non-performing loans mean higher provisioning conditions, which consequently lower banks net operating income. Profits are further decreased by the raised amount of human resources required to monitor and manage high NPL stock.

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The second argument is that non-performing loans result in higher capital requirement because these loans are risky assets which attract higher risk weights than performing loans; High NPLs lock up banks' resources and crowd out new credit; IMF calculations suggest that given the current level of impaired assets a timely resolution could release as much as €42 billion (or 0.5% of selected countries 2014 GDP) of additional capital, which could unlock new lending of more than 5 percent of GDP (Mesnard et al., 2016).

Lastly, the scholars explain that non-performing loan results in increased funding costs as investors and other banks are more reluctant to lend to banks with high NPLs levels, causing an increased funding costs for these banks and a negative effect on their ability to yield profits (Mesnard et al., 2016).

Still on the impact of non-performing loans on economic growth, some scholars have argued that it is not that the challenge of non-performing loans is a drag on the economy but that economic downturn enhances the problem of non-performing loans. As already highlighted, economic downturn is one of the reasons why non-performing loans tend to increase. Non-performing loans is associated with disintermediation of bank-system lending caused by the erosion of banks' profitability (Muniappan, 2002). An increase in non-performing loans reduces the banks' net worth, and lowers their risk-taking capacity, making it difficult to invest funds in risky projects and to realize potentially productive businesses.

ST. PAUL'S UNIVERSITY

2.3. Equity Bank

2.3.1. Loan Services Offered by Equity Bank

The bank is offering various loans services to the people of Kenya. These loans range from agricultural, business loans, asset finance, Mortgage and development Loans, consumer based loans, group loans among others (Equity Bank, 2010).

Equity Bank mission is based on an ambitious endeavor to marshal savings, long-term deposits and other forms of finances for the effective provision of loan facilities to the micro finance and missing middle sector, particularly small and medium enterprises, with a view of generating adequate and sustainable profits to improved clients' welfare and to the national economy (Equity Bank, 2010). Equity Banks' strategic plans focus mainly on marketing of products and services and geographical expansions in order to make banking services accessible to a vast majority of Kenyans who presently do not use or have access to banking services. Currently, the bank is providing comprehensive financial services and solutions to the low and medium income segments of Kenyans. This market niche is composed of micro entrepreneurs, salaried and wage workers, small scale commercial farmers, small and medium enterprises and all eligible private individuals, (Equity Bank, 2011).

In 2011, Equity bank came up with products and services targeting small scale farmers such as Financial literacy programme which is aimed at increasing the financial knowledge for small scale farmers, Kilimo Kisasa Loan (product designed for financing farmers to acquire modern tools, equipments and machinery), Kilimo Supa Loan (product designed to support all categories of farmers by providing working capital also available to agro dealers, agro processors and

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agricultural traders), Kilimo Biashara Loan (A subsidized product in support of grain, horticulture farmers and agro dealers) to support small scale farmers, (Klapper, Lusardi and Panos, 2013).

Equity Bank also offers follow up business advisory services with the aim of ensuring that businesses are not at risk of failing (Mugabi, 2010). To create mentoring relationships, Equity Bank does also connect entrepreneurs with successful local and international entrepreneurs. These mentors give guidance and advice on managing and growing businesses. The mentoring process is anchored with the group lending structure where a section of the members are above a specific age with business experience and acumen. This is intended to create an environment where the entrepreneurial ideas are incubated to maturity (Mugabi, 2010).

Equity Bank also offers scholarship programs for secondary school and university students. Over 10,000 students were provided with scholarships by the bank. During their school holidays, students do intern at the bank and acquire valuable employment experience that helps them in their job search after graduation (Equity Bank, 2011). These young scholars have become a type of ambassador for Equity Bank and for the banking sector in general.

Equity Bank has also embraced modern technology in its day to day operations. Equity employs technology to run its communication networks, operates ATMS, and uses IT for e-banking services among others, in the same manner as any other modern banks which are very reliant on technology (Karkhanis, 2002). The many branches of Equity bank countrywide are a strong indication of people's ability to access both bank accounts and credit. For instance, it is

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estimated that any penetration of Equity Bank say in a new locality tend to increase the likelihood of opening a bank account between 4 and 9 percentage points. The positive effect of Equity Bank on financial access is particularly strong for households with low economic status and low literacy levels. This supports Equity's model of targeting underprivileged segments of the population that can bring in sustainable profits (Central Bank of Kenya, 2011).

Farmer's financial training programme is an equity bank competitive strategy which is geared towards helping farmers develops financial management skills. It teaches farmers concepts of money and how to manage personal income and farm business wisely. It offers farmers the opportunity to learn basic financial management skills; it consists of four modules namely budgeting, saving, banking services and debt management (Mwangi, 2012). It takes duration of twelve weeks with one hour session a week. The curriculum is made to empower farmers with skills which enable them to become informed financial decision-makers, hence be able to plan for and realize their goals. Through financial management training, institutions are better to meet the needs of their customers and gain competitive advantages. The bank uses learner centered approach in training, concentrating on the eight key practices; Relevance (applicability of the study to the daily experiences of the farmers providing a reason for the learning), Dialogue (conversation among the learners and the facilitators), Engagement (involving learners through group discussions, question and answers and role playing) and Immediacy (learners realizing the usefulness of the new learning). Affirmation is important; the trainer should praise learners for even small attempt. Safety (valuing learner's ideas and contribution so that they do not feel belittled neither ridiculed) and Accountability (what is planned to be taught must be taught and learning needs must be met) are emphasized. Respect (treating learners as equals and

ST. PAUL'S UNIVERSITY

acknowledging the experiences and knowledge they contribute in the lesson) must be practiced while training farmers (Mwangi, 2012).

Equity Bank investing in the society is a key part of its corporate strategy. It is also part of its social responsibility. In 2010 the bank came up with equity group foundation which is a tool to deliver its corporate social responsibility to the society. The bank works with other willing partners in six focus areas which include financial literacy, education, entrepreneurship, agriculture, health and environment where the bank facilitates the infrastructure of delivery (Mwangi, 2013). The bank offers subsidized credit services to cater for farm input and free financial management training. The trainings aim at unlocking farmer's access to credit by building farmer's financial knowledge and skills (Mwangi, 2013)

2.4. The Role of Interest Rate Charged on Repayment Default on Non-Performing Loans

According to Saurina (2005), interest rate is the additional charges for a given use of money. The author clarifies that interest rate is usually expressed as an annual percentage of the principal derived by dividing the amount of interest by the amount of principal. A similar definition is given by Collins and Wanjau (2011) who describe Interest rates as the rent that the borrowers pay on money that they borrow from money lending institutions. Interest rate usually increases with the rising inflation rate, more demand for credit, or as a result of higher reserve requirements for financial institutions. Generally, any increase in interest rates tends to be accompanied by a negative effect on business engagements as credit becomes more expensive.

ST. PAUL'S UNIVERSITY

Interest rates are vital in the mobilization and allocation of resources (Yaron, et **al**., 1997). According to Collins and Wanjau (2011) government's limitations on interest rates limit the levels and types of involvement by financial intermediaries in rural financial markets since interest rates on directed agricultural credit are usually fixed below market rates. Limiting interest rates suppresses savings and may lower lending to small borrowers. The demand for loans may not be considerably impacted by the level of interest rates, but interest rate setting is related to client selection (Collins and Wanjau, 2011). Projects having a higher potential for success might be selected at reasonable market rate. Loan collection performance could be better if poor projects are not chosen.

Rationing is caused by subsidized rates, which have a tendency to favor the rich and politically linked and borrowers might not take the loans with the much needed earnest. Borrowers may take loans with less interest since the rate is lesser than the market rate and money might not be used for the best investment existing in the market. On the other hand, lesser interest rates may be accommodating for small borrowers who may not be aware of many high return investment opportunities (Collins and Wanjau, 2011).

Previous studies have shown NPLs can be influenced by high interest rate (Fofack, 2005; Jimenez and Saurina, 2005). Banks placing higher interest rates on the loans that they issue have been found to experience a high level of NPLs as compared to those that charge relatively lower rates. According to Messai and Jouini (2013), interest rates influence the level of NPLs especially in the case floating interest rates since the customer will be required to pay more on

ST. PAUL'S UNIVERSITY

top of the money they borrow as the banks gain more from the money they loan to clients. Potential borrowers are most likely to see the disadvantages of borrowing when the interest rate charged in high. Only borrowers involved in the riskiest ventures or business are more likely to borrow even if the interest charged in high (Jimenez and Saurina, 2005).

High interest rates discourage investments as many people shy away from borrowing when the rates are high, but when the rates are low most people borrow and invest in different areas. Monetization of the economy banks are monetizing the economy their extensive branch network even in rural areas (Central Bank of Kenya, 2009).

While assuming pseudo panel-based framework for a number of countries in SSA, Fofack (2005) reports that real interest rate is one of the most important determinants of NPLs in the countries studied. Fofack's explanation revolves around the undiversified economic nature of most of the African countries. Jimenez and Saurina (2005) from Spain support Fofack's study that NPLs are affected by the increase in real interest rates. Recently, Tsige (2013) while investigating factors influencing NPLs in Ethiopia also reveals that Interest rate was positive implying that increases in the average lending rate of Ethiopian Banks ultimately increase the size of their NPLs.

According to Negera (2012), a higher default rate or non performing loans are as a result of banks that charge high interest rate. Loan defaults were linked to a high interest rate charged by banks as shown in study by Sinkey and Greenwalt (1991) on large commercial banks in US. Rajan and Dhal (2003) showed that NPLs are significantly affected by financial factors like cost of credit, using a panel regression analysis. Study by Waweru and Kalini (2009) on the

ST. PAUL'S UNIVERSITY

commercial banks in Kenya using statistical analysis shows that one of the internal factors that are as a consequence of the occurrence of non-performing loans is high interest rate charged by the banks. Besides, studies by Jimenez and Saurina (2006) and Quagliariello (2007) found that banks profit margin presented by high interest rate affects incidence of NPLs.

Another important study to consider is that of Aliero and Ibrahim (2013) in Nigeria whose focus was the handles facing young people and their efforts to access credit facilities. The two researchers explain that youths economic empowerment can only be achieved on conditions that interests rates are made lower' so that the youths can be able to access the credit. This implies that the two researchers consider interests rate as one of the major impediments to accessing loans. The only shortcoming of their study is the fact that it is done in Nigeria which bring about significant geographical differences. Besides, it does not show how interest rate is linked to NPLs. The study sought to fill the gap by pursuing empirical evidence based on the primary data to be collected from Limuru sub-county.

A study by Keynes (quoted in Aliero and Ibrahim, 2013, p.31) shows that business investments are inversely proportion to interest rate, meaning that a rise in interest rates is accompanied by a reduction in terms of investments. Keynes supports this assertion by explaining that the higher the interest rate, the lower the chances of making some profits out a particular business venture. In simple terms, the author explains that high interests rates tend to adversely affect the marginal efficiency of business capital. Using this agreement, one can appreciate why most of business men and women go for loans with low interest rates. Although Keynes provide useful insights for the proposed study, the author fails to show how interest rates are associated with

ST. PAUL'S UNIVERSITY

NPLs; there is no indication of whether or not interests rates have negative or positive effect in NPLs. The current study sought to fill this gap.

One of the studies done in Kenya by Collins and Wanjau (2011) sought to establish the effects of interest rate spread on the level of Non-Performing Assets in commercial banks in Kenya. The study was descriptive in nature and relied on all the 43 commercial banks in Kenya that were in operation by 2008. Collins and Wanjau observed that interest rate spread affect performing assets in banks as it increases the cost of loans charged on the borrowers making it hard for the borrowers to services their loans, which mean that an increase in the levels of NPLs is the result. The study recommends that the government should apply stringent regulations on interest rates charged by banks so as to regulate their interest rate spread and enhance periodic/regular credit risk monitoring of their loan portfolios to reduce the level of NPAs. The main shortcoming of this study is that it is based on all commercial banks that were in operation in 2008. The proposed study focused on Equity bank within Limuru, Kiambu County.

Negera (2012) assessed factors influencing non-performing loans. Using a mixed research approach, the findings of the study indicated that poor credit assessment, unfair competition among banks, failed loan monitoring, underdeveloped credit culture, aggressive lending, compromised integrity, lenient credit terms and conditions, weak institutional capacity, intentional default by borrowers and their limited knowledge, fund diversion for unintended purpose, over/under financing by banks ascribe to the causes of loan default. Though the study provided useful background information, its outcome did not show if there was any relationship between interest rate and incidences of nonperforming loans. The study proposed that banks

ST. PAUL'S UNIVERSITY

required to establish a vibrant credit process that guarantees proper customer selection, authentic sanctioning process, robust credit analysis, proactive monitoring and clear recovery strategies for sick loans; come up with a clear policy framework that handles issues of conflict of interest, ethical standard and check and balance in credit process; organizational capacity enhancement of banks; deliberate effort to develop culture.

Badar and Yasmin(2013) carried out an Empirical Study on 36 Commercial Banks in Pakistan between the years 2002 and 2011entitled "Impact of Macroeconomic Forces on Nonperforming Loans" using the long and short run dynamics between non-performing loans and macroeconomic variables of the banks. In the study there was a strong negative long run relationship between interest rate and money supply with NPLs.

In a more recent study in Kenya, Kariuki and Ngahu (2016) examined the effect of interest rates on loan performance of MFIs in Naivasha Sub-County. The study adopted descriptive research design. The target population comprised of 36 employees. Census design was employed. The study used a structured questionnaire to collect data. The study found that default risk premium and liquidity risk premium negatively affected loan performance. The authors observed that Interest rates substantially influenced loan performance. It was concluded that MFIs faced default on loans advanced which was attributed to risky borrowing. It was inferred that MFIs faced liquidity risk. The authors recommended that MFIs consider easily tradable assets accepted as collateral in order to mitigate liquidity risk while lending.

ST. PAUL'S UNIVERSITY

Nkurrunah (2014) shows that the rate of interest imposed by banks on loans increases NPLs. The purpose of the study was to uncover factors affecting NPLs at the Commercial Bank of Africa (Kenya). Using a mixture of descriptive and correlation study approach, the author observed that most of the study respondents revealed that high interest rates contributed to the rate of default on loans by customers since 57.1% was in generally agreement. About 29.3% of the respondents were neutral while the rest were in general disagreement that high interest rates led to NPLs. Nkrumah's study was relevant since it showed that high interest rates encourage NPLs. Thus, banks need to reduce the amount of interest that they charge on loans. The study offers useful guidelines except that it is limited to Commercial Bank of Africa (Kenya). The current study was narrowed down to Equity bank in Limuru, Kiambu County.

Kipyego and Wandera (2013) also conducted a study on the effects of credit information sharing on the non-performing loan of commercial banks in Kenya. The objectives of the study was to assess how non-performing loans are affected by credit information sharing, to identify the factors that account for bad loans and to find out the economic sector that records higher bad loans and the efforts taken to lessen the risk in this sector. Data was collected from primary sources and secondary data between 2007 to 2012 period. One of the variables included in the study was interest/lending rates. The two researchers observed that interest rates had positive and significant effect on NPLs. They explained that this makes many borrowers not to pay their loans hence leading to many bad loans.

ST. PAUL'S UNIVERSITY

According to some scholars, the effect of interest rates on Non-performing loans is not obvious. For instance, Konfi (2012) who conducted study on the determinants of nonperforming loans on the operations of SINAPI ABA TRUST microfinance institutions in Ghana ascertained that high interest rate was not an important factor causing the occurrence of NPLs. This study justifies that interest rate is only applicable to loan defaulters who have not paid only the interest but have managed to pay off outstanding principal. If a borrower defaults on both principal and interest, then one cannot claim that high interest rate is the actual reason of the loan default.

2.5. The link between literacy rates and repayment default on non-performing loans

Literacy has been found to be a key factor in relation to NPLs. There is evidence that many people in the developing world are not able to access credit because most of them do not have basic financial literacy (Beck et al., 2010). For example, ILO (2009) explains that most of the entrepreneurs have Low literacy levels as majority of them drop from the primary level or they have acquired primary level. It is because of this fact that most of them find their way to the Jua-Kali industry seen as the solution. ILO (2011) observes that there is seemingly declining level of education that tends to have a negative effect on entrepreneur's ability awareness on not only how but also where to obtain loans to improve their businesses. Financial literacy encompasses the combination of investors' knowledge of financial products and concepts and their ability and confidence to understand financial risks and opportunities, to make informed decisions, to know where to find assistance, and to take other effective actions to improve their financial well-being (Atkinson & Messy, 2005).

ST. PAUL'S UNIVERSITY

Studies indicate that financial illiteracy is one of the important causes of low saving levels as well as poor financial management skills (Klapper, Lusardi, and Panos, 2013). Households with members who are illiterate especially in relation to financial management are not able to strategize for their future or emergencies or unforeseen events. They also borrow at relatively high rates (Duca and Kumar, 2014). Recent evidence from Russia shows that financial literacy is negatively linked to the use of informal borrowing and is positively linked to the use of formal banking and borrowing. Additionally, people who are well equipped with financial skills are less probable to report suffering from a negative income shock (Klapper et al., 2013).

Nub and Karana (2008) observed that literacy is essential for anybody who wants to make informed decisions about their finances such as not only accessing loans but also the need to repay it. The literacy level is again a requirement for proper book keeping as most financial institutions demand cash flows and other financial records as a qualification for the approval of credit. In a separate study, Lusardi and Tufano (2009) focused specifically on debt literacy, i.e. the capacity of persons to make simple financial calculations on issues directly relating to the cost of debt contracts. The US population was found to have very low levels of literacy. Less debt literate individuals are found to bear a disproportionately large share of avoidable costs (e.g., late fees), or borrow too much at high rates without realizing future consequences

Agarwal et al. (2010) indicated that improved financial literacy leads to lesser delinquency rates as observed from participants of voluntary financial education program who are less likely to fall behind in paying their mortgage. According to Tuyisenge, Mugambi and Kemirembe (2015)

ST. PAUL'S UNIVERSITY

financial literacy hence is seen as one of the approach employed by bankers to impart knowledge and skills required to change attitude and bring more potential users of agent banking.

Nyamboga, Nyamweya, Abdi, Njeru and George (2014) argue that Financial literacy tend to empower investors, educating them and equipping them with relevant knowledge and skills in financial management. Nyamboga et al., (2014) add that to assist one to overcome most challenges in advanced credit markets financial literacy is necessary. Moreover, the researchers state that it enables the investors to encounter challenging financial times using strategies that reduce risk such as piling savings, diversifying assets, and purchasing insurance. More significantly, they argue that financial literacy fosters better and informed decision making processes such as payment of bills on time, proper debt management which improves the credit worthiness of potential borrowers to support livelihoods, economic growth, sound financial systems, and poverty reduction. The other argument is that financial literacy leads to a better use of financial products and services, greater management of one's financial future and lessened risk to overzealous retailers. Investors that are financially literate have the ability to come up with competitive pressures on financial institutions to provide more properly priced and transparent services, by comparing and contrasting available options, posing the right questions, and bargaining much more effectively.

Nyamboga et al., (2014) sought to investigate the impact of financial literacy on SMEs loan repayment. The specific objectives of this study was to find out the effect of book keeping skills, management of credit and budgeting skills on repayment of loans by their beneficiaries. The study was carried out among the recipients of Equity Group Foundation Training Program

ST. PAUL'S UNIVERSITY

(EGFTP) on SMEs in Ngara, Nairobi County. The study employed a sample size of 30 SMEs chosen using stratified random sampling methods. The author established that financial literacy such as book keeping, credit management and budgeting skills significantly affected the ability of SMEs to pay back loans, employing both descriptive and inferential statistics for data analysis in the study. As a consequence, the author proposed for the need for financial related programs to enhance borrowers' capacities.

Bahovec, Barbić and Palić (2015) did a paper with the aims of detecting and categorizing Croatian financial consumers' financial literacy and analyzing whether the different levels of financial literacy was statistically significant in terms of socio-demographic characteristics. The paper was also aimed at determining whether a respondent's debt behavior differs based on their financial literacy. Lastly, the paper was formulated with the aim of examining sources of different debt behavior in relation to financial literacy. In this study, the three researchers employed cluster analysis to categorize financial literacy and determine whether a respondent's financial literacy differs due to their socioeconomic status. The effects of financial literacy on debt behavior were investigated using a rank-based nonparametric test. The three observed that respondents exhibited different debt behavior due to different levels of financial literacy. In particular, respondents with a low level of reported financial literacy demonstrated worse debt behavior. This study by Bahovec et al. (2015) was quite informative to the present study except that it was not directly related to NPLs.

Tuyisenge et al., (2015) investigated the impact of financial literacy on loan repayment in Rwanda. The research was focused on small and medium entrepreneurs in Urwego Opportunity

ST. PAUL'S UNIVERSITY

Bank. The study established that financial literacy levels amongst SMEs were far too low to deal with the complexities of the matter. The quality of financial information available for financing institutions is rather poor. Credits decisions become difficult and collateral requirements as well as interest rates were high, substantially aggravating access to credit. Controlling the Loan Book is equally difficult. The authors observed that banks in Rwanda were increasingly facing non-performing-loans particularly from SMEs.This was attributed to their low financial literacy.

In general, most of the available literature on financial literacy is focused on developed countries. Greenspan (2002) claims that financial literacy assists to instill in people the financial knowledge which is needed or appropriate for formulating household budgets, initiating savings plans, and making strategic and informed choices. Proper use of that knowledge, the author argues assists investors and individuals to meet their financial commitments through wise planning.

2.6. Contribution of the number of lending institutions on non-performing loans

Financial institutions can be defined as government agency or privately owned entities that collect funds from the public, and from other institutions, and invests those funds in financial assets including loans, securities and bank deposits as well as revenue generating properties (Kamecka, 2010). Financial institutions can also be identified as business organizations that offer a wide range of financial services or concentrates in particular functions, products, or services. In most cases, financial institutions deal in one commodity, particularly money and money equivalents. Many of their transactions are based on book entry form and mostly serve primarily in areas of savings, borrowing, lending, and investing.

ST. PAUL'S UNIVERSITY

Broadly defined, financial institutions comprise those institutions which normally play intermediary roles linking savers and borrowers and are distinguished by the way they collect and invest these funds.

Financial institutions can be categorized in two. The first one is the Depository financial institutions (DFIs) which are usually concerned with depository lending, where they leverage a spread between lending and borrowing rates in order to generate revenues (Kamecka, 2010).Their primary functions are thus to accept deposits and to use the money collected for lending purposes. There exist three main types of DFIs. This includes commercial banks, savings institutions and credit unions (Kamecka, 2010). Although most of the DFIs are regulated by different bodies, they are commonly referred as banks since they all offer common services and products. The second category is the Non-depository financial institutions (NDFIs). This category offer financial services like the traditional banks except that they don't accept deposits. These institutions fund their investment activities directly from the financial markets by selling securities to the public or by selling insurance policies, in case of insurance companies. Examples of NDFIs can include brokerage firms, life insurance companies, pension funds, and investment companies.

Availability of financial Institutions is one of the key areas which the study sought to investigate whether or not it has decisive role in relation to NPLs. According to Ignacio, (2009), Reaching the unbanked people and areas has been a major challenge. Occasioned by harsh climatic conditions, rough terrain, rural and poor regions are the worst hit (Kimenya, 2002). Very few

ST. PAUL'S UNIVERSITY

financial institutions have the will to go into these areas especially bearing in mind that the places with such harsh conditions also attract fewer people thus the population densities there are very low. Financial institutions are not willing to spend large amounts of resources building branches especially in international business which will not serve adequate numbers for them to break even profit wise.

Kiplimo (2013) in her study found that unavailability of credit financial institutions in the study area was one of the main stumbling blocks that small-scale famers face. Although the study provides key findings on the link between available financial institutions and access to credit, it is limited to small-holders famers' participants and non-participants in the credit market in two counties of Western Kenya (Bungoma and Siaya). It fails to narrow down to PLS and the factors influencing it.

It has also been argued that many lending institutions encourage non-performing loans due to competitive factors within the market (Addae-Korankye, 2014). This is happens when as a result of existence of many lending institutions that are being involved in the business of lending and it becomes challenging to pull in more customers so the lending institutions may be compelled to even go to the extent of not asking for sufficient collateral just to acquire borrowers. Furthermore this has caused many of the individuals' property being appropriated (Addae-Korankye, 2014).

Heightened competition between banks can also have a negative influence on the creditworthiness of the banks' loan applicants. This is because of an unfavorable selection problem in the loans market (Addae-Korankye, 2014). In a market with a lot of lending

ST. PAUL'S UNIVERSITY

institutions, a declined loan applicant is able to apply again for a loan at competing lending institution. The amount of loan applicants being approved by at least one bank will increase with the number of banks if the institution's credit screenings are independent of each other and the judgment errors being made differ across banks (George, 2008). This means that the average credit worthiness of the group of applicants is a decreasing function of the number of the lending institution hence leading to non-performing loans. The adverse selection aspect is a consequence of flawed information in the loan market. A borrowers' likelihood of paying back their loans varies between individuals, and higher rates attract riskier borrowers; they are prepared to borrow at the high rate because the likelihood of paying back the loan is lesser. A higher rate and a subsequent higher margin for the bank are not automatically profitable as this also attracts higher risk.

Heimdal(2015) while studying the effect of competition on non-performing loan rates using a case of the Norwegian banking market observed there was some relationship between competition and the increase of non-performing loans. The author used accounting data for Norwegian banks for more than the last 20 years. The findings revealed that there was a non-linear relationship between market concentration and loan risk. For low levels of concentration, increased concentration lowers non-performing loan rates. The author observed that at certain level of concentration, there was a reversed relationship. The study concluded that a continued increasing trend in concentration contribute to higher non-performing loan rates. Although the study does not directly associate this competition to increase in the number of lending institutions, it certainly offered important background information.

ST. PAUL'S UNIVERSITY

Another issues associated with many institutions is lack of proper supervision and proper appraisal. Inadequate monitoring of borrowers by the lending institutions' staff on loan consumption and loan repayment leads to default of repayments. Appropriate monitoring is a significant aspect since it forces borrowers to be obligated; a fact stated by borrowers who believed they considered monitoring vital in paying back of loans.

In responding to stiff competition, the increased number of lending institutions becomes susceptible to mismanagements. Berger and DeYoung (1997) argue that mismanagement of the lending institutions will ultimately lead to banks' incompetence and impacts the process of provisioning loans. The management teams of these institutions may not fully evaluate their customers' credit application due to their inadequate evaluation skills. Additionally, the issue of asymmetric information between lenders and borrowers worsens the matter. Alongside that, the management may not be efficient in managing loan portfolios. As a result, lower credit ratings for the approved loans are experienced and high likelihood of default resulting in many non-performing loans. Therefore, banks' inefficiencies might lead to higher non-performing loans.

George (2008) states that when there are many lending institutions, clients tend to borrow multiple loans from multiple sources. However, because of this, financial institutions juggling repayment schedules, and making sure that the credit is used to its best advantage adds a level of complexity that can be very challenging to manage, hence are likely to default loans borrowed.

In general, the link between increased number of lending institutions and the increased cases of non-performing loans is not a clear cut cause and effect thing. This is complicated due to the fact that there have been few studies done on the same. From the few literature reviewed, it appears

ST. PAUL'S UNIVERSITY

that the number of lending institutions become relevant when other factors such as competition within the market and inefficiency or mismanagement within these institutions are considered.

2.7. The relationship between Demands for collateral and effect to non-performing loans

There is popular argument that for any bank intermediation to deepen there is need for making collateral sufficiently available to borrowers and enforceable to lenders (Sacerdoti, 2005). Collateral is a contractual device used by borrowers and lenders around the world. Generally, the term collateral refers to properties/assets pledged by a borrower to secure a loan (Leitner, 2006). The lender can acquire these assets if the borrower does not live up to the agreed-upon payments on the loan, so the lender has some safeguard if the borrower defaults. Hence, the use of collateral can ease obtaining loans for firms to fund their investments (Manove, Jorge and Marco, 2001)

Macharia (2010) argued that Collateral plays a significant role in loaning decisions particularly on the lending institutions. Accordingly, collateral Collateral represents secondary source of repayment for loan. For Macharia (2010), collateral is often the measure of last resort – when all other recovery efforts are doomed to fail. He states that suitable collateral are those with qualities like have a ready market, be easily transferable as well as having intrinsic and extrinsic value. He adds that collateral taken must always be something that the client cherish and would not want to lose under normal circumstances.

Understanding collateral is vital for the fact that it is a distinctive feature of bank loans, which help to direct resources to their best use (Leitner, 2006). Whereas early research centered mainly

ST. PAUL'S UNIVERSITY

on how collateral impacts the borrower's behavior, latest research has also included lenders' behavior, for example, how collateral impacts lenders' incentives to take care in evaluating a business's prospects. Economists have also studied the link between collateral and risk, empirically proving bankers' common wisdom that collateralized loans are riskier for the bank compared to non-collateralized loans (Manove et al., 2001).To a significant extent, recent theoretical work on collateral has been compelled by economists' urge to offer explanations for the use of collateral that are in line with this empirical finding among others.

Collateral is considered one of the ways in which banks lessen the risk of losing their money. Collateral reduces information asymmetries; it is often easier to value physical assets compared to valuing character. Again, the person borrowing or a requesting a given loan may find it more expensive to mortgage their valuable collateral if by any chance they have intention of defaulting, because they surely know defaulting means losing the asset and so mortgaged (Basu, 2006).

Several theoretical models have studied the role of collateral. Many have indicated that the impact of collateral in lessening moral danger and the implications this has for credit supply. However, empirical evidence for the effect of collateral on moral danger is rare (Serra-Garcia, 2010). According to Kamau and Ngugi (2014) collateral security is a major impediment against access to credit. In their study, the two researchers observed that more than three quarters of loan request were rejected for lacking collateral. In the study, it was also observed that although most of the respondents acknowledged the importance of loans in their lives and improvement of their businesses, they indicated that collateral security was the greatest handle in their efforts to

ST. PAUL'S UNIVERSITY

access credit. It is because of this that a bigger proportion of the study respondents relied on their personal savings or loans from relatives to start their business. While this study is informative, there is no link between collateral demand and NPLs. The study only informs us that collateral demanded by banks have made respondents to seek other options of coming up with capital such as through saving.

In one study by Beaver (2002), it was observed that the culture of the banking sector underpins the challenge occasioned by the demand for Collateral qualification as one the conditions for loans. The author is convinced that banks have always adopted a risk adverse stance towards small enterprises when analyzing their chances of successfully repaying their loans. He explains that most of the banks tend to ask for collateral security as one of the qualification for getting loans and therefore this becomes a constraint to most people as they may not have capital assets to present as their security. While this study gives insightful information, it fails to narrow down how collateral demanded affect loan repayment.

Serra-Garcia (2010) examined the effect of collateral on moral hazard and credit volume. The paper used experimental tools to identify the effect. The results revealed that collateral significantly decreased moral hazard when interest rates were low. Interestingly, the study found that there was not effect where interest rates were high. The observations suggest that borrowers' loss avoidance compensates for the incentive impact of collateral when interest rates are high. But, if interest rates are high, a rise in collateral causes a decrease in credit demand. The paper by Serra-Garcia (2010) was informative since it assisted in identifying the direct effect of collateral on borrower effort. The foremost finding was that, in contrast to the theoretical

ST. PAUL'S UNIVERSITY

hypotheses, the impact of collateral on effort relied on the interest rate. In markets with low interest rates, rises in collateral tend to have a strong effect on effort. On the contrary, the effect of collateral rises is weak in markets with high interest rates. When collateral and the interest rate are high, borrowers offer surprisingly low effort. The outcomes from an additional treatment indicate that this effect is brought about by borrowers' loss avoidance. Borrowers contend with the risk of losing their initial wealth and paying effort costs as well in taking up a loan with high collateral. When the interest rate goes up, loss adverse borrowers choose to offer a low effort. Hence, a guarantee scheme aimed at partially loosen the collateral requirements has been identified as an effective tool for encouraging repayments of loans. The present study aimed at establishing whether or not the issue of collateral demanded by Equity Bank (if any) explains why there is an increase in cases of NPLs in Limuru.

Macharia (2010) also took a study with an aim of determining strategies put in place to reduce default rates in loan lending institutions in Kenya, using a case study of Equity Bank within Nyeri County. Specific objectives of the study were to establish the effect of client account appraisal, collateral appraisal, client loan history and, guarantors' appraisal on loan repayment within Equity Bank in Nyeri County. The study was based on a sample size of 41 respondents mostly employees of the Equity Bank, Nyeri County. The study used Questionnaires as the main data collection tool. It employed both qualitative and quantitative approaches of data analysis. The findings revealed that majority of the study participants felt that appraisals were slightly high. In general, the author observed that collateral demanded on significant influence on chances for repayment of loans. In other words, collateral demanded reduced NPLs rates.

ST. PAUL'S UNIVERSITY

Although the study provided useful insights, it did not clearly isolate the incentive effect of collateral on repayment of loans hence reduction of NPLs rates.

Arku (2013) study aimed at identifying the risk factors that bring about non-performing loans in the microfinance sector with an aim of coming up with an appropriate model that links these factors to credit default for any customer in the sector. The study was based on data from a microfinance institution based in Accra. The study used a sample size of 472 customers who were granted credit from January 2011 to December 2012. The findings of the study revealed that type of collateral had significant effect on default rates.

2.8. Theoretical Framework

This study was guided by the prospect Theory as explain in the following sub-section.

2.8.1. The prospect Theory

The Prospect theory was first proposed by Kahneman and Tversky in 1979 as a one of the psychologically realistic approach and an option to expected utility theory. This theory explains how people are able to make decisions in situations/circumstances where there are many options and risks especially loans. In simple terms, this theory looks at the cost benefits analysis of making financial decisions which in the context of this study is the repayment of loans.

The main assumption of this theory is that given a set of alternative choices, people will always make their financial decisions with reference to expected utility and the risk associated with consequences of their decisions.

ST. PAUL'S UNIVERSITY

2.8.2. Relevance of the Theory

This theory was most suitable for this study since it assisted in analyzing how people make their financial based decisions which for this case included repayment of loans. It also described how individuals evaluate gains and losses in arriving at financial decision. In the context of this study, the question revolved around the factors considered when making decisions to either pay loans borrowed or default.

2.9. Conceptual Framework

Conceptual Framework is defined as a concise and visual description of the relationship between various variables of a phenomenon being studied (Mugenda, 2008). Figure 2.1 presents the conceptual framework for this study.

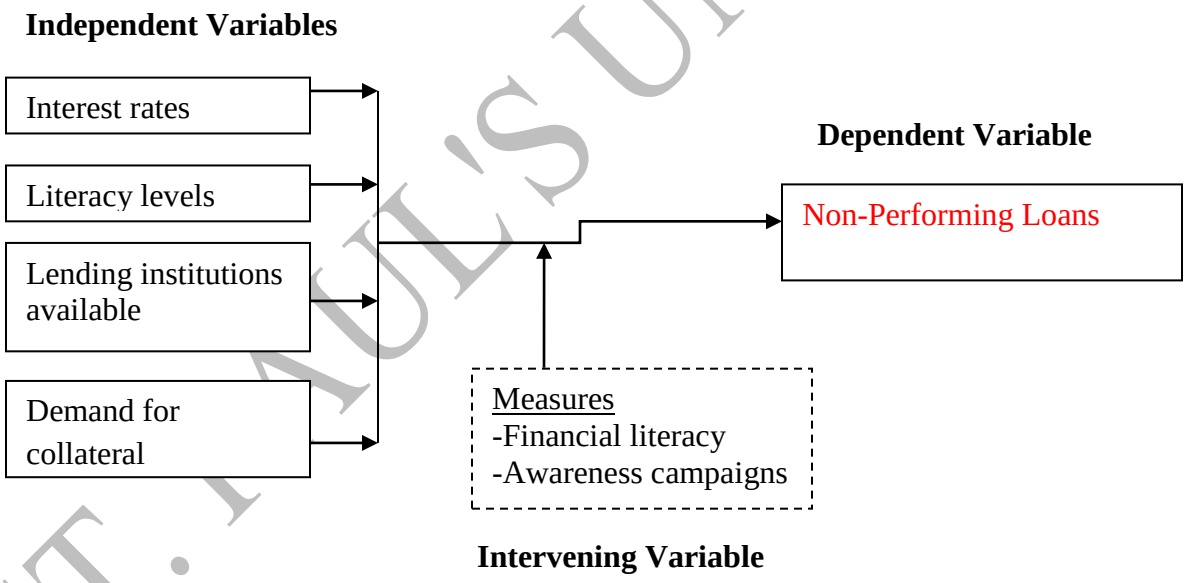


Figure 2.1 showing conceptual Framework of independent, dependent and intervening variables

In this study, the independent variables encompass interest rate charged, collateral security, literacy level and number of lending institutions. On the other hand, the dependent variable is the

ST. PAUL'S UNIVERSITY

Non-Performing Loans. The influence of the independent variables on the dependent one is further moderated by the intervening variables which in this study include the various measures put in place to promote access to the loans.

ST. PAUL'S UNIVERSITY

CHAPTER THREE

RESEARCH METHODOLOGY

3.1. Introduction

Research methodology can be defined as the techniques or approaches used in carrying out research work, including the theoretical and philosophical assumptions guiding the research (Saunders et al 2009). This chapter describes the procedures that were followed during the study. It also presents justifications for the different approaches considered during the research. Specifically, the chapter discusses research design/approach, area of study, target population, sampling techniques, data collection methods and procedures. This chapter also clarifies on validity and reliability as well as how the data was analyzed. In the last part, the chapter discusses ethical considerations.

3.2. Research Design

Messah and Kigige (2011) defines research design as a plan which guides data collection, analysis and the interpretations of data/ observed facts about the phenomenon being studied. In this study, descriptive design was used. According to Mugenda and Mugenda (1999), this design observed facts without manipulating them. This design was most suitable for this study since it assisted in collecting information about respondent's opinions, perceptions or attitudes about NPLs

3.3. Study Area

The study was conducted in Limuru Sub County which has a population of about 131, 132 people living within 281.8 km^2. Limuru town lies within the confines of Kiambu County in

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Kenya. The main sources of income for most people in this area include mainly agriculture ranging from cultivation of cash crops, horticulture farming, to livestock and poultry farming. As such, Limuru produces a wide range of foods. It is particularly self-sufficient in milk, horticultural and Irish potato production (Ministry of Agriculture, 2010). Although there are a large number of financial institutions in this area, the study focused on Equity Bank (K) Limited.

3.4. Target Population

Target population is defined as the entire study population with common identifiable characteristics (Mugenda and Mugenda, 1999). The target population for this study thus comprised of the residents of Limuru especially the Equity Bank's clients and experts in the banking industry.

3.5. Methods of Data Collection and Sampling

3.5.1. Sampling

This study adopted both purposive and stratified sampling techniques. Purposive sampling can be defined as a non-probability sampling approach which involves intentional/ conscious recruitment of participants based their characteristics desired by the researcher (Trochim, 2000). Put differently, in this technique, the researcher consciously decides what needed to be considered and then seeks to find people or subjects who are willing to give the information because either they are well versed or have enough experience in the issue being investigated. (Lewis and Sheppard 2006). In this study, purposive sampling technique was applied in selecting key informants particularly experts in the Banking Industry, Government Officials from the financial Departments and Credit Officers from Equity bank (K) Limited.

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Stratified random sampling, which involves dividing a sample population into smaller groups known as strata with identifiable or common characteristics, was also used. There are six sectors of loans in Equity Bank, Business, Agriculture, consumer, group lending, development/mortgage and asset finance and the respondents were selected from these sectors.

In total, 150 respondents were recruited in the study. Dillman (2000) suggests that a sample of between 100 and 150 is ideal for descriptive study. A sample size of 150 was successfully used by Bichanga and Aseyo (2013) in their study about the Causes of Loan Default with reference to MFIs in Kenya.

3.5.2. Data collection Procedures

Both primary and secondary data were considered in this study. Primary data was collected using semi-structured questionnaires (both open ended and closed ended). The questionnaire had five major sections. Section I of the questionnaire was aimed at collecting personal information. The second section focused on whether the interest rates charged lead to repayment default on non-performing loans. The third and fourth section concentrated on effect of level of literacy on NPLs and how the number of lending institutions available contributes to non-performing loans. The last section captured information on whether demand for collateral by the bank contributes to non-performing loans. In terms of secondary data, this study reviewed pertinent information from internet sources. Past researches, financial reports and relevant journals were considered.

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3.6. Data Analysis and Information Presentation

Data collected from the field was cleaned, sorted out and coded appropriately. The coded data was then be entered into SPSS (statistical package of social sciences) in order to generate descriptive statistical such frequencies and percentages. SPSS is commonly used statistical software packages that allow a wide range of statistical procedures which can help researchers summarize data, test relationship between and among variables and presents tables and graphs (Kirkpatrick and Feeney, 2003).

Qualitative data obtained from the open-ended questionnaire questions and interview schedule was analyzed using thematic technique by 'identifying, analyzing and reporting common themes within the data (Mugenda and Mugenda, 2003). Thematic analysis was preferred due to its flexibility in giving a rich and detailed, yet complex account of data (Tuckett, 2005). The findings of the study were presented using tables, pie charts and graphs.

3.7. Ethical Considerations

In this study, efforts were made to inform participants the aim of the study. They were also assured of privacy and confidentiality. Besides, participation was on voluntary basis and respondents assured the right to engage or disengage in the study.

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CHAPTER FOUR

RESEARCH FINDINGS, ANALYSIS AND DISCUSSIONS

4.1. Introduction

This chapter presents analysis of the finding and discussion of the result with the aim of achieving research objectives while setting out base for conclusion.

4.2. Response Rate

In total, 150 questionnaires were distributed. However, only 119 were successfully filled and returned. This gives a response rate of 79.3%. These findings agree with Mugenda and Mugenda (2003), that a 50% response rate is quite adequate, 60% good and above 70% very good. These findings therefore imply the response rate of 79.3% is very good. Table 4.1 summarizes the response rate.

Table 4.1. Response Rate

Questionnaires	Frequency	Percent (%)
Returned	119	79.3
Spoilt	31	20.7
Total	**150**	**100**

Source: Author's Survey Data, 2016

4.3. Socioeconomic Characteristics

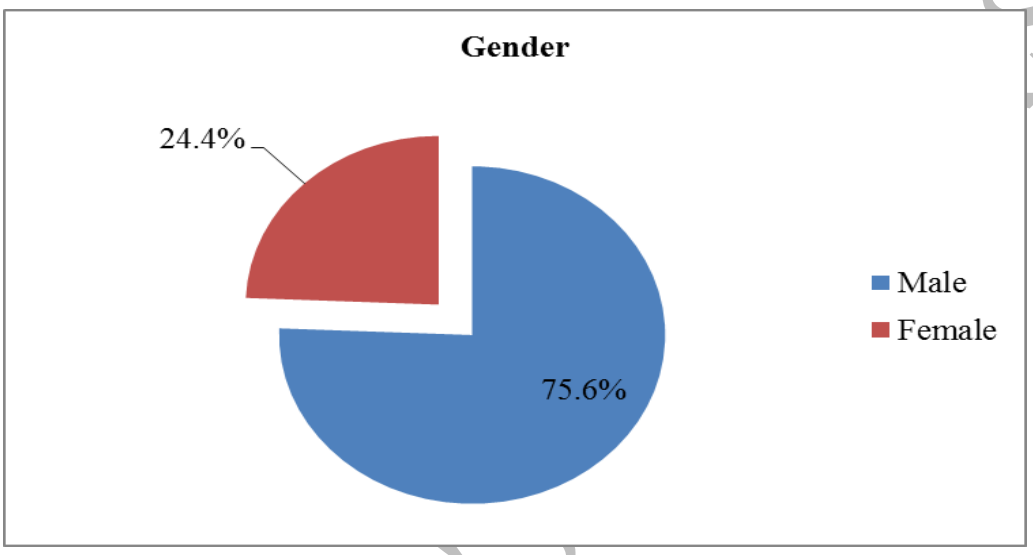
The socioeconomic characteristics of the respondents consisted of gender, age, level of education, marital status and occupation. The findings are presented in the sub-sections that follow:

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4.3.1. Gender

The researcher assessed respondents' gender as this may directly or indirectly influence their responses. Figure 4.1 below gives the findings.

Figure 4.1 showing Gender of the Respondents



According to the findings in Figure 4.1, majority of sample (75.6%) were males compared to only 24.4% females. This depicts that the study had more male respondents than female. Women access to loans is affected by many factors like lack of collaterals, lack of stable businesses and lack of spousal consent among others making it hard for majority of them.

These finding are in agreement with those of Oladeebo and Oladeebo (2008) who examined socio-economic factors influencing loan repayment among small scale farmers in Nigeria. Their study was dominated by male respondents. Tuyisenge et al., (2015) also found that there were more males than females in their study about the role of Financial Literacy on Loan Repayment among Small and Medium Entrepreneurs in Rwanda.

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4.3.2. Age

Age is one of the independent variables related to the respondent's characteristics and expected to affect NPLs. In this study, respondent were required to fill their ages which was categorized into four main brackets. Table 4.2 below summarizes the findings.

Table 4.2. Respondents' Age Brackets

Age Bracket	Frequency	Percent
18-23 years	4	3.4
24-29 years	30	25.2
30-35 years	39	32.8
Over 35 years	46	38.7
Total	**119**	**100.0**

Source: Author's Survey Data, 2016

The findings reveal that out of 119 respondents, majority (38.7%) were over 35 years of age, followed by 32.8% falling between 30-35 years of age. The study further revealed that 25.2% of the respondents were in the age bracket of 24-29 years of age. The least number of respondents (3.4%) were between 18-23 years. The findings illustrates that respondents are generally active after 29 years.

The findings are similar to a study done using a case of SMEs in Rwanda by Tuyisenge et al., (2015) who maintained that there are two natural age peaks correlated to entrepreneurship,

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namely the late twenties and mid-forties. The study findings also concur with that of Nyamboga et al., (2014) and Macharia (2010) who determined that the optimum age for their entrepreneurs as over 35 years.

4.3.3. Level of Education

Table 4.3. Distribution of respondents according to their levels of Education

Level of education	Frequency	Percent
No school	2	1.7
Primary	28	23.5
Secondary	77	64.7
College	9	7.6
University	3	2.5
Total	**119**	**100.0**

Source: Author's Survey Data, 2016

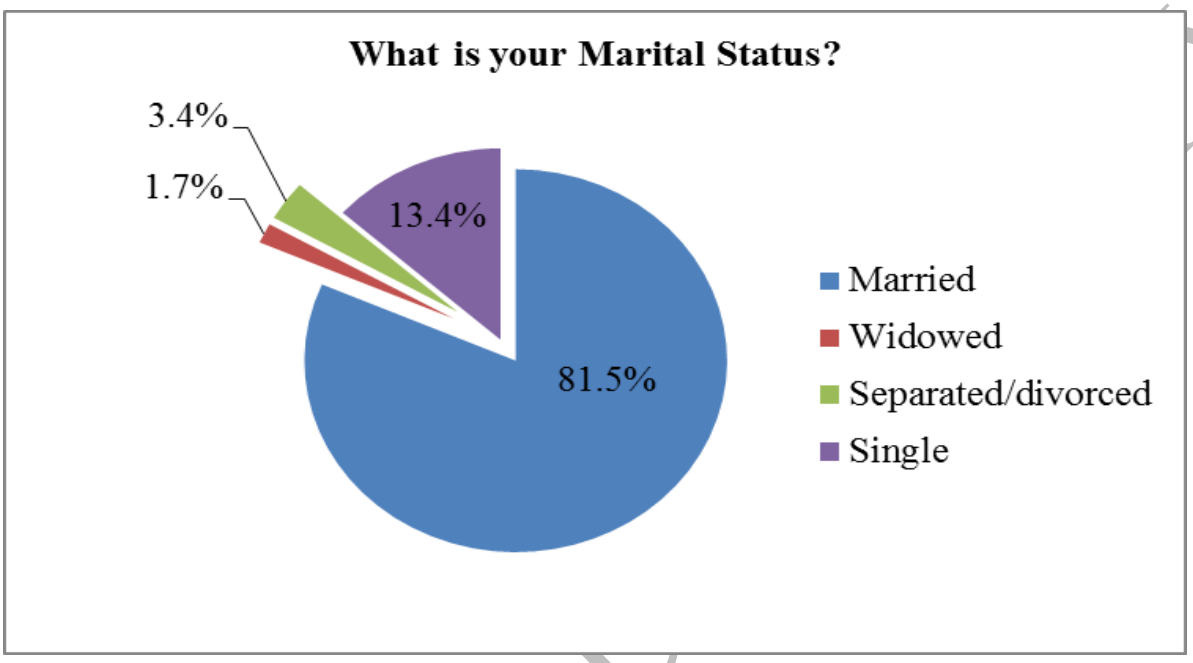
The findings displayed in Table 4.3 above point out that majority (64.7%) of the respondents had of secondary level of education, 23.5% of the respondents gone up to primary level, and 7.6% had college level of education. Only 2.5% of the respondents had university degree. The study revealed that two of the respondents had not gone to school at all.

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4.3.4. Marital Status

Respondents were asked to indicate their marital status. Figure 4.2 displays the findings.

Figure 4.2 showing Distribution of Respondents according to their Marital Status



Source: Author's Survey Data, 2016

As it can be seen in Figure 4.2, a large proportion (81.3%) of the respondents was married. The rest of the respondents were single (13.4%), separated/divorced (3.4%) and widowed (1.7%). The married are more likely to borrow loans compared to other marital status due to their family obligations.

The findings are in agreement with the findings of Macharia (2010) and Nyamboga et al. (2014) whose studies were dominated by male respondents. Dinh and Kleimeir (2007) suggest that, marital status has an impact on the borrower's level of responsibility, reliability, or maturity. The two argue that the marital status is linked to several dependants who in turn reflect financial

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pressure on the borrower and borrower's capacity to repay a loan implying that the single are less likely to default compared to the married.

4.3.5. Main Occupation

In respect to main occupation, 92.4% of the survey respondents were involved in business. The rest, about 5% depended on farming while 2.5% were civil servants (Table 4.4). This clearly depicts that the survey respondents were mainly business men and women.

Table 4.4. Respondent's Main Occupation

Occupation	Frequency	Percent
Civil Servant	3	2.5
Business	110	92.4
Farming	6	5.0
Total	**119**	**100.0**

Source: Field data, 2016

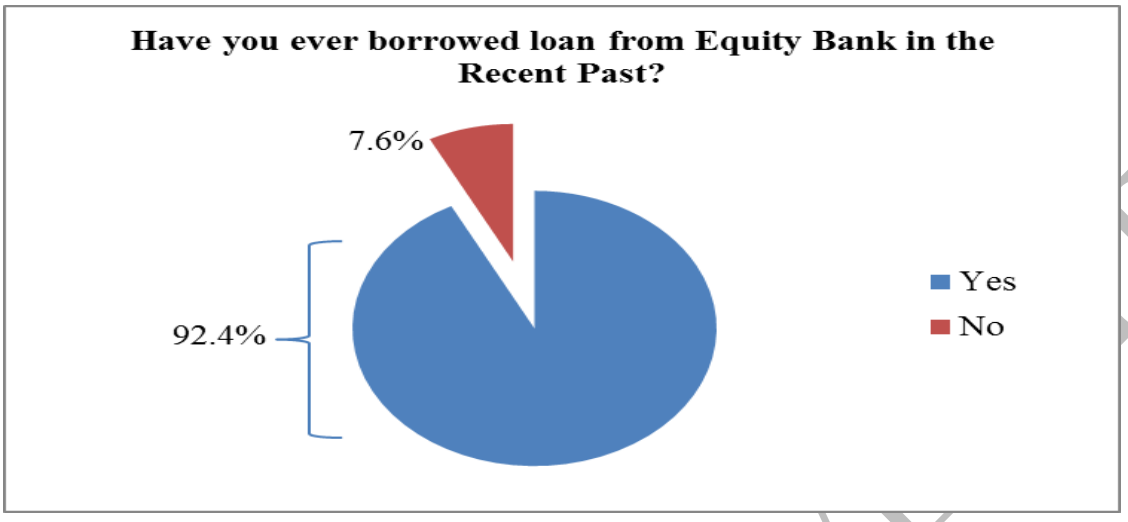
4.4. The link between interest rates charged on loans lead and repayment default on non-performing loans

4.3.1. Loan History

The researcher accessed loan history of the survey respondents. They were asked to indicate if they ever borrowed loan from Equity Bank in the recent past. The results in this regard indicated that 92.4% had borrowed loan from the bank in the recent past except for 7.6% of the respondents (Figure 4.3).This clearly implies that most of the respondents have borrowed loans in one way or another.

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Figure 4.3 showing whether respondent has borrowed loan from Equity Bank in the recent Past



4.3.2. Interest charged on Loans and NPLs

In addition to the above, the study probed opinion of the respondent on interests rates charged on loans from Equity Bank. The responses in this regard are summarized and presented in Table 4.5.

Table 4.5. Respondents' Opinions on interest rates charged on Loans from Equity Bank

Interest Charged	Frequency	Percent
Very High	41	34.5
High	36	30.3
Average	39	32.8
Low	3	2.5
Total	**119**	**100.0**

Source: Author's Survey Data, 2016

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As shown in Table 4.5, 34.5% of the respondents were of the opinion that interests charged on loans from Equity bank were very high. About 32.8% indicated it was average but 30.3% of the respondents said it was high. Only 2.5% of the survey respondents indicated that the interest rate charged on loans from Equity bank was low. From the findings, it can be inferred that Equity Bank charges very high interest rates. This may explain the rising cases of NPLs.

The finding of this study confirms the findings of Badar and Yasmin (2013), Kipyego and Wandera (2013) and Joseph (2011) that argue that interest rate charged influences non-performing loans. However, the findings are in contradictory with that of Konfi (2012) who conducted study on the determinants of nonperforming loans on the operations of financial institutions in Ghana which found that interest rate was not significant factors causing the incidence of NPLs. The author explained that interest rate was only applicable to loan defaulters who had managed to pay off their outstanding principal and were in default in only interest payment. Assumptions made here is that high interest rate can only be the actual cause of the loan default if borrower is in default of both principal and interest. According to Collins and Wanjua (2011), when interest rates are very high, the borrowers have a challenge in servicing their loans, which mean that an increase in the levels of Non-performing loans is the result. In one of the latest study, a more recent study in Kenya, Kariuki and Ngahu (2016) observed that Interest rates substantially influenced loan performance and recommended that MFIs consider easily tradable assets accepted as collateral in order to mitigate liquidity risk while lending.

4.5. Whether the level of education and knowledge of the borrowers contribute to repayment default on non-performing loans

The study sought to assess if the level of education and knowledge of the borrower had any effect on repayment default on non-performing loans. The researcher required participants to

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state whether or not they have failed to repay their loans in good time. Looking at the research findings in this regard revealed that most of the respondents had paid their loans in good time as opposed to a few. Table 4.6 gives details.

4.5.1. Whether the Respondent has failed to pay loan

Table 4.6. Respondents' failure to pay loan in Time

	Have you ever failed to pay your loan in time?		
Level of education	**Yes**	**No**	**Total**
No school	1(0.8%)	1(0.8%)	2(1.7)
Primary	5(4.2%)	23(19.3%)	28(23.5%)
Secondary	22(18.5%)	55(46.2%)	77(64.7%)
College	3(2.5%)	6(5.0%)	9(7.6%)
University	1(0.8%)	2(1.7%)	3(2.5%)
Total	**32(26.9%)**	**87(73.1%)**	**119(100%)**

Source: Author's Survey Data, 2016

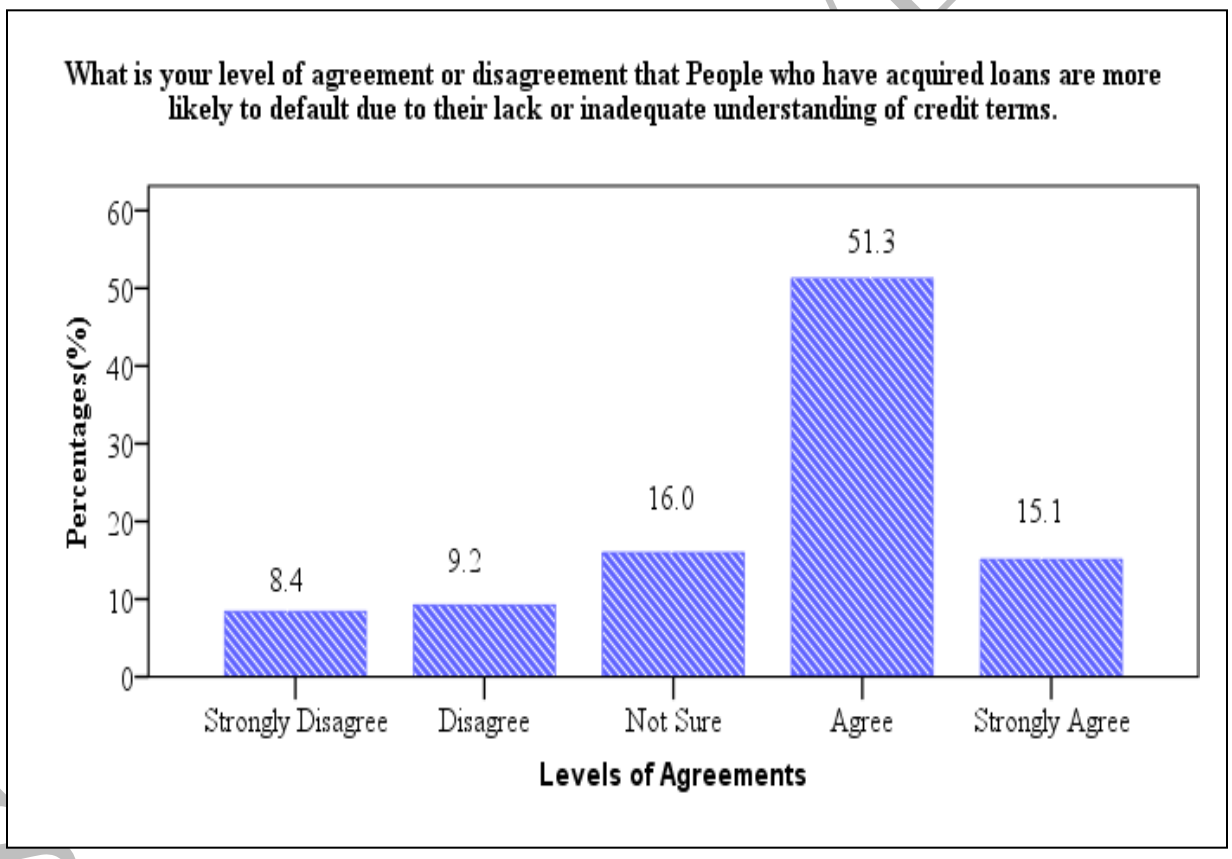
According to Table 4.6, most (73.1%) of the respondents had paid their loan in time. However, about a third (26.9%) of the respondent disclosed having failed to pay their loan in time. Out of this, 23.5% had secondary school education and below where one had not gone to school at all, 4.2% had achieved primary education, and 18.5% had secondary education. Only 3.1% had post-secondary education with 2.5% have acquired college education and 0.8% with university education. The findings imply that the likelihood of failing to pay a given loan in time is low among those with post-secondary education.

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4.5.2. Understanding of Credit Terms

The study also assessed whether inadequate understanding of credit terms had any bearing on the chances for NPLs. In relation to this, the study findings revealed that a total of 66.4% of the respondent were in general agreement out which 51.3 agreed while 15.1% strongly agreed that people who have acquired loans are more likely to default due to their lack or inadequate understanding of credit terms. About 17.6% of the respondents were in general disagreement with the statement where 8.4% strongly opposed and 9.2% disagreed. However, 16% of the respondents were neutral with regard to the statement (Figure 4.4).

Figure 4.4 showing opinions on inadequate understanding of loans and NPLs



Source: Author's Survey Data, 2016

4.5.3. Literacy levels and their impacts on NPLs

To understand the effect of financial literacy on non-performing loans, the respondents indicated the extent to which they agreed with the various statements. The findings are presented in Table 4.7.

Table 4.7. Effects of Literacy levels on NPLs

Statements	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Total
People with low literacy levels are more likely to default than those with high literacy levels	35(29.4%)	33(27.7%)	19(16.0%)	27(22.7%)	5(4.2%)	**119(100%)**
Inability to read and write may make one default his or her loan	23(19.3%)	42(35.3%)	12(10.1%)	29(24.4%)	13(10.9%)	**119(100%)**
Non-performing loans has nothing to do with literacy levels	26(21.8%)	49(41.2%)	11(9.2%)	20(16.8%)	13(10.9%)	**119(100%)**

Source: Author's Survey Data, 2016

From the findings summarized above, 21.8% and 41.2% of the respondents are of strongly agree and agree with statement that Non-performing loans has nothing to do with literacy levels respectively. Close to a third (29.4%) of the respondent were of strong agreement that People with low literacy levels are more likely to default than those with high literacy levels . 27.7% agreed while 16.0% were neutral about the matter. About 22.7% were in disagreement and only 4.2% strongly disagreed with the statement. In relation to the statement, inability to read and write may make one default his or her loan; those who strongly agreed were 19.3% while those

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who agreed were 35.3%. Those who were opposed to the statement were 24.4% (disagreed) and 10.9% (Strongly Disagreed). The findings imply that literacy levels affect Non-performing loans.

The findings in Table 4.7 are supported by responses from Key Responses. For instance, one of the key respondents had this to say:

> *"Illiteracy in business management is a possible lead to Non-performing loans. Majority of business owners are poor in business management skills such as book keeping and risk measures. In most cases fund rendered to them through loans are mismanaged during the course of purpose. The borrowers are not able to account and therefore loans easily move to non-performing loans"* (Key Respondent, 2016).

The above findings conform to previous research and support the significance of financial literacy in determining a consumer's behavior towards repayment of loans. For instance, Bahovec et al., (2015) while testing the effects of financial literacy on debt behavior of financial consumers observed that respondents with a low level of reported financial literacy demonstrated worse debt behavior, though it was not directly related to NPLs. Tuyisenge et al., (2015) also established that banks in Rwanda were increasingly facing non-performing-loans particularly from SMEs due to low financial literacy. The above revelation also appears to compliment the work of Miller's (2009) argument that financial literacy assists in empowering and educating people so that they are well-informed about finance in a manner that is pertinent to their business and allows them to use this knowledge to assess products and make informed choices including paying back of their loans. Besides, the findings confirms that of Nyamboga et al.,(2014) who also established that financial literacy significantly influenced the ability of SMEs to repay loans, leading to less NPLs. In the present study, there is a general agreement that people with low

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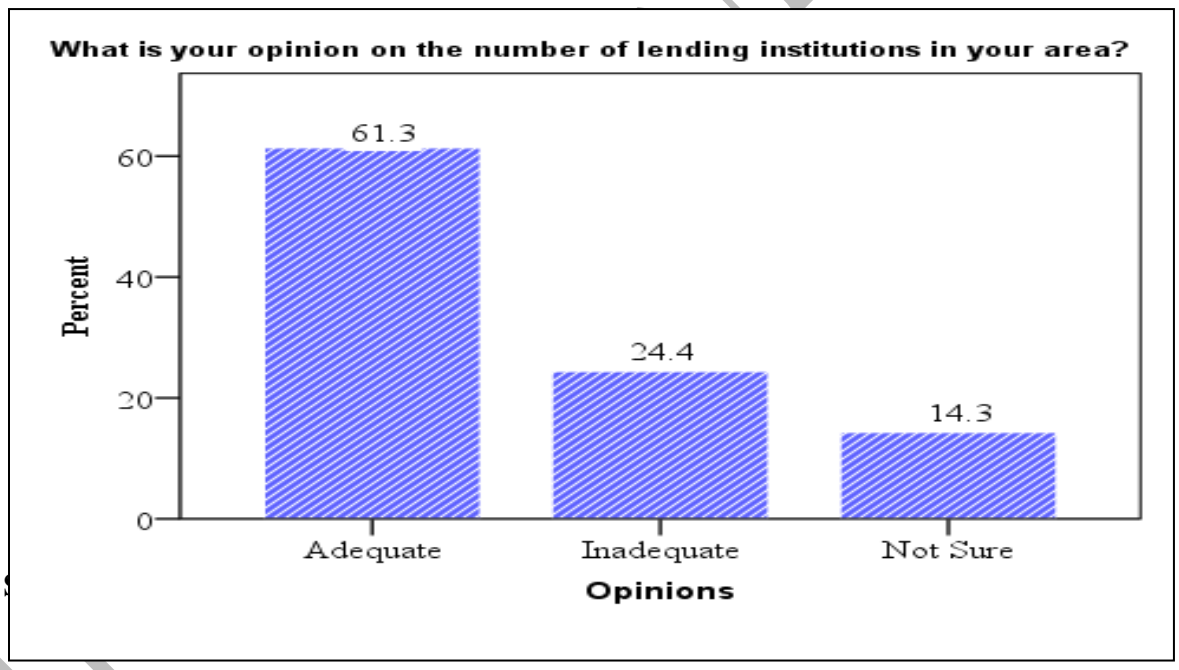
literacy levels are more likely to default than those with high literacy levels, and that inability to read and write may make one default his or her loan.

4.6. The effect of the number of lending institutions available on non-performing loans

4.6.1. Availability of lending Institutions in the area

In order to understand the effect of the number of lending institutions on non-performing loans, it was important to assess the current status of available institutions in the area. This finding is captured in the figure hereunder.

Figure 4.5 showing respondents' opinions on the availability of Lending Institutions in the Area



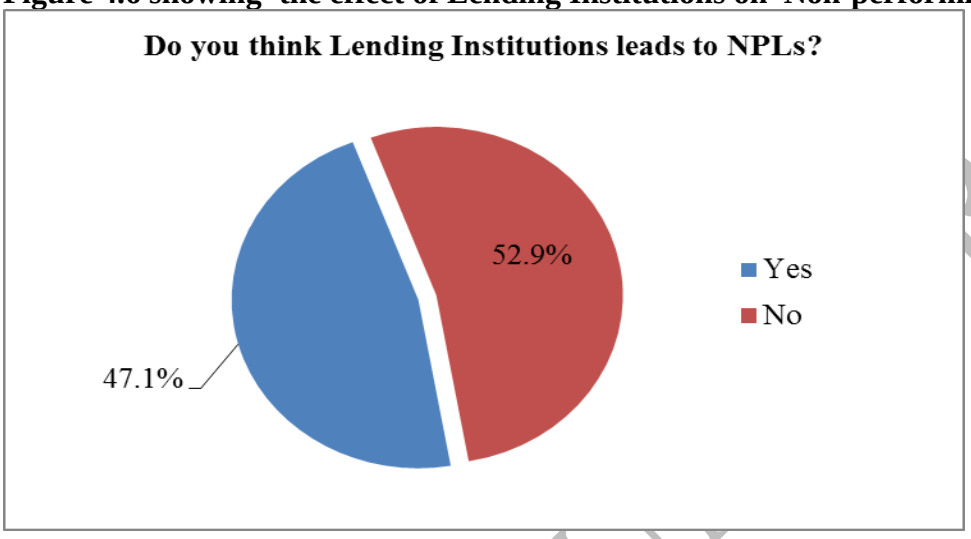
As shown in Figure 4.5, majority (61.3%) of the respondent were of the opinion that the number of lending institutions in the area was adequate. However, 24.4% of the respondents thought they were inadequate. About 14.3% of the respondents were not certain.

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4.6.2. Lending institutions and their impacts on NPLs

The study revealed that respondents' opinions as regards to the number of lending institutions and non-performing loans were divided as displayed in Figure 4.6.

Figure 4.6 showing the effect of Lending Institutions on Non-performing loans



Source: Author's Survey Data, 2016

The study revealed that more than half (52.9%) of the respondents indicated that lending institutions leads to NPLs. The rest of the respondents, 47.1% indicated that lending institutions had nothing to do with non-performing loans.

Further probing indicated that reasons given revolved around people were having a wide choice or options to take as many loans as possible hence ending up unable to service the same loans. Other reasons revolved around competition. Some of the quotes are illustrated below:

> *"If the numbers of lending institutions are many they will lead to people borrowing all over and this results to non-performing loans as mostly the business is one"* (Male Respondent, 2016)

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> *"So many people access loans leading to maybe forgetting other loans"* (Female Respondent, 2016)
>
> *"These institutions give one person more that 2 or 3 loans, thus leading to non-performing loans'*

Responses from Key informants confirm the above findings. For instance, Emmanuel, a credit officer at Equity Bank while responding to the issue of the number of lending institutions said that;

> "*Borrowers get easy access to various facilities leading to improper borrowing without dire necessity to borrow and hence default because loans are repaid with interests*"(Key Respondent, 2016).

The same sentiment was shared by another key respondent during informant interview. The following are his words:

> *"Increase in the number of lending institutions will lead to Non-performing loans since clients have a lee way to multi-borrow. In the process, they are overwhelmed in loan payments leading to default'* (Key Respondent, 2016).

According to Ndung'u, a manager at Equity Bank (K) Ltd,

> *"Increase in the number of lending institutions may lead to an increase in non-performing loans since the customer may multi borrow and their ability to repay is affected…over financing also leads to diversion of funds. Again, collateral may be attached more and once* "(Key Respondent, 2016)

Another key informant argued that:

> *"Due to competitions, the lending institutions end up doing careless lending (poor appraisal) which leads to either over/under funding clients hence in the course they are unable to repay"* (Key Respondent, 2016).

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Those of the opinion that the number of lending institutions did not matter argued that servicing loans was a personal matter and had nothing to do with the institutions. Below are some of the quotes in relation to this.

> *"I don't think so because people take loans with a plan and borrow what they will be able to pay*" (Female Respondent, 2016)

> *"This depends with the borrower because each has his/her own way of earning"* (Female Respondent, 2016)

> *"I don't think so because paying loans depends on an individual's character or the cooperation of the chama/group in case of group loans"* (Male Respondent, 2016).

From the above findings, the effects of number of lending institutions and how they affect non-performing loans is not very clear because opinion is divided almost on equal measure. Perhaps, this may be attributed to inadequate studies on the matter. This notwithstanding, the findings that the number of institutions affect non-performing loans are consistent with that of George (2008) who states that when there are many lending institutions, clients tend to borrow multiple loans from multiple sources. However, because of this, financial institutions juggling repayment schedules, and making sure that the credit is used to its best advantage adds a level of complexity that can be very challenging to manage, hence are likely to default loans borrowed.

George (2008) states that when there are many lending institutions, clients tend to borrow multiple loans from multiple sources. However, because of this, financial institutions juggling repayment schedules, and making sure that the credit is used to its best advantage adds a level of complexity that can be very challenging to manage, hence are likely to default loans borrowed. The above findings also confirm those of Bichanga and Aseyo (2013) who observed that there was inadequate supervision of borrowers as a result of the increase in the number lending

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institutions. Many employees of these institutions did not properly supervise loan utilization and loan repayment leading to default of repayments. Warue (2012) also found that a number of lending institutions were exposed to challenges such as lack of proper supervision. Proper supervision and appraisal are two important aspects since they compel borrowers to be committed. Addae-korankye (2014) explained in his study about Causes and Control of Loan Default/Delinquency in Microfinance Institutions in Ghana that many lending institutions encourage non-performing loans as a result of competitive factors within the market. According to the author, this occurs as a result of existence of many lending institutions which are being involved in the business of lending and it becomes difficult to attract customers, so the lending institutions may be forced to even go to the extent of not asking for adequate collateral just to have the borrowers. This fact was reflected in the present study as expressed by one of the key respondent who said that: *"Due to competition, the lending institutions end up doing careless lending (poor appraisal) which leads to either over/under funding clients hence in the course they are unable to repay"*

Furthermore , the current findings also coincide with those of Heimdal (2015) who while studying the effect of competition on non-performing loan rates using a case of the Norwegian banking market observed that an increase of non-performing loans which the author attributed to concentration of lending institutions and competition within the market.

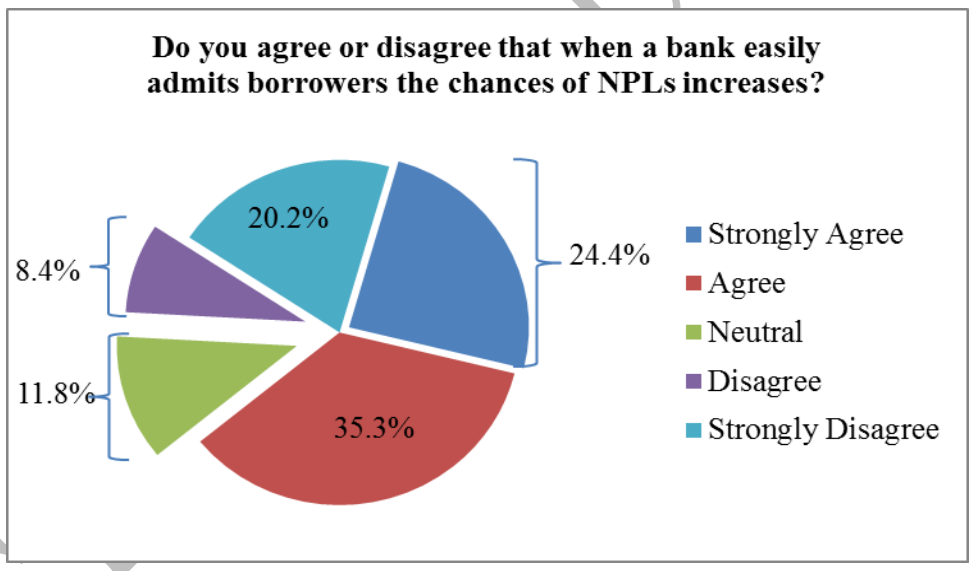
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4.7. The link between the demand for collateral by the bank and non-performing loans

4.7.1. Chances of NPLs from banks which easily admits borrowers

As far as chances of non-performing loans due to easily admitting borrowers are concerned, most of the respondents were in agreement compared to those opposed. As shown in Figure 4.7, most (35.3%) of the respondent agreed that when a bank easily admits borrowers the chances of non-performing loans increases while 24.4% of the respondents were of strong opinion. According to the findings, 20.2% strongly disagreed while 8.4% disagreed with the statement. About 11.8% of the respondents were neutral as far as the statement was concerned.

Figure 4.7 showing opinion on whether a bank which easily admits borrowers has high chances of NPLs



Source: Author's Survey Data, 2016

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4.7.2. The link between Collateral and NPLs

The study also sought to find out respondents opinion on whether demand for collateral by the lending institutions increased or decreased occurrences of NPLs. Table 4.8 summarizes the different levels of agreement.

As shown in Table 4.8, most of the respondents were in agreement with various statements. Majority, 50.4% of the respondents agree that demand for collateral facilitates access of loans but 23.5% of the respondents were of strong agreement to the statement. Only 5.9% of the respondent strongly disagreed and 10.1% disagreed. However, 10.1% of the respondents were neutral on the matter. This may be attributed to the fact that borrower with good investment opportunities as reflected on the collateral can obtain credit more easily as opposed to those without (Leitner, 2006).

Data analysis also revealed that 47.9% and 21% agreed and strongly agreed that Collateralized loans prevent defaulting respectively. Similarly, 45.4% of the respondents agreed and 21.0% strongly agreed that in most cases, loans which do not require collateral are defaulted (Table 4.8).

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Table 4.8. Opinions on collateral and occurrence of NPLs

Statements	Strongly Agree	Agree	Neutral	Disagree	Stongly Disagree	Total
Demand for collateral by banks facilitates access of loans	28(23.5%)	60(50.4%)	12(10.1%)	12(10.1%)	7(5.9%)	119(100%)
Demand for collateral by banks prevent access to loans by most people	20(16.8%)	59(49.6%)	12(10.1%)	20(16.8%)	8(6.7%)	119(100%)
In most cases, loans which do not require collateral are defaulted	25(21.0%)	54(45.4%)	16(13.4%)	14(11.8%)	10(8.4%)	119(100%)
Collateralized loans prevent defaulting	25(21.0%)	57(47.9%)	13(10.9%)	19(16.0%)	5(4.2%)	119(100%)

Source: Field data, 2016

The above study findings were confirmed by responses from Key respondents. For instance, Gordon Onyango, a Credit officer from equity bank and one of the key respondents during the study attested to the fact that collateral reduces cases of NPLs due to the property attached to the loan. Similar view was held by Ndungu, a manager at Equity Bank who said that;

> "Collateral *reduces NPLs because the asset is attached and no customer wants to lose his or her asset*" (Key Respondent, 2016)

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Some of the key respondent has contrary opinion with most of them arguing that repayment of loans was a personal affair and had nothing to do with collateral. For instance, one stated that;

> "*Demand for collateral does not affect NPLs because prompt loan repayment is majorly determined by a customer's willingness to pay and ability to pay. Security is just a fall back*" (Key Respondent, 2016).

The findings agree with those of Serra-Garcia (2010) who also found that demand for collateral reduces the chances for NPLs. Arku (2013) also found that collateral demanded by banks reduced cases of Non-performing loans. However, he specified that this was contingent on the type of collateral demanded since goods and assets of high value have low rates of default compared to not so expensive goods/assets. Similarly, Macharia (2010) while determining strategies put in place to reduce default rates in loan lending institutions in Kenya, using a case study of Equity Bank within Nyeri County observed that collateral demanded had significant influence on chances for repayment of loans. In other words, collateral demanded reduced NPLs rates. Although the study provided useful insights, it did not clearly isolate the incentive effect of collateral on repayment of loans hence reduction of NPLs rates.

Demand for collateral is important in controlling rates of non-performing loans because the client's collateral can be applied as a yardstick for default performance assessment for a client by a given bank and therefore chances of servicing or repayment of the loans will be high because most if not all borrowers are risk averse and are often afraid of losing their assets. It therefore follows that the higher the collateral value, the higher the incentive for the repayment of a given loan by the client simply because they would not wish to lose their collateral (Serra-Garcia, 2010). Most of the respondents in the current study seem to have consensus that collateral demanded by the bank controls non-performing loans or reduces default rates.

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CHAPTER FIVE
SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1. Introduction

This chapter sums up the findings of the study. Accordingly, the first section summarizes the main finding of the study. The second section draws conclusions; the third section reveals the recommendation for the finding whereas the last section gives the direction for future research.

5.2. Summary of the Main Findings

5.2.1. Socioeconomic Profiles

The study attracted mostly males (75.6%) compared to only 24.4% females (Figure 4.1). The most common (38.7%) age group was those of 35 years of age, followed by 32.8% falling between 30-35 years of age. The study established that 25.2% of the respondents were in the age bracket of 24-29 years of age while only 3.4% were between 18-23 years of age (Table 4.2). The study revealed that majority (64.7%) of the respondents had secondary level of education, 23.5% of the respondents had gone up to primary level, and 7.6% had college level of education. Only 2.5% of the respondents had university degree (Table 4.3). Again, it was established that most of the survey respondents were married (Figure 4.2). Business formed the most common occupation among the respondents, followed by farming (Table 4.3).

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5.2.2. The effect of interest rates charged on repayment default of non-performing loans.

The study indicated that majority of the respondents (92.4%) had borrowed loans from the bank in the recent past except for 7.6% of the respondents (Figure 4.3). The study also established that most of the respondents were of the opinion that interests charged on loans from Equity bank were very high (Table 4.5) explaining the rising cases of NPLs.

5.2.3. The link between the level of education /knowledge of the borrowers and repayment default on non-performing loans.

The study established that most (73.1%) of the respondents has serviced their loans well, except for some number of the respondents (26.9%). The study found that majority of those who failed to pay their loans in time was majorly those whose education ranged from no school at all to secondary education. Only few of this group who failed to pay their loans in time had post secondary education (Table 4.6). The findings implied that the likelihood of failing to pay a given loan in time was low among those with post-secondary education. There was a general agreement among the respondents that people who have acquired loans were more likely to default due to their lack or inadequate understanding of credit terms. Only a few of the respondent were of the contrary opinion though 16% of the respondents were neutral with regard to the statement (Figure 4.4). In addition, most of the respondents were in general agreement that People with low literacy levels are more likely to default than those with high literacy levels and that inability to read and write may make one default his or her loan. Only few of the respondents said that literacy levels had nothing to do with non-performing loans (Table 4.7). The above findings conform to previous research and support the significance of financial literacy in determining a consumer's behavior towards repayment of loans. The findings appeared to compliment the work of Miller's (2009) who argued that financial literacy assisted

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in empowering and educating people to obtain knowledge about finance in a manner that is pertinent to their business and allows them to use this knowledge to assess products and make informed choices including paying back their loans. Nyamboga et al., (2014) also established that financial literacy significantly influenced the ability of SMEs to repay loans, leading to less NPL.

5.2.4. The link between the number of lending institutions available and non-performing loans

The study found that there were adequate numbers of lending institutions in the area as reported by most (61.3%) of the respondents (Figure 4.5). In so far as the number of lending institutions and non-performing loans are concerned, the study established that lending institutions leads to NPLs (Figure 4.6). The reasons given ranged from the fact that when people have a wide choice or options to take as many loans as possible hence ending up unable to service the same loans. Respondents also argued that borrowers get easy access to various facilities leading to improper borrowing without dire necessity to borrow and hence default because loans are repaid with interests. The findings were also based on the fact that increase in the number of lending institutions gave clients a lee way to multi-borrow. In the process, they were overwhelmed in loan payments hence default. It was also reported that increase in the number of lending institutions led to competition hence many of them ended up doing careless lending (without proper appraisal) leading to either over/under funding clients hence many ending up defaulting the loans. The results are consistent with the studies by George (2008), Bichanga and Aseyo (2013) and Warue (2012) who all observed that increase in the number of lending institutions encouraged non-performing loans.

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5.2.5. The effect of collateral demanded by the bank on non-performing loans

Most of the respondents were in agreement that demand for collateral controlled or reduced non-performing loans. Comparatively, only few respondents had contrary opinions about the effect of collateral demanded by the bank and non-performing loans (Figure 4.7). It was established that demand for collateral facilitates access of loans and perhaps this may be attributed to the fact that borrower with good investment opportunities as reflected on the collateral can obtain credit more easily as opposed to those without (Leitner, 2006). There was also general consensus that collateralized loans prevented defaulting and that loans which do not require collateral were defaulted (Table 4.8). Arku (2013) also found that collateral demanded by banks reduced cases of Non-performing loans. However, he specified that this was contingent on the type of collateral demanded since goods and assets of high value have low rates of default compared to not so expensive goods/assets.

5.3. Conclusion

From the above findings, the following conclusions are drawn:

The study concludes that indeed interest rates charged and non-performing loans are inter-related. This is because it increases the cost of loans charged on the borrowers hence they are more likely to default these loans. Unfortunately, Equity Bank (k) Limited is charging considerably high interests rates which may lead to even rising cases of Non-performing loans. High interest rates make it hard for some borrowers to pay, and may lead to diversion of funds

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by borrowers leading to default. These causes make many borrowers not to honour their obligations as and when they fall due, hence leading to increased levels of non-performing loans.

The study also concludes that non-performing loans are indeed affected by the clients' literacy levels, clear understanding as well as their knowledge about credit terms are a determining factor in good loan repayment as such understanding helps in knowing the adverse effects of failing to pay loans in time. Very few respondents had post-secondary education and therefore may explain why some have not been able to repay their loans in time.

Furthermore, the study concludes that the number of lending institutions has some influence on non-performing loans in that it increases them especially due to multi-borrowing. However, the relationship is not a clear cut cause and effect thing. The research findings seem to suggest that the number of lending institutions only enhances non-performing loans when other factors such as competition within the market and inefficiency or mismanagement within these institutions are considered. The external factors such as competition matters a lot especially when the lending institutions are forced to give out loans without proper appraisal with the aim of attracting more clients, the so called instant loans are a case in point.

Lastly, the study concludes that collateral demanded by the bank has a strong influence in controlling the rate of non-performing loans. The main explanation for this is that clients or borrowers are usually loss averse and would therefore not want to lose their assets.

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5.4. Recommendations

Based on the research findings and conclusions, the following recommendations were forwarded.

Since interests rates charged encourage Non-performing loans, there is need for the Central Bank to put in place and implement strict and stringent regulations on interest rates charged by banks and other financial institutions. This will be able to regulate their interest rate spread. There is also need for Equity Bank to consider appropriate or reasonable and competitive interests rates to help their clients improve on their loan repayment.

There is also need for the national government to be more strict and committed towards controlling the way banks handle interest rates on loans. It has turned out that the interest rates charged are quite high. Therefore the government should rise to the occasion and ensure that banks do not adjust the interests on loans whenever they feel like doing so. The interests rates need to be reflective of the true lending rates as set out by the Central Bank of Kenya.

Moreover, there is need to come up with financial literacy programs which will assist the clients and potential borrowers of Equity Bank acquire financial analysis skills and other related business skills. This will help reduce cases of Non-Performing Loans.

To control the effect of the number of lending institutions available, there is need for these lending institutions to adopt the default risk model which can help ascertain the level of risk and avoid or mitigate these risks. There is also need for training the loan officers in the lending institution in order to improve their skills and methodology of Loan evaluation and appraisal. It

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is also a high time that the government through central bank need to come up with legislation or law which will ensure that all lending institutions are reflected on a centralized data base to check against multiple borrowing. This can significantly reduce cases of non-performing loans as a result of multiple borrowing. Besides, there is need for the bank to tailor their appraisals to take care of the institution's risk while at the same time attracting more clients.

As already highlighted, the number of lending institutions attracts undue competitions which make other lending institutions give out loans without proper appraisal. To control this, there is need for cooperation among all the stakeholders like the government, the lending organizations and even private sector in a more ethical way with the aim of ensuring that there is a level playing field. This will in the process help reduce cases of non-performing loans.

With regard to collateral, there is need for institutional reforms which considers the form and types of collateral demanded which then can effectively reduce cases of defaulting. To make these reforms work, there is urgent need for competitive credit markets analysis and thorough investigations.

5.5. Suggestion for Further Research

Similar study need to be conducted in other firms, other banking institutions and other industries to find out if the same findings can be obtained. It would be interesting to study in great details how interest rates charged affect non-performing loans. Furthermore, it would be important to study more on the effect of the number of lending institutions and competition in relation to non-performing loans.

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APPENDICES

Appendix 1. Questionnaire for the Respondents

Preamble

Dear Respondent,

My name is ESTHER KARIUKI and am currently doing my research as a requirement for the Master's Degree in DEVELOPLMENT STUDIES at St Paul's University.

The purpose of my study is to uncover **FACTORS AFFECTING NON- PERFORMING LOANS USING CASE STUDY OF EQUITY BANK, LIMURU TOWN, KIAMBU COUNTY**

You are hereby selected to take part in this study which is fully voluntary. Your responses will also be treated with as much confidentiality as possible and your identity will not be disclosed. Your response to this survey is therefore very important.

I would appreciate your favorable consideration in completing this questionnaire and assisting me in the research endeavor.

Section A: Personal Information

1. Gender

[ ] Male

[ ] Female

2. Age

[ ] Below 18 years

[ ] 18-23 years

[ ] 24-29 years

[ ] 30-35 years

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[ ] Over 35 years

3. What is your highest level of education achieved so far?

[ ] No school

[ ] Primary

[ ] Secondary

[ ] College

[ ] University

[ ] Others

4. What is your marital status?

[ ] Married

[ ] Widowed

[ ] Separated/divorced

[ ] Single

5. What is your main Occupation?

[ ] Civil Servant

[ ] Business

[ ] Farming

[ ] Others (Specify)

Section B: Whether the interest rate charged lead to repayment default on non-performing loans.

6. Have you every borrowed loan from Equity Bank in the Recent Past?

[ ] Yes

[ ] No

7. In your opinion, what do you think of the interest rates charged on loans from Equity?

[ ] Very High

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[ ] High

[ ] Average

[ ] Low

Section C: The link between the level of literacy and repayment default on non-performing loans.

8. Have you ever failed to pay your loan in time?

[ ] Yes

[ ] No

9. What is your level of agreement or disagreement that People who have acquired loans are more likely to default due to their lack or inadequate understanding of credit terms.

[ ] Strongly Agree

[ ] Agree

[ ] Not Sure

[ ] Neutral

[ ] Strongly Disagree

10. Please indicate your levels of agreement or disagreement to the following statements.

Statements	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
People with low literacy levels are more likely to default than those with high literacy levels					
Inability to read and write may make one default his or her loan					
Non-performing loans has nothing to do with literacy levels.					

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Section D: lending institutions available and non-performing loans

11. What is your opinion on the number of lending institutions in your area?

[ ] Adequate

[ ] Inadequate

[ ] Not Sure

12. Do you think the number of lending institutions leads to non-performing loans?

[ ] Yes

[ ] No

13. Kindly explain your answer above

……

……

……

Section E: The link between the demand for collateral by the bank and non-performing loans.

14. Do you agree or disagree that when a bank easily accepts borrowers the chances of non-performing loans increase?

[ ] Strongly Agree

[ ] Agree

[ ] Not Sure

[ ] Neutral

[ ] Strongly Disagree

15. What is your explanation for your answer above?

……

……

……

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16. Please indicate your degree of agreement or disagreement to the statements pertaining to Collateral and the occurrence of Non- Performing Loans

Statements	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
Demand for collateral by banks facilitates access of loans					
Demand for collateral by banks prevent access to loans by most people					
In most cases, loans which do not require collateral are defaulted					
collateralized loans prevent defaulting					

The End

Thank You for Your Time

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Appendix 2. Interview Schedule

Preamble

Dear Sir/Madam,

My name is ESTHER KARIUKI and am currently doing my research as a requirement for the Master's Degree in DEVELOPMENT STUDIES at St Paul's University.

The purpose of my study is to uncover **FACTORS AFFECTING NON- PERFORMING LOANS USING CASE STUDY OF EQUITY BANK, LIMURU TOWN, IN KIAMBU COUNTY**

You are hereby selected to take part in this study which is fully voluntary. Your responses will also be treated with as much confidentiality as possible and your identity will not be disclosed. Your response to this survey is therefore very important.

I would appreciate your favorable consideration in completing this questionnaire and assisting me in the research endeavor.

1. Name
   (Optional)…….

2. Employer……
3. What is your designation?
4. Please comment on the current status of Non-performing loans? Is it rising or reducing?

5. Do you think the demand for collateral contributes to Non Performing Loans? Explain

6. Explain how the number of lending institutions may lead to Non Performing Loans.

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7. Bank which charges high interest rates may have many Non Performing Loans. Please explain

8. Comment on the possible link between literacy levels and Non Performing Loans.

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Appendix 3.Budget

Description	Amount(Kshs.)
Stationary (Printing Papers)	3500.00
Printing& Photocopy	4000.00
Internet Search	5000.00
Transport(200*10 days)	2000.00
Sub-total	14500.00
miscellaneous(15%*Sub-total)	2175.00
Total	**16675.00**

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