

**A SURVEY OF CREDIT RISK MANAGEMENT TECHNIQUES OF UN-  
SECURED BANK LOANS OF COMMERCIAL BANKS IN KENYA**

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## DECLARATION

This research project is my original work and has not been submitted for a degree in any other University.

Signed..........  
Date..... 20.11.2008.....

This management research project has been submitted for examination with my approval as University Supervisor.

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## **DEDICATION**

This study is dedicated to my dear wife, Dorcas, my daughter, Georgina, my son Isaac and my parents for their love, understanding and patience when I could not be with them because of my studies. May they receive God's blessings in abundance.

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<b>TABLE OF CONTENTS</b>	<b>PAGE</b>
DECLARATION	ii
DEDICATION	iii
ACKNOWLEDGEMENTS	iv
TABLE OF CONTENTS	v
LIST OF TABLES	viii
LIST OF ABBREVIATIONS	ix
ABSTRACT	x
<b>CHAPTER ONE: INTRODUCTION</b>	<b>1</b>
1.1 Background	1
1.2 Statement of the Problem	4
1.3 Research Objectives	6
1.4 Importance of the Study	6
<b>CHAPTER TWO: LITERATURE REVIEW</b>	<b>8</b>
2.1 Credit Risk Management	8
2.2 Credit Risk Measurement Techniques	9
2.3 Monitoring and Control of Credit Risk	17
2.4 Limitation of Credit Risk Management Techniques	21
2.5 The Banking Systems in Kenya	22
2.6 Types of Risks Faced by Commercial Banks	23
2.7 The Problem of Non Performing Loans	27
2.7.1 Causes of Non Performing Loans	27
2.7.2 Resolution of Non Performing Loans	29
<b>CHAPTER THREE: RESEARCH METHODOLOGY</b>	<b>31</b>
3.1 Research Design	31
3.2 Population and Sample	31
3.3 Data Collection	31
3.4 Data Analysis	31
<b>CHAPTER FOUR: DATA PRESENTATION, ANALYSIS &amp; INTERPRETATION</b>	
4.1 Data Collected and Analysed	32
4.2 Ownership of the Commercial Banks	33
4.3 Background Information of Commercial Banks studied	33
4.3.1 Involvement in un-secured lending	33
4.3.2 When un-secured loans were introduced	33
4.3.3 (a) The minimum un-secured loans limit	34
4.3.3 (b) The maximum un-secured loans limit	34
4.4 Management of un-secured loans activities	35
4.4.1 Existence of specific credit policies	35

4.4.2	Involvement in the formulation of un-secured loans credit policy	35
4.4.3	Setting of specific targets on un-secured loans services	35
4.4.4	Existence of credit officers	35
4.4.5	Organization of the Credit Teams in the Commercial Banks	36
4.4.6	Factors to consider in Establishing a Credit Control Policy	36
4.4.7	Regularity of review of Credit Policy	37
4.5	Loan Application Process	37
4.5.1	How Customers make their Loan Application	37
4.5.2	Duration taken to process Loan Applications	37
4.5.3	Overriding of Loan Applications	38
4.6	Credit Risk Management Process	38
4.6.1	Credit Assessment Methods used	38
4.6.2	The Characteristics mostly used in credit scoring	38
4.6.3	Objectivity or Subjectivity of the credit appraisal process	39
4.6.4	Existence of a Debt to Income ratio (Debt ratio)	40
4.6.5	Declining of loan Application	40
4.6.6	Employees awareness of Credit risk	40
4.6.7	Credit Appraisal using the 6Cs criteria	41
4.6.8	Measures used to improve loan serviceability/reduce credit risk	41
4.6.9	Credit Approval levels (Kshs. Millions)	42
4.6.10	Credit Worthiness of Customers	43
4.6.11	Credit Risk assessment officials	43
4.6.12	Defaulting on Loan Repayment	44
4.6.13	Monitoring of Loan Repayments	44
4.6.14	Dealing with difficult to pay customers	45
4.6.15	Importance of various risks faced by Commercial Banks	46
4.6.16	Management of Risks	46
4.6.17	Methods used to mitigate credit risk	47
4.7	Commercial Banks Performance	47
4.8	Strategic Management Factors	47
4.8.1	Existence of long-term strategy to maintain credit activities	47
4.8.2	Sources of funds for credit activities	48

**CHAPTER FIVE: SUMMARY OF FINDINGS AND CONCLUSIONS,  
RECOMMENDATIONS, LIMITATIONS OF THE STUDY AND SUGGESTIONS  
FOR FURTHER RESEARCH**

5.1 Summary of Findings and Conclusions	49
5.2 Limitations of the Study	52
5.3 Recommendations	52
5.4 Suggestions for Further Research	53
REFERENCES	55
APPENDIX A: LIST OF COMMERCIAL BANKS	58
APPENDIX B: THE QUESTIONNAIRE	60

## **LIST OF TABLES**

<b>Tables</b>	<b>Page</b>
1. Table 4.1 Overview of Data Collected	32
2. Table 4.2 Ownership of Commercial Banks	33
3. Table 4.3 Involvement in un-secured bank loans	33
4. Table 4.4 Introduction of un-secured loans	34
5. Table 4.5 Minimum un-secured loans limit	34
6. Table 4.6 Maximum un-secured loans limit	35
7. Table 4.7 Organization of the Credit Teams	36
8. Table 4.8 Factors to consider in Establishing a Credit Policy	36
9. Table 4.9 Regularity of review of credit policy	37
10. Table 4.10 Duration taken to process loan applications	37
11. Table 4.11 Overriding Loan Applications	38
12. Table 4.12 Credit assessment methods by Commercial Banks	38
13. Table 4.13 The Characteristics mostly used in credit scoring	39
14. Table 4.14 Existence of debt ratios limit	40
15. Table 4.15 Employees awareness of Credit risk	40
16. Table 4.16 Credit Appraisal using the 6C's criteria	41
17. Table 4.17 Measures used to improve loan serviceability	42
18. Table 4.18 Credit Approval levels (Kshs. Millions)	42
19. Table 4.19 Credit Worthiness of Customers	43
20. Table 4.20 Credit Risk assessment officials	44
21. Table 4.21 Loan Default Consideration	44
22. Table 4.22 Monitoring of Loan repayments	45
23. Table 4.23 Dealing with Loan Defaulters	45
24. Table 4.24 Importance of Risks	46
25. Table 4.25 Management of Risks	46
26. Table 4.26 Factors affecting Commercial Banks performance	47
27. Table 4.27 Sources of funds for credit activities	48



## **LIST OF ABBREVIATIONS**

<b>CBK</b>	Central Bank of Kenya
<b>6 C's</b>	Character, Capacity, Conditions, Collateral, Contributions & Common Sense
<b>SSEs</b>	Small Scale Enterprises
<b>NBFIs</b>	Non-Bank Financial Institutions
<b>NSE</b>	Nairobi Stock Exchange
<b>SME</b>	Small Micro-Enterprises
<b>SFI</b>	Standard File Interchange
<b>IAS</b>	International Accounting Standards
<b>OTC</b>	Over-The Counter
<b>PD</b>	Probability of Default
<b>LGD</b>	Loss Given Default

## ABSTRACT

Banks operate in an environment of considerable risks and uncertainty. Credit risk is one of the major risks Commercial Banks face today. The objective of the study was to assess the credit risk management techniques adopted by Commercial Banks in Kenya to assess un-secured bank loans.

The population of the study consisted of 47 Commercial Banks and a census study was adopted. Data was collected from primary sources through a semi-structured questionnaire, administered to the Credit Officers of the various Commercial Banks. The results were analysed and presented in the form of frequency tables and percentages.

The findings reveal that a majority of the Commercial Banks in Kenya are involved in un-secured loan services. Most of the Commercial Banks had both minimum and maximum loan limits. It was also found that all the Commercial Banks have credit management policies as a basis for objective credit risk appraisal. Formulation of un-secured loan policies was undertaken by their Top Management. Majority of the Commercial Banks have distinctive separate departments where un-secured loans activities are organised. From the study it was revealed that Statistical Method of credit assessment is the mostly used in assessing/screening loan applications. A majority of the Commercial Banks maintained a certain Debt Ratio. Quality appraisal of loan portfolios was found to be the mostly considered measure able to improve loan serviceability/ reduce credit risk Irregular credit turnover/ salary and declining turnover/ salary are the trends greatly affecting customers' credit worthiness. A loanee is considered a defaulter after three late repayments in most of the Commercial Banks.

Further, the study established that Credit risk and Liquidity risk are the most important risks for Commercial Banks. Improved credit appraisals is the most considered factor responsible for banks improved financial performance. Capacity and Character of the borrower are the most considered of the 6 Cs when appraising customers credit worthiness.

## CHAPTER ONE

### INTRODUCTION

#### 1.1 Background

The success of awarding credit depends on the credit risk management techniques applied to evaluate it (Clarke et al. 1999). This journey starts from the application of the credit and ends at the time when the loan from the credit process is fully paid. Like any human journey, Clarke argues that the credit risk management process has got smooth paths, impediments and detours before the destination is reached. Therefore, the credit risk management needs to be effective for it to succeed. Credit control can rightly be said to start when the clients walk into the office. During the discussion with the client, the credit manager finally agrees to grant credit or lend money, the lender is then said to have embarked on the journey called credit control and the nature of that journey will directly be influenced by the quality of that decision (Clarke et al. 1999).

After building an effective knowledge base in credit risk management, it should be easy, given appropriate credit policies to give a safer loan to a client (Hempel et al. 1994). Hempel argues that to overcome banks' deficiencies in systems and procedures that spawn poor loans, banks must develop a credit culture supported by well conceived management strategies for controlling credit risk. That for a bank to set a correct credit culture it must establish its priorities with respect to the market place. The bank must then design its credit risk management techniques

According to Omotunde (2000), there are two basic categories of bank credit risk. First, the transaction risk that relates to internal organizational systems that support or thwart the risk management task. Transaction risk is addressable in terms of three elements: the banks' credit organization, the banks' credit investigation and analysis system, and the banks' standard of underwriting loans. In the recent study of banks that have failed, it was found that the consistent element in the failures of the banks was the inadequacy of the banks' management systems from controlling loan quality and transaction risk. Secondly, portfolio risk is a further area of concern in bank credit risk which is further

divided into intrinsic and concentration risk. Intrinsic risk is that risk that is unique to that particular borrower e.g. his level of debt (leverage) or his customer base. Concentration risk is inherent in the shilling amount or proportions of the bank loan, portfolios that are tied up in certain industries or sectors or even types of loans such as real estate, treasury bills or even geographical areas.

Loans may be fixed term meaning that the repayment calculations are such that the loan and interest will be totally repaid after a certain time or they may be rolling or revolving loans, such as with credit cards, where the loan amount can be increased flexibly. The length of a fixed term loan repayment period will, of course, depend on the nature of the loan. A mortgage may be over a 25-year period, whereas a car loan will be for a much shorter period, and the repayment period for catalogue purchases shorter still. One might be interested in the probability that the borrower will have defaulted by the end of the loan period or in more subtle measures, such as the probability that they are two or three payments behind at the end of one year (Hand, 1986).

Risk is the possibility that the actual return on an investment or loan lend will deviate from that which was expected. Expectations are continually revised on the basis of new information to minimize the overall risk. Luce and Raiffa (1957) further argue that numerous approaches have been developed for incorporating risk into decision making process by lending organizations. They range from simple methods such as the use of subjective or informal approaches, to fairly complex ones such as the use of computerized simulation models. However, many lending decisions by financial institutions are frequently based on the decision maker's subjective feelings about risk in relation to the expected repayment by the borrower. Financial institutions commonly use this approach in decision making because it is both simple and extensive (McCugan et al, 1993).

Risk management in the broadest sense means protecting all of the institutions assets: monetary, physical and human from any potential dangers. In financial institutions, the more subtle risks to consider are embezzlement, misuse of information and damage to

the institutions assets through irresponsible acts of management and employees. Mwirigi (2006) argued that many people consider risk management in financial institutions as an unpleasant task. After all, the very nature of risk management means looking at potential events that are negative or undesirable. Nonetheless, risk management is an inescapable direct responsibility of the financial institutions management, particularly the risk around credit management. In traditional bank lending, competitive pressures and the desire for growth create time constraints that interfere with the basic due diligence (Greuning and Bratanovic, 1999).

A credit decision should be based on a thorough evaluation of the risk conditions of the lending and characteristics of the borrower (Luce et al, 1957). A lending decision making process has several basic elements. First, there must be an individual or group that is faced with a problem that is a decision maker. The problem might be whether to award credit or not. The decision maker must be seeking to achieve some objective or successfully award loans overtime. Luce asserts that several alternative action or strategies, which can possibly achieve the stated objective, must be available to the decision maker. In addition, a state of doubt must be available to the decision maker about which alternative action is best in seeking to achieve the desired objectives. Finally, Luce argued that the problem exists within an environment consisting of all factors indicating that the outcome cannot be controlled completely by the decision maker.

Luce and Raiffa (1957) argued that this framework is applicable in a wide variety of decision making situations on the basis of whether the decision is made by an individual or a group, and according to whether it is effected under conditions of certainty risk, uncertainty or as well as a combination of uncertainty and risk.

Problems among the decision making categories are determined by the knowledge of the possible outcomes that will occur when one or more alternative actions are chosen in a decision problem. They further assert that the lenders make decisions on the basis of risk. Risk is a decision making situation in which there is variability in the possible outcomes and the decision maker can specify the probabilities of these outcomes. It

refers to the potential variability of outcomes from a decision alternative. The more variable these possible outcomes are, the greater is the risk associated with the decision alternative (Luce and Raiffa, 1957).

In the last few years, Kenya has witnessed an un-precedent growth in non-secured loans, mainly consumer loans. This phenomenon comes shortly after the country recovered from a financial crisis of the mid 1990s that led to the collapse of many indigenous financial institutions that had contributed to a crisis of confidence that threatened to permanently damage the Kenya's financial sector (CBK, Annual Supervision Report, 2001). This crisis came at a time when the country was going through a great threat to economic depression.

While commercial banks have faced difficulties over the years for a multiple of reasons, the major cause of serious banking problems continues to be directly related to lax credit standards for borrowers, poor portfolio risk management, or lack of attention to changes in the economic circumstances and competitive climate (CBK, Annual Supervision Report, 2000).

## **1.2 Statement of the Problem**

The liberalization of the banking sector in the mid 1990s opened the banking industry to competition, exposing the players into new competition not witnessed before. This thus necessitated banks to devise new strategies to deal with the competition which has led to product innovation. A key feature that has developed as a result has been the phenomenal growth on non-secured loans in an attempt for the banks to attract the now informed and complicated customers to their side.

In the absence of scientific methods of credit assessment, subjective decision making by the management may lead to problems associated with credit. This include insider lending by way of extending credit to business enterprises they own or with which they are affiliated, to personal friends, to persons with a reputation for non-financial acumen or to meet personal agenda, such as cultivating special relationships with celebrities or

well connected people. A solution to this may be the use of tested lending techniques and especially quantitative ones, which filter out subjectivity (Gruening et al, 1999). Levitsky (1993) contents that one of the major problems depriving small enterprises and consumers of access to finance from institutions is the perception by lenders that giving credit to Small Scale Enterprises (SSEs) and consumers is a high risk undertaking. This is primarily because such entities cannot provide sufficient tangible collateral or material securities in the form that banks are accustomed to obtain from borrowers.

However, Levitsky asserted that to overcome this, schemes were being set up to offer to the lending institutions a guarantee to cover some or all of these losses incurred when borrowers default on loans. Most frequent funds are set up, usually with government financial support to provide the money to compensate the financial institutions for the losses sustained when the borrowers fail to repay the loan. However, in the last decade, companies and financial institutions have expanded rapidly both nationally and globally, markets have developed, new products have been created and the client base of firm increased greatly. This has led to greater opportunities for revenue growth as well as new and increased markets and credit risk that need to be identified, assessed and controlled.

Understanding credit risk has become a complex subject and how to mitigate it to acceptable levels is a major concern for all financial institutions. The diminishing use of traditionally known collateral tools/items like land title deeds, mortgaged houses, vehicles log books, shares and the drastic change in favour of un-secured products for customers with consistent promising income/cash flows, good account behaviour and character leaves a lot to be desired as no much study seems to have been done to understand this phenomenon among the Kenya's commercial banks. It's apparently important to assess how banks in Kenya are coping with inherently higher credit risks exposure on the non-secured loans. A large portion of revenue generated by financial institutions in Kenya is from credit extended to various individuals and organizations. This revenue is in the form of interest earned and charges on the preparation and management of the credit processes (CBK, Annual Supervision Report, 2001) The

high levels of credit advances have been the key driver to Commercial banks increased profits and growth in the recent past with majority of the banks increasing their branch networks

The goal of credit risk management is to maximise a financial institution's risk adjusted returns by maintaining credit risk exposure within acceptable parameters. Financial institutions need to manage the credit risk inherent in the entire portfolio as well as the risk in individual credits or transactions. The effective management of credit risk is a critical component of a comprehensive approach of risk management and essential to the long-term success of any financing organization (Sinkley, 1992). This study seeks to answer the question "Are Commercial Banks adopting credit risk management techniques on un-secured bank loans?"

### **1.3 Research Objectives**

The objective of the study is to assess the credit risk management techniques adopted by Commercial Banks in Kenya to assess un- secured bank loans.

### **1.4 Importance of the Study**

The study shall benefit the banking institutions in developing and improving on their credit policy statement in order to minimise instances of bad loans as witnessed in the 1990's in Kenya. Accurate assessment of the credit worthiness of borrowers is undoubtedly a major objective for banking institutions. The findings of this study will be beneficial to the following groups in their decision making:

The government is accountable and responsible for the well being of its citizens, hence the study shall provide insights that shall guide government' policies that allow adequate regulatory framework to protect all the stakeholders in the industry. Furthermore, it is the business of the government through the central bank to ensure a health and well functioning financial system exists in the country to allow an effective and efficient conduct of business in the country.



The banks clientele shall be informed of how their credit worthiness is evaluated to allow for their easy access to credit from the banks. It is also in their interest to know the credit policies and cost of finances that they borrow to allow them make informed choices and avoid instances of getting into debt traps or straining their revenues/incomes.

The findings of the study shall point out the gaps that the academia community, need to fill in order to attain the desirable and effective financial system in the country in an effort of building and developing our economy. Development of human resources remains at the centre of growth and development, and the institutions of learning have a significant contribution to the growth of human capital that is vital in credit policy formulation, implementation and the general risk management. The study will provide a basis for further research on credit risk management techniques.

## CHAPTER TWO

### LITERATURE REVIEW

#### 2.1 Credit Risk Management

The credit risk management function is responsible for ensuring that the firm's credit risk is satisfactorily managed. This involves implementing measures that lead to a sound risk management policy to manage credit risk in a firm (Steve, 2006). Such measures include performing adequate credit analysis by counter party, country and sector. This includes the performance of regulatory "know your customer" checks as well as assessing their creditworthiness, ensuring decisions on granting credit are made independently and integrating the credit risk policy with the firm's business strategy.

In credit analysis, even though the information provided by external agencies can be useful, it is often of limited value to the needs of the sophisticated credit risk management function. This is because it is often too historic, not detailed enough to meet the firm's requirements fully and is not as sensitive to the changes as the firm's own analysis. On top of performing detailed credit analysis, the responsibilities of this function will include ensuring that credit policy is adhered to; making credit decisions on methods of trading to reduce credit risk, settling, monitoring and reviewing credit limits; measuring and monitoring daily credit exposure. This will also involve providing information for the assessment of capital adequacy; assessing potential credit risk events; reporting and escalating risk issues to senior management, to make them aware and be able to react to such issues, in order to minimise potential losses (Steven, 2006).

Indeed, although default risk is the focus of the greater part of credit risk management techniques in the industry, one can argue that this risk is only one aspect of the overall credit granting decision. The main aim will normally be to maximize profits, and profitability need not be monotonically related to risk. For example, very low risk

applicants who pay of their credit card bill each month, so that the lender cannot charge interest, are not profitable. Conversely, very high risk applicants can be profitable, provided that a sufficiently high rate of interest is charged. In general, devising suitable operational definitions of profitability which capture the important aspects of the idea is not straightforward (Hand, 1986). Factors which need to be considered include the cost of collecting and analysing information, expected returns on good and bad loans that have been accepted, the fact that loans may be profitable even if the borrowers default, the attrition rate and factors such as interest rates changes.

Hand (1986) argues that population drift can be a problem in credit risk management process. This describes the tendency of populations to evolve with time, so that the distributions change. This is to be expected since applicant populations are subject to economic pressures and a changing competitive environment. Secondly, it is only those customers who are accepted for credit will be followed up to find out whether they do turn out to be good or bad risks (non-performing loans) making the design sample to be biased from the overall population of applicants. The rejected applications lie outside the scope of the system except cases of overrides which occur as a result extra information being available

## **2.2 Credit Risk Measurement Techniques**

Measuring credit risk involves the use of tools or models to estimate the credit exposure of the lender. These range from basic crude techniques; such as simply taking the credit exposure as being equal to the notional value of all transaction, to more modern approaches that measure more precisely the risks inherent in a portfolio. The key basic techniques for measuring credit risk include the development of credit policy, assessment of credit exposure, determination of credit risk premium, credit ratings and modern measurement techniques.

### **(a) Development of Credit policy objectives**

A company credit policy objective includes sales revenue increases through deepening on sales; encouragement movement of slow moving stocks; a competitive tool to gain a competitive advantage in the market; minimizing cost of idle cash; encouraging

growth; to effectively avoid customer nobody else wants and minimizing non-performing loans in the case of commercial banks (Mwirigi, 2006).

Commercial institution considers many factors when setting up a lending policy. However, the lending policy should be inclined to; the existing credit policy, industry norms, general economic condition in the country and the prevailing economic climate.

Mwirigi (2006) argues that every financial institution bears a degree of risk when the institution lends to businesses and consumers and hence experiences some loan losses when certain borrowers fail to repay their loans as agreed. Principally, the credit risk of a bank is the possibility of loss arising from non-payment of interest and the principal, or both, or non-realization of securities on the loans. Mwirigi points that banks use the 6C's model to evaluate their customers. The model helps banks decrease their risk of default as they get to know their customers.

**These 6 C's are:-**

**Character:** - Is the maturity, honesty, trustworthiness, integrity, discipline, reliability and dependability of a customer. A person of good character will pay his debt whether it is secured or not. Such a person will disclose all the facts of his deal because his intention is to seek guidance and help from the organization. When in problems, such a borrower will adhere to the credit manager's request for alternative arrangements to pay his debt instead of hiding from the bank. A person's character can be determined through: personal interview, reference from people who know the client well, personal knowledge of the client and record of past performance.

**Capacity/completion** Capacity refer to a clients ability to service his debt fully. Even if one had good intentions but has no funds, he will not be able to keep his loan repayment into date. The client's capacity can be determined by reviewing his sources of income and netting off the commitments in the case of a company. An analysis of audited accounts for the past three years could reveal the surplus available to service the loan. In case of line purchase, bank loan or charge card, the practice is to determine a client's current capacity since injection of the loan may not have sufficient influence on the clients' capacity to generate income. For venture capital, capacity is based on

projection and hence integrity of such projection is quite crucial. Capacity also looks at a client's record of performance. A client who has a record of money from various institutions and paid regularly over long periods can be described as having experience of borrowing and paying.

**Condition** – refer to the overall environment. The key question is that: is the commercial, socio-economic, technological and political environment conducive enough for a successful implementation of the project? Is there any illegal impediment and detours to the successful implementation of the project?

**Collateral** – This is the security given to secure the loans. The most talked about, but the least important; in terms of the eventual credit success of the 6C's is collateral/security. Businesses like credit and charge cards, do not even consider collateral (CBK, Annual Banks Supervision Report, 2002). Furthermore, some collateral securities are difficult to dispose off to recover the loans in some industries and situations where there are lots of indifferences.

**Contribution** - This involves the clients' commitment to the project at hand. Key questions shall be: is the customer willing and able to make contributions? Is he/she able to raise funds/deposits to a certain required % of the entire project or is the project 100% loan financed? If a client is having difficulty raising the deposits, he is likely to be unable to pay his instalments regularly. Another question will be whether the client is willing to contribute his time to the management of the projects/asset? Research indicates that absentee management has been a key cause of failure to many projects. For instance, oil companies are insisting that petrol stations must be owner managed. So, the question is what about where large sums of money are involved? Shouldn't owner management be mandatory?

**Common sense** – This is the natural ability to make good judgement and behave in a practical and sensible way. It is being prudent and reasonable in analysing, presenting, using and interpreting financial. Additionally, common sense is how reasonable the financial information provided is to support the case of the project.

While each of the above factors is important on its own right, they, however, should not be considered in isolation. While adverse record on each one is enough to reject an application, good reports on all the aspects improve the probabilities of success. Therefore, these elements can be used individually or in combination, depending on the level of quality of credit appraisal required and the amount of credit involved. The 6C's model is meant to help financial institutions in Kenya to thoroughly evaluate and assess the credit worthiness of existing and potential customers before according them new or further credit. This helps to mitigate exposure of banks to credit risk and the avoidance of non-performing loans.

### **(b) Credit Exposure**

This refers to the amount that can potentially be lost if debtors default on their obligations. It is used to assess quantitatively the severity of credit risk from counter parties and portfolios (Steven, 2006). Credit exposure consists of two parts: current exposure and potential exposure. Current exposure refers to the current obligation outstanding while potential future exposure is calculation of the likely maximum loss in the future. The potential exposure calculation is usually performed using statistical techniques and forms part of value-at-risk calculation.

### **(c) Credit risk premium**

This refers to the difference between the interest rate a firm pays when it borrows and the interest rate on a default-free security, often government securities. The premium is the extra compensation the market or financial institutions require for lending to a firm that has a risk of defaulting. As a firm's credit increases, the lender demands a higher credit risk premium through an increase in the amount of interest paid. This increase is necessary to offset the higher expected loss on the bond or loan due to the increased probability that the loan will not be repaid in accordance with its terms. However, there exists a strong relationship between credit risk premium and credit rating. The higher the rating, the more creditworthy the firm is and so the lower the premium. This means that the cost of borrowing will be lower for a higher rated firm as a reflection of its lower likelihood to default. As a result, downgrade in a company's credit rating can significantly increase its borrowing costs.

#### (d) Credit rating

This refers to an assessment of a firm's credit risk to determine its credit-worthiness and financial health by an external credit rating agency. It's used by investors in public issuer of debt capital as a guide to managing their credit exposure. An independent rating agency will assign a credit rating based on analysis of the company's financial statements. This is usually done with a short-term and long-term outlook. The services provided by the credit rating agencies enable investors to rely upon impartial and regularly updated factors which are necessary in respect of credit risk assessment. Different agencies assign different terminologies to their ratings. For example, Moody's uses ratings for long-term credit that range from AAA representing the highest quality investment, to C for firms more likely to default. Some of the leading agencies supplying ratings are, but not limited to:-

- i) Moody's
- ii) Standard and Poor's and
- iii) Fitch Ratings

#### Examples of long-term credit ratings

Moody's	S & P	Fitch Ratings	Meaning
Aaa	AAA	AAA	Best quality investment.
Aa	AA	AA	Very well protected
A	A	A	
Baa	BBB	BBB	Medium grade
Ba	BB	BB	Not highly protected
B	B	B	
Ccc	CCC	CCC	Bonds of poor standing
Cu	CC	CC	Some threat to security Often in default
C	C	DDD	Lowest grade
		DD	Poor prospects
		D	

Any investment appearing in the first four rows (industry Aaa to Baa) is deemed to be investment grade the remainder below this level being referred to as non-investment grade.

### **(c) Credit Assessing/ Appraisal Criteria in Banks**

Mishkin (1997) argues that the guiding principle in credit appraisal is to ensure that only those borrowers who require credit and are able to meet repayment obligations can access credit. Lenders may refuse to make loans even though borrowers are willing to pay a higher interest rate, or make loans but restrict the size of loans to less than the borrowers would like to borrow (credit rationing). Financial institutions engage in the second form of credit rationing to reduce their risks

**Subjective or Informal assessing techniques-**Traditional methods of deciding whether to grant credit to a particular individual use human judgement of the risk of default, based on experience of previous decisions. However, economic pressures resulting from increased demand for credit, allied with greater commercial competition and the emergency of new computer technology, have led to the development of sophisticated statistical models to aid the credit granting decision (Hand, 1986).

**Modern assessing techniques-** Credit scoring, sometimes referred to as application scoring is the name used to describe this more formal process of determining how likely applicants are to default with their repayments (Hand, 1986). Statistical models, called score-cards or classifiers, use predictor variables (characteristics) from application forms and other sources to yield estimates of the probabilities of defaulting. Accept or reject decision is taken by comparing the estimated probability of defaulting with a suitable threshold. Standard statistical methods used in the industry for developing score-cards are discriminant analysis, linear regression, logistic regression and decision trees.

The introduction of statistical methods encountered some scepticism. Nowadays this has been overcome: not only are the scoring methods the only way of handling the large number of transactions, but it seems that they produce more accurate classifications



than subjective judgemental assessments by human experts (Rosenberg and Gleit, 1994).

Chandler and Collman (1979) have also compared classifications based on the experience and judgement of a human assessor with those based on statistical scoring processes. They pointed out that simple accuracy of creditworthiness prediction is not only thing which must be taken into account. Other factors to consider are managerial ability to exercise effective control over the credit process, the ability to forecast results and to prepare relevant management reports, compliance with legal constraints and social and political acceptability.

Similarly, Reichert et al. (1983), although not convinced of the predictive ability of the scoring approaches observed that their benefit may relate not to any superiority in predictive power but to the highly consistent, objective, and efficient manner in which the predictions are made. They might also have added the fact that credit scoring is typically cheaper than human assessors. Nowadays it seems that the only organisations which do not use credit scoring approaches are the smaller and/or more personal companies and those concerned with Corporate Finance, where statistical methods have been slower to be adopted.

Credit scoring attempts to simulate the complexity of the real world to measure the Probability of Default (PD) and calculate the Loss Given Default (LGD) from a range of complex potential scenarios. From these calculations, a value-at-risk (VaR) estimate can be made which makes an estimate of the maximum loss that can occur in a given period of time (Steven, 2006).

Modern tools are available commercially to help companies gain an overall integrated view of credit risk across their entire organization and product spectrum and have become powerful aids in measuring the credit exposure of portfolios (Steven, 2006). Although, they represent significant advances in aiding credit risk management at the portfolio level, their accuracy generally depend on good quality historical data. If the quality of this data is poor, then confidence in the modern tools is degraded. The

quality of data is affected by issues such as the simple lack of availability of data, for instance, for emerging markets; Significant economic or political changes in a country making data irrelevant or misleading, for example, a change in political ideology or the discovery of large reserves of natural resources and, Major market movements making historical data irrelevant or misleading, for example, the liberalization of financial markets in the early 1980's "changed the rules" for the future and disrupted the established trends.

Hand (1986) argues that the characteristics used in modern credit risk assessment techniques vary from situation to situation. Someone seeking to purchase from a mass home shopping catalogue will be asked for different information from someone seeking a mortgage. Moreover, the information which may be used in a credit scoring system is subject to changing legislation. Currently, in the United Kingdom (UK) it is not permissible to discriminate on gender grounds. In some cases the values of the characteristics are obtained sequentially: an initial screening based on an application form identifies unequivocal good and bad risk applicants, and these are accepted or rejected immediately. The sequential process avoids the costs of obtaining unnecessary information as well as permitting a quick decision for the majority of the applicants. A lengthy process is likely to deter those who do not really need the loan or have other sources of credit.

**Example of characteristics typical of certain credit scoring domains**

Time at present address	0-1, 1-2, 3-4, 5+ years
Home status	Owner, tenant, other
Postal code	Band A, B, C, D, E
Telephone	Yes, no
Applicant's annual income	£(0-10,000), £(11,000-20,000)
Credit card	Yes, no
Type of bank account	Cheque and/or savings, none
Age	18-25, 26-40, 41-55, 55+ years
Country court judgements	Number
Type of occupation	Coded

Purpose of loan	Coded
Marital status	Married, divorced, single, other
Time with bank	Years
Time with employer	Years

The above table shows the sorts of characteristics that are used in credit scoring.

### 2.3 Monitoring and Control of Credit Risk

Monitoring credit risks involves the use of a range of techniques that aim to maintain the firm's credit exposure within acceptable parameters (Steven, 2006). These techniques operate at both the individual and portfolio level.

#### 1) Individual Level

Techniques at the individual level aim to mitigate credit risk with specific borrowers. These may involve simple decision-making based upon information derived from risk measurement e.g. a decision to charge a higher credit risk premium to a firm with a low credit rating. Common risk mitigation techniques employed by financial institutions are:-

**First, underwriting standards** –these are the standards that financial institutions apply to borrowers in order to evaluate their creditworthiness and, therefore, mitigate the risk of default. Evaluation requires specific knowledge of their business and includes a review of the borrower's cash flows and financial statements; the consideration of earnings, profit margins and outstanding debt; analysis of industry variables such as competitive pressures, product cycles and future growth potential; controlling the terms of the loan e.g. limiting loan size, establishing a repayment schedule and requiring additional collateral for higher risk loans (Steven, 2006).

**Secondly, Credit limits** -these are maximum limits for all aspects of credit exposure, including lending set by financial institutions to prevent too much investment in a particular firm. All financial institutions will set limits of some description for all borrowers.

**Thirdly, netting** –this is the practice whereby two parties that exchange multiple cash flows during a given day agree bilaterally to net those cash flows to one payment per currency, thereby reducing settlement risk. It also reduces transaction costs and communication expenses.

**Lastly, Collateral (Margin)** this is an asset held by the lender on behalf of an obligor, under certain agreed conditions, as security for a loan. It generally takes the form of cash or securities and is used by the lender as insurance against default. In the event that the obligor defaults, the lender may seize the collateral. Collateralisation is, therefore, used as a means of reducing credit exposure to a counter party.

Collateral is used to mitigate credit risk for a variety of transactions such as foreign exchange forwards, securities lending and derivatives (Steven, 2006). A collateral arrangement can be unilateral, bilateral or netted. A unilateral arrangement means that one party gives collateral to the other, while a bilateral arrangement allows for two-sided obligations, such as a swap or foreign exchange forward. In this situation, both parties may post collateral for the value of their total obligation to the other. Finally, netted collateral means that the net obligation may be collateralised so that at any point in time, the party who is the net obligor posts collateral for just the value of the net obligation.

In a typical arrangement, the collateral is periodically marked to-market (i.e. its present value is calculated using current marked prices/rates) and the amount adjusted to reflect changes in value. The obligor posts additional collateral when the market value has risen, or removes collateral when it has fallen. An example of this is the use of variation margin in exchange-traded derivatives market, where collateral or margin “calls” (demands) are made by the exchange, clearing house or clearing broker on a daily basis to reflect changes in the market value of the trades (Steven, 2006).

## 2) Portfolio level

A portfolio is a collection of investments owned by the same individual or organization. An efficient or optimal portfolio either provides the greatest expected return for a given level of risk or provides the lowest risk for a given expected return.

Portfolio management is concerned with optimising market and credit risk inherent in the portfolio components to maximise returns. Some of the common techniques for mitigating credit risk within a portfolio are:

**One, diversification** – this is a means of offsetting risk in a portfolio by spreading it across borrowers in different, negative correlating industry sectors i.e. industry sectors that have an inverse or opposite relationship to each other. By doing this, institutions avoid unacceptable concentrations of credit risk. Hence, the earnings of some loans in a portfolio will offset the losses of others, making it less likely that the institution will lose money overall. By this principal of combining individual loans into a portfolio, it is possible to reduce overall credit risk (Steven, 2006).

**Two, asset securitisation** – this is the practice of pooling bonds or loans with credit risk and selling them as a package to outside investors. This is attractive for the seller because it removes their credit exposure. It is also attractive for investors because the diversification they can achieve across many loans reduces their overall credit risk (Steven, 2006).

**Three, Loan sales** – is the practice of a firm making a loan to a company and then selling the loan to other institutions or investors. This strategy is attractive to the firms because they earn a fee from the original loan but the new investor assumes the credit risk. This can be very important where large amounts are concerned for such purpose in financing takeovers (Steven, 2006).

**Four, Credit derivatives** – Are specialised over-the-counter (OTC) products that allow the transfer of credit exposure between parties. They enable credit risk to be managed. Institutions can use credit derivatives to increase or decrease their credit exposure to a

particular counterparty, for a particular period of time. They are attractive because they allow financial institutions to mitigate their credit risk more effectively and improve their portfolio diversification by reducing undesirable credit risk concentrations, customise their credit exposure to another party without having a direct relationship with them and transfer credit risk without adversely affecting the customer relationship.

Over the last decade these instruments have probably been the most important innovation in the mitigation of credit risk with their traded value increasing from virtually nothing in 1993 to values of around US\$ 9,130 Bn in 2004 in terms of notional principal amounts pertaining to credit default swaps alone (Steven, 2006). However, they can also expose the user to new financial and regulatory costs. Like other OTC products, they are privately negotiated financial contracts. These contracts expose the user to operational risk, counterparty risk, liquidity risk and legal risk. In addition, there is uncertainty over the regulatory status of credit derivatives and the appropriate capital charges for loans hedged with them. Controlling these risks is an essential factor in the future development of this market

Popular examples of credit derivatives include: credit default swaps, total return swaps and credit linked notes. On the regulatory front, the Basel Accord, published by the Basel Committee for Banking Supervision (first published in 1988), highlighted the following major causes of serious banking problems. A lax credit borrowers and counter parties, poor portfolio risk management and a lack of attention to changes in economic or other circumstances that could lead to deterioration in the credit standing of a bank's counter parties.

As a result of these issues and in the face of a long decline in bank capital levels, there was an urgent regulatory need to set minimum capital requirements. These require firms to hold minimum levels of capital as protection against the realisation of the financial risk, including credit risk. Such is called capital adequacy. They also

recommended good practice principles to ensure more effective credit risk management.

In summary, firms should establish an appropriate credit risk environment, operate under a sound credit granting process, maintain an appropriate credit administration, measurement and monitoring process, ensure adequate controls over credit risk, assess asset quality, ensure adequate provisions and reserves to insure against credit risk, and disclose credit risk to regulators and auditors.

#### **2.4 Limitation of Credit Risk Management Techniques**

Although the science of measuring credit risk using modern measurement technique has been developing rapidly in recent years, there are some common assumption used by both firms and regulators that can produce inaccurate credit risk calculations and introduce inaccuracies into the risk models (Steven, 2006). First, is the use of a simplified calculation of potential exposures. Generally, the potential exposure of a portfolio is greater than the current exposure. Institutions may apply charges to account for potential exposure based on broad categories that over simplify the different levels of risk. These charges are stated as percentages of notional amounts but notionals are not always true measures of the underlying credit risks.

Secondly, the assumption that some exposures have equal credit risk, when, the reality is that they do not. For instance, due to the simple rules applied in the Basel Committee's original guidelines on capital adequacy, the risks associated with Korean and German banks were treated as equivalent. The latest capital adequacy proposal from the Basel Committee relates firm's capital more closely to its true risk (Steven, 2006).

## 2.5 The Banking Systems in Kenya

Banks are financial intermediaries whose liabilities are mainly short term deposits and whose assets are usually short term loans to business and consumers. These financial intermediaries are special because of their ability to transform financial claims of household savers efficiently into claims issued to corporations, individuals and governments. The financial institution's ability to evaluate information accurately, control and monitor borrowers allow it to transform these claims at the lowest possible cost to all parties, that is, credit allocation. Financial institutions transform claims of household savers (in the form of deposits) into loans issued to corporations, individuals and government. The financial institutions accepts the credit risk on these loans in exchange for a fair return sufficient to cover the costs of funding (e.g. Covering the costs of borrowing, or issuing deposits) to household savers and the credit risk involved in lending (Van Horne, 1997).

In the immediate post-independence Kenya, the banking and financial industry was highly controlled. However, after 1982 the government relaxed the hitherto stringent rules in the issuance of licenses, especially licenses to operate non-bank financial institutions (NBFIs). The low capital requirements of only Kshs. 0.5 million for financial institutions brought about the mushrooming of these institutions in the country. The relaxed regulatory and supervisory systems with which the banking and financial institutions operated at this time brought with it poor governance and management culture in the industry (Corporate Governance in Kenya, 2004).

The eighties thus witnessed the collapse of a number of banking institutions.

It is argued that the major reasons for the collapse of most of the banking institutions in Kenya could be attributed to: weak corporate governance practices, poor risk management strategies, lack of internal controls, weaknesses in regulatory and supervisory systems, insider lending and conflict of interest (Mayer, 2001).



## **2.6 Types of Risks Faced by Commercial Banks**

Butterworths (1990) argued that there are numerous risks facing financial institutions today. These risks are interrelated and their effective management is important to the performance of financial institutions.

### **1) Market risk**

This is the risk of losses in financial institutions' on-balance sheet and off-balance-sheet position arising from movement in market prices that change the market value of an asset or a commitment; such risks are inherent in banks holding trading portfolio securities, financial derivatives, foreign exchange position and in interest-sensitive bank assets and liabilities (Steven, 2006). Examples of market risks include: liquidity risk, interest rate risk, foreign exchange risk and risk involved in derivative transactions

#### **(i) Liquidity risk**

This arises from financial institutions' inability to meet their obligations as and when they fall due without incurring unacceptable losses (Steven, 2006). In commercial banks it includes, inability to meet customers' withdrawals and the reserve requirement by the contract bank. Inadequate liquidity affects bank's profitability and in extreme cases it can lead to insolvency. In cases where cross-border transactions are involved, there is an additional foreign exchange liquidity risk that may arise.

#### **(ii) Interest value risk**

This refers to the exposure of banks' financial conditions to adverse movements in interest rates. This risk arises as a result of a mismatch between a bank's interest rate sensitive to assets and liabilities. Interest value risk also affects both the earnings of a bank and the economic value of its assets, liabilities and off-balance sheet instruments. Excessive interest rate risk may erode banks' earnings and capital base (Hempel et al. 1994). The primary forms of interest rate risks are: first, repricing risk which arises from the timing difference in the maturity of the repricing of bank assets, liabilities and off-balance-sheet position. Secondly, the yield curve risk which arises from imperfect

correlation in the adjustment of the rates earned and paid on different instruments of otherwise similar repricing characteristics.

### **(iii) Foreign exchange risk**

Refer to the risk of losses in on-balance sheet or off-balance-sheet position arising from adverse movement in exchange rates. Foreign exchange risk tends to be most closely identified with cross border capital flows (Mwirigi, 2006). Banks are exposed to this risk in acting as market makers in foreign exchange by quoting rates to their customers and by taking unhedged open position in foreign currencies. This may occur when: first, banks are involved in spot and forward exchange markets and secondly, banks are taking unhedged open position in foreign currencies: for example borrowing from abroad.

### **(iv) Risk in derivative transaction**

Saunders (2002) argues that derivatives are an increasingly common method of taking or hedging risks. The actual cost of replacing a derivative contract at the current market rate is one measure of a derivative positions exposure to market risk. Since many of these transactions are registered off-balance sheet, supervisors need to ensure that banks active in these transactions are adequately measuring, recognizing and managing the risks involved. Examples include the interest and foreign exchange rate denominated transactions (swaps, forwards, futures etc) of residence with other residents and non-residents.

## **2) Credit risk**

Traditionally, the main risk for financial institutions is credit risk. It is the potential loss that results when lending institutions accept credit risk in order to earn revenue.

They lend to firms with a higher risk because of the potential for higher returns (Steven, 2006).

Credit risk, also known as default risk can be defined as "the risk of loss caused by the failure of a counter party to meet his or her obligations". Credit risk affects any firm to which money is owed by a way of a loan debt or obligation to pay such as fees. It exists

in any contract where one party has an obligation to another and is present in the trading of all financial instruments (Steven, 2006).

Credit risk is associated with either on-balance sheet transactions or off-balance-sheet transactions. It is the risk that the customer, or counter party will be unable or unwilling to meet a commitment that he/she has entered into with the bank. It is the failure of counterparty to perform according to a contractual arrangement. It applies not only to loan but also to other on-and off-balance sheet exposures such as guarantees, acceptances and security investments (Hempel et al, 1994). On-balance sheet transactions include instruments such as loans and the buying and selling of securities

Loans carry "direct risk" which is the simple risk of loan default where money is lend to a customer. Securities carry "issues risk," which is the risk of default by the issuer on redemption or interest servicing when one institution or investor holds debt securities (e.g. bonds) issued by the issuing institution. Bonds are long term forms of debt and that there is a risk that the issuer will default on its obligation to pay coupons and repay the principal with regards to the bond. Hence, treasury securities (government securities) are deemed to be less risky than corporate bonds. When considering issuer risk an investor must assess the likelihood of a default and when a default might occur. The Russian government famously defaulted on payment of interest and bond redemptions in September 2008 (Steven, 2006).

Off-balance-sheet transaction involve financial instruments such as securitization products, forwards and over-the-counter (OTC) derivatives. One of the main advantages of using off-balance sheet products is that they are treated differently from a capital adequacy perspective and allow a firm to reduce its balance sheet liabilities. Both on-and off-balance sheet transaction can carry pre-settlement risk and settlement risk.

**Pre-settlement risk (PSR)** Is the risk that an institution defaults prior to the settlement of the transactions, where the traded instruments have a positive economic value to the other party.

**Settlement risk (SR)** - Occurs when there is a non-simultaneous exchange of value (e.g. cash for securities) and one party defaulting during the exchange. Additional dimension of credit risk in the context of cross-border transaction include:-

**Transfer risk** – Occurs when the currency of obligation becomes unavailable to the borrower regardless of his or her financial conditions.

**Country risk** – Which is the risk associated with economic, social and political environment of the borrower in a country. It may be interrupted because of interference from foreign governments.

### **3) Other types of risks**

Other risks that a financial institution may be exposed to include:

#### **Operational risk**

Arise as a result of risks from business operations, as opposed to financing decisions. Operational risks are unique to each business based on: industry, competitive structure, customer demographics, demand and supply conditions, sensitivity to economic conditions, product elasticity's to various factors, level of complexity in product development and delivery and intangible issues such as intellectual rights and level of human capacity intensity (Blumeshtein, 2008). The risk mostly focuses on capital requirements and the whole operating activities of the bank (Greuning and Bratanovic, 1999).

#### **Event risk**

Is the risk resulting from sudden and unexpected changes in the financial market conditions due to events such as war, revolution or sudden colorize of stock market and breach of judiciary trust.

The above are some of the major types of risk faced by commercial banks. However, the most significant and the major locus of this study is the credit risk. The study focuses on credit risk in terms of its appraisal assessment and evolution for non-secured loans.

## **2.7 The Problem of Non Performing Loans**

Non performing loans are loans on which debtors have failed to make contractual payments for a predetermined time (Mayer, 2001). They are heavily concentrated in real estate related industries such as the construction and real estate, as well as among retailers and wholesalers.

Martin (1998) argues that a substantial number of banks have failed, mainly because of non-performing loans. Poor loans' quality has its roots in the information problems which affect financial markets and which are at their most acute in the developing countries, in particular problems of moral hazards. Non performing loans problem has been a serious and hot issue leading banks to serious difficulties, instability and crisis in Kenya. Theoretical literature suggests that the moral hazards incentive induced by deposit insurance underprices risks and increases the risk of default.

### **2.7.1 Causes of Non Performing Loans**

There is a multiplicity of causes for the high non performing loans in Kenya. Although no empirical study has been carried out, the relative contribution of the causes include:-

#### **a) Moral Hazard and Adverse selection**

This contributes to highly imprudent and in some cases fraudulent lending strategies of many banks. A large share of bad debts is attributed to insider loans often un-secured in high risk ventures such as real estate. Some banks also suffer from adverse selection of their borrowers driven by the lending rates which local banks charge to compensate for their costs of funds (Kwack, 2000).

#### **b) Lending to high risk borrowers**

High risk borrowers include other Banks and Non Banking Financial Institutions (NBFIs) which are short of liquidity and are prepared to pay above market interest rates for the interbank deposits and loans (Collier, 1993).

### **c) Depressed state of the economy and macro economic stability**

The performance of the Kenyan economy has been dismal from the early 1990,s to 2002. From 2002 the country has experienced a new political dispensation that has led to improved economic performance. Some loans which were appraised and sanctioned on the assumption of vibrant growth were adversely affected. It is expected that as the economy picks up the rate of increase of non performing loans will reduce (CBK, Bank Supervisions Annual Report, 2003). Periods of high and very volatile inflation in the country with interest rates liberalised led to very high lending rates (Collier, 1993).

### **d) Liquidity support and prudential regulations**

The willingness of the regulatory authorities to support distressed banks with loans rather than close them down is probably an important contributor of moral hazard. Many of the failed banks in Kenya have been able to borrow heavily from the Central Bank for several months and in some cases for more than a year before they were closed. The extent of imprudent management in the failed banks indicates that there were serious deficiencies in bank regulations and supervision (Kariuki, 1993).

### **e) Delays through the judicial systems**

The fact that lending in the banking sector is largely security based makes the need for speedy resolution of commercial disputes in courts vitally important. Unfortunately, the litigation system in Kenya allows debtors to turn to the courts to obtain injunctions that restrain banks from selling securities. While there were securities to cover non performing loans, it takes not less than five years to realize securities even when they are properly charged. In accordance with the best banking and accounting principles, institutions continue to reflect and report non performing loans in their books as long as security has not been realized. International accounting standards No. 39 (IAS 39) requires that non performing loans be written-off the books only after exhausting all efforts of debt recovery. Hence, banks continue to hold non performing loans in their books because of inefficiency of the court process (CBK, Banks Supervision Annual Report, 2003).

#### **f) Poor credit risk assessment and management**

Prudent risk assessment and management is not followed in some institutions. Sanctioning of credit is largely security based. Thus, even when cash flow projections and feasibility studies show that a project may not be viable, existence of collateral forms the basis of granting the loans in total disregard of the viability of the project. Inevitably, such lending goes into arrears and institutions are left holding onto securities which are difficult to realize (CBK, Banks Supervision Annual Report, 2003).

#### **g) External pressure of dominant shareholders**

Poor corporate governance has led to lack or no separation of the roles of shareholders and management. Due to this influence, loan proposals are not always subjected to the normal credit assessment. As a result, most loans given under this influence have become delinquent and their follow-up and recovery have been hampered. Since 1984, thirty nine (39) banking institutions have collapsed mainly due to problems caused by non performing insider loans and external influence on management (CBK, Bank supervision Annual Report, 2003).

### **2.7.2 Resolution of Non Performing Loans**

There has been considerable debate on how to resolve the non performing loans problem in Kenya. Ideas brought forward includes:-

#### **a) Creation of a non performing loan agency**

This involves the government issuing bonds to replace non performing loans in the balance sheets of the institutions and establishment of a tribunal to expedite recovery of loans which are normally not well secured and documented. This model may only be applicable to government owned banks as government funding would not be appropriate for privately owned institutions.

#### **b) Formation of a loan buying company**

This is a private sector driven and funded company which would purchase non performing loans from the banking sector at a discount. This model works best where

the loans are well documented and secured (CBK, Banks Supervision Annual Report, 2003).

**e) Deposit protection fund board (DPFB) to take over non performing loans.**

Under this initiative, the DPFB would buy the NPLs at a discount and then be left to recover the loans through courts or realization of securities. Under this initiative, the DPFB would only buy the portion that is well secured (CBK, Banks Supervision Annual Report, 2003).

**d) Instituting economic recovery measures**

This would enable borrowers engage in viable business ventures that generate sufficient income to service the acquired loans (CBK, Banks Supervision Annual Report, 2003).

**e) Enhancing corporate governance within the financial sector**

This will eliminate insider dealings and poor credit risk assessment and management (CBK, Banks Supervision Annual Report, 2003).

**f) Promoting the formation of credit Reference bureau**

Creation of Credit reference bureaus will enable lending institutions to share and exchange information on borrowers (CBK, Banks Supervision Annual Report, 2003).



## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1 Research Design**

The survey design was used in this study.

#### **3.2 Population and Sample**

The population of the study consisted of the 47 Commercial Banks registered as at 30<sup>th</sup> June 2008 and licensed to carry out banking business in Kenya under the Banking Act CAP 488 Part II Section (4) and Section (5). All the commercial banks were surveyed, thus no sampling was used.

#### **3.3 Data Collection**

Data was collected from primary sources through a semi-structured questionnaire, administered to the Credit Officers of the various Commercial Banks. The drop-and-pick-later method was considered appropriate because it gives the respondents time to fill the questionnaires and gives the researcher an opportunity to review the questionnaire before picking it for completeness in responses. Secondary data was obtained to reinforce collected data from the brochures and supplements in newspapers covering bank credit providers.

#### **3.4 Data Analysis**

Data was analysed using descriptive statistics such as frequency tables and percentages. The analysis was carried out on the credit risk management techniques of different commercial banks when offering un-secured loans.

## CHAPTER FOUR

### DATA PRESENTATION, ANALYSIS AND INTERPRETATION

This chapter presents the analysis of the data collected and interpreted on the assessment of credit risk management techniques of un-secured loans of Commercial Banks in Kenya.

#### 4.1 Data Collected and Analysed

Questionnaires were distributed to all the 47 Commercial Banks in Kenya, 20 responded, 19 did not and 8 declined to respond. This represents a response rate of 42.6% of the total population, which is considered significant enough to provide a basis for valid and reliable conclusions with regard to credit risk management techniques adopted by Commercial Banks offering un-secured loans in Kenya. The questionnaires were administered using drop-and-pick later method. The data was collected from Heads of Credit, Credit Managers and Credit Officers. The Commercial Banks which did not respond gave various reasons including sensitivity of financial information requested; only a few senior officers could authorise release of information and the said officers were out of office on official matters, while others feared misuse of the information requested. Brochures were obtained from specific Commercial Banks to clarify on products offered. This is well explained in table 4.1 below:

**Table 4.1 Overview of Data Collected**

Population	Number of targeted Commercial banks (n)	Returned Questionnaires (r)	Non Response Error (n-r)
Commercial Banks	47	20	27

*Source: Research Data*

**Key:** n = Population; r = Returned Questionnaires; n-r = Non-Response Error (57.4%)

## 4.2 Ownership of the Commercial Banks

When respondents were asked about ownership of their Commercial Banks, a majority of 55% said the banks were Private owned. 30% were owned by the Public and the remaining 15% were owned by the Government.

**Table 4.2 Ownership of Commercial Banks**

Ownership	No. of Respondents	Percentage
Public	6	30%
Private	11	55%
Government	3	15%
Total	20	100%

*Source: Research Data*

## 4.3 Background Information of Commercial Banks studied

### 4.3.1 Involvement in Un-secured Lending

When the respondents were asked whether their Commercial Banks offer un-secured bank loans a majority of 75% said they offer while the remaining 25% said they do not offer the un-secured bank loans.

**Table 4.3 Involvement in Un-secured Bank Loans**

	Offers un-secured bank loans	Do not offer un-secured bank loans
No. of Commercial Banks	15	5
Percentages	75%	25%

*Source: Research Data*

### 4.3.2 When Un-secured Loans were Introduced

When respondents were asked when un-secured loans were introduced majority (60%) indicated the period between 2001 and 2006, while the remaining (40%) indicated on inception. This trend reveals that un-secured loans products are a new phenomenon in the Banking Industry in Kenya.

**Table 4.4 Introduction of Un-secured Loans**

	Inception	Between 2001-2006	Total
No. of Commercial Banks	6	9	15
Percentages	40%	60%	100%

*Source: Research Data*

#### 4.3.3 (a) The Minimum Un-secured Loans Limit

When asked the minimum un-secured loan limits majority (33.3%) said Kshs. 50,000, (26.7%) did not have minimum limits, (20%) had a minimum of kshs. 100,000 and the remaining (20%) a minimum of Kshs.5, 000.

**Table 4.5 Minimum Un-secured Loans Limit**

Limits (Kshs)	No. of commercial Banks	Percentage
5,000	3	20%
50,000	5	33.3%
100,000	3	20%
No limit	4	26.7%
Total	15	100%

*Source: Research Data*

#### 4.3.3 (b) The Maximum Un-secured Loans Limit

When asked the maximum un-secured loan limits (26.7%) said kshs. 1,500,000, another (26.7%) had a maximum limit of kshs. 1,000,000, (20%) had a maximum limit of kshs. 3,000,000, (13.3%) had a maximum limit of kshs. 500,000 and the remaining (13.3%) did not have a maximum limit

**Table 4.6 Maximum un-secured loans limit**

Limits (Kshs)	No. of commercial Banks	Percentage
500,000	2	13.3%
1,000,000	4	26.7%
1,500,000	4	26.7%
3,000,000	3	30%
No limit	2	13.3%
Total	15	100%

*Source: Research Data*

#### **4.4 Management of Un-secured Loans Activities**

##### **4.4.1 Existence of Specific Credit Policies**

All the 15 respondents (100%) indicated that they had guiding specific credit policies in place. This is a positive trend, and will enhance performance since policies leads to a formalised credit evaluation process and specifies how every transaction is to be done.

##### **4.4.2 Involvement in the Formulation of Un-secured Loans Credit Policy**

All the 15 respondents (100%) indicated that formulation of un-secured loans credit policies was undertaken by their Top management. This is an indication that credit policies meet the business objectives and strategies.

##### **4.4.3 Setting of Specific Targets on Un-secured Loans Services**

When respondents were asked whether they work with pre-set targets, all the 15 respondents (100%) said they work with pre-set targets. This trend is impressive and shows that banks offering un-secured loans set targets to enable performance monitoring of the services thus leading to better management.

##### **4.4.4 Existence of Credit Officers**

It was revealed that all the 15 respondents (100%) have specific credit officers in their credit departments. This is an indication that banks are moving towards reasonable levels of perfection.

#### 4.4.5 Organization of the Credit Teams in the Commercial Banks

From the analysis below (table 4.7), most banks have distinctive separate departments where un-secured loans activities are organized as indicated by 60% of the respondents, 20% have credit teams organised in a unit within a department while the remaining 20% have credit teams in the various outlets (branches). This is an indication of growth in the development of specialised credit departments in the commercial banks.

**Table 4.7 Organization of the Credit Teams**

	No. of Respondents	Percentages
Within a separate department	9	60%
A unit within a department	3	20%
In the outlets (branches)	3	20%
Total	15	100%

*Source: Research Data*

#### 4.4.6 Factors to consider in Establishing a Credit Control Policy

When asked to rank the factors to consider in establishing a credit control policy, majority of the respondents indicated that they mostly considered liquidity position (90%), existing credit policies (85%), state of the economy (81%) and the overhead costs (63%) in that order.

**Table 4.8 Factors to consider in Establishing a Credit Control Policy**

Ranking	Existing credit policy	Overhead costs	Liquidity position	State of Economy
Least considered	15%	37%	10%	19%
Most considered	85%	63%	90%	81%

*Source: Research Data*

#### 4.4.7 Regularity of Review of Credit Policies

When asked how regularly they reviewed their credit policies most respondents (60%) indicated that this was done yearly, (20%) indicated quarterly and the remaining (20%) indicated on need basis.

**Table 4.9 Regularity of Review of Credit Policies**

Frequency	No. of respondents	Percentage
Quarterly	3	20%
Half-yearly	0	0%
Yearly	9	60%
Other	3	20%
Total	15	100%

*Source: Research Data*

#### 4.5 Loan Application Process

##### 4.5.1 How Customers make their Loan Application

All the 15 respondents (100%) indicated that their customers were using documented method in making loan applications.

##### 4.5.2 Duration taken to process Loan Applications

When asked how many days it takes to process customers loan applications and give a fate a majority (33.3%) said it takes 2 days, (26.7%) it takes 3 days, (20%) it takes 4 days while the remaining (20%) said it takes up to 7 days.

**Table 4.10 Duration taken to process loan applications**

Days taken to process	No. of respondents	Percentages
2 days	5	33.3%
3 days	4	26.7%
4 days	3	20%
Up to 7 days	3	20%
Total	15	100%

*Source: Research Data*

### 4.5.3 Overriding of Loan Applications

When asked whether the Loan Applications which had been declined during the assessment process are overridden, a majority of 93.3% said yes while the remaining 6.7% said they do not override.

**Table 4.11 Overriding Loan Applications**

	No. of Respondents	Percentages
Override	14	93.3%
Do not Override	1	6.7%
Total	15	100%

*Source: Research Data*

## 4.6 Credit Risk Management Process

### 4.6.1 Credit Assessment Methods used

When asked the credit assessment methods used, the method mostly used was Statistical method (93.3%), Credit Bureaus (40%), Credit Scoring Agencies (26.6%) and finally traditional method (20%). This is an indication of growth in the development of credit assessment methods with more objectivity.

**Table 4.12 Credit assessment methods adopted by Commercial Banks**

Credit Assessment Method used	Least Considered		Most Considered	
	Frequency	%	Frequency	%
Traditional Method (Human Judgement)	12	80%	3	20%
Statistical Methods (Credit Scoring)	1	20%	14	93.3%
Credit Scoring Agencies	11	73.7%	4	26.7%
Credit Reference Bureaus	9	60%	6	40%

*Source: Research Data*

### 4.6.2 The Characteristics mostly used in credit scoring

To establish the characteristics used by the Commercial Banks in credit scoring process, the respondents were asked to specify which characteristics they considered



when scoring. As shown in the table 4.13 below, the characteristics most considered were Applicant's income (100%), purpose of loan & type of occupation (93.3%), time at present address, age and time with employer (80%), time with bank, type of bank account and home status (60%), postal code, telephone and credit card (46.7%) and finally marital status and country court judgements (40%).

**Table 4.13 The Characteristics mostly used in credit scoring**

Characteristics	Least considered		Most considered	
	Frequency	%	Frequency	%
Time at present address	3	20%	12	80%
Home status	6	40%	9	60%
Postal code	8	53.3%	7	46.7%
Telephone	8	53.3%	7	46.7%
Applicant's income	0	0%	15	100%
Credit card	8	53.3%	7	46.7%
Type of Bank Account	6	40%	9	60%
Age	3	20%	12	80%
Country court judgements	9	60%	6	40%
Type of occupation	1	6.7%	14	93.3%
Purpose of loan	1	6.7%	14	93.3%
Marital status	9	60%	6	40%
Time with bank	6	40%	9	60%
Time with employer	3	20%	12	80%

*Source: Research Data*

#### 4.6.3 Objectivity or Subjectivity of the credit appraisal process

All the 15 respondents (100%) indicated that their credit appraisal processes were very objective. This is a clear indication of a better future in terms of the performance of the un-secured loans.

#### 4.6.4 Existence of a Debt to Income ratio (Debt ratio)

When asked if their Commercial Banks maintain a certain debt ratio, a majority (93.3%) said they have while the remaining (6.7%) said they did not have. This is a positive development aimed at avoiding overburdening customers with debts.

**Table 4.14** Existence of debt ratios limit

Debt ratio	No. of Respondents	Percentages
Have a Debt ratio	14	93.3%
Do not have a Debt ratio	1	6.7%
Total	15	100%

*Source: Research Data*

#### 4.6.5 Declining of loan Application

All the 15 respondents (100%) indicated that over 5% of their total loan applications received were being declined for various reasons. This is a clear indication of thorough screening processes in the commercial banks.

#### 4.6.6 Employees awareness of Credit risk

When asked how they sensitised employees on credit risk, a majority of the respondents (93.3%) said they used on job training while another (86.7%) said they used the credit manuals. There were still others (80%) who used regular training. The least used method was regular meeting (66.7%).

**Table 4.15** Employees awareness of Credit risk

Ways adopted	Least considered		Most considered	
	Frequency	%	Frequency	%
Regular meetings	5	33.3%	10	66.7%
Regular training	3	20%	12	80%
Credit Manuals	2	13.3%	13	86.7%
On job training	1	6.7%	14	93.3%

*Source: Research Data*

#### 4.6.7 Credit Appraisal using the 6C's criteria

To establish the criteria used by Commercial Banks in evaluating credit risk, the respondents were asked to specify which factors they considered when appraising, assessing and evaluating credit risk of their customers. As shown in table 4.16 below, the factors most considered were capacity/completion (93.3%), character (86.7%), conditions (80%), contribution (73.3%), common sense (66.7%) and finally collateral/security (60%).

Table 4.16 Credit Appraisal using the 6C's criteria

Factor	Least considered		Most considered	
	Frequency	%	Frequency	%
Character of borrower	2	13.3%	13	86.7%
Capacity/completion	1	6.7%	14	93.3%
Conditions	3	20%	12	80%
Collateral/security	6	40%	9	60%
Common sense	5	33.3%	10	66.7%
Contribution	4	26.7%	11	73.3%

Source: Research Data

#### 4.6.8 Measures used to improve loan serviceability/reduce credit risk

When asked the measures they consider to be able to improve loan serviceability reduce credit risk, a majority of the respondents (100%) indicated quality appraisal of loan portfolios, (93.3%) indicated monitoring of existing loans, (80%) watch listing bad loans and diversifying the loan portfolios, (73.3%) use of credit bureau references and restructuring of loans, (66.7%) having internal collection teams, (60%) transferring credit risk by selling loans, (53.3%) use of external collection agencies and avoiding high risk loans and finally (46.7%) indicated waving of interest in loans.

**Table 4.17 Measures used to improve loan serviceability**

Measures	Least considered		Most considered	
	Frequency	%	Frequency	%
Quality appraisal of loan portfolios	0	0%	15	100%
Monitoring of existing loans	1	6.7%	14	93.3%
Use of credit bureau references	4	26.7%	11	73.3%
Watch listing bad loans	3	20%	12	80%
Restructuring loans	4	26.7%	11	73.3%
Having internal collection teams	5	33.7%	10	66.7%
Use of external collection agencies	7	46.7%	8	53.3%
Waving of interest in loans	8	53.3%	7	46.7%
Transferring credit risk by selling loans	9	40%	6	60%
Diversifying the loans portfolio	3	20%	12	80%
Avoiding high risk loans	7	46.7%	8	53.3%

*Source: Research Data*

#### 4.6.9 Credit Approval levels (Kshs. Millions)

As indicated in table 4.18 below, most of the respondents stated that the Managing Director mainly approves credit of more than Kshs. 2M while the Head of Credit approves credit amounting to less than Kshs. 2M and finally the Credit Managers approves credit less than Kshs. 1M.

**Table 4.18 Credit Approval levels (Kshs. Millions)**

Levels	Up to 500,000	500,000 to 1,000,000	1,000,000 to 2,000,000	2,000,000 and above
Managing Director	6.7%	6.7%	20%	66.7%
Head of credit	40%	40%	60%	33.3%
Credit Manager	53.3%	53.3%	20%	0

*Source: Research Data*

#### 4.6.10 Credit Worthiness of Customers

When the respondents were asked to indicate the trends which will greatly affect customers' credit worthiness, a majority (86.7%) indicated irregular credit turnover/salary and declining turnover/salary as the greatly affecting, followed by (80%) items returned/unpaid on the accounts, (73.3%) previous business failure, previous classified accounts and knowledge of unsatisfactory information and finally (66.7%) business reporting losses, promising future cash flow projections and overdrawn account position.

**Table 4.19 Credit Worthiness of Customers**

Trends	Least considered		Most considered	
	Frequency	%	Frequency	%
Business reporting losses	5	33.3%	10	66.7%
Promising future cash flow projections	5	33.3%	10	66.7%
Knowledge of unsatisfactory information	4	26.7%	11	73.3%
Previous business failure	4	26.7%	11	73.3%
Previous classified accounts	4	26.7%	11	73.3%
Items returned/unpaid on the accounts	3	20%	12	80%
Overdrawn account position	5	33.3%	10	66.7%
Irregular credit turnover/salary	2	13.3%	13	86.7%
Declining turnover/salary/account history	2	13.3%	13	86.7%

*Source: Research Data*

#### 4.6.11 Credit Risk assessment officials

The respondents were asked to indicate who does the credit risk assessment in their institutions, as shown in the table 4.20 below, the credit risk assessment is mostly done by the Credit Managers (80%), followed by the credit committee (60%), branch managers (46.7%), Managing Director (33.3%) and least by the Chairman (13.3%).

**Table 4.20 Credit Risk assessment officials**

Measures	Least considered		Most considered	
	Frequency	%	Frequency	%
Chairman	13	86.7%	2	13.3%
Managing director	10	66.7%	5	33%
Branch Manager	8	53.3%	7	46.7%
Credit Managers/Head of Credit	3	20%	12	80%
Credit Committee	6	40%	9	60%

*Source: Research Data*

#### 4.6.12 Defaulting on Loan Repayment

When respondents were asked at what time they consider a loanee to have defaulted, a majority (80%) indicated that as early as three late repayments, a loanee was considered a defaulter and thus the collection efforts would be intensified

**Table 4.21 Loan Default Consideration**

Type of Risks	Least considered		Most considered	
	Frequency	%	Frequency	%
One late payment	12	80%	3	20%
Two late payment	8	53.3%	7	46.7%
Three late payment	3	20%	12	80%
Four late payment	3	20%	12	80%
Five late payment	3	20%	12	80%

*Source: Research Data*

#### 4.6.13 Monitoring of Loan Repayments

When asked how they monitor loan repayments, a majority (93.3%) indicated by calling the customers followed by writing to the customers (86.7%) and finally visiting the customers' premises (80%).

**Table 4.22 Monitoring of Loan repayments**

Type of Risks	Least considered		Most considered	
	Frequency	%	Frequency	%
Calling the customer	1	6.7%	14	93.3%
Writing to the customer	2	13.3%	13	86.7%
Visiting the customer premises	3	20%	12	80%

*Source: Research Data*

#### 4.6.14 Dealing with difficult to pay customers

When the respondents were asked how they deal with difficult to pay customers, a majority (80%) indicated the preferred method as using collection agents to recover the debt, (73.3%) indicated to take legal actions on the customers, (60%) use auctioneers to recover the debt and the sale of their property to recover, (53.3%) restructuring the loans, (20%) write the debt off and account it as bad debt and finally 13.3% leave them alone to decide when to pay.

**Table 4.23 Dealing with Loan Defaulters**

Method	Least considered		Most considered	
	Frequency	%	Frequency	%
Use auctioneers to recover the debt	6	40%	9	60%
Sale of their property to recover	6	40%	9	60%
Leave them alone to decide when to pay	13	86.7%	2	13.3%
Write the debt off and account it as bad debt	12	80%	2	20%
Restructure the loans	7	46.7%	8	53.3%
Write off interests and allow them to pay the principal	9	60%	6	40%
Take legal actions on the customers	4	26.7%	11	73.3%
Use collection agents to recover the debt	3	20%	12	80%

*Source: Research Data*

#### 4.6.15 Importance of various risks faced by Commercial Banks

The respondents were asked to state the importance of the various risks. The most important risks are credit risk and liquidity risk (86.7%), market risk (80%), interest rate risk and operational risk (73.3%), foreign exchange risk (66.7%) and finally technology risk (60%).

**Table 4.24 Importance of Risks**

Type of Risks	Least considered		Most considered	
	Frequency	%	Frequency	%
Foreign Exchange risk	5	33.3%	10	66.7%
Technology risk	6	40%	9	60%
Interest rate risk	4	26.7%	11	73.3%
Market risk	3	20%	12	80%
Liquidity risk	2	13.3%	13	86.7%
Credit risk	2	13.3%	13	86.7%
Operational risk	4	26.7%	11	73.3%

*Source: Research Data*

#### 4.6.16 Management of Risks

When asked how they managed the various risks, most respondents (86.7%) said they had credit limits, (73.3%) dishonouring payments and diversification, (60%) forwards, (53.3%) futures and swaps and finally (46.7%) used options.

**Table 4.25 Management of Risks**

Methods	Least considered		Most considered	
	Frequency	%	Frequency	%
Futures	7	46.7%	8	53.3%
Forwards	6	40%	9	60%
Swaps	7	46.7%	8	53.3%
Options	8	53.3%	7	46.7%
Diversification	4	26.7%	11	73.3%
Credit limits	2	13.3%	13	86.7%
Dishonouring payments	4	26.7%	11	73.3%

*Source: Research Data*



#### 4.6.17 Methods used to mitigate credit risk

All the 15 respondents (100%) indicated that their Commercial Banks used check off arrangements and group schemes/loans for their customers. Other least used methods (6.7%) were direct debits and post-dated cheques.

#### 4.7 Commercial Banks Performance

Most of the Commercial Banks did not want to reveal their financial performance statistics but were asked what factors they considered as having impacted on their financial performance, a majority (86.7%) indicated improved credit appraisals, (80%) improved loan collection methods, (73.3%) increased volumes of un-secured loans, (53.3%) poor economic conditions and increased head counts, (40%) increased staff turnover and finally (33.3%) customers not willing to repay loans and too high interest rates.

Table 4.26 Factors affecting Commercial Banks performance

Factors	Least considered		Most considered	
	Frequency	%	Frequency	%
Improved loan collection methods	3	20%	12	80%
Customers not willing to repay loans	10	66.7%	5	33.3%
Charged too high interest rates	10	66.7%	5	33.3%
Poor economic conditions	7	46.7%	8	53.3%
Improved credit appraisal	2	13.3%	13	86.7%
Increased volumes of un-secured loans	4	26.7%	11	73.3%
Increased head counts	7	46.7%	8	53.3%
Increased staff turn-over	9	60%	6	40%

Source: Research Data

#### 4.8 Strategic Management Factors

##### 4.8.1 Existence of long-term strategy to maintain credit activities

All the respondents (100%) indicated that their Commercial Banks have a long term strategy to maintain un-secured loans products. This shows favourable attitude towards un-secured loans financing and an indication of future growth in the commercial Banks.

#### 4.8.2 Sources of funds for credit activities

When asked their sources of funds for credit activities, all respondents (100%) indicated internally generated funds and customer deposits, (33.3%) said from borrowed funds and capital markets, (20%) corporate bonds and finally (13.3%) said from donor funds.

**Table 4.27 Sources of funds for credit activities**

Sources	No. of Respondents	Percentages
Internally generated funds	15	100%
Customer deposits	15	100%
Corporate bonds	3	20%
Borrowed funds	5	33.3%
Capital markets	5	33.3%
Donor funds	2	13.3%

*Source: Research Data*

## CHAPTER FIVE

### SUMMARY OF FINDINGS AND CONCLUSIONS, RECOMMENDATIONS AND SUGGESTIONS FOR FURTHER RESEARCH

#### 5.1 Summary of Findings and Conclusions

The objective of the study was to assess the credit risk management techniques adopted by Commercial Banks in Kenya to assess un-secured bank loans. To satisfy the objective of the study, primary data was collected by use of questionnaires from 20 Commercial Banks. The primary data was supplemented by information obtained from brochures and direct interviews to clarify answers on the questionnaires. The results were analysed and presented in the form of frequency tables and percentages.

The research findings reveal that:

A majority (75%) of the Commercial Banks indicated that they were involved in un-secured loan services. A majority of the respondents (60%) also indicated that they started offering un-secured loan services the period between 2001 and 2006. This trend reveals that un-secured loan services are growing rapidly despite being a new phenomenon in the banking industry in Kenya.

Most of the Commercial Banks had both minimum and maximum loan limits. A majority of the respondents (33.3%) indicated that their minimum un-secured loans limit was Kshs. 50,000. As for the maximum loan limit a majority of the respondents (26.7%) indicated it was Kshs. 1,500,000 and another (26.7%) as Kshs. 1,000,000.

All the 15 Commercial Banks studied (100%) which are involved in lending of un-secured loan services indicated that they have credit management policies as a basis for objective credit risk appraisal. Secondly, that formulation of un-secured loan policies

was undertaken by their Top Management. Thirdly, that they worked with specific pre-set targets and lastly that they had specific credit officers in their credit departments.

Most Commercial Banks (60%) have distinctive separate departments where un-secured loans activities are organised. A majority of the respondents (90%) also indicated that they mostly considered the liquidity positions of their Commercial Banks while establishing credit control policies. Also, a majority of the respondents (60%) said that they reviewed their credit policies on a yearly basis. This is an indication of growth in the development of Commercial Banks in Kenya.

All the 15 respondents (100%) indicated that their customers use documented method in making un-secured loans applications. A majority (33.3%) indicated that it takes 2 days to process customers' loans applications and give a late. 93.3% of the respondents indicated that they override declined loan applications.

A majority (93.3%) of the respondents indicated that Statistical Method of credit assessment is the mostly used in assessing screening loan applications. All the 15 respondents (100%) indicated that the mostly considered characteristic in credit scoring is the Applicant's Income. Also, all the 15 respondents (100%) indicated that their credit appraisal processes were very objective.

A majority (93.3%) indicated that they maintained a certain debt ratio. All the 15 respondents (100%) said that they declined on average over 5% of their total loan applications. This is a positive development aimed at avoiding overburdening customers with debts. A majority (93.3%) indicated that their Commercial Banks use on job training in order to sensitise their employees on credit risk.

Most of the Commercial Banks used the 6 C's criteria in appraising their borrowers. A majority (93.3%) indicated that capacity/completion was the mostly considered of the 6 C's followed by character (86.7%).

All the 15 respondents (100%) indicated that quality appraisal of loan portfolios is the mostly considered measure able to improve loan serviceability/ reduce credit risk. Most of the respondents stated that the Managing Directors approves credit of more than Kshs. 2M while the Head of credit approves credit amounting to less than Kshs. 2M and finally Credit Managers approves credit less than Kshs. 1M.

A majority (86.7%) indicated that irregular credit turnover/ salary and declining turnover salary as the trends greatly affecting customers' credit worthiness. Majority (80%) of the respondents indicated that credit risk assessment is mostly done by the Credit Managers.

A majority (80%) indicated that as early as three late repayments, a loanee is considered a defaulter. 93.3% indicated that calling customers is the most used method of monitoring loan repayments. Majority (80%) indicated that the most preferred method of dealing with difficult to pay customers is using Collection agents to recover the debt.

Majority of the Commercial Banks (86.7%) indicated that Credit risk and Liquidity risk are their most important risks. A majority of the respondents (86.7%) said that the most considered way of managing credit risk is having credit limits. All the 15 respondents (100%) indicated that their Commercial Banks used check off arrangements and group schemes/ loans for their customers.

A majority (86.7%) indicated that improved credit appraisals is the most considered factor responsible for their improved financial performance. All the 15 respondents

(100%) indicated that their Commercial Banks have a long term strategy of maintaining un-secured loans services. This is a favourable attitude towards un-secured loans financing. All the 15 respondents (100%) indicated also that internal generated funds and customers deposits are their major sources of funds for credit activities.

## **5.2 Limitations of the Study**

Many questionnaires were not responded to. Secondly, not all the information sought was obtained, that is, half filled questionnaires characterised the responses; owing to confidentiality reasons or the need to keep certain types of information from the market and finally there was a deliberate lack of responses on certain information categories.

Lack of cooperation from the staff in the data collection sources was a limitation in my study. Accessing the individual banks for the required data was not easy.

The extent of the study was limited by time to collect all the questionnaires from the respondents, which may have led to a different and improved conclusion. Furthermore, time also limited the degree of analysis of the data that could have improved the conclusions reached in the study.

## **5.3 Recommendations**

It is important for Commercial Banks to have a maximum un-secured loan limits for all the products. Even for very promising customers with regular incomes and turnovers a limit should be maintained to reduce the total credit exposure per customer.

Commercial Banks should increase their reliance on statistical methods (credit scoring) in order to eliminate subjective decision making by management. Failure to use statistical method may give rise to moral hazards. This include insider lending by way of extending credit to business enterprises they own or with which they are affiliated, to

personal friends, to persons with a reputation for non-financial acumen or to meet personal agenda, such as cultivating special relationships with celebrities or well connected people.

The characteristics/ parameters considered in credit scoring should be reviewed regularly to take care of the changing business conditions, population drift and technology. Attributes able to seal loopholes which can be used to perpetrate fraudulent applications should be given much consideration.

Commercial Banks should lend conservatively in order to avoid credit crunch and overburdening customers with debts. Commercial Banks should maintain debt ratios. The criteria of establishing the debt ratios should be followed and reviewed from time to time. Staff involved in the credit activities should receive much training and be guided strictly by existing policies and manuals.

Finally, there should be efficient ways for mitigating credit risk. Commercial Banks should make more use of check off arrangements, group schemes loans and guarantees for their customers. Monitoring customers' accounts behaviour right from the disbursement of the funds and not allowing the accounts going into debit/excesses.

#### **5.4 Suggestions for Further Research**

With more and more Commercial Banks being lured to enter into lending of un-secured loans due to the high levels of interest income, there is need for a new research on how Commercial Banks are managing and guarding themselves from liquidity risk. Even with the appreciation of the role of the Regulator regarding liquidity risk many banks have increased their borrowings from the Central Bank to cushion themselves.

With the current increase of non performing loans other techniques of managing credit risk need to be developed or the existing ones used effectively. A study is recommended on the effectiveness of derivatives in managing risks affecting Commercial Banks.

As Commercial Banks increase their use of Statistical Methods (credit scoring) there is need to research on the effectiveness of the currently used characteristics parameters in the credit score cards used for screening loan applications to select good applications from bad ones.



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## **APPENDIX A**

### **LIST OF COMMERCIAL BANKS IN KENYA**

1. African Banking Corporation Limited
2. Bank of Africa Limited
3. Bank of Baroda (K) Limited
4. Bank of India
5. Barclays Bank of Kenya Limited
6. CFC Stanbic Limited
7. Charterhouse Bank Limited
8. Chase Bank Limited
9. Citibank N.A Kenya
10. City Finance Bank Limited
11. Co-operative Bank of Kenya Limited
12. Commercial Bank of Africa Limited
13. Consolidated Bank of Kenya
14. Credit Bank
15. Development Bank of Kenya
16. Diamond Trust Bank Limited
17. Dubai Bank Limited
18. Ecobank Limited
19. Equatorial Commercial Bank Limited
20. Equity Bank
21. Family Bank Limited
22. Fidelity Commercial Bank Limited
23. Fina Bank Limited
24. First Community Bank Limited
25. Giro Commercial Bank Limited
26. Guardian Bank Limited
27. Gulf African Bank Limited
28. Habib Bank AG Zurich
29. Habib Bank Limited
30. Housing Finance Limited

31. Imperial Bank Limited
32. Investment & Mortgages Bank Limited
33. Islamic Bank
34. K-Rep Bank Limited
35. Kenya Commercial Bank Limited
36. Middle East Bank (K) Limited
37. National Bank of Kenya Limited
38. NIC Bank Limited
39. Oriental Commercial Bank Limited
40. Paramount Universal Bank Limited
41. Prime Bank Limited
42. Prime Capital and Credit Finance Limited
43. Savings and Loan (K) Limited
44. Southern Credit Banking Corporation Limited
45. Standard Chartered Bank (K) Limited
46. Transnational Bank Limited
47. Victoria Commercial Bank Limited

## APPENDIX B

### QUESTIONNAIRE

#### 1. Institutional Information

Please indicate

- a) Name of Bank .....
- b) Position of the respondent.....

#### 2. Ownership

Please indicate who owns the institution

- a) Government ( )
- b) Private ( )
- c) Quoted in NSE ( )

#### 3. Un-secured products

- a) Is your Bank involved in lending of un-secured products facilities?  
Yes ( ) No ( )
- b) If yes, when did it start?
  - On inception .....
  - Any other (state the year).....
- c) What is the bank's current minimum and maximum un-secured loan amount limit? Please state.
  - Minimum loan amount.....
  - Maximum loan amount.....

#### 4. Management of un-secured loans activities

- a) Does the bank have specific credit policies on un-secured loans?  
Yes ( ) No ( )
- b) If yes, at what level are the credit policies formulated?
  - Top Management ( )
  - Middle level management ( )
  - Lower level management ( )
  - Any other, specify..... ( )
- c) Does the Bank set achievement targets in terms of value and volume for the total credit facilities per annum?

Yes ( ) No ( )

d) Does the credit department have specific credit officers?

Yes ( ) No ( )

e) How is your credit team organized? (Tick as appropriate)

- Within a separate department ( )
- A unit within a department ( )
- In the various outlets (branches) in your institution ( )
- Any other, specify..... ( )

f) Which, among the following, factors do you consider in establishing a credit control policy? (Please tick appropriately).

	Least considered			Most considered	
	1	2	3	4	5
• Existing credit policy	( )	( )	( )	( )	( )
• Overhead costs	( )	( )	( )	( )	( )
• Liquidity position	( )	( )	( )	( )	( )
• The state of the economy	( )	( )	( )	( )	( )
• Competition	( )	( )	( )	( )	( )
• Any other, specify.....	( )	( )	( )	( )	( )

g) How regularly do you review your credit policy?

- Quarterly ( )
- Half yearly ( )
- Yearly ( )
- Others, specify ( )

### 5. Loan applications

a) How do customers make their loan application?

- Internet/ automated methods ( )
- Documented method ( )
- Any other, specify..... ( )

b) How long does your organization take to process loan applications and give a fate to the customer?

- State the number of days.....

- Any other specify.....

c) Does the bank override loan applications (Reconsider accepting rejected applications)?

Yes ( ) No ( )

**6. Credit Risk Management process**

a) Which of the following methods of credit assessment/ sources of customer information does the bank use in making accept and reject/decline decisions on loan application?

	Method least used		Method most used		
	1	2	3	4	5
• Traditional method (Human judgement)	( )	( )	( )	( )	( )
• Statistical methods (Credit scoring)	( )	( )	( )	( )	( )
• Credit scoring agencies	( )	( )	( )	( )	( )
• Use of credit Reference bureau	( )	( )	( )	( )	( )
• Any other, specify .....	( )	( )	( )	( )	( )

b) If the bank uses statistical methods (credit scoring) which of the following characteristics do you use?

	Method least used		Method most used		
	1	2	3	4	5
• Time at present address	( )	( )	( )	( )	( )
• Home status	( )	( )	( )	( )	( )
• Postal code	( )	( )	( )	( )	( )
• Telephone	( )	( )	( )	( )	( )
• Applicant's annual income	( )	( )	( )	( )	( )
• Credit card	( )	( )	( )	( )	( )
• Type of bank account	( )	( )	( )	( )	( )
• Age	( )	( )	( )	( )	( )
• Country court judgements	( )	( )	( )	( )	( )



- Type of occupation ( ) ( ) ( ) ( ) ( )
- Purpose of loan ( ) ( ) ( ) ( ) ( )
- Marital status ( ) ( ) ( ) ( ) ( )
- Time with bank ( ) ( ) ( ) ( ) ( )
- Time with employer ( ) ( ) ( ) ( ) ( )
- Any other, specify..... ( ) ( ) ( ) ( ) ( )

c) How subjective or objective is your credit appraisal process?

- ( ) Very subjective ( ) Very objective

d) (i) Does the bank have a limit on the maximum debt to income ratio (debt ratio) for credit facilities approval?

- Yes ( ) No ( )

(ii) If yes, what do you consider to be the limit?

- State in percentage.....
- Any other specify.....

e) Of the loan applications processed what would you consider as the bank average decline rate?

- On new applications.....
- On appeals.....

f) Through what way do you make your employees aware of credit risk?

	Method least used		Method most used		
	1	2	3	4	5
• Regular meetings	( )	( )	( )	( )	( )
• Regular training	( )	( )	( )	( )	( )
• Credit manuals	( )	( )	( )	( )	( )
• On job training	( )	( )	( )	( )	( )
• Any other, specify.....	( )	( )	( )	( )	( )

g) Which aspects, among the following, do you consider before availing credit?

Tick appropriately

	Least considered		Most considered		
	1	2	3	4	5

<b>(i) Character of borrower</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Customer willingness to repay, post Repayment experience, high credit discipline, Post performance in repayment)					
<b>(ii) Capacity/completion.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Cash in bank, projected cash earnings, Financial history, Account conduct, Business skills)					
<b>(iii) Conditions.</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Poor economic conditions, high credit discipline, Interest prevailing in the economy)					
<b>(iv) Collateral/security</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Assets, capital invested in the business, Size of security, cash in the bank)					
<b>(v) Common sense/reasonableness</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Reasonableness of cash flow; projected cash flow)					
<b>(vi) Contribution</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(Assets, capital invested in the business and Willingness to do business correctly)					

11) Which of the following measures do you consider as able to improve loan serviceability/reduce credit risk/risk of default?

	Least important		Most important		
	1	2	3	4	5
• Quality appraisals of loan portfolios	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Monitoring of existing loans (Behaviour of borrowers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Use of credit bureau references (Sharing of credit information)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Watch listing bad loans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Restructuring loans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Having internal collections team	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- Use of external collections agencies  
(Debt collectors)
- Waving of interest in loans
- Transferring credit risk by selling  
(loans in secondary markets)
- Diversifying the loan portfolio
- Avoiding high risk loans
- Any other specify.....

i) Who approves the amount of credit or loan given to a client? Tick approximately.

Approval authority	Amount scale			
	Up to 500K.	500K-1M.	1M- 2M.	Over 2M
• Managing Director	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Head of Credit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Credit Manager	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Any other, specify	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

j) Does any of the following adversely affect the credit worthiness of your customers?

	Least affecting					Most affecting				
	1	2	3	4	5	1	2	3	4	5
• Business reporting losses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Promising future cash flow projections	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Knowledge of unsatisfactory information (Bad debts, bankruptcy etc).	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Previous business failure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Previous classified accounts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Items returned/unpaid on the accounts	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Overdrawn account position	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
• Irregular inconsistent credit turnover/salary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- Declining turnover/salary/account history ( ) ( ) ( ) ( ) ( )
- Any other specify..... ( ) ( ) ( ) ( ) ( )

k) Who are involved in credit risk assessment in your organization for un-secured loans?

	Not involved		Least involved		Most involved	
	1	2	3	4	5	6
• Chairman	( )	( )	( )	( )	( )	( )
• Managing Director/GM	( )	( )	( )	( )	( )	( )
• Branch Manager	( )	( )	( )	( )	( )	( )
• Credit manager/Head of Credit	( )	( )	( )	( )	( )	( )
• Credit committee	( )	( )	( )	( )	( )	( )
• Any other, specify.....	( )	( )	( )	( )	( )	( )

l) When does your institution decide that a client has defaulted on loan repayment?

	Least considered			Most considered	
	1	2	3	4	5
• One late payment	( )	( )	( )	( )	( )
• Two late payments	( )	( )	( )	( )	( )
• Three late payments	( )	( )	( )	( )	( )
• Four late payments	( )	( )	( )	( )	( )
• Five late payments	( )	( )	( )	( )	( )
• Any other specify.....	( )	( )	( )	( )	( )

m) How does the institution follow up clients who have defaulted a loan repayment?

	Least considered			Most considered	
	1	2	3	4	5
• Calling the customer	( )	( )	( )	( )	( )
• Writing to the customers	( )	( )	( )	( )	( )

- Visiting the customer premises ( ) ( ) ( ) ( ) ( )
- Any other, specify..... ( ) ( ) ( ) ( ) ( )

n) How does the institution deal with 'difficult-to-repay-on-time' clients?

	Least done			Most done	
	1	2	3	4	5
• Use auctioneers to recover the debt	( )	( )	( )	( )	( )
• Sale of their property to recover the money	( )	( )	( )	( )	( )
• Leave them alone to decide when to pay	( )	( )	( )	( )	( )
• Write the debt off and account it as bad debt	( )	( )	( )	( )	( )
• Restructure the loans by increasing repayment period	( )	( )	( )	( )	( )
• Write off interests and allow them to pay the Principal	( )	( )	( )	( )	( )
• Take legal actions on the customer	( )	( )	( )	( )	( )
• Use collection agents to recover the debt	( )	( )	( )	( )	( )
• Any other, specify.....	( )	( )	( )	( )	( )

o) How important are the risks listed below to your institution?

	Least important			Most important	
	1	2	3	4	5
• Foreign exchange risks	( )	( )	( )	( )	( )
• Technology risks	( )	( )	( )	( )	( )
• Interest rate risks	( )	( )	( )	( )	( )
• Market risks	( )	( )	( )	( )	( )
• Liquidity risks	( )	( )	( )	( )	( )
• Credit risk	( )	( )	( )	( )	( )
• Operational risk	( )	( )	( )	( )	( )
• Any other specify.....	( )	( )	( )	( )	( )

p) Which of the following methods do you use against these risks?

	Least used			Most used	
	1	2	3	4	5

- Futures ( ) ( ) ( ) ( ) ( )
- Forwards ( ) ( ) ( ) ( ) ( )
- Swaps ( ) ( ) ( ) ( ) ( )
- Options ( ) ( ) ( ) ( ) ( )
- Diversification ( ) ( ) ( ) ( ) ( )
- Credit limits ( ) ( ) ( ) ( ) ( )
- Dishonouring payments ( ) ( ) ( ) ( ) ( )
- Any other options.....( ) ( ) ( ) ( ) ( )

q) Which of the following methods do you use mitigate credit default risks?

- |                          | Least used |     |     | Most used |     |
|--------------------------|------------|-----|-----|-----------|-----|
|                          | 1          | 2   | 3   | 4         | 5   |
| • Check off arrangement  | ( )        | ( ) | ( ) | ( )       | ( ) |
| • Group schemes/loans    | ( )        | ( ) | ( ) | ( )       | ( ) |
| • Any other options..... | ( )        | ( ) | ( ) | ( )       | ( ) |

### 7. Organizational performance

What factors have impacted on financial performance of your bank in the last five years (2002 - 2007)?

- |   | Least considered |     |     | Most considered |     |
|---|------------------|-----|-----|-----------------|-----|
|   | 1                | 2   | 3   | 4               | 5   |
| • Improved loan collection methods      | ( )              | ( ) | ( ) | ( )             | ( ) |
| • Customer not willing to repay loans   | ( )              | ( ) | ( ) | ( )             | ( ) |
| • Charged too high interest rate        | ( )              | ( ) | ( ) | ( )             | ( ) |
| • Poor economic conditions              | ( )              | ( ) | ( ) | ( )             | ( ) |
| • Improved credit appraisal             | ( )              | ( ) | ( ) | ( )             | ( ) |
| • Increased volumes of un-secured loans | ( )              | ( ) | ( ) | ( )             | ( ) |
| • Increased head counts                 | ( )              | ( ) | ( ) | ( )             | ( ) |
| • Increased staff turn-over             | ( )              | ( ) | ( ) | ( )             | ( ) |
| • Any other, specify.....               | ( )              | ( ) | ( ) | ( )             | ( ) |

### 8. Strategic management factors

(a) Does your bank have a long-term strategy to maintain credit activities? (Please tick where appropriate)

Yes ( ) No ( )

(b) Please indicate the source of funds used for credit activities

- Internally generated funds ( )
- Customer deposits ( )
- Corporate bonds ( )
- Borrowed funds ( )
- Capital markets ( )
- Donor funds ( )
- Any other specify..... ( )

**THANK YOU FOR YOUR TIME**

(a) Does your bank have a long-term strategy to maintain credit activities? (Please tick where appropriate)

Yes ( ) No ( )

(b) Please indicate the source of funds used for credit activities

- Internally generated funds ( )
- Customer deposits ( )
- Corporate bonds ( )
- Borrowed funds ( )
- Capital markets ( )
- Donor funds ( )
- Any other specify..... ( )

**THANK YOU FOR YOUR TIME**

4