

**THE USE OF FINANCIAL RATIOS FOR CREDIT EVALUATION
BY COMMERCIAL BANKS IN KENYA**

BY

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DECLARATION

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


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DEDICATION

This project is dedicated to my family members, Juddy Opiyo, Valary Achieng, Eugene Otolo, Harriet Anyango, Beavon Odhiambo and Hilllary Onyango.

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It would have not been possible for me to write this research project if it were not for the support of, encouragement and guidance of many people. It may not be possible to name all of them, first my sincere appreciation goes to my supervisor Mr. Luther Otieno for his tireless efforts in ensuring that I completed my work in time, I also thank the management of the school of business Kisumu Campus, my appreciation also goes to the management of those commercial banks that allowed me to share their precious time while collecting data. Last but not least I would like to appreciate my class mates especially Charles Samson Mboi, Abiero and Radin'g among others and not forgetting my Loved wife Kagot Judith Opiyo who offered moral and financial support during the study.

DEDICATION

This project is dedicated to my family members, Juddy Opiyo, Valary Achieng, Eugene Otolu, Harriet Anyango, Beavon Odhiambo and Hillary Onyango.

ABSTRACT

The ways banks do their evaluation of loans vary from one lending institution to another. In most cases the banks tend to rely on the data generated by the credit reference bureau (CRB). A number of studies have also established that financial institutions use ratios when evaluating their customer's for purposes of lending. While evaluating their customers banks look at different aspects of the financial statements and each bank has its area of emphasis. The question is which these ratios which are commonly used in Kenya and what level of importance is attached to each of them. The focus of this study is whether the banks in Kenya also use ratios and if so to what extent do they use them.

A descriptive research was used in this study which involved a total of 28 banks, and as at the time of the study 43 registered banks were operating under the banking Act. A questionnaire was used as a tool for data collection. The descriptive statistics used included arithmetic mean, mode, median, standard deviation, maximum and minimum values, tables were then generated to help in simplifying the results.

The study established that all the banks have in place a credit risk management team. The banks used ratios always in making their evaluation of corporate customers and that the most important ratios in credit evaluation are the liquidity ratios, and that profitability ratios also play a key role. The study recommends that each bank should have its own internal method of credit evaluation, to subsidize credit reference bureau [CRB]. This is because CRB has a weaknesses of delay in the updating of data and also the data is generated based on information from other banks which may not be very accurate.

TABLE OF CONTENT

DECLARATION.....	i
DEDICATION.....	ii
ACKNOWLEDGEMENT.....	iii
ABSTRACT.....	iv
TABLE OF CONTENTS.....	v
LIST OF TABLES.....	vi
LIST OF FIGURES.....	ix

CHAPTER ONE: INTRODUCTION

1.1 Background of Study.....	1
1.1.1 Importance of Ratio Analysis	2
1.1.2 Overview of the banking industry.....	2
1.2 Statement of Research Problem.....	5
1.2.1 Statement of Research Questions.....	7
1.3 Research Objective.....	7
1.4 Value of the Study.....	7
1.5 Scope of study	8

CHAPTER TWO: LITERATURE REVIEW

2.0 Introduction.....	9
2.1 Ratios and loan Evaluation by the Banks.....	9
2.2 Ratios under study.....	13
2.2.1 Liquidity Ratios.....	13
2.2.2 Efficiency Ratios.....	14
2.2.3 Profitability Ratios.....	15
2.3 Risk Management in Commercial Banks.....	16
2.4 Types of Risks under Consideration.....	16
2.5 Types of Risks Absorbed by Banks.....	17
2.6 Risk Management in the Banking Industry.....	20
2.6.1 Standards Reports and Ratios in Risk Management.....	20

2.6.2 Investment Guideline and Strategies.....	21
2.6.3 Incentive Schemes.....	21
2.7 Risks in Providing Banking Services.....	22
2.8 Bank Risk Management System.....	24
2.9 Credit Risk Management Procedures.....	25
2.10 Non Performing Loans.....	26

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Research Design.....	30
3.2 Population of Study.....	30
3.3 Data Collection Methods and Instruments.....	30
3.4 Procedure and Time Frame.....	30
3.4 Data Analysis.....	31

CHAPTER FOUR: DATA ANALYSIS, FINDINGS AND DISCUSSION

4.1 Introduction.....	32
4.2 Response Rate.....	32
4.3 General Information.....	32
4.4 Use of Ratios in Credit Evaluation.....	33
4.4.1 Financial Statements used in making Lending decisions.....	34
4.4.2 Activity Ratios.....	35
4.4.3 Liquidity.....	36
4.4.4 Rating of Probability Ratios.....	36
4.4.5 Other Lending Considerations.....	37
4.5 Non Performing Loans.....	39
4.6 Summary of study.....	40

CHAPTER FIVE: SUMMARY OF THE FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction.....	41
5.2 Summary of findings.....	41
5.3 Conclusion.....	41

5.4 Recommendations & Policy implications.....	43
5.5 Limitations of the Study.....	43
5.6 Suggestions for further Studies.....	44
References.....	45
Appendix 1 Questionnaire.....	51
Appendix 2 List of Commercial Banks Registered in Kenya.....	57
Appendix 3 Introduction Letter	
Appendix 4 Response Transcription Sheet	

LIST OF TABLES

Table 4.1: Membership to Credit Management team.....	33
Table 4.2: Frequency in the Use of Ratios for Credit Risk Evaluation.....	33
Table 4.3: Ranking of Financial Statements.....	36
Table 4.4: Use of Activity Ratios.....	35
Table 4.5: Liquidity Ratios.....	36
Table 4.6: Profitability Ratios.....	37
Table 4.7: Other lending Considerations.....	39
Table 4.8: Level of non performing Loans.....	40

LIST OF FIGURES

Figure 2.1	26
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CHAPTER ONE

1.0 INTRODUCTION

This chapter gives an overview of the study and it brings out the research problem. Research questions are posed and the research objectives clearly stated. The value and the scope of the study are highlighted.

1.1 Background of the study

Commercial banks are special institutions in modern economy because of their ability to efficiently transform financial claims of savers into claims (advances) issued to businesses, individuals and governments (Mishkin and Eakins, 2007). A commercial bank's ability to evaluate information and to control and monitor borrowers allows it to lend to the borrowers at the lowest possible cost. This implies that commercial bank accept the credit risk on these loans in exchange for a fair return sufficient to cover the cost of funding to household savers and the credit risk involved in lending. The commercial bank needs information useful in evaluating credit risk of borrowers. Credit risk arises from the possibility that the borrower will default. In no way would a bank extend credit to a potential defaulter (Mishkin and Eakins, 2007). Determining the credit risk on individual loans or bonds is vital before a bank manager can price a loan or value a bond correctly and set appropriate limits on the amount of credit extended to any one borrower or the loss of exposure the bank can accommodate. In the current world banks are moving away from the traditional approach of demanding for collateral when lending to customers, instead they require more information on the lenders this has brought to fore the credit reference bureaus. To improve on the credit information the banks should use ratio analysis which can easily be computed from the financial statements.

1.1.1 Importance of Ratio Analysis

There is a long tradition of developing and using financial ratios both in practice and in literature of financial statement analysis. The question of classification and selection of relevant financial ratios to reduce the redundancy between countless financial ratios has been subject of many researches (Horrigan, 1968, and Barnes, 1987). Different approaches have been applied on the classification problem of the financial ratios. The first approach being the pragmatic or an alternative approach is developed from established practices and personal views of eminent analysts. The relationship that exists among different items in the financial statements is revealed by accounting/financial ratios. Thus they are important to internal management, prospective investors, creditors, and outsiders. Ratios are also better tools for measuring liquidity, solvency, profitability and management efficiency of the firm. The role of accounting therefore is very significant towards increasing the efficiency of the management in order to reduce the expenditure level hence increase the rate of profit, and for the banks in lowering the level of non - performing loans. Ratios help identify the probable causal relation among different items after analyzing and scrutinizing the past results of a firm, the ratios derived after analyzing and scrutinizing the past results can help the management to prepare budgets to formulate policy and to prepare future plans of action and thus acts as a guide to preparing budgets.

1.1.2 Overview of the banking industry

Earlier banks lent money mainly to two classes of borrowers, merchant banks and governments. Governments of earlier years were major defaulters as there was no formal evaluation of governments, the loans were illiquid, lending were to mortgages as well as to other banks not forgetting those funds that were channeled to the security markets.

Today lending activities have been extended to include industries and other consumer, risk analysis is therefore crucial.

Commercial banks remain a major financial intermediary in Kenya today. Governments try to control the lending activities of banks, lending rates, and creation of credit. This it does by using the central bank as the central controlling institution. Banks combine a chain of services which include payments mechanism, a place to store wealth, lending services in the form of loans and overdrafts they accept deposits and foreign currency selling. Besides the above they also provide a number of additional services such as provision of advice to their clients, debt factoring, assisting exporters and importers, executorships and trusteeship services, insurance and brokerage services, share registration, unit trust business, stock exchange services, estate agency services and leasing.

Banking activities in Kenya are restricted by the central bank act of 1966 and that of 1968. The lending function is considered as the most important function of the banks for the utilization of funds, the banks also earn most of their income from the loans. It is therefore important to note that the administration of loan portfolios seriously affects the profitability of banks. Non performing loans (NPLs) are indeed the major cause of bank failures. The Basel II report provides the criteria for portfolio management with the view to induce the banks to improve on their risk management capability including how the firms price products, reserve for loss and operation control (Rehm 2002). A healthy and vibrant economy require a financial system that moves funds from people who save to those who have productive investment opportunities, banks form the most important source of finance for business entities. Moral hazard has important consequence for

whether a firm finds it easier to raise funds with debt than with equity contracts. Debt contracts are subject to moral hazards as a debt contract requires a borrower to pay out affixed amount and keep any amount above the interest. To reduce the risk of moral hazard a borrower should provide information to the lender. People deposit money with banks because to them the banks are safe. A bank may however lend to a high risk customer and suffer bad debts. They are therefore expected to lend wisely and securely. It is on this note that banks give careful consideration to the reliability of the borrower. Commercial banks play pivotal role in an economy and any problem in the banking industry are likely to affect the economy. This was evidenced in the 1930s global depression, and in Kenya in the early 1990s when the indigenous banks collapsed. Banks foster the process of capital formation in an economy. Banks induce people to make deposits which constitute a social asset (Vaish, 1997).

The effects of economic activities of the other sectors of the economy will always affect the banking sector and what goes on in the banking sector will affect the other sectors of the economy. It is therefore important that when lending is being executed proper evaluation should be done in capturing the borrower's ability. Today, some aspects of the operations of commercial banks are deregulated in order to allow flexibility and improved efficiency and effectiveness. Taking into consideration the fact that commercial banks mostly lend out the depositors money they need to secure such funds by lending them to the safest individuals or firms through thorough vetting. Individual banks attempt to impose self discipline so that banks that assume more risk are forced to create a form of protection against default (Madura, 2008). Measuring banks efficiency is difficult since there is no satisfactory level of bank output. These stem from capital structure (leverage) or product mix, range and quality of services, inflation rates and

accounting conventions (especially about the valuation of assets the level of loan loss provisioning and the use of hidden reserves). The financial statements show the results of an organization as well as the assets and liabilities of an organization. There are two common solvency ratios that a financial analyst is likely to come across when building a financial model. The leverage ratio, or gearing level, they effectively measures the fixed debt payment commitment, a bank requires this information to gauge clients. Too high a gearing level can imply a high risk to the cash flow of a company and its ability to pay dividends to shareholders. The other is Interest cover; this measures the ability of the company to pay interest out of profits. Most banks would expect the cover to exceed 1.5 times. The solvency ratio measures the size of a company's after-tax income, excluding non-cash depreciation expenses, as compared to the firm's total debt obligations. It provides a measurement of how likely a company will be able to continue meeting its debt obligations. Acceptable solvency ratios will vary from industry to industry, but as a general rule of thumb, a solvency ratio of greater than 20% is considered financially healthy. Generally speaking, the lower a company's solvency ratio, the greater the probability that the company will default on its debt obligations.

1.2 Statement of the Research Problem

In Kenya the credit quality of many commercial banks lending and investment decisions attract a great deal of attention. Since 1986 a good number of financial institutions in Kenya collapsed due to non performing loans. Between 1986 and 1998, thirty seven financial institutions failed in Kenya (Ngugi, 2001). Nonperforming loans reduce the capacity of banks to finance new projects thus undermining economic development. The problem of nonperforming loans is not confined to Kenya, in the early 2000s nonperforming loans at Japanese banks peaked at 8.4 percent of total assets Saunders

(1997). Therefore the immediate consequence of large amount of Non Performing Loans (NPLs) in the banking system, for instance, is bank failure. Many researches on the cause of bank failures find that asset quality is a statistically significant predictor of insolvency (Dermirgue-Kunt, (1997), and that failing banking institutions always have high level of non-performing loans prior to failure. It is argued that the non-performing loans are one of the major causes of the economic stagnation in many world economies. Each non-performing loan in the financial sector is viewed as an image of an ailing unprofitable enterprise. If the non-performing loans are kept existing and continuously rolled over, the resources are locked up in unprofitable sectors, thus, hindering the economic growth and impairing the economic efficiency.

In Kenya customer failure to disclose vital information during the loan application process is considered to be the main customer specific factor (Waweru and Kalani 2009). The persistence of nonperforming loans would require a review of the capacity of the credit evaluation managers together with the quality of the decision models that they use. If it is true that customer information as a factor contribute to nonperforming loans, then it is important identifying and evaluating the information that credit managers employ in evaluating potential borrowers. Banks do financial analysis and the information that the analysis is based on is derived from financial statements and manipulated in ratio form. Relating to a banks potential client, financial analysis may concern two domains of decisions, one related to business strategy, the other performance evaluation. Insolvency of a firm may incorporate liquidation, receivership and administration of a company by bankers or others with financial stake. Consequently any method capable of assisting in identifying the danger of insolvency gives potential to ensure efficient use of resources. Ratios can help separate financially distressed firms from the non failed firms in the year

before the declaration of bankruptcy at an accuracy level better than 90%. There is however one recurring question with the use of financial ratios, which ratios among the hundreds which can be computed easily from the available financial data should be analyzed to obtain the information for the task at hand without confusing the users? The research hopes to help resolve this problem of ratio selection by examining ratios found useful by the Kenyan banks in making their lending decisions. Discrimination is required in order to identify a limited set of financial ratios which are used by the banks in deciding on the credit worthiness of their clients.

1.2.1 Research Questions

- a) Do banks in Kenya use financial ratios in making credit evaluations?
- b) Are the key ratios in credit evaluation decision the solvency, profitability and liquidity ratios?

1.3 Research objectives.

The objective of the study is to:-

1. To determine the commonly used ratios in credit evaluation decisions.
2. To establish the extent to which the commercial banks apply ratios in making credit decisions in Kenya.

1.4 Value of the study

The managements of the banks and other financial institutions have to make good decisions to achieve high efficiency levels by reducing the level of non performing loans. This study finding will be useful to a number of parties, Investors, who will use the findings as a reference point on investment evaluation. Academia and other researchers who will use the study as a point of reference, for further research work, the management

of a bank in making credit decisions, borrowers in enhancing methods, strategies and techniques of evaluating projects and financial analysts.

1.5 Scope of the study

The study seeks to establish how effectively ratios can be used in evaluating credit worthiness of firms and hence a reduction on the non - performing loans in the banking industry. The study further seeks to isolate those ratios that are frequently applied in the banking industry in Kenya if any with the view to seeking the proper usage and understanding of the information derived from such applications.

CHAPTER TWO

2.0 LITERATURE REVIEW

This chapter reviews the theoretical and empirical literature on the relationship between use of financial ratios and the resultant non performing loans where applicable.

2.1 Ratios and Loan Evaluation by Banks

Since the paper by Pinches and Mingo & Carunthers (1973) conventional financial ratios have been factored in many research papers. Evaluation of loan facilities is based on a number of factors which vary from one financial institution to another. The process however follow eight steps Johnson and Johnson (1985), Hempel and Simonson (1999) and Koch and Macdonald (2000). The steps are; application, credit analysis, decision, document preparation, closing, recording, servicing, administration and collection. The first step is conducted by the loan's officer and involves screening and interview this is followed by credit analysis of the information gathered about the borrower, the information indicates whether the loan should be granted or rejected. The results are corroborated with the credit bureau information. The loans officer then checks the collateral confirms the signatures for validity and authenticity then the loan is granted.

The relationship that exists among different items in the financial statements is revealed by accounting ratios. There are several financial ratios used in evaluating the overall financial condition of a corporation. Ratios may be expressed in different forms such as; pure ratio i.e. ratio between debt and equity (1:1) or ratios ascertained with reference to time period i.e. working capital turnover ratio (i.e. three times a year) or even percentages. There is a long tradition of developing and using financial ratios both in practice and in literature of financial statement analysis. The question of classification

and selection of relevant financial ratios to reduce the redundancy between countless financial ratios has been subject of many researches (Horrigan, 1968 and Barnes, 1987). Different approaches have been applied on the classification problem of the financial ratios. The first approach being the pragmatic or an alternative approach. This approach is developed from established practices and personal views of eminent analysts. Standard textbooks present material from this approach, Brearly and Myers (2003). The second approach is more deductive, the traditional classification of ratios is based on technical relationships. The “Du pont triangle” from the beginning of the century is classic in this category. Modern applications of this “pyramid” approach include Courtis (1978), Beryldon Woods and Zafiris (1984). The third approach is the inductive empirical classification of financial ratios using statistical techniques. In this approach, factor analysis is used to reduce a large number of financial ratios into smaller number of mutually exclusive categories covering the various aspects of a firm’s activities.

Published financial reports particularly give ease to companies as well as outsiders in performing a more objective analysis. While problems related to the use of published financial reports, such as bias in data sampling may arise, financial reports are still essential and effective in understanding a company’s health status. Generally, the data in financial reports are converted into a variety of financial ratios. Typically, these ratios are drawn into a particular analytic format for further inference. The prevailing ratios used in practice include total return, sales growth, profit growth, net margin, return on equity among others. When this sort of approach is considered, two tasks remain debatable, namely the selection of ratios and the determination of relative weights among ratios. As the tasks are largely subjective, suspicion is often reflected upon the evaluation of results. Another approach in utilizing financial ratios is multivariable discriminate

analysis. The well-known Z-score model characterizes this approach. The backbone of this approach is statistical methods (Altman, 1968; Abidali and Harris, 1995). The study performed applied discriminant analysis upon two groups of companies, one representing those in good condition, the other those in crises, this analysis aims at finding a multi-variable function, which is based on financial ratios, for best discrimination of the two groups. The Z-score model, nonetheless, does not give a thorough explanation about why certain ratios are adopted or what is the relative importance among adopted ratios.

Since the paper by Pinche and Mingo & Carunthers (1973) conventional financial ratios have been factored in many research papers including Pinches and Eubank and Mingo and Caruthers (1975), Laurent (1979), Johnson (1979), Aho (1980), Chen and Shimerda (1981), Cowen and Hoffer (1982), Yli-Olli and Virtanen (1985) and Ezzamel and Brodie and Mar- Molinero (1987), and using confirmatory test method Kento and Matikainen (1989).

Using inductive approach in classifying financial ratios raises the question of stability of the results between the different studies, and even between different years within the same study. This fact has been pointed out and tested for in several studies, Pinches and Mingo and Carunthers (1973) included. They conducted a reasonable stability of their results. On the other hand the results of Polhman and Hollinger (1981) can be interpreted as a caution against drawing generalized conclusions from the Pinches and Mingo and Carunthers (1973) classification. Yli-olli and virtanen (1985, 1989, 1990). From the studies it is evident that the stability of results is an important and a critical issue in evaluation of performance.



Another issue is the coverage of the selected financial ratios. The financial ratios are selected from traditional ratios. Artto (1978) puts forward that cashflow contains such information about the activities of the firm which is not present in the accrual based financial statements. Gombola and Ketz (1983) and Yli Olli (1983) observed that cashflow ratios produce an independent and persistent factor.

Earlier researches have been largely inductive. Hypothesis approach has been scanty, secondly market data has not featured in the studies and finally the methods of selection of the original financial ratios to be factored have been an ad-hoc feature. The financial institutions normally take into account the six C's of lending when advancing credit facilities to their clients Rose (1991), Simiyu N. Robert (2008). They thus look at character, capacity, conditions, capital, collateral and control.

Mwangi George Wanjohi (2008) in his study of the use of financial statement analysis in corporate lending by commercial banks in Kenya tried to establish if commercial banks rely on financial statement analysis in making lending decisions. The study which covered all the 43 banks in Kenya concluded that besides the financial statements, banks also rely on other factors such as loan size, loan term, collateral and the size of the borrower. The study which applied the Likert scale to assess the weight placed on each item, it further established that financial statements are very important in credit risk analysis especially the income statement and the balance sheet. Although these statements are used quite often the application of ratios is not very clear hence should be explored. Ratios are widely used by managers, regulators, investors and creditors but not much has been documented in the use by financial institutions Mwangi G.Wanjohi (2008). Simiyu N. Robert (2008) in his study of the techniques of credit risk

management in micro finance institutions in Kenya established that understanding of organizations exposure to the customers is treated as critical.

Kamau P. N. Metho (2007) in his study of the cashflow ratios as a predictor of corporate failures argued that cashflow ratios are more reliable than the income statement and balance sheet ratios. In his study selected companies listed in the stock market were picked for the study between 1999 and 2005. He categorized the firms into failed and non failed firms as away of selecting his sample. He applied multiple discriminant analysis (MDA) applying the Z – score. The study however was not categorical whether or not financial statement analysis was used in the credit rating evaluation prior to the issue of loans. The study finally concluded that ratios should compliment the other methods of credit evaluation. He deduced that the model applied (Z score) can be reliable in corporate failure prediction.

2.2 Ratios under study

To understand the possibility of applying ratios for credit evaluation, three categories of ratios were studied, thus solvency, liquidity and profitability.

2.2.1 Liquidity Ratios

Quick Ratio, this ratio, also called "acid test" or "liquid" ratio, considers only cash, marketable securities (cash equivalents) and accounts receivable because they are considered to be the most liquid forms of current assets. A Quick Ratio less than 1.0 implies dependency on inventory and other current assets to liquidate short-term debt.

Current Ratio, this ratio is a comparison of current assets to current liabilities, commonly used as a measure of short-run solvency, i.e., the immediate ability of a business to pay

its current debts as they come due. Potential creditors use this ratio to measure a company's liquidity or ability to pay off short-term debts. Current Liabilities to Net worth Ratio, this ratio indicates the amount due creditors within a year as a percentage of the owners or stockholders investment. The smaller the net worth and the larger the liabilities, the less security for creditors. Normally a business starts to have trouble when this relationship exceeds 80%. Current Liabilities to Inventory Ratio, this ratio shows, as a percentage, the reliance on available inventory for payment of debt (how much a company relies on funds from disposal of unsold inventories to meet its current debt). Total Liabilities to Net worth Ratio, this ratio shows how all of a company's debt relates to the equity of the owners or stockholders. The higher this ratio, the less protection there is for the creditors of the business. Fixed Assets to Net worth Ratio – This ratio shows the percentage of assets centered in fixed assets compared to total equity. Generally the higher this percentage is over 75%, the more vulnerable a concern becomes to unexpected hazards and business climate changes. Capital is frozen in the form of machinery and the margin for operating funds becomes too narrow for day-to-day operations.

2.2.2 Efficiency Ratios

Saleemi (2009) efficiency ratios measure the quality of a business' receivables and how efficiently it uses and controls its assets, how effectively the firm is paying suppliers, and whether the business is overtrading or under trading on its equity (using borrowed funds). Five key financial business ratios are used to measure a company's efficiency. Collection Period Ratio, this ratio is helpful in analyzing the collectability of accounts receivable, or how fast a business can increase its cash supply. Although businesses establish credit terms, they are not always observed by their customers. In analyzing a

business, you must know the credit terms it offers before determining the quality of its receivables. While each industry has its own average collection period (number of days it takes to collect payments from customers), there are observers who feel that more than 10 to 15 days over terms should be of concern. Sales to Inventory Ratio, this ratio provide a yardstick for comparing stock-to-sales ratios of a business with others in the same industry. When this ratio is high, it may indicate a situation where sales are being lost because a concern is under stocked and/or customers are buying elsewhere. If the ratio is too low, this may show that inventories are obsolete or stagnant. Assets to Sales Ratio, this ratio rates sales to the total investment that is used to generate those sales. An abnormally high percentage may indicate that a business is not being aggressive enough in its sales efforts, or that its assets are not being fully utilized. A low ratio may indicate that a business is selling more than can be safely covered by its assets. Sales to Net Working Capital Ratio, this ratio measures the number of times working capital turns over annually in relation to net sales. This ratio should be viewed in conjunction with the Assets to Sales Ratio. A high turnover rate can indicate overtrading (excessive sales volume in relation to the investment in the business) and also may indicate that the business relies extensively upon credit granted by suppliers or the bank as a substitute for an adequate margin of operating funds. Accounts Payable to Sales Ratio – This ratio measures how a company pays its suppliers in relation to the sales volume being transacted. A low percentage would indicate a healthy ratio. A high percentage may indicate that the business may be using suppliers to help finance operations.

2.2.3 Profitability ratios

Manas'se (2005) Profitability ratios measure how well a company is performing by analyzing how profit was earned relative to sales, total assets and net worth. Profitability

ratios are the most important even though liquidity ratios have been used longest in history of financial analysis Horrigan (1968). Three key financial business ratios are used to measure a company's efficiency, return on Sales (Profit Margin) Ratio, this ratio measures the profits after taxes on the year's sales. The higher this ratio, the better prepared the business is to handle downtrends brought on by adverse conditions. Return on Assets (ROA) Ratio, this ratio shows the after tax earnings of assets and is an indicator of how profitable a company is. Return on assets ratio is the key indicator of the profitability of a company. It matches net profits after taxes with the assets used to earn such profits. A high percentage rate will tell you the company is well run and has a healthy return on assets. Return on Net worth Ratio, this ratio measures the ability of a company's management to realize an adequate return on the capital invested by the owners in the company.

2.3 Risk Management in Commercial Banks

Firms that had been performing well suddenly may announce large losses due to credit exposures that turn sour, interest rate positions taken, or derivative exposures that may or may not have been assumed to hedge balance sheet risk. In response to this, commercial banks have almost universally embarked upon an upgrading of their risk management and Control systems. Because of recognition of the industry's vulnerability to financial risk the evaluation process should involve the use of ratios.

2.4 Types of Risks under Consideration.

Commercial banks are in the risk business. In the process of providing financial services, they assume various kinds of financial risks. Over the last decade the understanding of

the place of commercial banks within the financial sector has improved substantially. Suffice to say that market participants seek the services of these financial institutions because of their ability to provide market knowledge, transaction efficiency and funding capability. In performing these roles they generally act as a principal in the transaction. As such, they use their own statement of financial position to facilitate the transaction and to absorb the risks associated with it. To be sure, there are activities performed by banking firms which do not have direct implication on financial statement. These services include agency and advisory activities such as; trust and investment management, private and public placements through "best efforts" or facilitating contracts, standard underwriting through Subsidiaries of the holding company, or the packaging, securitizing, distributing and servicing of loans in the areas of consumer and real estate debt primarily. These items are absent from the traditional financial statement because the latter rely on generally accepted accounting procedures (GAAPs) rather than a true economic financial position. Nonetheless, the overwhelming majority of the risks facing the banking firms are on-financial statements. It is in this area that the risk can be evaluated by the use of ratios. There are several reviews of the role of banks within the financial sector, Bhattacharya and Thakor (1993), Santomero (1984), or Allen and Santomero (1997).

2.5 Types of Risks Absorbed By Banks.

The risks contained in the bank's principal activities, i.e., those involving its own financial statements and its basic business of lending and borrowing, are not all borne by the bank itself. In many instances the institution will eliminate or mitigate the financial risk associated with a transaction by proper business practices; in others, it will shift the risk to other parties through a combination of pricing and product design. The banking

industry recognizes that an institution need not engage in business in a manner that unnecessarily imposes risk upon it; nor should it absorb risk that can be efficiently transferred to other participants. Rather, it should only manage risks at the firm level that are more efficiently managed there than by the market itself or by their owners in their own portfolios. In short, it should accept only those risks that are uniquely a part of the bank's array of services. Elsewhere, Oldfield and Santomero (1997) have argued that risks facing all financial institutions can be segmented into three separable types, from a management perspective. These are: risks that can be eliminated or avoided by simple business practices, risks that can be transferred to other participants and those risks that must be actively managed at the firm level.

In the first of these cases, the practice of risk avoidance involves actions to reduce the chances of idiosyncratic losses from standard banking activity by eliminating risks that are superfluous to the institution's business purpose. Common risk avoidance practices here include at least three types of actions. The standardization of process, contracts and procedures to prevent inefficient or incorrect financial decisions is the first of these. The construction of portfolios that benefit from diversification across borrowers and that reduce the effects of any one loss experience is another. Finally, the implementation of incentive compatible contracts with the institution's management to require that employees be held accountable is the third. In each case the goal is to rid the firm of risks that are not essential to the financial services provided, or to absorb only an optimal quantity of a particular kind of risk. There are also some risks that can be eliminated, or at least substantially reduced through the technique of risk transfer. Markets exist for many of the risks borne by the banking firm. Interest rate risk can be transferred by interest rate products such as swaps or other derivatives. Borrowing terms can be altered

to effect a change in their duration. Finally, the bank can buy or sell financial claims to diversify or concentrate the risks that result in from servicing its client base. To the extent that the financial risks of the assets created by the firm are understood by the market, these assets can be sold at their fair value. Unless the institution has a comparative advantage in managing the attendant risk and/or a desire for the embedded risk they contain, there is no reason for the bank to absorb such risks, rather than transfer them. However, there are two classes of assets or activities where the risk inherent in the activity must and should be absorbed at the bank level. In these cases, good reasons exist for using firm resources to manage bank level risk. The first of these includes financial assets or activities where the nature of the embedded risk may be complex and difficult to communicate to third parties. This is the case when the bank holds complex and proprietary assets that have thin, if not non-existent, secondary markets. Communication in such cases may be more difficult or expensive than hedging the underlying risk. Moreover, revealing information about the customer may give competitors an undue advantage. The second case included proprietary positions that are accepted because of their risks, and their expected return. Here, risk positions that are central to the bank's business purpose are absorbed. Credit risk inherent in the lending activity is a clear case in point, as is market risk for the trading desk of banks active in certain markets. In all such circumstances, risk is absorbed and needs to be monitored and managed efficiently by the institution. Only then will the firm systematically achieve its financial performance goal. This point has been made in a different context by both Santomero and Trester (1997) and Berger and Udell (1993).

2.6 Risk Management in the Banking Industry

According to standard economic theory, managers of value maximizing firms ought to maximize expected profit without regard to the variability around its expected value. However, there is now a growing literature on the reasons for active risk management including the work of Stulz (1984), Smith, Smithson and Wolford (1990), and Froot, Sharfstein and Stein (1993) to name but a few of the notable contributions.

Review of risk management reported in Santomero (1995) lists dozens of contributions to the area and at least four distinct rationales offered for active risk management. These include managerial self-interest, the non-linearity of the tax structure, the costs of financial distress and the existence of capital market imperfections. Any one of these justifies the firms' concern over return variability, as the above-cited authors demonstrate. In general, these tools are established to measure exposure, define procedures to manage these exposures, limit individual positions to acceptable levels, and encourage decision makers to manage risk in a manner that is consistent with the firm's goals and objectives.

2.6.1 Standards, Reports and Ratios in Risk Management

The first of these risk management techniques involves two different conceptual activities, i.e. standard setting and financial reporting. Underwriting standards, risk categorizations, and standards of review are all traditional tools of risk management and control. Consistent evaluation and rating of exposures of various types are essential to understand the risks in the portfolio, and the extent to which these risks must be mitigated or absorbed. The standardization of financial reporting is an important ingredient. Obviously outside audits, regulatory reports, and rating agency evaluations

are essential for investors to gauge asset quality and firm level risk. These reports have long been standardized, for better or worse.

2.6.2 Investment Guidelines and Strategies

Investment guidelines and recommended positions for the immediate future are the third technique commonly in use. Here, strategies are outlined in terms of concentrations and commitments to particular areas of the market, the extent of desired asset-liability mismatching or exposure, and the need to hedge against systematic risk of a particular type. The limits described above lead to passive risk avoidance and/or diversification because managers generally operate within position limits and prescribed rules. Beyond this, guidelines offer firm level advice as to the appropriate level of active management, given the state of the market and the willingness of senior management to absorb the risks implied by the aggregate portfolio. Such guidelines lead to firm level hedging and asset-liability matching. In addition, securitization and even derivative activity are rapidly growing techniques of position management open to participants looking to reduce their exposure to be in line with management's guidelines.

2.6.3 Incentive Schemes

To the extent that management can enter incentive compatible contracts with line managers and make compensation related to the risks borne by these individuals, then the need for elaborate and costly controls is lessened. However, such incentive contracts require accurate position valuation and proper internal control systems. Such tools which include position posting, risk analysis, the allocation of costs and setting. Most financial debacles can be traced to the absence of incentive compatibility, as the cases of the deposit insurance and maverick traders so clearly illustrate.

2.7 Risks in Providing Banking Services

The risks associated with the provision of banking services differ by the type of service rendered. For the sector as a whole, however the risks can be broken into six generic types: systematic or market risk, credit risk, counterparty risk, liquidity risk, operational risk, and legal risks. Systematic risk is the risk of asset value change associated with systematic factors. It is sometimes referred to as market risk, which is in fact a somewhat imprecise term. By its nature, this risk can be hedged, but cannot be diversified completely away. In fact, systematic risk can be thought of as undiversifiable risk. All investors assume this type of risk, whenever assets owned or claims issued can change in value as a result of broad economic factors. As such, systematic risk comes in many different forms. For the banking sector, however, two are of greatest concern, namely variations in the general level of interest rates and the relative value of currencies. Because of the bank's dependence on these systematic factors, most try to estimate the impact of these particular systematic risks on performance, attempt to hedge against them and thus limit the sensitivity to variations in undiversifiable factors. Accordingly, most will track interest rate risk closely Jensen and Meckling (1976), and Santomero (1984). At the same time, international banks with large currency positions closely monitor their foreign exchange risk and try to manage, as well as limit, their exposure to it. In a similar fashion, some institutions with significant investments in one commodity such as oil, through their lending activity or geographical franchise, concern themselves with commodity price risk. Others with high single-industry concentrations may monitor specific industry concentration risk as well as the forces that affect the fortunes of the industry involved. Credit risk arises from non-performance by a borrower. It may arise from either an inability or an unwillingness to perform in the pre-committed contracted manner. This can affect the lender holding the loan contract, as well as other lenders to

the creditor. Therefore, the financial condition of the borrower as well as the current value of any underlying collateral is of considerable interest to its bank. The real risk from credit is the deviation of portfolio performance from its expected value. Accordingly, credit risk is diversifiable, but difficult to eliminate completely. This is because a portion of the default risk may, in fact, result from the systematic risk outlined above. In addition, the idiosyncratic nature of some portion of these losses remains a problem for creditors in spite of the beneficial effect of diversification on total uncertainty. This is particularly true for banks that lend in local markets and ones that take on highly illiquid assets. In such cases, the credit risk is not easily transferred and accurate estimates of loss are difficult to obtain. Counterparty risk comes from non-performance of a trading partner. The non-performance may arise from counterparty's refusal to perform due to an adverse price movement caused by systematic factors, or from some other political or legal constraint that was not anticipated by the principals. Diversification is the major tool for controlling nonsystematic counterparty risk. Counterparty risk is like credit risk, but it is generally viewed as a more transient financial risk associated with trading than standard creditor default risk. In addition, counterparty's failure to settle a trade can arise from other factors beyond a credit problem. Liquidity risk can best be described as the risk of a funding crisis. While some would include the need to plan for growth and unexpected expansion of credit, the risk here is seen more correctly as the potential for a funding crisis. Such a situation would inevitably be associated with an unexpected event, such as a large charge off, loss of confidence, or a crisis of national proportion such as a currency crisis. In any case, risk management here centers on liquidity facilities and portfolio structure. Recognizing liquidity risk leads the bank to recognize liquidity itself as an asset, and portfolio design in the face of illiquidity concerns as a challenge. Operational risk is associated with the

problems of accurately processing, settling, and taking or making delivery on trades in exchange for cash. It also arises in record keeping, processing system failures and compliance with various regulations. As such, individual operating problems are small probability events for well-run organizations but they expose a firm to outcomes that may be quite costly. Legal risks are endemic in financial contracting and are separate from the legal ramifications of credit, counterparty, and operational risks. New statutes, tax legislation, court opinions and regulations can put formerly well-established transactions into contention even when all parties have previously performed adequately and are fully able to perform in the future. For example, environmental regulations have radically affected real estate values for older properties and imposed serious risks to lending institutions in this area. A second type of legal risk arises from the activities of an institution's management or employees. Fraud, violations of regulations or laws, and other actions can lead to catastrophic loss, as recent examples in the thrift industry have demonstrated. All financial institutions face all these risks to some extent. Non-principal or agency activity involves operational risk primarily. Since institutions in this case do not own the underlying assets in which they trade, systematic, credit and counterparty risk accrues directly to the asset holder. If the latter experiences a financial loss, however, legal recourse against an agent is often attempted. Therefore, institutions engaged in only agency transactions bear some legal risk, if only indirectly.

2.8 Bank Risk Management Systems

The banking industry has long viewed the problem of risk management as the need to control four of the above risks which make up most, if not all, of their risk exposure, versus credit, interest rate, foreign exchange and liquidity risk. While they recognize counterparty and legal risks, they view them as less central to their concerns. Where

counterparty risk is significant, it is evaluated using standard credit risk procedures, and often within the credit department itself. Likewise, most bankers would view legal risks as arising from their credit decisions or, more likely, proper process not employed in financial contracting. Accordingly, the study of bank risk management processes is essentially an investigation of how they manage these four risks. In each case, the procedure outlined above is adapted to the risk considered so as to standardize, measure, constrain and manage each of these risks.

2.9 Credit Risk Management Procedures

In order to control risk one must first measure it. Measurement is critical to validating management process and improving internal discipline. In presenting the approach employed to manage credit risk, the study refer to the four-step process outlined by some banking firms and also list regulatory and reputation risk in their set of concerns. Nonetheless, all would recognize the first four as key, and all would devote most of their risk management resources to constraining these key areas of exposure.

As an industry, banks have generally sought estimates of expected loss using a two-step process, including default probability, and an estimate of loss given default. Credit risk arises in course of direct lending when funds are not repaid or in course of issuing guarantees or letters of credit when funds will not be forth coming upon crystallization of the liability, or in the cause of transactions involving treasury products. Lending activities are usually spread across all branches and controlling offices, a banks management is a very critical requirement of banks.

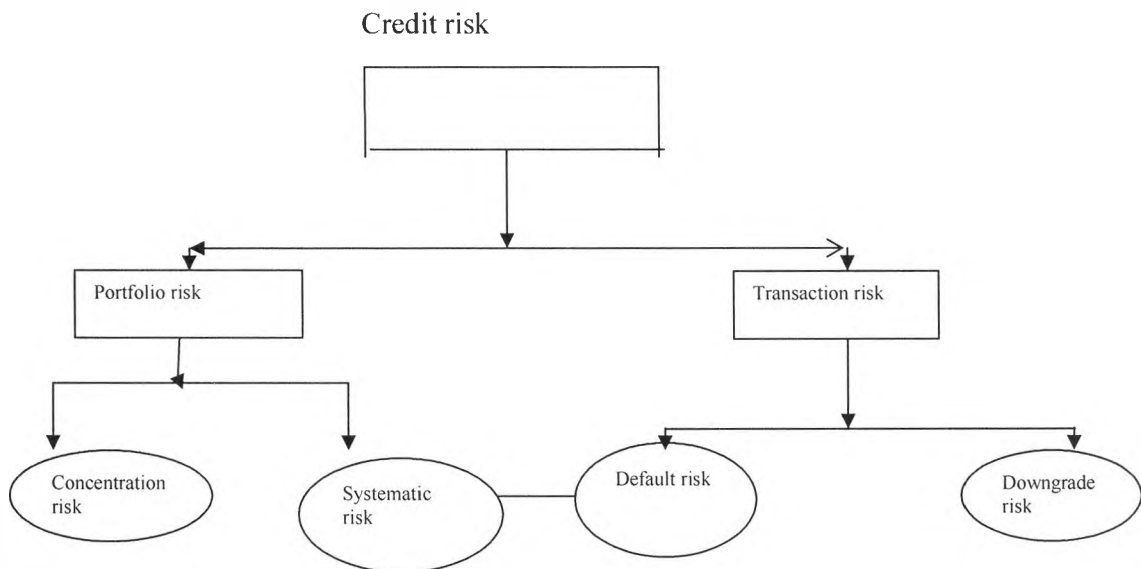


Chart 2.1: Financial risks in lending ; Adopted from bank financial management

2.10 Non Performing Loans

Despite efforts to control bank lending activities, non performing loans (NPL) are still a major concern for both international and local regulators. The aggregate rate of nonperforming loans is commonly used by international regulatory and supervisory bodies (IMF, World Bank and Central Bank of Kenya) to assess the strength of the banking industry. According to the Global Financial System Report (IMF, 2007), the aggregate rate of nonperforming loans varies considerably amongst countries with values ranging between 0.2% for Australia to 26.5% for Egypt, over the period 2002-2006. Breuer (2006), using Bank scope data, analyses the impact of legal, political, sociological, economic, and banking institutions on NPLs. Nevertheless, her study suffers from a representativeness bias due to the fact that Bank scope data on NPL are only available for a very limited number of countries and for a few numbers of banks. Babihuga (2007) explores the relationship between several macroeconomic variables

and financial soundness indicators (capital adequacy, profitability and asset quality). Raising the level of capital relative to risky assets by either means has beneficial impact on the bank performance and soundness (Fries et al., 2002). Sinkey and Greenawalt (1991) show that banks with adequate capital ratio during the three years preceding the year of study experience lower rates of NPLs. On the other hand, banks with high levels of CARs might be encouraged to embark in riskier activities leading to riskier credit portfolios. Banks anticipating high levels of capital losses might create higher provisions to decrease earnings volatility and to reinforce medium term bank solvency. Bank profitability may also determine the risk taking behavior of managers. Banks with high profitability are less pressured to revenue creation and thus less constrained to engage in risky credit offerings. Poor management can imply weak monitoring for both operating costs and credit quality of customers, which will induce high levels of capital losses. Bad management advanced by Berger and DeYoung (1997), managers lack competencies to effectively assess and control risks incurred when lending to new customers. Godlewski (2004) uses the adjusted ROA as a proxy for performance, shows that banks profitability negatively impacts the level of non performing loans ratio. Micco et al. (2004) report that state-owned banks tend to have higher levels of NPLs, due to their weak credit recovery capacity compared to privately owned banks. Levine (1996) suggests that foreign shareholding improves the supply and the quality of financial services, enhance the overall supervisory environment and ease the access to international financial markets. Lensink and Hermes (2004) find that foreign ownership leads to improved human capital through foreign management which brings better skills and technologies, in particular in developing countries. This international expertise will also lead to improved local competencies through training and knowledge transfer. Empirically, Barth et al.

(2002) find a negative effect of foreign ownership on nonperforming loans on a cross countries analysis. They highlight that foreign banks raise loan quality in a country and may lead to improve domestic banks credit quality. Petersen and Rajan (1995) find that in concentrated banking systems, younger firms (supposed to be of lower quality) are financed by banks in comparison to more competitive markets, where firms use other instruments, leading thus to a higher level of NPLs. Breuer (2006) finds a small but a significant positive association between banking industry concentration and nonperforming loans. Several reforms regarding the banking regulatory and supervisory have been initiated since 1988 (Basel I) and reviewed in 2004 (Basel II). The question of what and how regulation influences the banking stability and soundness remains a great source of debate. Pasiouras (2008) reports a positive association between technical efficiency and capital requirements, albeit not statistically significant in all cases. Godlewski (2004), reports that capital regulation in the banking industry is positively related to excess risk taking. The increased credit risk leads to an increase in the ratio of nonperforming loans. He explains that stringent constraints on capital imply additional pressure on assets returns, which could be done through higher risk taking. Pasiouras et al. (2006) find a negative relationship between capital requirements and banks' soundness as measured by Fitch ratings. From a theoretical point of view, increased official supervisory power is beneficial for the development and the stability of the financial system. Barth et al. (2004) argue that, due to market imperfections, official supervision may constitute a better substitute to market failure and contribute to further stabilize the financial system. However, under specific circumstances, such as corrupt environment or lack of democracy and civil discipline, powerful supervision will hinder the performance and the efficiency of the financial system (Shleifer and Vishny, 1998; Levine, 2003). Barth et al. (2004) show

that broader supervisory power is associated with higher problem loans and hampers bank development, especially inside closed political systems. Empirically, Barth et al. (2004) report no evidence of a relationship between enhanced information disclosure and other regulatory incentives and banking fragility. Finally, the independence of supervisory authorities is deemed to have an impact on NPLs. Empirically, Donzé (2006) finds supervision independence to be positively associated to sounder banking systems.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Research Design

A survey research was used which targeted all the banks in the country (Kenya). This method is best for gathering information where the researcher is interested in one or more variables, the results are then obtained through direct response to the questions.

3.2 Population of Study

The population for this study is defined as all the 43 licensed banks in Kenya, this is because the banks' have readily available information which is well structured. The choice of the credit or loans officer is because they are the ones responsible for rating of customers for loaning. Currently forty three (43) commercial banks are registered in Kenya (see appendix 2- list of banks).

3.3 Data collection Methods and instruments

The study purely used primary data. The questions were both structured and unstructured. The questions required specific answers so as to save on time of the respondents and the data analysis. Five Likert scale was used in data collection, according to Mugenda and Mugenda (1999) rating scales are useful in ranking subjective and intangible components of research. The respondents were asked similar questions using drop and pick approach (see appendix 1 for questionnaire).

3.4 Procedures and Time Frame

A letter of introduction was sought from the University of Nairobi. This facilitated easy acquisition of information from the banks. The questionnaires were administered with the assistance of two research assistants this was to save on time, the data was collected

over a period of three weeks. The questionnaire was pre tested in five banks which formed part of the population. The reason for pre testing was to check whether or not the question had the intended meaning at the data collection point.

3.5 Data Analysis

Descriptive statistics such as mean, standard deviation, and frequency distribution have been used and data presentation in the form of charts and graphs. Factor analysis has been applied, the analytic technique has benefitted the research in two ways; to reduce the number of variables and in detecting structure in the relationships between variables. Data analysis sought to fulfill the research objectives and provide answers to research questions. Both qualitative and quantitative methods were used.

CHAPTER 4: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

The study sought to establish the ratios commonly used ratios by commercial banks and the extent to which they are applied in the evaluation of credit facilities advanced to their customers. In this study all the commercial banks operating in Kenya were put under survey, however, there was response from twenty eight out of forty three. The findings have been put in tables and charts with brief discussions. The results are captured in this chapter.

4.2 Response Rate

The response was such that of the 43 banks targeted for the study twenty eight responded, this gave a response rate of 65% (28/43), and this was satisfactory for the study to form a generalization. The researcher personally administered the questionnaires with the help of two assistants.

4.3 General Information

All the banks surveyed had a risk management team, the teams are using different titles and majority was applying the term credit risk committee. The findings indicated that majority of the banks had their credit risk management teams at the head office and in a number of cases the branch managers were involved in the decisions involving their branches.

In order to establish the membership of credit risk team The respondents were asked to indicate the parties responsible for credit risk management in their institutions. The response was overwhelming 80.8% indicating that it is the credit risk committee,

11.5% indicated it is branch managers and only 3.8% each for head legal department and retail managers.

Table 4.1 The percentage Membership to credit management team as scored by the various banks

Membership team	Frequency	Percent	Cumulative Percent
Credit management committee	21	75.0	80.8
Branch Managers	3	10.7	92.3
Retail credit managers	1	3.6	96.2
Head of legal department	1	3.6	100.0
Total	26	92.9	
None response	2	7.1	
Total	28	100.0	

4.4 Use of Ratios in credit Evaluation

To establish whether or not banks use financial ratios when making credit decisions, the respondents were asked to state how often they use ratios in making decisions, with six options of always(AL), monthly(MN), quarterly(QT), bi-annually(BA), annually (ANN) and other provision (AHR) if any. The results are reflected in the table below.

Table 4.2 Frequency of the use of ratios for credit risk evaluation.

	Frequency	Percent	Cumulative Percent
Always	27	96.4	96.4
Monthly	1	3.6	100.0
Total	28	100.0	

The respondents were asked to respond by ticking the frequency in the use of financial ratios and 96.4% indicated that they always use the ratios and only 3.6% showed that they use them monthly. The other aspects of the question were never

responded to. This evidence is only relevant when evaluating corporate customer who prepares financial statements as is required by law.

4.4.1 Financial Statements Used in Making Lending Decisions

The table below shows the use of financial statements in making lending decisions. The information was extracted from the survey data obtained from the credit officers of commercial banks. The Audited Financial statements are considered the most important for corporate customers, this is followed by the balance sheet whether Audited or not but preference being given to the Audited results. Least attention being given both the projected financial statements and the projected balance sheet. From the table (4.5) audited balance sheet (BSA) is the most important document in making the lending decisions. This can be picked from the results generated in the table. The mean is 4.43, median is 4.5 which is critically important. This is further supported with a standard deviation of 0.634.

Table 4.3 Descriptive Statistics on the use of financial statements for credit rating by banks

	BSA	BISA	BCF	BPBS	BPINS	BCB
N	28	28	28	28	28	28
	0	0	0	0	0	0
Mean	4.43	4.46	4.25	3.96	4.21	3.96
Median	4.50	5.00	4.50	4.00	4.50	4.00
Mode	5	5	5	4	5	5
Std. Deviation	.634	.637	1.076	1.105	.995	1.170
Range	2	2	4	4	4	4
Minimum	3	3	1	1	1	1
Maximum	5	5	5	5	5	5

Decoding of the abbreviations

BSA-Audited Balance Sheet, BISA- Audited Income Statement, BCF-Cashflow Statement, BPBS-Projected Balance Sheet, BPINS- Projected Income Statement and BCB- Cash Budget.

4.4.2 Activity Ratios

The respondents were asked to rank the activity ratios listed in order of importance as used in the evaluation of customers while advancing credit. The scale of 1 to 5 was used, where 1-is not used, 2- moderate extent usage, 3- fairly used 4- high extent of usage and 5-greate extent of usage. The table below shows the results of the findings. Below the table are the explanations of the abbreviations.

Table 4.4: Descriptive Statistics on the use of activity ratios in determining the credit standing of the borrower by Banks

	N	Minimu m	Maximu m	Mean	Std. Deviation
ACT	27	3	5	4.33	.784
DCP	27	2	5	4.04	.759
IT	28	3	5	4.39	.737
TAT	27	2	5	4.48	.753
NAT	27	2	5	4.33	.734
FAT	27	1	5	4.26	1.023

ACT – Account Receivable Turnover, DCP – Debtors collection period, IT – Inventory Turnover, TAT –Total Asset Turnover, NAT –Net Asset Turnover FAT – Fixed Asset Turnover.

From the table it can be depicted that apart from the FAT all the other ratios have a standard deviation of less than one. And all the ratios have means of more than 4 therefore highly important.

4.4.3 Liquidity Ratios

Two most commonly used ratios of current ratio and quick ratio were put to test as their value in assessing the credit worthiness of the borrowers. As is reflected in the diagram below the two ratios are of equal importance and are applied any time a ratio is used.

Table 4.5 Liquidity ratios

	N	Minimum	Maximum	Mean	Std. Deviation
Current Ratio	28	3	5	4.43	.690
Quick Ratio	28	3	5	4.61	.629

From the table it can be seen that the two ratios play equal roles in the task of evaluation even though quick ratio is weightier. Both have standard deviations 0.69 and 0.629 and means of 4.43 and 4.61 the two ratios are therefore important to a great extent.

4.4.4 Rating of Profitability Ratios in Lending Decisions.

The table below shows the various profitability ratios and how they are rated by the financial institutions in making their lending decisions.

Table 4.6 Profitability ratios

	N	Minimum	Maximum	Mean	Std. Dev
Dividend Yield	27	1	5	2.78	1.050
Dividend pay out ratio	27	1	5	2.70	.993
Dividend Per Share	27	1	5	2.74	.984
Earnings Per Share	27	1	5	2.89	1.188
Earnings Yield	26	1	5	3.31	1.050
Gross Profit to Sales	28	2	5	4.00	.943
Net Profit Margin	28	3	5	4.18	.772
Operating Profit To Sales	27	3	5	4.19	.736
Return on Capital Employed	27	3	5	3.96	.759
Return on Equity	27	2	5	4.19	.786
Profit Volume Ratio	26	3	5	4.04	.720

The respondents were required to answer the questions requiring them to rate the profitability ratios on the scale of 1 to 5. Where 1- no extent, 2- moderate extent, 3- Fairly high extent, 4 high extent and 5 great extent. The table shows the results of the analysis. It can therefore be seen that only two ratios are frequently used thus return on equity (ROE) and net profit to sales. Also used moderately are the profit volume ratio, return on capital employed (ROCE), net profit margin, gross profit to sales and earnings yield. These ratios can be obtained from the audited financial statements which again are highly relied upon on making the lending decisions.

4.4.5 Other lending consideration

Apart from the ratios, financial statements and other factors captured above, the banks also use the following factors as is evidenced from the findings; the lending period, they tend to prefer lending short as opposed to long term periods, bank statements, they use the banks statements to evaluate the ability of the borrower to repay the loan advanced, annual turn over this is found in the income statement, the volume or loan amount the smaller the better for the bank, non listing by the credit reference bureau as a loan defaulter is very important for the banks and cashflow of the firm especially if it is authenticated by an audit report. Other factors also stated by the banks are; capital structure, liquidity of the firm, debt level although this can be calculated as a ratio, working capital as is reflected the current assets, and repayment period and some of the banks do evaluate the efficiency by calculating the efficiency ratios.

The respondents were asked to rank the lending considerations listed in order of importance as used in the evaluation of customers while advancing credit. The items included collateral (CLT), revenue size generated by the borrower (SB), loan term

(LT), loan size required by the borrower (LS) borrower character (COB), other consideration (ASR). The scale of 1 to 5 was used, where 1-is not very important, 2- some what important, 3- significantly important, 4- important and 5-very important. The table below shows the results of the findings. Among the factors listed the loan size (LS) was considered as the most important even though all the items were very important in making the lending decisions. The least important was bank collateral as most of the banks consider it only after one has qualified for the loan. Although the question did not ask for the borrowers bank statement it came out that most banks insist on seeing the banks statements of the customers before making rational decision, this realized a mean of 3.75 which is important, it also had a maximum of 5 and a minimum of 1, meaning some banks considered it very important while others considered it as not very important. The borrowers character (BOC), had a mean of 4.12 ranking as important, a median of 4.5, a mode of 5 however a standard deviation of 1.211 which is critical. Thus ranking by the mean score is good the standard deviation of more than one gives a different picture in terms of variability. The same applies to loan size, loan term and revenue size. But for collateral the mean implies that the factor is important and the standard deviation of 0.891 and variance of 0.794 gives a favourable picture. This therefore is the most important factor in the lending decision.

Table 4.7 Use of other lending considerations by financial banks in credit evaluation

	BCL	Bsize R	BLTB	Bsize	BCOB	Bother
N	28	28	28	28	26	4
	0	0	0	0	2	24
Mean	4.14	4.18	4.21	4.25	4.12	3.75
Median	4.00	5.00	4.00	4.50	4.50	4.50
Mode	4	5	5	5	5	5
Std. Deviation	.891	1.090	.833	1.005	1.211	1.893
Variance	.794	1.189	.693	1.009	1.466	3.583
Range	4	4	3	4	4	4
Minimum	1	1	2	1	1	1
Maximum	5	5	5	5	5	5
Sum	116	117	118	119	107	15

BCL-collateral, Bsize R- borrower size in revenue, BLTB-loan term required by borrower, Bsize- borrower's loan size, BCOB - Character of borrower, Bother –other factors.

4.5 Non Performing Loans

Most of the financial institutions surveyed were reluctant to divulge information on this matter. However all the banks surveyed accepted existence of non performing loans and based on the information obtained the current level of non performing loans range from 2% to 20%. The larger banks reported higher percentages as compared to small banks. The figures given were not very accurate in most cases as the figure are updated at intervals from all the branches

Table 4.8: the level of non performing loans

	Frequency	Percent	Valid Percent	Cumulative Percent
NO	4	14.3	15.4	15.4
YES	22	78.6	84.6	100
TOTAL	26	92.9	100.0	

4.6: Summary

From the analysis it can be seen that all the banks have credit policies in place, these policies are applied by the risk management team. The majority of the banks referred to the risk management teams as credit management committee. The memberships to the committee include the branch managers, the risk managers, the legal department heads, and heads of retail department.

In the use of ratios for rating of customers for purposes of lending the results showed that the banks always use ratios in rating their customers, this is however only possible where the customers prepare financial statements. The relevance is mostly to corporate customers.

Financial statements especially audited financial statements are very important. And the balance sheet and income statement are the most important. The projected financial statements are least used in the evaluation of credit rating of customers. All the activity ratios fared well in the rating and the banks apply all of them. The liquidity ratios are the most important they are applied at a high rate by the banks. Not all profitability ratios are important to the banks, only the gross profit ratio, net profit margin, operating profit to sales ROE, ROCE, and profit volume ratio are important.

CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSIONS AND

RECOMMENDATIONS

5.1 Introduction

This chapter comprises the summary of the research findings, conclusions, limitations of the study and suggestions for future research. Section 5.2 describes the summary of the research findings, section 5.3 conclusion, 5.4 the recommendations 5.5 the limitations of the study and 5.6 suggestions for further research.

5.2 Summary of Findings

The study sought to determine the commonly used ratios in credit evaluation decisions and the extent to which the commercial banks apply ratios in making credit decisions in Kenya. All the banks were targeted however out of the 43 banks 28 responded this is 65% of the total and their response to the survey is the basis of this research conclusion and recommendation.

The first objective sought to establish whether or not commercial banks in Kenya use ratios in making credit evaluations. The second objective aimed at establishing the extent to which commercial banks apply ratios in making credit decisions in Kenya.

5.3 Conclusion

The study revealed that all the banks have in place a credit risk management policy. The membership of the credit risk management team include credit risk managers or heads of credit department, heads of legal department, branch managers, retail credit managers and compliance officers.

All the banks used financial ratios in evaluating their corporate clients for loaning purposes and the most frequently used are the liquidity ratios that is current ratio and liquidity ratios this is followed by the activity ratios which have a mean of more than 4.0 implying they are used to a high extent and the total asset turn over is used to a great extent with a mean of 4.48 and a standard deviation of 0.753. the profitability ratios are used to a fairly high extent with most of the ratios having a mean below 4.0 and standard deviation of near 1.00 apart from gross profit to sales ratio, net profit margin, operating profit to sales, return on equity and profit volume ratio. Among the financial statements, the audited income statement and the balance sheet (statement of financial position) are the most important, however cashflow statement and projected financial statement are also fairly ranked. The banks also rely on the credit reference bureau which applies the ratios in evaluation of clients.

On the use of financial statement for ranking of clients especially audited financial statements are very important. And the balance sheet and income statement are the most important. The projected financial statements are least used in the evaluation of credit rating of customers.

The study confirms the previous studies by a number of scholars; Mwangi G W (2008) in his study of the use financial statement analysis in the corporate lending which concluded that financial institutions rely on financial statement analysis in making lending decisions, it further established that they use the loan size, the loan term, collateral and borrower size. The study further established that the banks regularly used ratios.

Most of the banks reported cases of non performing loans even though some banks did not respond to the question relating to non performing loans. The level of non performing loans depends on the size of the bank large banks tend to experience high level. The non performing loans level range from zero to 8%.

5.4 Recommendations and policy implications

The study recommends the following; the banks should develop a in house method of evaluating their corporate clients instead of relying on the credit reference bureau as is the case today this is based on the premise that they take time to update their data base thus the information is not accurate.

The banks can carry out research to develop software that can facilitate the process of evaluation by applying standard ratios and other variables. The standardised method will assist the whole industry in reducing the level of non performing loans.

The government regulatory framework through the central bank should be reorganized to oversee the evaluation procedure since in some cases loans are granted to customers based on familiarity or relationship and not merit. This is one area which the regulator (central) bank has not taken keen interest on.

5.5 Limitations of the study

A major limitation is the use of questionnaire; it did not provide room for in depth analysis of the factors under study. Secondary data would have provided a better insight especially on the issue of non performing loans where not enough information was collected and the staffs are reluctant to avail the information.

The ratios application is only possible with corporate customers since individual customers are in most cases not required to submit audited financial statements, some only show their capacity in the form of pays lips or bank statements, not all the customers who were advanced credit had relevant data.

Some banks were reluctant to give information, some even failed to respond despite several attempt to collect the relevant data. This was because of fear of information leaking to their competitors and also because of strict rules put in place by top management.

5.6 Suggestion for Further Studies

A similar study could be undertaken to cover microfinance, cooperative societies and other players in the field of credit provision, this could bring out unique features of these organizations. Each category financial institution is unique in its customer base and the financial needs.

The aspect of non performing loans requires in depth study to establish the extent of occurrence since the banks are not willing to give all the information. Studies in this area will enhance the usefulness of financial ratios and facilitate the selection of appropriate decision making by the lending institutions.

Further research is also possible with the customers, who are being evaluated being categorized per their industries of operations, this is necessary due to the unique features of these industries in terms of their financial requirements, market orientation and the way they behave to economic changes.

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Appendix 1: QUESTIONNAIRE.

Am a student of Masters of Business Administration (MBA) at the university of Nairobi. I have designed the following questionnaire for a study about the use of Financial Ratios for credit evaluation by commercial banks in Kenya. The research project is an integral part of my course requirements. I would highly appreciate if you fill the questionnaire to enable me complete my studies and the findings may help the industry make better decisions in future.

SECTION A: Background information

1. Name of the bank
2. In which year was the Bank registered.....
3. How many Branches do you have.....
4. In your bank who is responsible for credit risk assessment?

Board of directors (BD) ()

The head office (HO) ()

The credit risk committee (CRC) ()

Others (specify) ACR) ()

5. Does your bank have an approved credit risk management policy?

Yes ()

No ()

Don't know ()

- a. Who are the members of the credit risk management team?

SECTION B: commonly used Financial Ratios

1. How often do you use ratio analysis in credit risk assessment?

- Always (AL) ()
- Monthly (MN) ()
- Quarterly (QT) ()
- Bi – Annually(BA) ()
- Annually (ANN) ()
- Other (AHR) () specify

2. In your assessment of credit risk, which are the most important ratios in their order of ranking

.....

.....

.....

.....

.....

3. Rank each of the lending considerations listed below in the order of their importance to your bank in the evaluation/analysis of risk

1=Not important 2=somewhat important, 3=important, 4=significantly important, 5=critically important.

Level of importance

	1	2	3	4	5
Collateral (CLT)					
Size of the borrower (in revenue)(SB)					
Loan term required by borrower (LTB)					

Loan size (LS)					
Character of borrower(COB)					
Other (specify and rank)(ASR)					

4. Rank the financial statements listed below in the order of their importance to your bank for the purposes of analysis of risk for lending purposes

1=Not important 2=somewhat important, 3=important, 4=significantly important, 5=critically important.

Level of importance

	1	2	3	4	5
Balance sheet Audited (BSA)					
Income statement Audited (ISA)					
Cashflow statement (CFS)					
Projected balance sheet (PBS)					
Projected income statement (PINS)					
Cash budget (CB)					
Other (specify and rank) (SOR)					

SECTION C: Extent of use of Financial Ratios in credit evaluation.

5. Indicate the extent to which the profitability ratios below are used in determining the credit worthiness of a firm for lending purposes in risk analysis

1=No extent 2=moderate extent, 3=Fairly High Extent, 4=High extent, 5=Great extent.

Level of importance

	1	2	3	4	5
Dividend yield (DY)					
Dividend pay out (DPO)					
Dividend per share (DPS)					
Earnings per share (EPS)					
Earnings yield (EY)					
Gross profit to sales (GPS)					
Net profit Margin (NPM)					
Operating profit to sales (OPS)					
Return on capital employed (ROCE)					
Return on equity (ROE)					
Profit/ Volume Ratio (PVR)					
Other (specify and rank) (SR)					

6. Indicate the extent to which the liquidity ratios below are used in determining business performance for lending risk analysis decisions.

1=No extent 2=Moderate Extent, 3=Fairly High Extent, 4=High Extent, 5=Great Extent.

Level of importance

	1	2	3	4	5
Current Ratio (CR)					
Quick Ratio (QR)					
Other (Specify and Rank) (ACQR)					

b. Indicate the extent to which the activity ratios below are used in determining business performance for lending risk analysis decisions.

1=No Extent, 2=Moderate Extent, 3=Fairly High Extent, 4=High Extent, 5=Great extent.

Level of importance

Activity ratios	1	2	3	4	5
Accounts receivable turnover (ACT)					
Debtors Collection Period (DCP)					
Inventory turnover (IT)					
Total Assets turnover (TAT)					
Net assets turn over (NAT)					
Fixed Asset Turnover (TAT)					
Other (Specify and Rank) (ACT)					

c. Do you experience non performing loans

Yes () No () Don't know ()

d. if yes how many were experienced in the last financial year.....

.....

e. How many cases of non performing loans were recorded in the last financial year?

f. What specific aspects of financial performance and position do you emphasize on when making lending decisions?

g. What decision do you think is important but not captured by the financial statements?

.....
.....

Thank you for cooperation in completing the questionnaire.

Appendix 2.

List of Commercial Banks registered in Kenya under the banking act.

1. African Banking Corporation limited
2. Bank of Africa limited
3. Bank of Baroda limited
4. Bank of India limited.
5. Barclays Bank of Kenya Limited.
6. CFC Stanbic Bank limited.
7. Charter House Bank limited under statutory management.
8. Chase Bank limited.
9. Citibank N.A.
10. City Finance Bank limited.
11. Commercial Bank of Africa limited
12. Consolidated Bank of Kenya limited.
13. Co operative Bank of Kenya Ltd.
14. Credit Bank limited
15. Development Bank of Kenya Limited.
16. Diamond Trust Bank limited.
17. Dubai Bank Limited.
18. Ecobank Limited
19. Equatorial Commercial Bank Limited.
20. Equity Bank Limited.
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 Africa Bank limited.
28. Habib Bank AG Zurich.
29. Habib Bank Limited
30. Imperial Bank Limited.
31. I & M Bank Limited.
32. Kenya Commercial Bank Limited
33. K – Rep Bank Limited.
34. Middle East Bank Limited.
35. National Bank of Kenya Limited.
36. NIC Bank Limited.
37. Oriental Commercial Bank limited.
38. Paramount Universal Bank Limited.
39. Prime Bank Limited.
40. Southern Credit Banking Corporation Limited.
41. Standard Chartered Bank limited.
42. Trans- National Bank limited.
43. Victoria Commercial Bank Limited.



UNIVERSITY OF NAIROBI

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P.O. Box 30197
Nairobi, Kenya

Date: 26th September 2011

TO WHOM IT MAY CONCERN,

The bearer of this letter Charles Opiyo Awuor

REGISTRATION NO: D61/70552/2008

The above named student is in the Master of Business Administration degree program. As part of requirements for the course, he is expected to carry out a study on The Use of Financial Ratios for Credit Evaluation by Commercial banks in Kenya

He has identified your organization for that purpose. This is to kindly request your assistance to enable him complete the study.

The exercise is strictly for academic purposes and a copy of the final paper will be availed to your organization on request.

Your assistance will be greatly appreciated.

Thanking you in advance.

Sincerely,

MR. ALEX JALEHA

COORDINATOR, SOB, KISUMU CAMPUS

Cc File Copy



resp 1	Name	2Dest	3 NoBr	4RCRA	5 ACRMP	5MCRMT	5MCRMT	BRAC	BIRa	BIRa	BCL
28				3	1	1	2	1	1	2	5
27				3	1	1	2	1	3		5
26				3	1	1	3	1		4	5
25				3	1	1	2	1	2		5
24				3	1	2		1	2		4
23	IMPERIAL	1996	17	3	1	1		1	2		4
22				3	1	1	2	1	2		4
21	CFC STANBIC		22	3	1	4	5	1	5		4
20	EQUITY	1984	131	3	1	1		1	2	5	5
19	FAMILY			3	1	1		1	5		3
18	KREP			3	1	5		1			5
17	NATIONAL		48	3	1	1		1	2	6	3
16	CREDIT BANK	1986	6	2	1	1	6	1	2	5	4
15	I M			3	1	2	2	1	2		5
14	GUARDIAN	1992	6	3	1	1	5	1	2		4
13	1ST CMMUNITY			3	1	1		1	5	6	4
12	CMM BNK AFR	1962		3	1	1	5	1	5		4
11	DTB	2005	100(EA)	3	1	1	5	1	5	5	4
10	B/ BARODA	1908	17	3	1	1	5	1	2	6	4
9	CHASE	1996		3	1	1	5	1	5	6	4
8	ECO			3	1	1	5	1	6		5
7				3	1	1	5	1	5	7	5
6	NIC		18	3	1			1	6		1
5	DUBAI		3	3	1	1		1	5		4
4	HABIB			3	3		5	1	5		5
3	B/ AFRICA	2004	19	3	1	1	5	1	2	4	3
2	KCB			3	1	1	5	6	4		4
1	STD CHARTERED			2	1	2		2	1		4

Bsize R	BLTB	Bsize	BCOB	Bothe	BSA	BISA	BCF	BPBS	BPINS	BCB	BSOF	CDY	CDPO
5	5	5		5	5	5	5	5	5	5		3	3
5	5	5			5	5	5	4	5	5		3	3
5	5	5	4		4	4	5	4	4	5		4	4
5	5	5	5		5	5	5	5	5	5	5	4	4
4	4	4	4		5	5	5	4	5	5		3	3
5	5	4	5		5	5	5	5	5	5		1	1
5	5	4	4		5	5	4	4	5	5		5	5
4	4	4	5		5	4	5	5	4	4		2	2
2	3	4	1		4	5	1	1	3	1		1	1
3	4	4	5		4	5	4	1	1	1			
4	4	5	5		3	3	3	3	3	3		2	2
4	4	4	2	1	4	4	4	3	3	2	1	2	2
3	4	5	4		4	4	4	4	4	4		3	2
3	4	5	4		4	4	4	4	4	4		3	2
5	4	5	5		5	5	5	5	5	5		4	4
4	4	3	4		4	4	4	4	4	4		2	2
4	5	5	5		5	5	5	5	5	5		2	3
5	5	4	5		4	4	5	4	5	3		3	3
5	4	4	5		4	4	5	5	5	4		2	3
5	5	5	5		5	5	4	5	5	4		2	2
5	3	2	3		4	4	4	3	4	3		2	2
5	4	5	5		5	5	5	4	4	4		2	2
1	2	1	1		5	5	5	5	5	5	5	4	4
3	5	5	4		4	5	4	4	4	4		3	2
5	3	5	5		5	5	5	5	5	5		3	3
3	3	3	3		4	4	4	3	3	4		3	3
5	5	4	5	5	3	3	1	3	3	3	3	2	2
5	5	5	4	4	5	4	4	4	5	4	3	5	4

CDPS	CEPS	CEY	CGPS	CNPM	COPS	CROCE	CROE	CPVR	COTHEF	CCR	CQR	CACQR	CACT	CDCP	CIT
3	3	3	3	3	3	3	3	3	3	4	5		5	5	5
3	4	4	4	3	4	4	4	5		5	5		5	5	5
5	4	4	5	5	4	4	4	4		5	5		5	5	5
4	5	5	4	4	4	3	4	4		5	5		5	5	5
4	4	4	4	4	3	3	4	4		4	4		4	4	4
1	1	3	3	3	4	3	4	4		5	5		3	2	4
3	4	5	5	4	5	5	4			5	5		5	4	5
1	1	2	2	3	4	4	4	4		5	5		5	4	4
1	1	2	4	5	4	3	3	3		5	5		5	5	5
			4	4						5	4				5
2	3	4	5	5	5	4	4	5		5	5		3	3	3
2	2		3	3	3	3	4	3	1	5	4		4	4	4
3	3	3	4	4	4	4	5	4		4	5		3	3	3
3	3	3	3	3	3	3	5	3		5	5		3	3	3
4	4	5	5	5	5	5	5	5		5	5		5	4	5
3	1	2	2	4	3	4	3	4		5	5		4	4	4
2	3	3	4	5	5	5	5	5		4	5		5	4	5
2	3	3	4	4	5	4	5	4		4	5		5	4	5
3	3	3	5	5	5	4	5	4	5	4	4	1	5	4	4
3	3	3	3	5	5	4	5	5		3	3		5	4	5
2	1	1	3	4	4	3	4	4		3	3		3	4	3
2	3	3	4	4	5	5	4	4		4	5		4	4	4
4	5	5	5	5	4	4	5	5		3	4		4	4	5
3	3	3	5	5	4	4	5	4		4	4		4	4	4
3	4	4	5	4	5	5	4	4		4	5	4	5	5	5
3	3	4	4	4	4	4	4	3		5	5		4	4	4
2	2	2	5	5	5	5	2	5		5	5		4	5	5
3	2	3	5	5	4	5	5	3	4	4	4	3	5	3	5

CTAT	CNAT	CFAT	COT	CENPL	CENFY	CCNFY	CPP	CINC
5	5	5		1	3%			1
5	5	5	5	1	2%			2
5	5	5		1				2
5	5	5		1	15%			3
4	4	4		1				3
5	4	4		1	10%			1
5	5	3		1				4
5	4	5		1	11%			5
2	2	1		1	4%			6
				1				7
4	4	5		1				7
4	4	4	1	1				3
4	4	4		1	5%			4
3	3	3		1	4%			4
5	4	5		0		6		3
4	4	4		1	2%			4
5	5	5		1	2%	8		3
5	4	5		0				4
5	5	5		1	6%			4
5	5	5		1	4%			
4	4	4		1	5%	11		4
5	5	5		0	10%			
5	5	5		0				
4	4	4						
5	5	5						
4	4	4		1	2%			
4	4	4		1	8%			3
5	5	2	4	1				