

# International Journal of Finance and Accounting (IJFA)

**EFFECTIVENESS OF CREDIT MANAGEMENT SYSTEM ON LOAN**

**PERFORMANCE OF COMMERCIAL BANKS IN KENYA**

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## EFFECTIVENESS OF CREDIT MANAGEMENT SYSTEM ON LOAN PERFORMANCE OF COMMERCIAL BANKS IN KENYA

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### Abstract

**Purpose:** the purpose of this study was to analyze effectiveness of credit management system on loan performance of commercial banks in Kenya.

**Methodology:** Descriptive research design was used. The population comprised of 86 respondents. That is, one credit manager and one credit officer from one branch of each of the 43 commercial banks registered with central bank of Kenya as at this year. A census study was conducted since the target population was small. Data was collected using a self-administered questionnaire through drop and pick later method. The questionnaire was both open and closed ended. Test retest method was used to ensure reliability while piloting was used to check the validity of the research instrument. Data was analyzed using frequencies, percentages and means. Correlation was used to compute the degree of association between variable. The hypothesis was tested using chi square. Data was thereafter presented using table and pie charts.

**Results:** The study established that credit terms has an effect on performance, just like credit appraisal was equally found to be very important in influencing performance of commercial banks. Similarly, a stringent policy was found to have a far greater influence to performance than a liberal policy

**Policy recommendation:** It was then recommended the character of the borrower, the current capacity and collateral attached should carry a lot of weight in the appraisal. In addition, credit officer and client should be involved in formulation of credit terms and interest rates on loans reduced since these have an effect on loan repayment hence performance of commercial banks.

**Keywords:** *credit terms ,credit appraisal ,credit risk controls measures ,credit collection policies , loan performance*

## 1.0 INTRODUCTION

### 1.1 Background of the Study

Commercial banks are financial institutions and play a very important role in an economy. Specifically, they channel financial resources from savers (surplus units) to lenders (deficit units). In developing economies, they help borrowers who have no access to capital markets, (Akkizidiz, 2008). According to Fallon, (1996) commercial banks face three types of risks, financial risk-with credit risk being a component, operational and strategic risk. These risks have different impact on performance of commercial banks. The magnitude and the level of loss caused by credit risk compared to others is severe in causing banks failures.

The concept of credit can be tracked back in history and it was not appreciated until and after the Second World War when it was largely appreciated in Europe and later in Africa (Haron, 2004). Banks in USA gave credit to customers with high interest rate which sometimes discourage borrowers hence the concept of credit didn't become popular until the economic boom in USA in 1885 when the banks had excess liquidity and wanted to lend the excess cash (IFSB, 2003). In Africa the concept of credit was largely appreciated in the 50's when most banks started opening the sections and department to give loans to white settlers. In Kenya credit was initially given to the rich people and big companies and was not popular to the poor.

In 1990s loans given to customers did not perform which called for an intervention. Most suggestions were for the evaluation of customers' ability to repay the loan, but this didn't work default continued (Modourch 1999). The concept of credit management became widely appreciated by commercial banks in the late 90s, but again this did not stop loan defaults to this date (Modurch, 1999). Al Tamini (2002) observed that credit problems have been identified to be a part of the major reason behinds banking difficulties. Loans constitute a large proportion of credit risk as they normally account for 10-15 times the equity of a bank, (Boston, 2001). Poor loan quality stems from the information processing mechanism. It begins right at the loan application stage and increase further at the loan approval, monitoring and controlling stages especially when credit risk management guidelines in terms of policy and procedures for credit for credit processing do not exist or are weak or are incomplete.

For commercial banks to minimize loan losses, it's essential they develop an effective credit risk management system (Barton, 2002). As a result of asymmetric information that exists between lenders and borrowers, commercial banks are exposed to adverse selection and moral hazards. This calls for commercial banks to have a mechanism in place to not only to asses default risk that is unknown to them in order to avoid adverse selection and also one that can evolve after lending to avoid moral hazards. According to Coyle (2000) credit management process involves various steps namely; credit risk identification, measurement, monitoring and control. Credit identification involves singling out of the risk associated with a particular credit. Credit risk arise from potential changes in the credit quality of a borrower.

Banks in Uganda are upgrading their forecasting abilities to calculate risk in stressed market conditions. Additionally, regulators have been encouraging banks to monitor their credit risk very closely. The central bank of Sri Lanka has imposed a number of regulations and acts. Directions are provided under banking act, to help bank better manage their credit risk. The act focuses on the maximum limitation of accommodation or credit facility so as to diversify the risk. Okara (2013) examined the impact of credit risk management on capital adequacy and banks financial performance. When banks grant loans, they expect the customers to repay the principal and interest on an agreed date. A credit facility is said to be performing if a payment of both principal and interest are up to

date in accordance with agreed repayment terms. The non-performing loans (NPLs) represents credits which the banks perceive as possible loss of funds due to loan defaults.

In Kenya lending is an integral elements of banking business, it is itself at the heart of an economy financial architecture. It therefore necessitates policy makers to continually review the credit market to minimize inefficiencies that hinder faster economic growth. Credit risk is the current and prospective earnings volatility arising from an obligor's failure to meet the terms of any contract with the bank or otherwise to perform as agreed. Credit risk management is a structured approach to managing uncertainties through risk assessment developing strategies to manage it, and mitigation of risk, reducing the negative effects of the risk and accepting some or all of the consequences of a particular risk. Credit risk management is very important to banks as it an integral part of the loan process. It maximizes bank risk, adjusted risk rate of return by maintaining credit exposure with view to shielding the bank from the adverse effect of credit risk (Kargi, 2011).

Weak credit risk management is the primary cause of many commercial banks failure. McMenamin (1999) and Hempell et al (1994) carried out a study on national banks that failed in the mid-1980s in the USA and found out that the consistent elements in the failure was the inadequacy of the bank's credit risk management systems in controlling loan quality. A common approach is to customer's credit selection is the "five C's of credit as an initial screening and risk assessment step.

### ***1.2 Statement of the Problem***

The success of commercial banks largely depend on the effectiveness of their credit management system because these institutions generate most of their income from interest earned on loans extended to small and medium entrepreneurs. The central bank annual supervision report, 2015 indicated high incidence of credit risk reflected in the rising levels of non-performing loans by the commercial banks in the last 10 years, a situation that has adversely impacted on their profitability. This trend not only threatens the viability and sustainability of the commercial banks but also hinders the achievement of the goals for which they were intended which are to provide credit to the middle and upper income class but also to the rural unbanked population and bridge the financing gap in the mainstream financial sector.

However, previous studies undertaken in the past few years have focused mainly on credit models used by commercial banks and their impact on profitability (Migiri, 2002). The need of empirical studies on credit recovery systems and recognition of the vital role that commercial banks play in the economy are the principal motivations behind this study which sought to find out the effectiveness of credit risk management system on loan performance among commercial banks.

### ***1.3 Objectives of the Study***

- i. To establish the effect of credit terms of commercial banks on their loan performance.
- ii. To determine the effect of credit appraisal on loan performance of commercial banks.
- iii. To evaluate the effect of credit risk controls measures adopted by commercial banks on their loan performance.
- iv. To evaluate the effect of credit collection policies on loan performance of commercial banks.

## **2.0 LITERATURE REVIEW**

### **2.2.1 Capital Asset Pricing Model**

The Markowitz-Tobin theory was not very practical. Specifically, to estimate the benefits of diversification would require that practitioners calculate the covariance of returns between every pair of assets. In their Capital Asset Pricing Model (CAPM), William (1964) and Lintner (1965) solved this practical difficulty by demonstrating that one could achieve the same result merely by

calculating the covariance of every asset with respect to a general market index. With these necessary calculating power reduced to computing these far fewer terms (betas) optimal portfolio selection became computationally feasible. The capital asset pricing model (CAPM) of William (1964) and Lintner (1965) marks the birth of asset pricing theory (resulting in a Nobel Prize for William in 1990). Before their breakthrough, there were no asset pricing models built from first principles about the nature of tastes and investment opportunities and with clear testable predictions about risk and return. Four decades later, the CAPM is still widely used in applications, such as estimating the cost of equity capital for firms and evaluating the performance of managed portfolios.

The attraction of the CAPM is its powerfully simple logic and intuitively pleasing predictions about how to measure risk and about the relation between expected return and risk. Unfortunately, perhaps because of its simplicity, the empirical record of the model is poor -

poor enough to invalidate the way it is used in applications. The model's empirical problems may reflect true failings. (It is, after all, just a model.) But they may also be due to shortcomings of the empirical tests, most notably, poor proxies for the market portfolio of invested wealth, which plays a central role in the model's predictions. We argue, however, that if the market proxy problem invalidates tests of the model, it also invalidates most applications, which typically borrow the market proxies used in empirical tests (Lintner, 1965).

### **2.3 Determinant of Financial Performance of Commercial Banks**

The determinants of bank performances can be classified into bank specific (internal) and macroeconomic (external) factors (Al-Tamimi, 2010). These are stochastic variables that determine the output. Internal factors are individual bank characteristics which affect the banks performance. These factors are basically influenced by internal decisions of management and the board. The external factors are sector-wide or country-wide factors which are beyond the control of the company and affect the profitability of banks. The overall financial performance of banks in Kenya in the last two decades has been improving.

#### **2.3.1 Risk Identification**

Risk identification refers to the process of identifying dangerous or hazardous situations and trying to characterize it. It is a procedure to deliberately analyze, review and anticipate possible risks (Barton, 2002). The first step in organizing the implementation of the risk management function is to establish the crucial observation areas inside and outside the corporation (Kromschroder and Luck, 1998). The departments and the employees must be assigned with responsibilities to identify specific risks for example interest rate risks or foreign exchange risks are the main domain of the financial department.

It is important to ensure that the risk management function is established throughout the whole corporation; apart from parent company, the subsidiaries too have to identify risks and analyze them. Other approaches for risk identification include scenario analysis or risk mapping. An organization can identify the frequency and severity of the risks through risk mapping which could assist the organization to stay away from high frequency and low severity risks and instead focus more on the low frequency and high severity risk. Risk identification process includes risk-ranking components where these ranking are usually based on impact, severity or dollar effects (Barton, 2002). Accordingly, the analysis helps to sort risk according to their importance and assists the management to develop risk management strategy to allocate resources efficiently.

### **2.3.2 Risk Analysis**

This is the process of determining the likelihood that a specified negative event will occur. Investors and business managers use risk assessments to determine things like whether to undertake a particular venture, what rate of return they require to make a particular investment and how to mitigate an activity's potential losses. There are many conceptual studies made on risk analysis in reference to measurement and mitigation of risk. In practice, it is useful to classify the different risks according to the amount of damage they possibly cause (Fuser et al, 1999). This classification enables the management to divide risks that are threatening the existence of the corporation from those which can cause slight damages. Frequently, there is an inverse relationship between the expected amount of loss and its corresponding likelihood, i.e. risks that will cause a high damage to corporation, like earthquakes or fire, occur seldom, while risks that occur daily, like interest rate or foreign exchange risks, often cause only relatively minor losses, although these risks can sometimes harm the corporations seriously.

A comprehensive risk analysis and mitigation methods for various risk arising from financing activities and from the nature of profit and loss sharing is the source of funds especially investment account holders are explained by Sundararajan (2007). He concludes that the application of modern approaches to risk analysis, particularly for credit and overall banking risks is important for Banks. Also, he suggests that the need to adopt new measures is particularly critical for Banks because of the role they play and the unique mix of risks in finance contracts.

However, (Navajas and Tejerina, 2006) indicates that banks are perceived not to use the latest risk measurement techniques and Shari'ah compliant risk mitigation techniques due to different Shari'ah interpretation of these techniques. Also, appropriate measurement of credit and equity risks in various finance facilities can benefit from systematic data collection efforts, including establishing credit and equity registry. Moore (2007) suggests that bank need to start collecting data, and there can be significant advantages in pooling information and using common definitions, standards, and methodologies for credit risk which is argued can lead to significant losses in all financial institutions. Finally, he found out that risk analysis particularly on measuring risk in banking institutions is important for risk management practices.

### **2.3.3 Non-performing Loan**

A nonperforming loan is either in default or close to being in default. Once a loan is nonperforming, the odds that it will be repaid in full are considered to be substantially lower. If the debtor starts making payments again on a nonperforming loan, it becomes a reperforming loan, even if the debtor has not caught up on all the missed payments. Institutions holding nonperforming loans in their portfolios may choose to sell them to other investors in order to get rid of risky assets and clean up their balance sheets. Sales of nonperforming loans must be carefully considered since they can have numerous financial implications, including affecting the company's profit and loss, and tax situations (Akkizidis, 2008).

### **2.3.4 Loan and Advances**

Loans and advances can be arranged from banks in keeping with the flexibility in business operations. Traders may borrow money for day to day financial needs availing of the facility of

cash credit, bank overdraft and discounting of bills. The amount raised as loan may be repaid within a short period to suit the convenience of the borrower. Thus business may be run efficiently with borrowed funds from banks for financing its loans and advances working capital requirements are utilized for making payment of current liabilities, wage and salaries of employees, and also the tax liability of business. Loans and advances from banks are found to be economical for traders and businessmen, because banks charge a reasonable rate of interest on such loans/advances (Khravish, 2011).

### **2.3.5 Financial Performance of Commercial Banks**

Financial performance is the measure of the results of the firm's policies and operations within a specified time period in monetary terms. The results are expressed in form of profit or losses. Financial performance of commercial banks is the measure of the level commercial banks profit or losses within a specified time. Several measures have been used to measure the financial performance of commercial banks.

There are external factors that can cause bank failure which may include lack of information, deregulation (Mugenda, 2008) Some useful measures of financial performance are coined into what is referred to as CAMELS (Capital adequacy, Asset quality, Management, Earnings, Liquidity and sensitivity) referring to the six components of a bank's conditions that are assessed. CAMELS' framework regulates the banking sector by giving a guide on governance. (Madhyam and Stichele 2010).

Solvency level is a measure of degree at which debts are secured and obtained by computing debt to asset ratio. *Asset quality*; according to (Mugambe, 2008) the solvency of financial institutions typically is when their assets become impaired. So it's important to monitor indicator of quality, assets of financial institutions in Kenya in term of over exposure to specific risk trends in non-performing loan, the profitability and health of bank borrowers especially the corporate sector

Liquidity; initially solvent financial institution may be driven toward closure by poor management of short-term liquidity. Indicators should cover funding sources and capture large maturity mismatches. An unmatched position potentially enhances profitability but also increase the risk of losses (CBK, June 2001) the key dimensions of measuring financial performance in the commercial banks in Uganda are Capital adequacy, Asset quality, Earnings, Liquidity.

Financial performance of banks can be determined by several factors. These factors are divided into two, the internal factors and the external factors. The internal factors include: Capital adequacy, Asset Quality, Management efficiency and liquidity management. It is important to note that these factors differ from one financial institution to another. External factors are the factors beyond the management's control. They include: political stability of a country, inflation rate, GDP growth rate, Interest rates and financial institution policies and a country (Naceur, 2003).

### **2.3.6 Credit Risk Management and Financial Performance of Commercial Banks**

Financial institution performance is determined by so many factors with the main one being the risks. The risks include: credit risk, interest rate risk, political risk, operational risks, liquidity risks and market risk. These risks are either internal or external. Commercial banks have closed

due to the poor performance of loans. This called for effective management of its asset (Naceur, 2003)

In the recent years banks have developed sophisticated systems of risk management. Many banks have been exposed to more risk of loan defaulting due to the increase of the amount of loans advanced. In addition to the system, management have had to up there game in securing there assets (Morsman, 1993). Commercial banks have policies which guide on the process of advancing credit. These policies define on who should access credit and the collaterals involved. In addition it guards its back through insurance. Once this is achieved the banks financial performance is expected to go up For the past years, banks have reported increase in profits. The asset base of most banks has been and the proportion of loans also has been on the growing trend (IFSB, 2005).

### 3.0 METHODOLOGY

The study used a descriptive research design engaging both the qualitative and quantitative approaches. A sample size of 18 schools with a total of 162 individuals was selected consisting School Managers (SMs), Heads of Departments (HODs) and Presidents of the Students' Councils (POSCO) - categories using stratified and purposive sampling methods. The preferred data collection tools were questionnaires and an interview guide. Data was analysed using both descriptive and inferential statistics

### 4.0 RESULTS FINDINGS

#### 4.1 Credit Terms and loan Performance of Commercial Banks

This section presents results of how credit terms affect performance of commercial Banks in Kenya. The findings have been cross tabulated for ease of presentation.

##### 4.1.1 Formulation of Credit Terms

The respondents were asked to state if they agree that various stakeholders are involved in formulating the credit terms. The findings are as stated in the table below.

**Table 1 : Involvement in formulation of credit terms**

Response	Agree	Neutral	Disagree	Total
Top Management	73%	14%	13%	100%
Credit officers	65%	23%	12%	100%
Client	36%	64%	0%	100%

As shown in table 4.4.1 above, majority of the respondents agreed to involvement of top management (73%) and credit officers (65%) in formulating the credit terms. Most of the respondents (64%) were non-committal on involvement of clients in the formulation.

##### 4.1.2 Involvement and Loan Performance

The study further sought to find out the opinion of the respondents on whether they agree that involvement of various stakeholders has an effect on performance. Table 4.4.2 below presents these results.

**Table 2 Involvement and Loan Performance**

Response	Agree	Neutral	Disagree	Total
Top Management	65%	16%	19%	<b>100%</b>
Credit officers	76%	21%	03%	<b>100%</b>
Client	39%	59%	02%	<b>100%</b>

Table 4.4.2 above shows that involving credit officers in formulating credit terms has the greatest influence on performance (76%) whereas 65% of the respondents felt that involving top management influences performance. Only 39% felt that clients' involvement affects performance. In addition, 16% of the respondents were non-committal and a further 19% disagreed that top management involvement affects performance. Similarly, 59% were neutral on whether client involvement has an effect on performance. It is therefore clear that involving credit officers would influence performance more than involving management. This could be attributed to the fact that top management are busy with day to day tasks of managing their banks. These findings are consistent with those of Burt (2004) who established that involving credit officers in formulation of credit terms improves loan performance. This could be explained by the fact that credit officers are in touch with clients and get feedback from them. However, results of this study contradict those of Ross et al (2008) that found clients' involvement has a greater influence on performance of commercial banks.

#### **4.4.3 Effects of Credit Terms on loan Performance of commercial banks**

The researcher identified various credit terms and sought to establish how each affects the performance of commercial banks. The findings are presented here below.

**Table 3 Credit terms and Performance**

Response	Agree	Neutral	Disagree	Total
Annual interest rate	56%	32%	12%	<b>100%</b>
Repayment period	81%	4%	15%	<b>100%</b>
Repayment amount	76%	21%	03%	<b>100%</b>
Collateral Requirement	63%	32%	02%	<b>100%</b>

The highest influence on performance was from the repayment period as indicated by 81% of the respondents. The repayment amount was mentioned by 76% of the respondents while collateral requirement was mentioned to have influence on performance by 63%. The last ranked was the annual interest rate which was mentioned by 56% of the respondents. Thus the greatest influence was from repayment period and the least influence is from annual interest rate.

#### **4.5 Credit Appraisal and Performance of Commercial Banks**

This study was also set out to establish the influence of credit appraisal techniques on performance of commercial banks. The findings are presented in this section.

##### **4.5.1: Credit Appraisal Methods**

Respondents were asked to state whether their bank use the following methods in credit appraisal. Their response was as shown in the table 4 below.

**Table 4 Credit Appraisal Methods used by Commercial Banks**

<b>Response</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Total</b>
Repayment history	77%	15%	08%	<b>100%</b>
Credit scoring models	54%	08%	34%	<b>100%</b>
Referencing with CRB	91%	09%	00%	<b>100%</b>
Use of the 5Cs of credit	87%	07%	06%	<b>100%</b>

From the aforementioned, commercial banks apply various techniques in credit appraisal and mostly a combination of methods at a go. The mostly used method as per the respondents is referencing with CRB (91%) followed closely by the use of 5 Cs of credit at (87%). The five Cs are the character, collateral, condition, capital and capacity. The customer past credit history has been applied in many commercial banks since 77% of the respondents felt that way. The credit scoring model however, was not as popular as the other techniques. Only 554% of the respondents believe this method is applied in their institution. The wide and consistent use of the aforementioned techniques is expected to enhance the loan performance to great extent.

#### **4.5.2 Appraisal Techniques and Performance of Commercial Banks**

This section presents results of how various techniques affect performance of commercial banks.

**Table 5 Appraisal Techniques and loan Performance of Commercial Banks**

<b>Response</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Total</b>
Repayment history	89%	01%	10%	<b>100%</b>
Credit scoring models	76%	22%	2%	<b>100%</b>
Referencing with CRB	98%	0%	02%	<b>100%</b>
Use of the 5Cs of credit	84%	10%	06%	<b>100%</b>

Table 4.5.2 above reveals that all techniques influence loan performance in the commercial banks. Most of the respondents (98%) felt that credit bureau referencing has the most influence on loan performance. This could possibly because of accumulation of credit information and sharing of the same. Repayment history and application of the 5Cs of credit had 89% and 84% of the respondents mentioning that these techniques influence performance. Only 76% felt that quantitative credit scoring models have an influence on loan performance. The findings of this study are consistent with those of Anthony (2006) who established that the 5Cs have a significant relationship with performance.

#### **4.6 Credit Risk Control and Performance**

Credit risk control was deemed to have an influence on performance of commercial banks. The researcher sought to establish the various control methods used in various banks and how each may influence performance of commercial banks. This section presents these findings.

#### 4.6.1 Methods of Credit Risk Control

There are various methods of controlling credit risk to be borne by a lender. This study attempted to establish which methods are used by the commercial banks. The table 4.6.1 below shows these results.

**Table 6 :Methods of Credit Risk Control**

<b>Response</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Total</b>
Credit Risk Pricing	33%	45%	22%	100%
Loan Covenants	96%	04%	090%	100%
Credit Insurance	74%	22%	04%	100%
Tightening of Credit Terms	46%	40%	14%	100%
Loan Diversification	57%	31%	22%	100%
Arrears Monitoring System	87%	13%	0%	100%
Collateral realization	56%	40%	4%	100%

From the table above, majority of the commercial banks use various methods in credit risk control. Respondents were almost unanimous (96%) on use of loan covenants when granting loans. These findings are in agreement with those of Ross et al (2008) who established that signing of loan covenants was an effective deterrent to default. Only 4% were indifferent n this method. Next, 87% agreed to monitoring arrears. Methods such as ageing of debtors were employed where loanees are categorized depending on progressing repayment. Specifically, those who are late in repayment by between 30-90 days are categorized as watch. Arrears of between 0-18- days are categorized as substandard, whereas doubtful debts are between 180-365 days. Any arrears above one year is referred to as a loss. In each case, different steps are taken such as calling the slow payers, e-mailing them, visiting them or even recovering money from guarantors.

Most the banks (74%) use credit insurance mainly which may compensate the bank in case of demise. The respondents also agreed to use of other methods, that is, loan diversification (57%), Collateral realization (56%) Tightening credit terms (46%) and pricing of the loan depending on the credit risk assumed.

#### 4.6.2 Credit Risk Control Techniques and loan Performance of Commercial Banks

The respondents were asked to state if they agreed that credit risk control influences performance. Their response is tabulated here below.

**Table 7 Credit Risk Control Techniques and loan Performance of Commercial Banks**

<b>Response</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Total</b>
Credit risk control	89%	5%	6%	100%

Table 4.6.2 shows that majority of the respondents (89%) agreed that credit risk control influences performance, 5% were indifferent and 6% disagreed. This could be explained by the

fact that follow ups make an otherwise slow paying client put extra efforts in repayment and this translates to better performance of the bank.

#### **4.7 CREDIT COLLECTION POLICY**

This study sought to establish whether banks have a credit collection policy and how it influences performance. The findings are discussed below.

##### **4.7.1 Aspects of Credit Collection Policy**

The researcher further sought to establish whether banks have in place a credit policy and other aspects of credit collection policy. The findings are presented below.

**Table 8 Aspects of Credit Collection Policy**

<b>Response</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Total</b>
My bank has a functional credit collection policy	67%	28%	5%	<b>100%</b>
The collection policy is strictly adhered to	78	0	22%	<b>100%</b>
All stakeholders are involved in the collection policy formulation	56%	34%	10%	<b>100%</b>
The collection policy is revised from time to time as deemed necessary	64%	27%	09%	<b>100%</b>
My bank has a stringent credit collection policy	86%	09%	05%	<b>100%</b>
My bank has a lenient/libel credit collection policy	54%	44%	06%	<b>100%</b>

From table 4.7.1, majority (67%) of the banks has a credit policy that is functional and 78% agreed to strict adherence to use of the policy. Stakeholder participation in formation of the policy was practiced by 56% of the respondents whereas 46% felt otherwise. When asked if they (respondents) agree with constant revision of the policy, 64% agreed and 27% were indifferent. More respondents (86%) agreed to use of a stringent policy as compared to 54% who felt that their banks use a lenient policy.

##### **4.7.2 Collection Policy and Loan Performance**

This section presents findings of how credit policy affects loan performance.

**Table 9: Collection Policy and Loan Performance**

<b>Response</b>	<b>Agree</b>	<b>Neutral</b>	<b>Disagree</b>	<b>Total</b>
Stringent Credit collection policy affects the performance of our loans	78%	12%	10%	100%
Libel Credit collection policy affects the performance of our loans	44%	35%	21%	100%

Most of the respondents (78%) felt that a stringent policy influences loan performance whereas 44% felt that a libel policy affects loan performance. It is therefore clear that the type of policy adopted has an influence on loan performance with a stringent policy being better than a libel one.

#### **4.8 Loan Performance in Commercial Banks**

The loan performance was measured by non performing loans ratio. This was computed as a proportion of non performing loan to the total loans outstanding. The results are presented in the table 4.8.1 below.

**Table10 : Loan Performance**

Year	2015	2014	2013	Mean
Total loans advanced	1000	1200	1400	1200
Non-performing loans	300	250	310	287
Non-performing Loan Ratio				$287/100 = 0.24$

As shown in the table above, the average loans over the last three years were Ksh 1200 out of which Ksh 287 was non performing. This constitutes 24% of total loans being non performing.

#### 4.9 Test of Hypothesis

A Chi square test was applied in testing the hypothesis and the following results were obtained.

	n	d.f.	Pearson Square Asymp.sig. (2 sided)	Chi	P value	Exact Sig (1 sided)
Credit terms	43	3	9.654		.001	.321
Credit appraisal	43	3	6.314		.023	
Credit risk control	42	3	10.341		.000	
Credit collection policy	43	3	6.453		.012	

As shown in table above, the credit terms used were found to have a significant relationship with loan performance as shown by the calculated chi-square value of 9.654 at three degree of freedom and a p-vale of 0.001 which was less 0.05 at 95% confidence level. The study therefore failed to reject the null hypothesis and concluded that credit terms had a relationship with loan performance. An analysis of credit appraisal and loan performance indicated a relationship between the two as evidenced by a computed chi square value of 6.314 at 3 degrees of freedom and a computed p-value of 0.023 which was less than 0.05 at 95% confidence level. The null hypothesis that credit appraisal has no relationship with performance was rejected.

Further, the null hypothesis that credit risk control has no relationship with loan performance was tested for significance. A computed chi square value of 10.341 at 3 degrees of freedom and calculated p-value of 0.000 which is less than 0.5 at 95%confidence level led to rejection of the null hypothesis. It was therefore concluded that credit appraisal has a relationship with loan

performance. Finally, the study tested the significance between credit collection policy and loan performance. A computed chi square 6.453 and a p-value of 0.012 which was less than 0.05 at 95% confidence level led to the conclusion that there is a significant relationship between credit collection policy and loan performance.

## **CONCLUSION AND RECOMMENDATION**

### **5.1 Conclusion**

From the results of this study, it can be concluded that credit terms has an effect on performance. The commercial banks should involve the credit officers more since they are always receiving customers' feedback. However, the management are the policy makers and should also be involved. Their commitment to the policy is equally crucial if the policy is to be a success. This was found to have a great effect on performance of commercial banks. Credit appraisal was equally found to be very important in influencing performance of commercial banks. This is because it is the screening stage and those would be bad payers are sieved out and those expected to be good payers given their credit history and credit score are granted.

Control of credit risk should be put in place as well and enforced consistently. Thus credit insurance, collateral and signing of loan covenants with customers and especially in the presence of a lawyer are efforts that can enhance loan performance. The type of collection policy by the commercial banks has effect on performance. The stringent policy was found to have a far greater influence to performance than a libel policy and therefore banks should adopt a stringent credit collection policy instead of a libel one

### **5.2 Recommendations**

Given the findings of this research, the following are the suggested recommendations.

1. Involvement of credit officer and clients in formulation of credit terms should always be observed. This is because these stakeholders are at the center of lending business and are therefore better laced to know the most applicable terms.
2. The commercial banks should consider the interest rates they charge on loans since these have an effect on loan repayment hence performance of commercial banks.
3. The commercial banks should consider the appraisal process and this should be carried out by an experienced and competent credit officer in order to stem out those with intolerable credit risk. Specifically, the character of the borrower, the current capacity and collateral attached should carry a lot of weight in the appraisal.
4. Credit risk control has a great influence on performance and hence use of covenants, credit insurance and collateral should be at the center of the lending business.
5. The commercial banks should adopt a stringent credit policy of granting and collecting loans instead of a lenient policy since the former has a greater influence on performance.

### **5.3 Areas for Further Study**

This study reached a conclusion that there exists a relationship between effective credit risk management and performance of commercial banks. The researcher would therefore recommend further study on the following.

1. Influence of Credit Risk Bureau referencing on loan performance amongst commercial banks
2. Factors affecting loan default from the customers' perspective.
3. Effectiveness of credit risk management practices in other financial institutions rather than in banks.

## REFERENCES

- Aboagye, A. Q. & Otioku, J. (2010). Are Ghanaian MFIs' Performance Associated with Corporate Governance, *Corporate Governance*, 10, 3, 307 – 320
- Akkizidis, I. & Khandelwal, S. K. (2008), *Financial Risk Management for Banking & Finance*, Palgrave Macmillan, First Ed.
- Al-Tamimi, H. (2002). Risk Management Practices: An Empirical Analysis of the UAE Commercial Banks. *Finance India*, 3, 1045-1057.
- Altman, E (1993). Valuation, Loss Reserves and the Pricing of Corporate Bank Loans. *Journal of Commercial Bank Lending*.
- Atieno R. (2001). Formal and Informal Institutions' Lending Policies and access to Credit by Small-Scale Enterprises in Kenya: An Empirical Assessment. Research Paper Number 111. African Economic Research Consortium. Nairobi.
- Auronen, L. (2003). *Asymmetric information: theory and applications*, Helsinki University of Technology, Helsinki
- Babbel, D. & Santomero, (1997). Financial Risk Management by Insurers: An Analysis of the Process," *Journal of Risk and Insurance*.
- Baldoni, R. J. (1998). A Best Practices Approach to Risk Management. *TMA Journal*.
- Barton, T. L., Shenkir, W.G. and Walker, P. L. (2002). *Making Enterprise Risk Management Pay Off*. USA, Prentice Hall PTR, Financial Times.
- Boston Consulting Group (2001). *From Risk Taker to Risk Manager: Ten Principles for Establishing a Comprehensive Risk Management System for Banks*.
- Fallon, W. (1996). *Calculating Value-at-Risk*, Wharton Financial Institutions Center, The Wharton School, University of Pennsylvania.

- Fischer and Myron Scholes (1972). The Capital Asset Pricing Model: Some Empirical Tests, 79–121
- Fisher I. (1930). The Theory of Investment, As Determined by Impatience to Spend Income and Opportunity to Invest It. New York
- Fuser, K., Gleiner, W. and Meier, G. (1999). Risikomanagement (KonTraG) – Erfahrungen aus der Praxis, Der Betrieb, 52, 15, 753-758.
- Haron, A. & Hin Hock, J.L. (2007). Inherent Risk: Credit and Market Risks: The Regulatory Challenge”, John Wiley & Son (Asia) Pte Ltd.
- Harrington, S.E. & Niehaus, G. R. (1999), Risk Management, Irwin/McGraw-Hill, New York.
- IFSB, (2005). Guiding Principles of Risk Management for Institutions (Other than Insurance Institutions) Offering only Financial Services, Financial Services Board.
- Iqbal, Z. & Mirakhor, A. (2007). An Introduction to Finance: Theory and Practice” John Wiley & Son (Asia) Pte Ltd.
- Jensen M. & Meckling W. (1997). Theory of the Firm: Managerial Behavior Agency Costs and Ownership Structure,” Journal of Financial Economics, 3, 305-60.
- Jorion, P. (1997). Value at Risk: The New Benchmark for Control Market Risk, Irwin Professional Publications, Illinois.
- Kargi, H.S. (2011). Credit Risk and the Performance of Nigerian Banks, Ahmadu Bello University, Zaria
- Khan, T., and Ahmed, H. (2001). Risk Management: An Analysis of Issues in Financial Industry.
- Khrawish, H.A. (2011) Determinants of Commercial Banks Performance: Evidence from Jordan. International Research Journal of Finance and Economics. Zarqa University.
- Kim, D. & A. Santomero, (1993). Forecasting Required Loan Loss Reserves. Journal of Economics and Business.
- Kinyanjui, B. (2014). Commercial banks increases lending but face higher loan default
- Kithinji, A.M. (2010). Credit Risk Management and Profitability of Commercial Banks in Kenya, School of Business, University of Nairobi, Nairobi.

- Kolap, T. Funso. (2012). Credit Risk and Commercial Banks' Performance In Nigeria: Australian Journal of Business and Management Research
- Kromschroder, B. & Luck, W. (1998). Grundsatzrisikoorientierter Unternehmensüberwachung, Der Betrieb, 51,32, 1573-1576.
- Lintner (1965). The valuation of risk assets and the selection of risky investments in stock portfolios and capital budgets, Review of Economics and Statistics, 47 (1), 13–37
- Madhyam & Stichele. (2010). Banking sector liberalization in Uganda- Kavaljit Singh
- Markowitz & Harry M. (1999). The early history of portfolio theory: 1600–1960, Financial Analysts Journal, Vol. 55, No. 4
- Marshall, C. & M. Siegel, (1996). Value at Risk: Implementing a Risk Measurement Standard, 96-47, Wharton Financial Institutions Center, The Wharton School
- Merton, R.C. (1963). An Intertemporal Capital Asset Pricing Model. *Econometrica* 41 (5): 867–887
- Mohammad, M. S. (2008). Non-performing loans in Bangladesh MFI sector: some issues and observations
- Moody's Investor Service (1996). Corporate Bond Defaults and Default Rates, Moody's Special Report.
- Moore, E. (2007). Measuring Credit Risk in Finance: The Regulatory Challenge, John Wiley & Son (Asia) Pte Ltd
- Morsman, E (1993). Commercial Loan Portfolio Management, Robert Morris Associates, Philadelphia.
- Mugembe, D (2008) Electronic banking and effective financial performance
- Mugenda, O.M and Mugenda A.G. (2003). Research Methods. Acts Press. Nairobi
- Musyoki, D and Kadubo, A. S. (2011). The impact of credit risk management on the financial performance in Kenya. International Journal of Business and Public Management
- Naceur S.B. and Goaid M., (2003). The Determinants of the Tunisian Deposit Banks' Performance, Applied Financial Economics
- Nelson, L. (2002). Solving Credit Problem

- Ngugi, (2001 ). Central Bank received Risk Management programs (RMPs) from all institutions as required of them
- Oliver & Hart (1975). On the Optimality of Equilibrium when the Market Structure is Incomplete. *Journal of Economic Theory*, 418-443
- Parrenas, J. C. (2005). Commercial banks's Risk Management Practices. A Survey of Four Asian Emerging Markets.
- Ross & Stephen (1976).The arbitrage theory of capital asset pricing. *Journal of Economic Theory* 13 (3): 341–360
- Santomero, A. &Babbel, D. (1997). *Financial Markets, Instruments and Institutions*, McGraw-Hill
- Sundarajan, V. (2007). Risk Characteristics of Products, Implications for Risk Measurement and Supervision.
- Tobin & James (1958). Liquidity preference as behavior towards risk, *The Review of Economic Studies*, 25
- Waweru N. M &Kalani V. M (2009). Commercial Banking Crises in Kenya: Causes and Remedies. *African Journal of accounting, Economics, Finance and Banking Research*, 4 (4), 12 – 33
- William F. (1964). Capital asset prices: A theory of market equilibrium under conditions of risk, *Journal of Finance*, 19 (3), 425–442