

## **EFFECT OF UNSECURED LOANS ON FINANCIAL HEALTH OF COMMERCIAL BANKS IN NAKURU TOWN, KENYA**

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### **Abstract**

*Commercial banks have been facing a couple of problems that have been compromising their financial health. The study assessed the extent to which unsecured loans affected the financial health of commercial banks in Kenya. The study specifically analyzed the effect of credit risk and interest rates on financial health of commercial banks in Nakuru town, Kenya. The study was guided by adverse selection, moral hazard and contingency theories. A cross-sectional survey research design was adopted. The study targeted employees attached to the credit and finance/accounts departments of the aforesaid banks. There were a total of 241 employees attached to the credit and accounts/finance departments respectively when the study was carried out. A sample of 71 respondents was selected. Both purposeful and simple random sampling methods were employed. The study adopted a questionnaire to collect data. The questionnaire was pilot tested in order to determine both its validity and reliability. Statistical Package for Social Sciences software aided in data analysis. Data analysis captured both descriptive and inferential statistics. The study established that unsecured loans affected the financial health of commercial banks. It was concluded that commercial banks charged a higher interest rate on unsecured loans than on secured loans. The study recommended that commercial banks should price their loans by setting lending interest rate high enough to cover for costs and earn profits and low enough for the borrowers to afford.*

**Keywords:** *Commercial Banks, Credit Risk, Financial Health, Interest Rates, Unsecured Loans*

## INTRODUCTION

The main profitable business of commercial banks is lending. Lending has been and will remain the chief business of every commercial bank in the world given that, banks realize a lot of returns from interest accruing from the advanced loan facilities. There is a very close link between lending and financial health of banking institutions. Lending can either be secured or unsecured depending on whether the credit facility is advanced against surrender of collateral or not (Cihak, 2009).

Credit risk in commercial banks is negatively correlated to profitability. As such, credit risk is likely to compromise the financial health of commercial banks. Factors like credit risk identification, credit risk analysis, credit risk monitoring, and credit approvals or sanctions positively affect the performance of unsecured loans. Commercial banks could possibly adopt risk avoidance strategy where they fail to completely take any risks but this makes these banks to be less active in unsecured lending (Gweyi, 2013).

Credit risk is the possibility that borrowers will not repay their debts on time or not repay at all (Sinkey, 2002). Credit risk, non-performing loans and default, and a risk of assets and loans becoming irrecoverable, affect operational performance, profitability, net interest income of banks, and also the country's economy at large. Performance of commercial banks is characterized by low levels of private credit, high interest rate spreads, and high levels of non-performing loans, poor asset quality, and operational inefficiencies, amongst other factors (Francis, 2013).

It is noted that banks' interest rates charged on borrowers may reflect variations in overhead and operating costs (Navneet et al., 2009). It is further noted that interest rates are mainly influenced by bank size and market share and to some extent by deposit rate and non-performing loans. Cihak (2009) on the other hand contends that lending rates and interest rate spreads are influenced by banks' non-performing loans, deposit rates, money market rates and banks' market share. It is further argued that banks with adequate capital have lower lending rates than banks with inadequate capital and therefore suggesting that capital adequacy affects bank lending rates.

The health of the financial sector mainly depend on sound banking system (Abhiman & Saibal, 2007). The financial health of a bank is reflected by rating agencies in several strength levels. The best financial health for the banking industry is depicted when a bank has exceptional financial strength. This implies that such a bank possesses highly valuable and defensible business franchises, strong financial fundamentals, and even a very attractive and stable operating environment (Thalasinis & Liapis, 2011). The authors acknowledge the proposition of a holistic framework for measuring a bank's financial health by classifying its

primary responsibilities between conformance and performance. This is done by employing well-known measures relative to European legislation on the banking sector. These include risk management procedure (RMP), corporate financial reporting (CFR), corporate governance, corporate social responsibility (CSR) and sustainable development, stakeholders' value creation (SVC), and also macroeconomic environment.

According to Omoro, Kinyua and Okiro (2014) commercial banks in Kenya offer an array of services which include unsecured loans. Still on the same discussion, Gweyi (2013) noted that some commercial banks in Kenya could adopt risk avoidance strategy where they fail to completely take any risks. Consequently, this makes these banks to be less active in unsecured lending. Earlier, Gakure, Ngugi, Ndwiga and Waithaka (2012) examined the effect of credit risk management techniques on the performance of unsecured bank loans in Kenya.

There are a total of 43 commercial banks licensed by the CBK. Out of these banking institutions, 30 are locally owned while the rest are owned by foreigners (CBK, 2010). Six of the major commercial banks are listed on the Nairobi Securities Exchange (NSE). Equity Bank is the largest bank in terms of account holders while Kenya Commercial Bank (KCB) leads in terms of asset base. All these commercial banks offer loans which are either collateralized or unsecured.

### **Statement of the Problem**

Commercial banks just like other financial institutions in Kenya have been facing a couple of problems that have been compromising their financial health. This has been manifested in the closure of some banks in the recent past like Dubai Bank. Some of the banks have been totally collapsed like Euro Bank while others like Imperial Bank have been put either under receivership or statutory management for reflecting ill financial health. Financial health which borders on financial performance is determined by a number of factors one of which is loan facilities.

Financial ill-health has led to disgruntled customers who find themselves unable to access their deposits. Potential borrowers are unable to access credit facilities from affected banks which compromises their business ventures. Education is affected given that institutions and individuals rely on commercial banks to fund their projects and pay tuition fees respectively. The government is also denied of large sums of taxes. This implies that financial health of commercial banks has far-reaching ramifications to individuals, households, communities and the country economic performance at large.

A number of empirical studies that have addressed the issue of unsecured loans and financial health amongst commercial banks in Kenya have hitherto been conducted, but these

studies fell short of addressing the same in context of unsecured loan and their influence on financial health of commercial banks. It is against this backdrop that this study intended to bridge the knowledge gap in respect of unsecured loan and financial health.

### **General Objective**

To find out the effect of unsecured loan on financial health of commercial banks in Nakuru town, Kenya

### **Specific Objectives**

- i. To determine the effect of credit risk on financial health of commercial banks in Nakuru town, Kenya
- ii. To analyze the effect of interest rates on financial health of commercial banks in Nakuru town, Kenya

### **Research Hypotheses**

**H<sub>01</sub>:** There is no significant effect of credit risk on financial health of commercial banks in Nakuru town, Kenya.

**H<sub>02</sub>:** There is no significant effect of interest rates on financial health of commercial banks in Nakuru town, Kenya.

## **THEORETICAL FRAMEWORK**

The study reviews and discusses theories touching on loans and financial health. The theories reviewed include moral hazard theory, adverse selection theory and contingency theory.

### **Moral Hazard Theory**

This theory whose proponents are Stiglitz and Weiss (1981) bases its arguments on hidden action. This theory is concerned with voluntary default risks and is also associated with borrower incentives. The theory holds that there can be problems with enforcement of the loan contract. This implies that borrowers may fail to repay their loans even when they have the capacity to do so. The moral hazard model demonstrates the tradeoff between extraction of rents and the provision of incentives to induce a good harvest. According to the theory, higher interest rates are likely to lead to the problem of debt overhang. This theory posits that lenders will desist from raising interest rates beyond a certain level.

The theory also puts into perspective the aspect of collateral and borrower returns. It states that borrowers who have greater wealth to serve as collateral are bound to obtain

cheaper credit or credit at lower interest rates. They also have incentives to work harder, and as such earn more income as a result (Aghion & Bolton, 1997). The theory holds that in the presence of default risk and moral hazard, the interest rate is likely to be closely linked to borrower characteristics such as wealth or capacity to post collateral. It is further pointed out that the poor people cannot credibly refrain from morally hazardous behaviour as effectively as the wealth people (Dasgupta & Ray, 1986).

Interpretatively, the moral hazard theory can enable commercial banks to peg interest rates on loans that borrowers will not voluntarily default in loan repayment. The theory shows how practitioners can give borrowers incentives not to default in loan repayment by servicing their loans according to the stipulated terms and conditions such as the period within which they are supposed to repay the loans advanced to them.

### **Adverse Selection Theory**

The adverse selection theory was proposed by Stiglitz and Weiss (1981). This theory is founded on hidden information. It focuses on involuntary default risks. The theory states that defaults arise involuntarily due to adverse income or wealth shocks that make borrowers unable to service their loans. The theory is premised on two crucial assumptions. First, it assumes that lenders cannot distinguish between borrowers of various degrees of risk, and that loan contracts are subject to limited liability. In other words, if returns of project are less than debt obligations, the borrower is bound to shoulder no responsibility to service the loan out of pocket. Therefore, the theory is restricted to involuntary default. This means, the theory assumes that borrowers repay loans when they have the means to do so.

Interpretatively, in the common event of simple loan contracts between risk-neutral borrowers and lenders, the existence of limited liability of borrowers imparts a preference for risk amongst borrowers and a corresponding risk aversion amongst lenders (Ghosh, Mookherjee & Ray, 1999). This is founded on the assertion that limited liability on the part of borrowers implies that lenders bear greater risk. On the other hand, all returns above the loan repayment obligation accrue to borrowers. In the same breadth, increasing interest rates then influences the profitability of low risk borrowers disproportionately. This can lead to borrowers opting out of loan applicant pool.

Ultimately, there is adverse composition effect. This means that higher interest rates lead to increased average riskiness of the applicant pool. At very high interest rates, the only applicants are borrowers who could likely generate high returns. It is further stated that, given that preferences of lenders over project risk counter those of borrowers, lenders may put interest rates at levels below market clearing and rational borrowers so as to realize a better

composition and risk in their portfolio. It is further asserted that excess demand in the credit market is likely to persist even amid competition and flexible interest rates. The theory is critiqued for its assumption that lenders are not aware of characteristics of borrowers (Ghosh, Mookherjee & Ray, 1999). The theory indicates that limited liability has the potential to increase default risk by minimizing the borrower's effort in avoiding low yield states rather than adversely affecting the composition of the loan.

The theory of adverse selection can be employed to show how commercial banks can address the challenges emanating from both credit risk and interest rates. According to the theory, practitioners in this sector should amass as much information as possible regarding prospective borrowers and their credit history. This would enable them to determine creditworthiness of the prospective borrowers before advancing any loans to them. The adverse selection theory can also inform practitioners on the rate of interest they should attach to credit facilities in order to ensure as many borrowers as possible are able to successfully apply for loans and service those loans.

### **Contingency Theory**

The contingency theory was pioneered by Pennings (1975). The theory holds that contemporary performance measurement focuses on the particular characteristics of a company. It further states that the actual choice of performance measures varies among firms active in different industries and also amongst entities competing within the same industry. The contingency theory is premised on the assertion that there is no universally appropriate performance measurement system applicable to all organizations in all circumstances. In the same perspective, the various types of performance including financial performance, employee performance, and organizational performance, among others are supposed to be measured differently (Otley, 1980).

Given that a performance measurement system is considered part of the management accounting system or at least depends on it to a substantive extent, the contingency approach to performance measurement can be formulated in the same way. Contingency theory attempts to identify specific aspects of a performance measurement system that are associated with circumstances, and also to demonstrate appropriate matching (Rejc, 2004). As such, the contingency theory can be used to explain how financial performance of commercial banks can be measured.

## EMPIRICAL REVIEW

A review of empirical studies on aspects of unsecured loans including interest rates and credit risk and also financial health is carried out in this section.

### Interest Rates

Martin-Oliver et al, (2012) conducted a study on the effects of equity capital on the interest rate and demand for credit on Spanish Banks. The study found that higher equity capital requirements that banks are required to fulfill affects their lending rates. It is noted that higher equity requirements by banks forces banks to lend less or charge higher interest rates on the loans they advance. Indeed, the authors established that raising equity capital ratio by one percent point caused increases in bank lending rates which in turn adversely affected demand for credit.

In another study, Georgievska et al (2011) examined the determinants of lending interest rates and interest rate spreads in Macedonia. It was established that lending rates and interest rate spread in the country were relatively high and therefore limiting access to capital and economic growth. The authors established that the rates were mainly influenced by bank size and market share and to a lesser extent by deposit rate and non-performing loans.

Kibor, Ngahu & Kwasira (2015) conducted a study on the influence of credit risk management on loan performance in Kenyan commercial banks, it is asserted that interest rates charged by credit institutions play a crucial role in sorting out potential borrowers and therefore influencing their actions. Ngure (2014) on the other hand in his study on the nexus between interest rates and financial performance of commercial banks in Kenya, hypothesizes that interest rates influence financial performance of commercial banks. It is noted that interest rates indeed had a significant influence on the performance of commercial banks in Kenya. However, in the study, it was noted that despite high interest rates bringing in higher profitability, such rates may lead to low demand for loans and hence crowd out the increased interest income. Ngure (2014) calls for interest rate stability to mitigate lender exploitation and attract investors.

In Moguche's (2013) study on the determinants of interest rate exposure of commercial banks in Kenya, it is noted that the increase in interest rates on financial instruments in Kenya was ascribed to aggressive contractionary monetary policy adopted by Central Bank in 2011. As such, the lending rate to commercial banks increased which in turn increased short-term interest rates especially the interbank rate. The move by the Central Bank was replicated in commercial banks through increasing their lending and deposit rates. This was noted to affect savings and borrowing especially due to the spread between lending and deposit interest rate. Gatune (2015) while looking into the factors influencing interest rate spread among commercial banks in

Kenya noted that high interest rate spread not only discourages potential savers with low returns on deposits but also increases financing cost for borrowers and therefore limiting access to capital despite increasing profitability for lending institutions. The study ascribes the spread in interest rate to regulated savings deposit rate, reserve requirements, provision of loan losses and market share of loans.

### **Credit Risk**

Arora and Singh (2014) conducted a study on the problems and obstacles in credit risk management in Indian public sector banks. The study aimed at evaluating the credit risk management practices of Indian public sector banks with the goal of finding grey areas that need review and restructuring. In the study, it is noted that credit risk emanates from loans and if not effectively managed can cause non-performing loans, bad debts and eat up banks' profitability margins. Further, poor management of credit risk may also erode capital and lead to bank failure at extreme cases. The authors underlined the essence of managing credit risk in banking institutions to reduce non-performing and increase financial performance. Indeed Faizan and Malik (2015), in their study on credit risk management and loan performance of microfinance banks in Pakistan noted that effective credit risk control, credit terms, client appraisal and collection policy had a positive influence on performance of loans

In another study, Chen and Pan (2012), credit risk efficiency of banking industry in Taiwan, they place into perspective credit risk efficiency in the context of banking industry in Taiwan, they found out that most of the Taiwanese banks under study held large amounts of bad debts, overdue loans and reduced profitability and were credit risk inefficient. Psillaki, Tsolas & Margaritis (2010) in their study on evaluation of credit risk based on firm performance in Europe acknowledged that effective credit risk management not only supports the viability and profitability of banks but also contributes to systemic stability and efficient allocation of capital in the economy.

Afryie and Akotey (2013) embarked on credit risk management and profitability of selected banks in Ghana, the authors claimed that managing credit risk is important not only in the event of financial crisis but also in determining banks survival, growth and profitability. Using the financial statements of ten rural banks from the period of 2006 to 2010, it was established that banks were exposed to high credit risk since they did not have sound credit risk management practices. More so, banks had high non-performing loans but still remained profitable. However, despite profitability being recorded, it was ascertained that where non-performing loans increase proportionately to profitability, banks shift the cost on loan default to other customers inform of higher interest rates on loans. It was recommended that Bank of

Ghana ought to tighten its control mechanisms of rural banks to mitigate increases in interest rate on loans

Magali (2013) examined the impacts of credit risks management on profitability of rural SACCOs in Tanzania. It was noted that 70% of the SACCOs were making losses as a result of poor credit risk management practices. Specifically, the institutions lost an average of Tsh 5 million due to ineffective credit risk mitigation techniques. The performance of the SACCOs was also noted to increase significantly where credit risk was managed effectively. The study recommended that SACCOs should put in place effective credit mitigation techniques, be keen on credit processing, monitoring and follow up and issue loans to credit worth clients.

Mwaurah (2013) sought to examine the determinants of credit risk in commercial banks in Kenya. It was established that commercial banks in Kenya were exposed to credit risk and it was influenced by inflation, interest rates, stock performance and management efficiency. More so, management efficiency reflected a significant influence on credit risk. The study recommended that management of commercial banks and central bank should set credit policies and make projections of credit risk to avoid adverse effects of credit risk on bank and financial industry performance. An earlier study by Musyoki (2013) investigated the impact of credit risk management on financial performance of banks in Kenya. The author noted that credit risk was a fundamental predictor of banks' success. It was concluded that as much as bank performance is affected by other environmental factors, credit risk management is key for Kenyan banks to survive.

### **Financial Health of Commercial Banks**

A study by Gupta (2014) of financial performance of Industrial Credit and Investment Corporation of India (ICICI) was conducted. The findings revealed a healthy solvent position of the bank evidenced by quick ratio. However, it was noted that the bank exhibited ineffective financial management as it held too much liquid assets therefore indicating poor financial health. Liu (2012) looked into Herding behavior in bank lending among commercial banks in the US; he noted that financial health of a bank is a key determinant to herding behavior. That is, when the economic conditions and financial health of banking industry was less favorable, measured by wide credit risk spread, high inflation, banks were noted to herd more.

Dufera (2010) conducted a study on financial performance evaluation in Ethiopia, he suggested that financial health can be assessed through financial performance analysis of company's financial statements. While looking into financial performance evaluation in Awash International Bank in Ethiopia, the author noted that the bank strived to stay financially healthy through increasing its capital base, building its asset size and more so maintaining a healthy loan

portfolio. In Kaaya and Pastory's (2013) carried out a study on credit risk and commercial banks performance in Tanzania, it was noted that the health of a financial sector largely depends on sound banking system. Since the main profitable business of commercial banks is lending, banks should maintain their credit portfolio to increase profitability. Indeed, it was established that credit quality is fundamental for operational performance and financial health of banks. The authors saw the need for lending banks to analyze the financial health and liquidity status of borrowers in order to mitigate risks of default.

Nyamao et al., (2013) examined the theme of liquidity, solvency and financial health of small and medium enterprises in Kenya. The study purposed to carry out a financial diagnosis of the enterprises' financial performance through their liquidity, solvency and profitability positions. It was ascertained that SMEs were very unhealthy and were likely to go to bankruptcy. Specifically, it was noted that 67% of the SMEs surveyed were financially unhealthy. On average, it was discovered that SMEs' financial health lay in the grey financial unhealthy area. This suggested that the enterprises' financial health was poor. The study recommended that SMEs should prioritize liquidity, solvency management and financial stability in their policy framework.

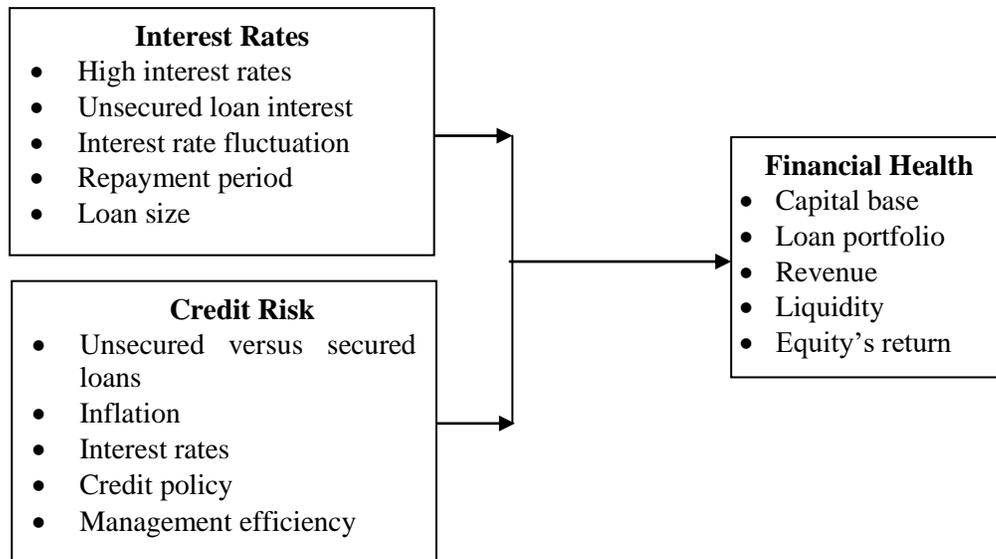
Anjili (2014) conducted a study on the effects of asset and liability management on the financial performance of commercial banks in Kenya; he established that financial performance is generally used to measure a firm's overall financial health over a given period of time. It was noted that capital adequacy, asset quality, management efficiency, liquidity and earnings performance were some of the factors that influence financial performance and hence financial health of the banks. More so, it was ascertained that credit risk was one of the cardinal factors that affect financial health of an individual bank. In Otieno and Moronges' (2014) study on the influence of product diversification on the financial performance of selected commercial banks in Kenya it was noted that financial health of a bank largely depends on loan portfolio. Advanced loans provide interest income earning which is considered as one of the major sources of bank income. As such banks consider loan portfolio as the most valuable asset and therefore need to be managed to keep banks profitable and financially healthy.

### **Conceptual Framework**

A conceptual framework is a model that illustrates how study constructs are believed to relate (Vaughan, 2008). As demonstrated in the framework shown in Figure 1, the conceptual framework has two sets of variables. These include independent and dependent variables. Independent variables include interest rates and credit risk. Financial health of commercial

banks is the dependent variable. The framework hypothesizes that, each of the independent variables separately affects the financial health of commercial banks in Nakuru town, Kenya.

Figure 1: Conceptual Framework



## METHODOLOGY

### Research Design

A research design is the blueprint of conducting a research study (Kothari, 2008). It is the most important part of research because the entire study is founded on the research design. As such, the choice of research design is bound to influence the outcome of the study findings. A cross-sectional survey research design was adopted. This kind of design involves the selection of a subset of population to participate in the study (Olsen & George, 2004). More so, the data were collected from a cross-section of commercial banks in Nakuru town.

### Target Population

The study targeted employees attached to the credit and finance/accounts departments of all commercial banks in Kenya. These employees were believed to have the requisite understanding of unsecured lending and financial performance of their respective banks. Accessible population constituted employees of all the 26 commercial banks with branches in Nakuru town in Kenya. There were a total of 165 and 76 employees attached to the credit and accounts/finance departments respectively at the time the study was conducted. Therefore, the entire accessible population comprised 241 employees.

### Sampling Frame, Sample Size and Sampling Technique

An exhaustive list of all members of the study population comprises the sampling frame. Therefore, in the context of the present study, the 241 credit and accounts/finance employees working with the 26 commercial banks currently operating in Nakuru town constituted the sampling frame.

Essentially as noted by Kothari (2008), a good sample ought to be a representative of the study population. Therefore, it is important to scientifically determine the size of the sample. In this respect, the Nassiuma's (2008) formula was used to calculate the sample size as demonstrated.

$$n = \frac{NC^2}{C^2 + (N-1)e^2}$$

Where,

n = Sample

N = Target Population

C = Coefficient of Variation ( $21\% \leq C \leq 30\%$ )

e = Error rate ( $2\% \leq e \leq 5\%$ )

Substituting the values in the equation:

$$n = \frac{241(0.25)^2}{0.25^2 + (241-1)0.025^2}$$

$$n = 70.88$$

$$n = 71 \text{ respondents}$$

The results of the calculation indicated that the sample size constituted a total of 71 respondents.

Having determined the size of the sample (71 respondents), the next step was selecting these sampled respondents from the accessible population. There were a total of 37 distinct strata reflected by the number of commercial banks' branches in Nakuru town. The uneven distribution of employees in these branches and difference in number of credit and accounts/finance officers working with these banks warranted the adoption of quota sampling which falls under purposeful sampling technique. Purposeful sampling was employed because there was obvious bias in selecting these employees as opposed to all bank employees, and quota due to the uneven distribution of respondents (Kothari, 2008). Quota sampling was necessitated by the fact that the sample had same proportions of individuals as the entire accessible population in regard to known characteristics.

## Research Instrument

The present study adopted a questionnaire to collect data. As argued by Olsen and George (2004) and Mugenda and Mugenda (2009), questionnaires are the most appropriate tools for collecting data in cross-sectional studies like the present study. This instrument is able to facilitate data collection from a large number of respondents who are dispersed and who are also literate enough to understand the questions therein.

## Data Collection Procedure

After validation of the research instrument, the researcher sought formal permit from the Jomo Kenyatta University of Agriculture and Technology and also the management of all commercial banks in Nakuru town. The research questionnaire was issued to the sampled respondents through heads of respective departments of each bank. The filled questionnaires were collected after a period of about three working days.

## Pilot Testing

The research questionnaire was pilot tested in order to determine both its validity and reliability in data collection. The piloting involved about 10% of the sample population which was equivalent to 7 respondents. The participants who were randomly selected from the targeted commercial banks were excluded from the main study.

## Validity Test

The validity of the research questionnaire was determined by use of content analysis through consultation with the assigned university supervisors who were deemed to be experts in research. The supervisors analyzed the content validity of the research questionnaire.

## Reliability Test

Reliability which is a measure of internal consistency (Kimberlin & Winterstein, 2008) was tested using the Cronbach alpha ( $\alpha$ ) coefficient (Table 1). All the study constructs were supposed to return alpha values at least equal to 0.7 for the instrument to meet the reliability threshold.

Table 1: Reliability Test Results

Study Construct	Test Items	Alpha Coefficients
Interest Rates	5	0.771
Credit Risk	5	0.842
Financial Health	5	0.830

As indicated in Table 1, all the five study constructs returned alpha values greater than 0.7. This implied that the variables and the entire research questionnaire were found to be reliable.

### **Data Processing and Analysis**

The collected questionnaires were grouped accordingly and then perused to ensure they had been filled according to instructions. The data collected were then coded into the Statistical Package for Social Sciences (SPSS) version 24 software. The same tool was used to carry out data analysis which captured both descriptive and inferential statistics. Descriptive statistics included means and standard deviations, while correlation and multiple regression analyses represented inferential statistics. The study findings were presented in form of tables. The following multiple regression model was adopted.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

Where:

Y represents Financial Health

B<sub>0</sub> represents Constant

X<sub>1</sub> represents Interest Rates

X<sub>2</sub> represents Credit Risk

E represents Error Term

β<sub>1</sub>, β<sub>2</sub> represent Régression coefficients of Independent variables

## **FINDINGS AND DISCUSSIONS**

### **Response Rate**

Response rate is also referred to as the questionnaire return rate. According to Nulty (2008), this is the proportion of the number of questionnaires that are returned having been completely and appropriately filled in relation to the number of questionnaires initially issued to the respondents. Fifty-six questionnaires out of the 71 issued were returned. This represented 78.9% response rate which according to Nulty (2008) was acceptable.

### **Descriptive Findings and Discussions**

The study framed statements and questions in a bid to determine the respondents' views in respect to interest rates, credit risk and financial health of commercial banks. The statements and questions were in Likert form where respondents were required to register their level of agreement or disagreement with the statements provided. This section presents the descriptive findings of the aforementioned study constructs.

### **Interest Rates**

The respondents provided their views concerning interest rates in commercial banks and in respect to unsecured loans. Table 2 evidences the results.

Table 2: Descriptive Statistics for Interest Rates

	<b>n</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>Std. Dev</b>
Banks charge relatively high interest rates on loans	56	1	5	4.11	.731
Unsecured loans are charged higher interest rates than secured loans	56	1	5	3.64	1.432
Interest rates keep on fluctuating	56	1	5	3.68	1.295
Long-term loans attract higher interest rates than short-term loans	56	1	5	3.21	1.187
Large loans attract higher interest rates than small loans	56	1	5	2.61	1.123

It was found that respondents agreed (mean = 4.11; std dev = 0.731) that banks charged relatively high interest rates on loans. It was also agreed (mean = 3.64; std dev = 1.432) that unsecured loans attracted higher interest rates than secured loans. Moreover, respondents admitted (mean = 3.68; std dev = 1.295) that interest rates kept on fluctuating. Respondents were indecisive regarding the view that long-term loans attracted higher interest rates than short-term loans and that large loans attracted higher interest rates than small loans (mean  $\approx$  3.00; std dev >1.000).

### **Credit Risk**

The respondents' views on credit risk were sought and analyzed and are presented in Table 3.

Table 3: Descriptive Statistics for Credit Risk

	<b>N</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>Std. Dev</b>
Unsecured loans are more risky than secured loans	56	1	5	4.50	.831
Inflation affects credit risk	56	2	5	4.29	.756
Interest rates influences credit risk	56	1	5	3.96	.953
Banks have a credit policy on unsecured loan facilities	56	2	5	4.07	.710
Management efficiency is crucial in addressing credit risk	56	1	5	4.21	.986

The findings shown in Table 3 illustrate that respondents strongly admitted (mean = 4.50; std dev = 0.831) that unsecured loans are riskier than secured loans. It was further admitted (mean  $\approx$  4.00; std dev < 1.000) that inflation affects credit risk and that interest rates influences credit risk. Respondents also agreed (mean = 4.07; std dev = 0.710) that banks had a credit policy on

unsecured loan facilities. In addition, it was concurred (mean = 4.21; std dev = 0.986) that management efficiency was crucial in addressing credit risk.

### **Financial Health of Commercial Banks**

Descriptive findings in regard to financial health of commercial banks are outlined in Table 4.

Table 4: Descriptive Statistics for Financial Health

	n	Min	Max	Mean	Std. Dev
Commercial banks have a huge capital base	56	1	5	3.96	.990
Commercial banks' loan portfolio is significantly large	56	1	5	4.18	.936
Commercial banks have been recording increased revenue over the years	56	1	5	3.93	.892
Commercial banks are highly liquid	56	1	5	3.32	1.011
Commercial banks record high return on equity	56	1	5	3.64	1.119

The study found that commercial banks have huge capital base and that their loan portfolio is significantly high (mean  $\approx$  4.00; std dev < 1.000). Furthermore, respondents admitted (mean = 3.93; std dev = 0.892) that commercial banks have been recording increased revenue over the years. It was also agreed (mean = 3.64; std dev = 1.119) that commercial banks recorded high return on equity. Respondents were however indecisive (mean = 3.32; std dev = 1.011) of the view that commercial banks are liquid.

### **Inferential Findings and Interpretations**

The study, using Pearson correlation analysis examined the relationship between the unsecured loan (interest rates and credit risk) and financial health of commercial banks in Nakuru town. Moreover, multiple regression analysis was employed to determine the extent to which unsecured loans influenced financial health.

### **Relationship between Interest Rates and Financial Health**

The study determined the relationship between interest rates and financial health in commercial banks in Nakuru town. The pertinent correlation results are as shown in Table 5.

Table 5: Relationship between Interest Rates and Financial Health

Interest Rates	Financial Health
Pearson Correlation	-.541**
Sig. (2-tailed)	.000
N	56

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The findings established that a negative strong and statistically significant relationship ( $r = -0.541$ ;  $p < 0.05$ ) existed between interest rates and financial health. This meant that interest rate adversely affected financial health of commercial banks. The findings were in agreement with a study by Ngure (2014) on that interest rates influence financial performance of commercial banks. Ngure's study had revealed that interest rates influence financial performance of commercial banks. The present study further concurred with Ngure's findings that despite high interest rates bringing in higher profitability, such rates may lead to low demand for loans and hence crowd out the increased interest income. In the event interest rates were increased, the financial health of commercial banks was bound to be compromised. Since most of the commercial banks' income emanate from interest accrued on loans, an increase in lending interest rate implied that it would be beneficial to the banks in the short run, but in the long run profitability would be negated as borrowers would likely default on loans or desist from taking loans altogether, a scenario that would definitely affect profitability and financial health of the banks. Potential borrowers would be locked out from procuring credit as a result of high cost of credit and interest rates and, therefore, the banks losing on interest income.

### ***Relationship between Credit Risk and Financial Health***

The relationship between credit risk and financial health was determined. Table 6 illustrates the relevant findings.

Table 6: Relationship between Credit Risk and Financial Health

		<b>Financial Health</b>
<b>Credit Risk</b>	Pearson Correlation	-.792**
	Sig. (2-tailed)	.000
	n	56

\*\* . Correlation is significant at the 0.01 level (2-tailed).

The relationship between credit risk and financial health of commercial banks was found to be negative strong and statistically significant at 0.01 significant level ( $r = -0.792$ ;  $p < 0.05$ ). This meant that credit risk greatly and negatively affected financial health of the surveyed commercial banks. As the credit risk increased, the financial health of the banks decreased and the reverse was true. Credit risk encompasses the risk that the borrower will not honor interest and principal obligations within the stipulated time and an increase in this risk ensures that the bank will not recover the principal borrowed and the interest. Credit risk, therefore, erodes bank profitability margin, increases bad debts and non-performing loans and thus loses on revenue

and subsequent capacity to extend further loans. These negate financial health of commercial banks. The results of the present study reinforce the findings of a study by Arora and Singh (2014) on the problems and obstacles in credit risk management in Indian public sector banks. The study indicated that credit risk emanates from loans and if not effectively managed can cause non-performing loans, bad debts and eat up banks' profitability margins.

### ***Influence of Unsecured Loans on Financial Health of Commercial Banks***

The general objective of the study was to determine the effect of unsecured loans on financial health of commercial banks in Nakuru town. This was achieved by regressing the aforesaid (interest rate, credit risk, loan amount and loan repayment period) against financial health. Table 7 outlines the results of general correlation and coefficient of determination ( $r^2$ ).

Table 7: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	-.820 <sup>a</sup>	.672	.647	.46412

a. Predictors: (Constant), Interest Rate, Credit Risk

As indicated in the model summary Table 7, the interest rates, and credit risk negatively and strongly enhanced financial health of commercial banks in Nakuru town ( $R = -0.820$ ). Indeed, the two factors under study contributed to 67.2% of the financial health of the commercial banks ( $r^2 = 0.672$ ). This further meant that 32.8% of financial health was as a result of other factors other than those investigated in the current study. Such factors could be governance of the commercial banks, prevailing economic conditions, default risk, inflation among others.

Table 8: ANOVA<sup>b</sup>

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	22.531	4	5.633	26.150	.000 <sup>a</sup>
Residual	10.986	51	.215		
Total	33.517	55			

a. Predictors: (Constant), Interest Rate, Credit Risk

b. Dependent Variable: Financial Health

The analysis of variance (Table 8) shows the significance of the relationship between unsecured loans (interest rate and credit risk) and financial health of commercial banks. It was ascertained that the association between the unsecured loans and financial health was significant as depicted by F calculated ( $F = 26.150$ ;  $p < 0.05$ ).

Table 9: Coefficients<sup>a</sup>

	Model	Unstandardized Coefficients		Standardized Coefficients	T	p-value
		B	Std. Error	Beta		
1	(Constant)	-.199	.405		.492	.625
	Interest Rates	-.032	.118	-.030	-.274	.785
	Credit Risk	-.744	.145	.661	-5.12	.000

a. Dependent Variable: Financial Health

The results of multiple regression analysis shown in Table 9 followed the following regression model.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \varepsilon$$

$$Y = -0.199 - 0.032X_1 - 0.744X_2$$

According to the regression coefficient results (Table 9) interest rate and credit risk influenced financial health of commercial banks at different degrees. The findings indicated that a unit increase in financial health of commercial banks could be attributed to -0.199 unit and -0.032 unit changes in interest rates and credit risk respectively while holding -0.199 (representing other factors) constant. The influence of interest risk on financial health of surveyed commercial banks was negative and not significant ( $t = -0.274$ ;  $p > 0.05$ ). This implied that the first null hypothesis failed to be rejected. However, the influence of credit risk on financial health of the banks was significant ( $t = -5.121$ ;  $p < 0.05$ ). As such, the second null hypothesis was rejected. Therefore, credit risk was crucially important in determining financial health of the banks. Commercial banks should, therefore, manage their credit risk in order to realize enhanced loan performance which is crucial in achieving sound financial health.

## SUMMARY

The study indicated that banks charged relatively high interest rates on loans and that unsecured loans were charged higher interest rates than secured loans. It was further admitted that interest rates kept on fluctuating. The views that long-term loans attracted higher interest rates than short-term loans and, that large loans attracted higher interest rates than small loans were inconclusive. The relationship between interest rate and financial health of commercial banks was negative, strong which implied increasing of the rates was bound to lower the financial health of the aforesaid banks.

The study respondents believed that unsecured loans are more risky than secured loans and that inflation and interest rates influenced credit risk. Respondents also agreed that banks had a credit policy on unsecured loan facilities. It was further noted that management efficiency

was crucial in addressing credit risk. The findings further illustrated that there existed a negative, strong and significant relationship between credit risk and financial health of commercial banks. Interpretatively, commercial banks with high credit risk were more vulnerable to financial ill-health as opposed to their rivals with lower credit risk.

The study ascertained that commercial banks have huge capital base and their loan portfolio is significantly high. Further, it was determined that commercial banks have been recording increased revenue over the years and recorded high return on equity. The view that commercial banks are liquid was inconclusive. The regression results illustrated that interest rates, credit risk, loan amount and loan repayment period positively enhanced financial health of commercial banks in Nakuru town. The factors investigated contributed to 64.7% of the financial health of the commercial banks. Moreover, the analysis of variance indicated that the association between the four independent variables and financial health was positive and significant. Further analysis depicted that the influence of interest risk and loan amount on financial health of the banks was not significant. In addition, the influence of loan repayment period on financial health was not significant. However, credit risk which significantly influenced financial health of the banks was significant. Credit risk was noted to be crucial in determining financial health of the banks.

## CONCLUSIONS

The interest rate charged on loans determines the profitability of the lending institutions and hence the financial health. The study inferred that commercial banks charged a higher interest rate on unsecured loans than on secured loans perhaps to cover for the increased risk. Rising interest rates can be argued to increase financial health of the banks but only in the short term. In the long run, borrowers and potential borrowers may walk out owing to increasing loan servicing cost and access to credit respectively. The study therefore concluded that interest rate was crucial in determining financial health of a commercial bank.

It is acknowledged that poor management of credit risk can bring a financial institution to its knees. Poor client profiling in respect to credit risk can result in advancing loans to borrowers who may default in all or part of the credit. As such, the financial institution loses income which is detrimental to its financial performance and overall financial health. The study noted that bank unsecured loans were more risky than the secured loans and was affected by the inflation rate and interest rate. However, it was established that the banks had a credit policy on unsecured loan facilities. The study concluded that credit risk was the most crucial factor in determining the financial health of commercial banks in Nakuru town. Hence, it becomes imperative for commercial banks to properly management credit risk in order to enhance their financial health.

## RECOMMENDATIONS

The study recommends that commercial banks should price their loans by setting lending interest rate high enough to cover for costs and earn profits and low enough for the borrower to afford. This will deter borrowers from seeking alternatives of accessing credit. In addition, it is recommended that commercial banks should properly manage credit risk. Credit risk has been established to largely determine financial health of the bank and therefore borrowers and potential borrowers should be screened based on their credit history in order to filter out potential defaulters. As such, credit risk and default risk would be minimized. Over and above that, commercial banks should come up with a comprehensive credit policy on unsecured loans, that stipulates how such credit should be extended and more so recovered in case of default.

## LIMITATIONS

The study was confronted by a few limitations. Accessibility of some respondents was quite a challenge given that commercial banks are ordinarily busy on a daily basis. To counter this challenge, the researcher allowed respondents ample time to fill in questionnaires. In addition, some respondents were unwilling to participate in the study for fear of victimization by their seniors. In regard to this, the respondents were assured that the data collected was to remain confidential and exclusively for academic purposes. More so, they were advised to neither indicate their names nor their banks' names on the research questionnaire.

## SUGGESTIONS FOR FURTHER STUDIES

The study suggests various themes that should be investigated in Kenya. It is suggested that an investigation on the effect borrower character has on loan repayment performance in commercial banks should be conducted. In addition a study on secured loans and financial health should be carried out and the effect of secured loan terms on financial health of commercial banks determined. Further, it is suggested that a study on the role of asset quality on financial health of commercial banks be carried out.

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