



The Strategic
JOURNAL *of* **Business & Change**
MANAGEMENT

ISSN 2312-9492 (Online), ISSN 2414-8970 (Print)



www.strategicjournals.com

Volume 10, Issue 3, Article 044

CREDIT RISK MANAGEMENT AND FINANCIAL PERFORMANCE OF COMMERCIAL BANKS IN KENYA

Essery Ngati Imbuye & Dr. Julius Miroga, PhD

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^{1*} Imbuye, E. N., & ² Miroga, J.

^{1*} Post Graduate Candidate, Jomo Kenyatta University of Science and Technology, Kenya

² Lecturer, Jomo Kenyatta University of Science and Technology, Kenya

Accepted: September 10, 2023

DOI: <http://dx.doi.org/10.61426/sjbcv10i3.2728>

ABSTRACT

This study assessed the effect of credit risk management on financial performance of commercial banks in Kenya. The study adopted a descriptive survey design. The study targeted a population of 200 employees within 43 commercial banks legally operating in Kenya as per the 2018 to 2022 annual reports by the CBK. However, the study specifically focused on 5 commercial banks with a specific target population of 108 employees in all the banks. The five specific banks were selected owing to their vast fame and long existence in the financial market and huge customer base. Questionnaires were the main data collection instruments and were used to source for the data. Internal consistency checks of data were performed using Cronbach's alpha to check for the reliability of data. The reliability of the data was arrived at by using cronbach's alpha. Financial performance on commercial banks was assessed in terms of return on assets. Data analysis was done using both quantitative and qualitative methods. The data collected was edited, coded and then analyzed using descriptive statistics and inferential analysis. The inferential analysis performed included correlation and regression analysis. The study results showed that credit risk management has an inverse and significant impact on the performance of these commercial banks. The study concluded that banks had managed their liquidity and that bank earnings were positively influenced by higher interest rates. However, their performance was negatively influenced by high credit risk management arising from nonperforming loans and foreign currency exchange. This study recommended that commercial banks should have a proper methodology for the measurement, identification, and control of credit risk management. It is important that all banking ventures have a comprehensive risk mitigation process embedded within their operations and that this is subjected to appropriate board and upper management oversight. Commercial banks should also know the credit risk appetite of its key stakeholders such as directors and gauge appropriate responses to them. This study also recommended that all banks should explore more methods to enhance credit risk management capacities.

Key words: Credit Risk Management, Financial Risk Management, Financial Performance

CITATION: Imbuye, E. N., & Miroga, J. (2023). Credit risk management and financial performance of commercial banks in Kenya. *The Strategic Journal of Business & Change Management*, 10 (3), 597 – 607. <http://dx.doi.org/10.61426/sjbcv10i3.2728>

INTRODUCTION

Commercial Banks are the biggest contributors of economic growth globally (Cavusgilet *al.*, 2014, p136). They play a vital role in any country's economic development by amassing savings from individuals and organizations with idle funds and channel these savings into investments in commercial ventures. Commercial banks furnish entrepreneurs with capital needed to start their businesses, government with direct loans. They also hand out managerial advice to small-scale business persons and facilitate payment services to its clients. In doing so, commercial banks serve both surplus and deficit entities by channeling a variety of services to their clients. Thus, the economic wellbeing of any country is determined by the activities of the commercial banks. Historically, we can find cases where the activities of commercial banks had a direct effect on the economies. One such example is the Global Financial Crisis of 2007/08.

The Global Financial crisis affected banking systems worldwide. Many markets reported fall in growth of Bank credit. As a result, the Return on Assets (ROA) of Banks (indicator of Banking system's profitability and soundness) showed a lot of volatility during the period, at first dipping and thereafter improving by the year 2010 on account of recovery post crisis. In 2016, the global commercial bank performance measured in terms of ROA showed that the average in Germany 0.3, France was 0.4; United Kingdom 0.4, Italy, and Japan both had 0.7, while Greece had 1.0, and the United States 1.2. Under emerging economies, financial performance measured as ROA was 0.9 in China and India, 1.5 in Malaysia, 3 in Russia, and 3.4 in Brazil (Shukla, 2016, p16).

Grace, (2012) performed a descriptive research on how the management of credit risk influenced the financial performance of commercial banks in the country. Data from 43 commercial banks and annual reports for the year 2007 to 2011 were analyzed and multiple regression analysis performed on the 26 commercial banks. She concluded that there was a significant relationship

between financial performance and credit risk management. It also claimed that both non-performing loans ratio (NPLR) and capital adequacy ratio (CAR) were inversely correlated and relatively statistically significant on equity. The researcher's jurisdiction of study was commercial banks in Kenya and credit risk management, a component of financial risk management. The researcher limited her area of study to the Nairobi Security exchange.

Ara, Bakaeva and Sun (2009) studied how credit risk management influenced the profitability of commercial banks of Sweden. The purpose of the study was to describe the impact level of credit risk management on profitability of four commercial banks in Sweden. Secondary data was collected from the banks' annual reports and analyzed using SPSS. The findings revealed that credit risk management has any effect on profitability in all the four banks. Moreover, the results showed that Base II application strengthened the negative impact of NPLR on ROE.

In 2015, Rodean studied the financial performance of commercial banks listed and traded on Bucharest stock exchange. The major objective of the study was to perform a factor analysis on financial profitability made by three of the biggest banks using the Du Pont. The study showed the importance of reducing capital costs and maintaining a fixed advantage ratio on the financial performance of the banks. He argued that the decrease in profitability rate determined the downward trend registered by the return on equity. The study described the association between leverage and financial performance while excluding other risks that can affect financial performance. The study left a research gap that was filled by this research, which arrived at the conclusion that not only does the source of capital affect the financial performance but also so do the financial risk management practices applied.

Statement of the Problem

Financial risks have led to the decline in the performance of commercial banks in Kenya. In 2015, the financial sector's assets as a share of

nominal GDP was 83.27 percent, by 2019 it was at 76.09 percent. Market Capitalization for all listed and actively trading equities at the Nairobi Securities Exchange (NSE) also decreased from 42.61 per cent at the end December 2014, to 26.24 at the end of December 2019, reflecting a decline in shareholders' wealth due to fall in share prices.

In addition, there has been a sharp rise in non-performing loans and bad debts in commercial banks and more so, credit risk management has not been well managed culminating to fluctuating performance of commercial banks. This has not only affected commercial banks but also other financial institutions in Kenya making managers of commercial banks to liaise with the credit reference bureau before lending loans. The ratio of gross non-performing loans to gross loans more than doubled from 5.0 percent in December 2015 to 12.5 percent in December 2019. The outstanding value of non-performing mortgages increased from Ksh.22.0 Billion in December 2015 to Ksh.27.3 billion in December 2019. As a result, credit risk increased. The slowdown in economic activity affected debt servicing across the sectors, as well as overall asset quality in the banking sector.

A number of research studies in Kenya have attempted to address the issues of Credit Risk Management with little success. They have addressed the different components of credit risk management individually but the end results yielded little for decision making. Kithinji (2010), Kargi (2011) and Fredrick (2012) studied credit risk management while Abid and Mseddi (2004), Wachiaya (2011), Nimalathasanet *al.*, (2012), and Gatsi et al., (2013), did research on market risk. Akhtar (2011), Ogol (2011), and Said (2014) studied liquidity risk. By tackling, these risks individually these studies fail to see the bigger picture, that is, how Credit Risk Management strategies influence the financial performance of commercial banks. It was important therefore to study how banks were managing the broader Credit Risk Management.

Study objective

To determine the effect of credit risk management

on financial performance of commercial banks in Kenya

Research Hypothesis

H₀₂: Credit risk management does not significantly influence financial performance of commercial banks in Kenya.

LITERATURE REVIEW

Theoretical Review

Agency Theory

This theory was advanced by Jensen and Meckling in 1976. It offers a set of propositions in managing present day corporations uniquely characterized by "their large number of shareholders or owners who allow particular individuals to control and channel the use of their collective capital for future gains" (Percy, 2013). This theory is involved in diminishing the agency problem thereby capitalizing on improved value maximization. It provides a direct link between corporate governance and financial performance. Meckling (1976) on agency theory, argue that a firm is made of binding contracts between the owners of factors of productions and agents. Information asymmetry is the most common problem between the principal and the agent. The theory states that in order to balance the demands of the involved groups (owners/shareholders and management) information flow between them must be enhanced.

This theory is relevant to the study as it implies that when the demands of the owner are made agency costs are minimized. Agency costs can maroon a firm's financial status and lead to liquidity risks, which may undermine the normal operations of the bank for case. The theory gives importance to the decision-making power of upper level management in providing banking institutions and their employees with the best financing strategies and optimally utilization of resources owned by the organization to reduce the bad effects of liquidity risks.

Stakeholder Theory (Freeman 1984)

This theory was founded by Freeman in (1984) as a

managerial instrument that addressed morals and values in managing an organization. It argued that there were other groups/ stakeholders involved in the day-to-day running of the activities of any organization. These include (but are not limited to) financiers, customers, employees, suppliers and government bodies that have interests in the organization. Stakeholder theory identifies the groups of interest who are affected when the financial risks either have positive or negative value on the financial standing of the company.

According to Hill and Jones (1992), stakeholders refer to groups of constituents who have a legitimate claim on the firm when under liquidation, this could be creditors, or financiers hence this theory is linked to resource based view of strategic management theory. This means that the financial risks can affect all the stakeholders who are legitimate claimants of the organization's revenue.

Other scholars have often described how employees of the firm can influence the level of debt financing and credit ratings on any firm depending on how they are managed. The employees who have the right skills can be able to increase the financial performance of the firm based on the way they manage the resources (Zingales, 2000, 1633). Loan managers for example apply different methods when offering loans to clients to avoid non-performing loans.

How companies and employees relate can affect bondholders and create financial risks. Skilled and satisfied credit officers will execute credit techniques with a lot more accuracy and reduce credit risk management substantially than unskilled and unsatisfied credit officers. Companies with good and competitive hiring practices are more often than not able to enhance the capacity of the firm to generate higher and stable cash flows, which thereby boost the financial performance of the firm.

According to Klimczak, (2005) corporate risk management practices lead to decreased expected costs, and high company value. Therefore,

stakeholders provide new insights into possible rationale for risk management. Commercial banks can mitigate the possibility of financial distress by hedging variability in earning through finding how financial risks are related to financial performance of the firm.

For example, while shareholders generally define value in financial terms, others stakeholders may seek benefits such as the satisfaction of pioneering a particular breakthrough, supporting a particular kind of corporate practice in which the founder is also the overall operator and executes his/her mandate in a particular way. It means stakeholders have non-equity stakes which requires management to develop and maintain all stakeholder relationships, and not of just shareholders. This suggests the need for reviewing performance evaluations of old measures of per share value and company profits by also factoring in the metrics of different stakeholder groups who have non-equity stakes. This said, many firms show a lot of initiative to improve shareholder value while also taking into account the interest of the other stakeholders.

Enterprise Risk Management Theory

An organization can perform risk management in two different ways, i.e. by (I) managing the risk separately, or (II) by managing all the risks together. Managing of risks together is referred to as enterprise risk management (ERM). Enterprise Risk Management (ERM) employs consistent and systematically proven approaches in the management of various risks a company is exposed to (Tseng, 2007, p10). Gordon et al. (2009) explains ERM as the way an organization's risk exposure is managed in the face of uncertainty with particular emphasis on identifying the events that could be preventing the organization from reaching its goals and mitigating the risk. ERM is applicable in all management levels of the firm.

The Committee of Sponsoring Organizations (COSO) (2004) describes ERM as a way, that the management, board of directors and other staff in the organization effects. ERM identifies potential

events that may hit the organization, are applied across the enterprise in strategy setting and management of risk within the risk appetite. It also provides a reasonable assurance towards the entity objective achievements. ERM looks at various methods that an organization's risk manager concentrates on intellectual assets, people, brand values, skills, business expertise, the regulatory environment, principle source of profit stream (Searle, 2008, p22). This helps an institution to balance business pressures like delivering success to stakeholders and manage risks to sustain the business. ERM constantly monitors the risk exposure and is positioned to change strategy by ensuring risk is at manageable level. The theory is applicable to the study as it describes the steps by which financial risks are managed.

International Fisher Effect Theory (Irving Fisher 1930)

This theory was developed by Irving Fisher in his journal *The Theory of Interest* (1930) described the relationship between the inflation rate and nominal interest rate. It proposed that the inflation rate is explained by nominal interest rate after a long time hence real interest rate is a setback in the end if not affected by inflation expectations. The emphasis of this theory in the banking sector is due to

differences in the supply and demand of currencies that involves changes in price, thus its exchange rate. Commercial banks are prone to the effects of foreign exchange rate risks because of: investments, their roles in international commerce, arbitrage, and analyst speculation (Gonzales, 2000, p1024).

Kozikowski, (2000) explains that the currencies exchange rates show deficits of the interest rates with regard to risk free instruments of various currency alternatives. Countries whose currencies are faced by the challenge of high interest rates in the markets should appreciate with time.

Madura, 2010 contents that foreign currencies bearing high interest rates usually depreciates due to high nominal interest rate due to prospect of high rate of inflation. Many industries always use commercial banks as a platform to fix future rates in forward contracts so as not to suffer from foreign exchange loss, this has made banks to engage foreign exchange trade and gain spread as gains. The theory is applicable to the study by explaining the relationship existing inflation rate and nominal interest rate and how they existing inflation rate and nominal interest rate influence financial performance of commercial banks.

Conceptual Framework

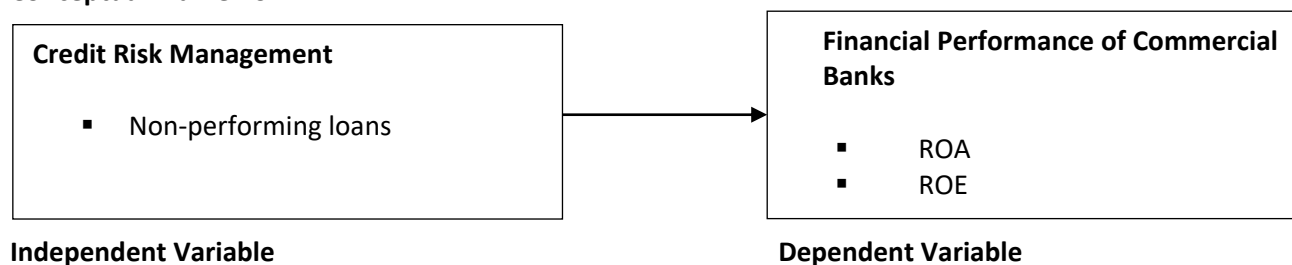


Figure 1: Conceptual Framework

Review of the Variables

Credit Risk Management and Financial Performance of Commercial Banks

Grace, (2012) performed a descriptive research on how the management of credit risk influenced the financial performance of commercial banks in the country. Data from 43 commercial banks and

annual reports for the year 2007 to 2011 were analyzed and multiple regression analysis performed on the 26 commercial banks. She concluded that there was a significant relationship between financial performance and credit risk management. It also claimed that both non-performing loans ratio (NPLR) and capital adequacy ratio (CAR) were inversely correlated and relatively

statistically significant on equity. The researcher's jurisdiction of study was commercial banks in Kenya and credit risk management, a component of financial risk management. The researcher limited her area of study to the Nairobi Security exchange.

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Financial Performance of Commercial Banks in Kenya

In 2015, Rodean studied the financial performance of commercial banks listed and traded on Bucharest stock exchange. The major objective of the study was to perform a factor analysis on financial profitability made by three of the biggest banks using the Du Pont. The study showed the importance of reducing capital costs and maintaining a fixed advantage ratio on the financial performance of the banks. He argued that the decrease in profitability rate determined the downward trend registered by the return on equity. The study described the association between leverage and financial performance while excluding other risks that can affect financial performance. The study left a research gap that was filled by this research, which arrived at the conclusion that not only does the source of capital affect the financial performance but also so do the financial risk management practices applied.

METHODOLOGY

The study applied Descriptive Survey Research Design due its characteristics of taking circumstances the way it is without alteration. In this study, the target population was 200

employees within 43 commercial banks legally operating in Kenya as per the 2018 to 2022 annual report by the CBK. However, the study specifically focused on 5 commercial banks with a specific target population of 108 employees in all the banks. The five specific banks were selected owing to their vast fame and long existence in the financial market and huge customer base. Therefore, they were in a better position to give reliable information on the effects of financial risk on the performance of commercial banks in Kenya. The study employed typical case purposive sampling technique in selecting the 5 out of 42 commercial banks that were of interest to the study. The 5 commercial Banks were active in Kenya between 2018 and 2022 and regulated by the CBK. Purposive sampling was adopted since it allowed the researcher to analyze financial risk phenomena in a time and cost-effective manner. This study also employed stratified random sampling technique in selecting the 84 out of 108 employees that worked in the 5 commercial banks that were of interest to the study. They were analyzed to describe their perceptions on financial risks, enterprise risk management, and its effect on their institutions. Stratified random sampling was adopted since the target population involved individuals of different cohorts. In this study the target, population of interest was composed of various carders namely; top level management and other staff.

The study majorly used questionnaires to collect data from respondents. The structured (closed-ended) and unstructured (open-ended) questionnaires were used to get uniform responses from respondents. Notably, the structured questionnaires were accompanied by a list of all possible alternatives from which respondents selected the suitable answer that described their situation by simply ticking Mugenda and Mugenda (2003).

The objective of piloting was to detect any ambiguities in the questions, identifying problems in research methodology and data gathering techniques. Pick and drop method was used to

administer the questionnaires to 11 respondents. These respondents did not take part in the study, their responses were used to evaluate the survey questionnaire for flow of questions, accuracy clarity, and readability and understand ability of the research instruments to be used in this study. The reliability of the instruments was established using the Cronbach Alpha Coefficient tests. The Cronbach Alpha Coefficients for the questionnaires of employees was ($\alpha = 0.827$; $df= 10$), indicating high level of reliability.

The collected data is processed and analysed using statistical package for social sciences (SPSS). The findings of the study were presented using charts and tables. Descriptive statistics was used to summarize data to enable meaningful interpretation and description. Descriptive statistical analysis limits generalization to the particular group of individuals observed. The descriptive analysis was used in this study are: percentages, frequency, means, overall mean and standard deviation.

In addition, inferential analyses including Pearson correlation and multiple linear regression analysis were used. Inferential statistics was used in the study to enable the researcher to reach conclusions about the relationship between the variables. Drawing conclusions about populations based on observations of samples is the purpose of inferential analysis. The results from inferential statistics were used to test null hypotheses at significance level of 0.05 (95.0% confidence level) with aid of SPSS version 21. This study employed regression analysis to examine concurrent influence of Credit Risk Management on Financial Performance as follow:

$$Y = \beta_0 + \beta_1 X_1 + \epsilon$$

Where:-

Y = Financial Performance

β_0 = Constant

β_1 = Regression Coefficients of Credit Risk Management influencing Financial Performance

X_1 = Credit Risk Management

ϵ = Error Term

FINDINGS AND DISCUSSION

Response Rate

This study's response rate was 100% from the data collected from questionnaires administered. All annual reports and secondary data needed were also collected. This was attributed to the data collection methods employed in either case. A response rate that is above 70% is generally considered as very good, a 60% response rate is good while a 50% response rate is considered adequate (Mugenda & Mugenda, 2003; Bailey, 2000).

Descriptive Statistics of the Variable in the Study;

Credit risk management

This study sought to find out how the organizations the employees worked for handled credit risk management. Table 1 presented the results of the study. As we can see, 5.9% of respondents strongly agreed that their organization had clearly documented credit rules compared to 40.47% of respondents who agreed that their organization had properly documented credit rules while 9.5% strongly disagreed. 69 % of respondents strongly agreed that their organization verified collateral while only 2.3% disagreed. The rest of the votes were split between agreed 16.7%, 5.9% neutral and 4.7% disagreed.

Table 1: Credit Risk Management

	SD	D	N	A	SA
In my organization their exist proper documented credit rules	9.5	11.9	33.33	40.47	5.9
In my organization every collateral to be used is verified by committee before dispatch of loan money	2.3	4.7	5.9	16.7	69
My organization always ensures that all collaterals used to secure a loan is always insured	21.42	23.81	10.71	17.85	26.19
My organization follows up with customers Credits given to them e.g Normal Loan, Salary Advances, Mobi Loans	8.33	13.09	3.57	34.52	40.47
The Bank has in place a Quantitative support system that helps asses customers Credit report	20.23	17.85	7.14	20.23	34.52
My organization regularly confirms guarantors intention to guarantee their financing with a signed document	23.81	10.71	8.03	40.47	16.67

Inferential statistics

In this section, the study infers the sample findings to the study population through correlation

analysis, linear regression analysis and the findings are as shown below.

Table 2: Correlations

		Financial Performance
Credit risk management	Pearson Correlation	-0.1566*
	Sig. (2-tailed)	
	N	108

The results revealed that there was an inverse but statistically significant relationship between ROA and credit risk ($r=-0.1566$, $p<0.05$). This implies that credit risk move in opposite direction with financial performance of commercial banks measured in terms of ROA. The results also agree with Ara, Bakaeva and Sun (2009) who studied credit risk management and profitability in commercial banks of Sweden and revealed that credit risk

management has an effect on profitability in all the four banks.

Analysis of linear regressions;**Linear influence of Credit Risk Management on Financial Performance**

This tested the direct influence of Credit Risk Management on Financial. The results were shown in table 3.

Table 3: Direct influence of credit risk management on financial performance

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics F	df1	df2	Sig. F Change
1	.740 ^a	.548	.540	.0266786	.544	73.288	1	107	.000
a. Predictors: (Constant), credit risk management									
ANOVA ^a									
		Sum of Squares	Df	Mean Square	F				Sig.
1	Regression	0.209	4	0.052	73.288				.000
	Residual	0.172	242	0.001					
a. Dependent Variable: Financial Performance									
b. Predictors: (Constant), Credit Risk Management									
Coefficients ^a									
Model		Unstandardized Coefficients		Standardized Coefficients		Sig.			
		B	Std. Error	Beta					
1	(Constant)	.001	.806						
	Credit Risk Management	-0.014	.007	-2.052	0	.000			
a. Dependent Variable: Financial Performance									

From table 3, the model summary shows $R^2 = 0.548$ which implies that 54.8% variation in financial performance of the financial institutions is explained by the credit risk management while other factors not in the study model accounts for 45.2% variation in the financial management. This variation is significant as indicated by F statistic of 73.288, $P=0.000$ an indication that Credit Risk Management is a significant predictor of Financial Performance. Further, coefficient analysis indicates that there is a positive significant linear influence of credit risk management on financial performance; ($\beta = -0.014(0.007)$); at $p < .01$ and the linear regression model equation is;

$$y = -0.001 + 0.014X_1$$

Where;

Y is financial performance

X_1 is credit risk management

Hypothesis testing for Credit Risk

The hypothesis was performed using multiple linear regressions. The rejection and acceptance criterion was when p value is 0.05 or greater, the H_{01} is accepted, but if it's less than 0.05, the H_{02} is rejected. The null hypothesis was that there is no statistically significant relationship between credit

risk and return on assets of commercial banks in Kenya. Results showed that the p-value was $0.041 < 0.05$. This indicated that the null hypothesis was rejected hence there is a statistically significant relationship between credit risk and return on assets of commercial banks in Kenya. The results agree with Grace, (2012) who studied the effect of management of credit risk to the on the financial performance of commercial banks in Kenya and found that there is a significant relationship between financial performance and credit risk management. The results also agree with Ara, Bakaeva and Sun (2009) who studied credit risk management and profitability in commercial banks of Sweden and revealed that credit risk management has an effect on profitability in all the four banks. According to Kargi (2011) who evaluated the impact of credit risk on the profitability of Nigerian banks, credit risk has a significant impact on the profitability.

CONCLUSIONS AND RECOMMENDATIONS

The objective of the study was establishing the effect of credit risk management on return on financial performance of commercial banks in Kenya. Descriptive statistics showed that total mean of credit risk for the period 2018 to 2022 was 0.085

with a standard deviation of 0.260 indicating small variability in credit risk over time. The Minimum and Maximum values of credit risk over the same period were -0.200 and 1.000 respectively. Regression results revealed that credit risk and ROA were negatively and significantly related ($\beta = -0.014$, $p = 0.041$). This means that a one percent increase in credit risk, leads to a decrease in ROA by 1.4%. The null hypothesis was rejected hence there is a statistically significant relationship between credit risk and return on assets of commercial banks in Kenya. This finding concurred with that of Grace, (2012) who studied on the credit risk management on the financial performance of commercial banks in Kenya concluding significant relationship.

Ara, Bakaeva and Sun (2009) studied on credit risk management and profitability in commercial banks of Sweden. The findings revealed that credit risk management has an effect on profitability in all the four banks. Moreover, the results showed that Base II application strengthened the negative impact of NPLR on ROE.

The study concluded that credit risk management has a negative and significant effect on ROA. The null hypothesis was rejected hence there is a statistically significant relationship between credit risk and return on assets of commercial banks in Kenya. When non-performing loans increases then the income of commercial banks declines since it has significant relationship with ROA.

From findings, it was recommended that management of Kenyan commercial banks should enhance their capacity in credit analysis and loan administration. Clear credit policies and lending guidelines should be established. Management also is required to make sure that the terms and conditions are adhered to in loans approval. Hence lending guidelines should be approved by senior management and made aware to all staffs. This will reduce loss on nonperforming loans and improve the asset quality management, which raises banks' expenses, and consequently increase profitability. It

is also recommended that the bank need to monitor the loan and advances to total deposits ratio frequently since it affect profitability.

The study also recommended that commercial banks should have a banking relationship with any entity or individual. As a lender, the bank should know: how the requested funds are going to be used, how they are to be repaid, and how to categorize, identify, and rank credit risk management.

Areas for further studies

The study sought to analyze the role of financial risk management strategies on financial performance of commercial banks in Kenya. This study called for the analysis of commercial banks located in Kenya whereas there are commercial banks in other countries whose studies may not have been considered. Financial institutions like insurance firms, Cooperative societies, and pension funds for purpose of making a comparison of the findings with those of the current study may also be conducted. Similar research can be carried on for other global commercial banks to know their performance since financial risks cuts across all financial institutions.

The study also relied on ROA as a measure of profitability. It is important to note, however, that many factors can influence ROA, including a firm's degree of capitalization. ROA favors highly capitalized institutions. ROA measure treats equity capital as free funds, there is no cost associated with them. Financial theory tells us that this is certainly not the case. Because of this and other limitations, it is advisable to combine ROA with other measures of profitability and performance. Future research should involve measuring profitability using both Return on Assets (ROA) and Return on Equity (ROE). ROE is a true bottom-line profitability metric, comparing the profit available to shareholders to the capital provided or owned by shareholders.

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