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Influence of Financial Risk Management Practices on Financial Performance of Commercial Banks in Kenya: A Case of Banks in Kakamega County

[1]Margaret Faith Wamalwa, [2]Dr. Clive Mukanzi

[1]Master Student, Jomo Kenyatta University of Agriculture and Technology, Kenya
[2]Lecturer, Jomo Kenyatta University of Agriculture and Technology, Kenya

Abstract: **The modern business environment is turbulent and characterized by a number of highly mutating factors. Both internal and external business environment can potentially affect survival, profitability and growth of businesses. This is due to existence of risks and therefore it is important for risks to be identified and controlled in order to eliminate them or lower their severity. In Kenya, Commercial banks have been reporting shrinking profits and a few have been put under receivership. In realization of the fact, this study aimed at assessing risks facing commercial banks in Kenya. The general objective of this study was to determine the influence of financial risk management practice on performance of commercial banks in Kenya. The specific objective was to determine the influence of interest rate risk management practice on performance of commercial banks in Kenya. This study adopted a descriptive research design and a panel data analysis. The target population was all 9 commercial banks that are licensed and allowed to carry out business of banking in Kakamega County. The study was adopted census sampling method because the target population is small. This study proposes to use both primary data and secondary data from the financial statements of the banks. Primary data was collected through issuance of questionnaires. Primary data analysis was done using SPSS version 23.0 and the panel data was analyzed using STATA version 12.0. Data was presented in tables and charts. The study revealed that capital risk management had a significant influence on financial performance of commercial banks in Kakamega. The study recommended that it is important for banks to have a robust framework that effectively management financial risks because they affect financial performance of commercial banks.**

Keywords: **Financial Risk management, Capital Risk, Performance, Commercial Banks.**

I. INTRODUCTION

Performance of commercial banks is important because of their nature of operations. Banks accepts deposits and in turn offer loans in a country hence acting as savings and investments mobilisers in an economy. Therefore, it is vital that banks' management seek strategic ways of enhancing profitability in order to realize sustained growth and stability of the financial institutions. According to Arrafin and Tafri (2014) an effective risk management framework is pertinent in improving the profitability of commercial banks. It is true to suffice that commercial banks operate in a dynamic and volatile environment that is characterized by a number of risks that should be prudently mitigated. Financial institutions cannot thrive well without effective risk management practices that safeguard the entities from collapsing (Malik, Khan& Khan, 2014). This means that without proper risk management framework financial institutions are exposed to negative externalities which may lead to poor performance and collapse of the entities.

Risks are those challenges that inhibit organizations from achieving their desired results. This implies that risks are environment factors that compromise on the achievement of the business objectives. According to Golshan and Rasid (2012), risks are deviation of actual outcomes from the expected outcomes. Therefore, risks are the potential losses that

are incurred when the particular challenges materials. Altuntas (2014) defines risk as the chance of actual outcome deviating from the desired results. In the light of this definition, it can be established that risks are inherent because there is no single venture that carries a one hundred per cent return surety. As a result, it is important that entities manage risks in order to maximize returns while reducing risks exposure. Risks are uncertainties that compromise on the achievement of the business objectives (Pagach & Warr, 2011).

Risk management entails systematic analysis of the business environment in order to identify risks and mitigate them Hoyt & Liebenberg (2011). It can therefore be deduced that risk management is an important tool of enhancing sustained performance of entities since it aims at negating the hazardous effect of risks. Risk management identifies risks and puts measures of mitigating the risks. As a result, risk management establishes a framework through which profitability is sustained (Magali, 2014). It is important to note that risk management does not merely entail the identification of loss but goes further to set practice that control such risks. For instance, in order to control credit risks, a financial institution can tighten the credit policies in order to reduce the rate of non-performing loans (Bekhet & Eletter, 2014).

There are various risks in an economic sector and this depends on the nature of the businesses that those entities practice. Maness and Zietlow (2015) indicate that risks are not uniform across industries although some risks such cut across all sectors in an economy. Rejda (2011) views financial risks as those risks that are not specific to single entities but are widespread in the entire sector or even in the entire economy. This is in contrast to operational risks which are internal risks and could be specific to companies and sectors on the economy. This means that financial risks are those risks that face banks, insurance companies, mortgage and other lenders among other entities that operate in the financial institution and markets segment of the economy. As noted by Yakup and Asli (2010) financial risks are various whose effect may be detrimental to the economy if they occur in large scale.

According to Julie and Rebert, (2001) financial risk management with respect to banks entails the process of mitigating the uncertainties that comprises the realization of the objectives. In this respect, financial risk management seeks to ensure that the risks are eliminated or reduced significantly in order to improve the performance of banks. The main aim of financial risk management is to improve profitability, sustain it both in the short run and in the long run. Greuning and Bratanovic (2013) indicate that financial risk management should seek to foster performance of banks through establishment of solid framework of controlling risks. According to Holton (2014) financial risks management is a process that seeks to reduce the variability of actual returns when compared to expected returns due to existence and subsequent occurrence of financial risks.

Financial risks can be categorized into three major groups: credit risks, liquidity risks and market risks (Conti & Mauri, 2016). Credit risks are those risks associated with the likelihood that the borrowers may fail to service their loans thus resulting to non-performing loans (Julie & Reebert, 2011). As a result of not honoring the periodic payment of loan principal and interest by the borrower, the banks losses interest income. As a result, it is important for banks to establish a solid framework for credit evaluation in order to minimize the credit risk. However, credit risk is difficult to identify at the point of disbursing the loan. A high credit exposure lowers the profitability of banks (Altunbas, 2010).

Performance entails units of outputs when compared to inputs utilized in earning the outputs. This is obtained through performance measurement. Performance measurement is an integral tool of management because it indicates whether goals of the organization are met or not. Richard, Devinney, Yip and Johnson (2009) notes that both financial and non-financial performance is important tools for evaluation the performance of manufacturing firms.

Financial performance measures express performance in monetary terms such as increase in revenue, Return on Investment (ROI), Earnings per Share (EPS) and Return on Assets (ROA) while non-financial performance expresses performance in terms of qualitative aspects such as customer satisfaction, improvements in the production processes, existence of a culture of innovation, productivity enhancement, quality improvements and general operational efficiency (Al-Ettayyem & Al-Zu'bi, 2015).

Performance of commercial banks is very important because it ensures stability in the sector. Performance takes two dimensions, that is financial performance which entails the measure of how well resources are utilized in generating revenue while non-financial performance measures utilizes such aspects such as customer satisfaction, service delivery and reduction of wastes. According to Gilbert and Wheelock (2007) most banks reports performance in terms of profits and profitability. Profits can be defined as the residual of sales when all expenses are deducted. Profitability is the rate at which resources are used in generating incomes. For instance Return on Assets (ROA) is a measure of returns on use of a firm's assets and is a good measure of profitability (Crane, 2011).

Financial risk management entails the control of credit risk, capital risk, interest rate risk, liquidity risk in order to enhance the performance of financial institutions. It is important to note that performance of commercial banks is vital because instability in the sector affects the entire economy (Shafiq & Nasr, 2010). Financial risk management seeks to establish a framework that mitigates the losses that can be resulted due to risk occurring. Risks have the tendency of leading to volatility of returns. Banks should therefore plan and adopt measures that improve risk management strategies in order to ensure sustainability of performance. According to Eckles, Hoyt and Miller (2014) risk management improves performance of commercial banks in two folds: it ensures that volatility of earnings is reduced and also leads to a reliable system of information that is crucial to investors and other stakeholders.

Equally, Lam (2011) notes that financial risk management leads to stability of banks and the entire banking industry. According to Archer and Karim (2012) financial risk management reduces the volatility of profits through offering of proactive measures to risk management. This is done through ensuring that all risks are accounted for and that caution is taken in dealing with the risks. Delloite (2013) indicates that with proper financial risk management, financial institutions can exhibit improved performance. Akotey (2012) indicates credit risk management and liquidity management improves stability of banks' profits. This is echoed by Onaolapo (2012) who notes that interest rates risk management and credit risk management ensures that profitability of banks is enhanced.

The modern financial sector is composed of various financial institutions with commercial banks being the most common. In Kenya, Commercial banks are entities that are regulated by the Central Bank of Kenya and are involved in business of taking deposits and issuing of credit facilities to customers. According to CBK (2015) the Kenyan banking sector is huge and more than KShs. 2.2 trillion worth of assets with loans and advances being to the tune of more than KShs. 1 trillion. It can therefore be noted that the banking sector is large in terms of assets possessions.

Basically, commercial banks are the link between savers and borrowers through their action of taking deposits from those with surpluses and lending the same to borrowers. The CBK (2018) indicates that there are 43 commercial banks that are regulated the combination of the three Acts; Companies Act 487, Central Bank of Kenya Act 491 and the banking Act 488. In Kenya, commercial banks are categorized in terms of tiers depending on their asset bases. Those Banks that fall under tier category have assets worth over Kenya shillings forty billion, tier two banks have assets worth between ten billion and forty billion while the third tier banks have assets that are worth less than ten billion(CBK, 2018).

A. Statement of the Problem

Banks operate in an environment that is characterized by a lot of risks and this exposures them to losses in the event that those risks materializes. It is thus of paramount importance that risks are controlled with the intention of ensuring that risks are identified and mitigating measures set up. In 2017 citing interest rates volatility the Standard Chartered Bank and Family bank issues profit warnings as indication of poor performance (Business Daily, 2017). A year before, the Central Bank of Kenya (CBK, 2015) through its Bank Supervision Report indicated that non-performing loans among commercial banks had increased by 2. 4 % in year 2016 from a 6.9 % that was reported in the year 2015. This indicates that credit risk management was a challenge among commercial banks in Kenya. In a period of three years, three banks namely Chase Bank, Imperial Bank and Dubai were put under receivership indicating the financial sector in Kenya had a much bigger problem than that indicating by shrinking profits (Mutuku, 2016).

According to Saunders and Cornett (2015) banks' main liabilities are inform of deposits made by the customers. This means that banks should offer assurance that they are in a position of paying the deposits as and when called upon to so. As a result, liquidity of a bank is a vital ingredient towards sustainability of the financial institutions. The CBK (2017) notes that there are various risks that face the financial sector in Kenya and these includes; compliance and legal risks, interest rates risks, forex risks and credit risks. Arrafin et al. (2014) noted that credit risk was the main cause of bank failure in Malaysia. The authors noted that those banks that failed in Malaysia performed poorly in credit risk management. In addition, Kolapo (2012) noted that liquidity was a major hindrance to poor performance among commercial banks in Nigeria. Boahene et al (2012) noted that relying on interest income was the main cause of poor profitability by Ghanian banks.

The Kenyan economy has been characterized by rising interest rates to the extent of the Parliament enacting the interest rate capping law. The CBK (2018) noted that this had impacted negatively on the economy and performance of banks that has led to downsizing in form of staff retrenchments. All these points to one direction; that risk management is important for sustained performance in a competitive and highly turbulent environment. A number of studies have been done in Kenya. Studies done by (Fredick. 2012: Kithinji, 2012) dealt with credit risk management and revealed that credit risk management if done effectively improved performance of banks. On the other hand, Gatsi (2013) studied the impact of

market risk on profitability of banks and revealed that market volatility had a negative effect on performance. Said (2014) revealed that liquidity had a positive and significant effect on performance of banks. It is thus evident that most of these studies dealt with a single dimension of risk management. However risks do not occur in isolation and it is the confluence of all risks and mitigating measures that affects performance of banks. As a result, this study seeks to assess the influence of financial risk management practice on performance of banks in Kenya. More so, none of the studies have been undertaken with specific consideration of banks in Kakamega County. The study evaluated the influence of capital risk management practice on performance of banks in Kenya.

B. Research Objective

To study sought to find out the influence of capital risk on performance practices of commercial banks in Kenya

C. Research hypothesis

The study sought to test the following null hypothesis; H_0: There is no significant impact of capital risk management practices on performance of commercial banks in Kenya.

II. LITERATURE REVIEW

A. Theoretical Review

This study was based on the efficient structure theory (ES). This theory was developed by Demsetz (1973) and posits that some firms exhibit better performance due to having more efficient methods than others. In this respect, the theory notes that some firms have internal capabilities that improve their profitability while some are not efficient. The theory notes that those banks that are more efficient tends to save on time for processes which saves costs. The ES theory advocates for firms to improve their levels of efficiencies in order to outdo their competitors. This theory takes two dimensions, that is, X-efficiency and Scale efficiency. According to Athanasoglou et al. (2008), X-efficiency notes that some firms are more efficient than others due to cost advantages. For this reason, firms with X efficiency gains a larger market share and this has the tendency of increasing their profitability due to market concentration.

As noted by Athanasoglou et al. (2008), the scale efficiency idealizes on improving performance of firms due to having economies of scale as opposed to having managerial efficiencies. Berger (1997) indicates that the costs incurred by banks with efficient management are lower thus improving profitability. However, the scale efficiency indicates that economies of scale play a role on performance of entities. In this respect, firms may reduce their unit costs through mass production which in turn would result into more market concentration. The theory of ES indicates that both internal and external factors affect performance of banks. As noted by Nzongang and Atemnkeng (2006), some banks may use their skilled management to enhance efficiency of processes while others improve profitability by increasing the scale of operations. The theory notes that both costs and scale of operational have the potential of influencing profitability of banks.

This theory is relevant to this study because it provides insights on what causes difference in performance among firms. The theory notes that management quality is an important ingredient of financial performance. This means that the management would be in a position to make proper accurate decisions with respect to liquidity, credit risk management and investing decisions. The theory has also noted that economies of scale have an effect on performance of firms. Further, the theory of ES has been established to pertinent to explaining performance of banks (Shepherd, 1986).

B. Conceptual Framework

A conceptual framework indicates the interaction between independent variables and dependent variables. The study used capital risk management practices as independent variable and performance as dependent variable. Capital risk is the risk of bankruptcy due to the bank having assets that cannot service its total debts. Therefore the bank should undertake to manage these risks in order to enhance its performance. The study sought to assess whether capital risk management improves performance of commercial banks. On the other hand, performance was measured in terms of return on assets. The variables are presented on Figure 1.

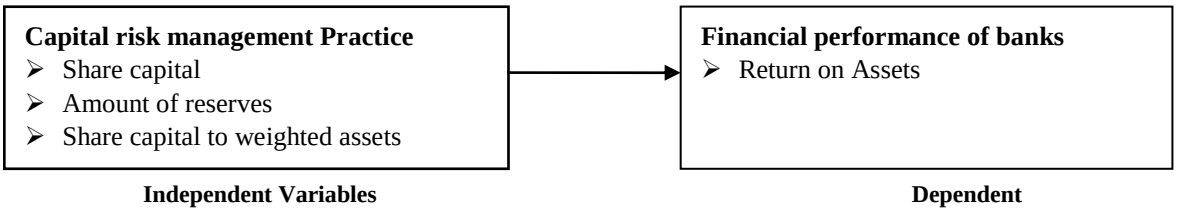

Figure 1: Conceptual Framework

C. Empirical Studies

Oluwafemi et al. (2014) did a study on the effects of capital adequacy ratio, asset quality, management efficiency, liquidity ratio, inflation and economic growth on profitability of commercial banks in Nigeria. The study adopted a panel data analysis and data was collected for a period of nine years. The study revealed that liquidity had a positive effect on performance of commercial banks. This was because the coefficient of determination of the variables in the function was positive. However, the relationship between liquidity management and performance was not statistically significant.

A study was done by Amin et al. (2014) on influence of financial risk on performance of banks in Tanzania. The study adopted a descriptive research design where secondary data was collected from twenty one commercial banks. The study sought to ascertain whether performance of banks was statistically affected by financial risks. Data was collected for a period of ten years from the year 2003 to 2012. The study revealed that there was a negative relationship between financial risk and performance of commercial banks. In particular, the study revealed that capital adequacy had a significant effect on performance of banks.

Another study was done by Al-Tamimi et al. (2015) with the aim of determining the impact of financial risks on performance of Islamic Bank in the Gulf region. The study sought to assess the effect of credit risk, liquidity risks, operational risks and capital risks. The study adopted a regression analysis in order to ascertain the relationships between the variables. Data analysis was done in form of descriptive statistics and it was revealed that both capital risk and operational had a negative relationship which was statistically significant. Further, the study concluded that capital risk led to poor banks performance in the Gulf region. It is important to note that capital risk is the exposure of assets.

Aruwa and Musa (2014) did a study on evaluation of risks and performance of banks in Nigeria. The study sought to assess the effect of interest risks, operational risks, credit risks and capital risks and capital adequacy. The study had a target population of all banks in Nigeria where data was collected for the time period between 1997 and 2011.The study revealed that a large extent of variations in performance of deposit taking banks in Nigeria was influenced by financial risks. In particular, the study revealed that capital risk had a positive effect on performance of banks in Nigeria. On the contrary, it was established that both operational risks and interest rates had a negative impact on financial performance of deposit taking banks in Nigeria.

In Ethiopia, Lake (2013) did a study on the effect of financial risks and profitability. The study sought to assess the effect of credit risk, liquidity risks and capital adequacy risks among the banks in Addis Ababa. The study collected secondary from the bank annual financial statements for a period of twelve years. The study adopted a quantitative research design where data was analyzed into descriptive statistics. The study revealed that both credit risk and liquidity risks negatively impacted on profitability of banks. On the other hand, interest rates risks, capital risk and foreign exchange risks negatively impacted on profitability of commercial banks in Ethiopia

III. METHODOLOGY

Descriptive research design was adopted so as to establish the extent of relationship between variables. This study had a target population of all the commercial banks in Kakamega County. Since the target population of this study is all the 9 commercial banks in Kakamega County, a census sampling was adopted. This study used both primary data and secondary data from the specific banks financial statements in order to analyse data with the aim of achieving the objectives. Data was collected from the financial statements of the banks for the period of 2011 to 2016. The study collected data on capital risk management (capital/total weighted assets) and Return on Assets (EBIT/Total Assets.). The study issued six questionnaires for each banks which was done using convenience sampling. In total the study issued 54 questionnaires for each of the bank through convenience sampling. The researcher distributed 54 questionnaires where 43 were filled and returned for data analysis. This provided a response rate of 80 % which was excellent for data analysis.

The researcher used an expert in the field of taxation and tax compliance in order to help evaluate the validity of the questionnaire. The questionnaire was tested and retested to remove elements of vagueness and ensure it is well understood by the respondents. The study used the Cronbach Alpha in order to test for the internal consistency of the data collection instruments. Capital risk management practices had an alpha value of 0.827 which is greater than 0.7 hence it was reliable. The study adopted regression analysis where secondary data was analysed. This study used a 95 % confidence level in data analysis. Data analysis was done using STATA version 23.0. The study carried out an ANOVA and F-test in order to evaluate the variations in Return on Assets of commercial banks in Kenya that is determined by capital risk management.

IV. FINDINGS AND DISCUSSIONS

A. Descriptive Statistics

The study sought to determine the influence of Capital risk management practices on financial performance of banks. The findings are indicated on Table 1 shown mean and standard deviation of capital risk management practices.

Table 1: Capital Risk Management Practices

Capital Risk Management Practices	N	Mean	Std. Deviation
A large capital base ensures that the bank has financial stability which improves performance of banks	43	4.40	.623
A higher equity in the debt and equity structure improves the performance of the bank.	43	4.27	.253
The bank has a contingency plan for capital funding that improves performance of banks	43	4.47	.505
The bank does relies on internal funding and this positively impacts on performance	43	4.30	.165
The bank has enough capital reserves which ensures it is institutionally solvent	43	4.53	.525
High amount of capital positively impacts on the risks of bankruptcy for the bank.	43	4.81	.394
A highly capitalized bank does not have to borrow externally hence saving on interest on borrowings.	43	4.77	.427

As indicated on Table 1, a mean of 4.40 with a standard deviation of 0.623 was found on if a large capital base ensures that the bank has financial stability which improves performance of banks. This means that most of the respondents agreed that capital adequacy was important in fostering performance of banks. A mean of 4.27 with a standard deviation of 0.253 was found on if a higher equity in the debt and equity structure improves the performance of the bank which reveals that the respondents agreed with the statement.

A mean of 4.47 with a standard deviation of 0.505 was established on if the banks had a contingency plan for capital funding that improves performance of banks. It means that banks had mitigation measures of increasing capital as and when it was necessary. Equally, most of the respondents agreed that the banks rely on internal funding and this positively impacts on performance. This is as indicated by the mean of 4.30 with a standard deviation of 0.165.

A mean of 4.53 with a standard deviation of 0.525 was established on whether the bank had enough capital reserves which ensures it is institutionally solvent. This means that solvency was improved by the possession of high capital reserves. Also, the respondents agreed that High amount of capital positively impacts on the risks of bankruptcy for the bank as shown by the mean of 4.81 with a standard deviation of 0.394. A mean of 4.77 with standard deviation of 0.427 was found on whether a highly capitalized bank does not have to borrow externally hence saving on interest on borrowings. These findings shows that capital risk management practices were of great value to the commercial banks as indicated by the high means of more than 4.00.

It was important to compute the descriptive statistics which included the mean, standard deviation, minimum and the maximum. The study found out mean ROA was 2.58% with a standard deviation of 2.2%. The minimum ROA was 1.0 % while the maximum ROA was 9.7%. These findings indicate that performance of banks was not high which implies that it was indeed necessarily to study what contributed to the low financial performance. It is important to note that ROA is a financial performance measure that indicates how well assets are used in generation of returns for the shareholders. Capital risk had a mean of 11.77 % with a standard deviation of 8.84%.

B. Exploratory Data Analysis

Exploratory Data analysis was done in order to describe the trend of return on Assets which was the dependent variable. This analysis was crucial since it guides on the type of regression model to adopt. It can be noted that the growth plot shows that there was no major variations among the banks in terms of performance which was measured by ROA. However, some firms had ROA that seemed to change significantly during the period. It is for this reason that the study adopted Hausman Test for model specification. The Hausman test seeks to identify the model to use when there are time related fixed influence. The individual bank growth plot is presented on Figure 1

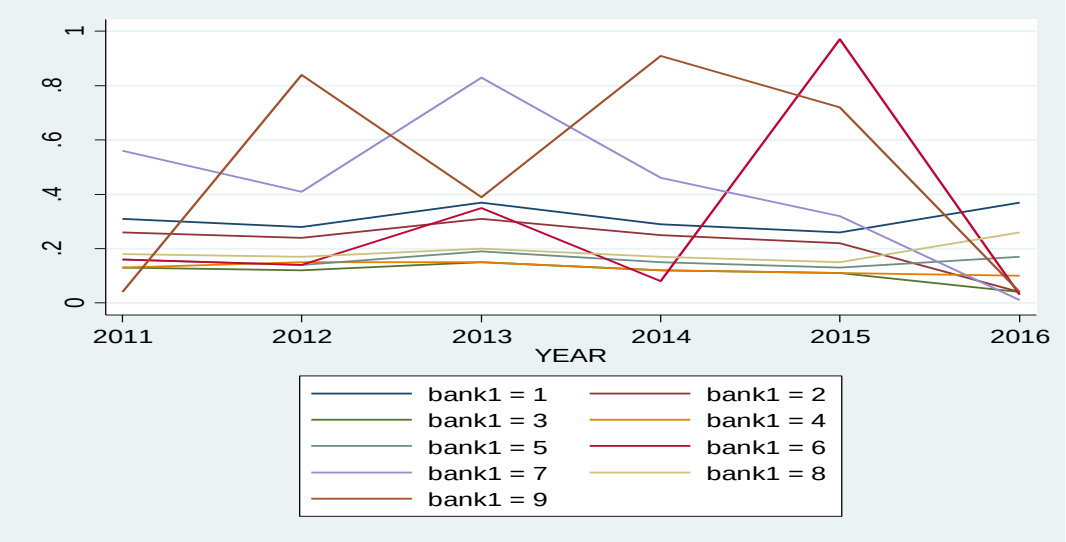

Figure 1: Overlain Plot of ROA

C. Regression Model Fitting

The study adopted the Prais Winsten Regression with robust standard errors in modeling a function that explains the influence of financial risk management practice on financial performance of commercial banks in Kakamega. The findings are presented on Table 2.

Table 2: Prais Winsten Regression

Prais-Winsten regression, heteroskedastic panels corrected standard errors					
Mean dependent var	0.259	SD dependent var	0.225		
R-squared	0.729	Number of obs	54.000		
Chi-square	37.930	Prob > chi2	0.000		
ROA	**Coef.**	**St.Err**	**t-value**	**p-value**	**Sig.**
Capital Risk	1.233	0.307	4.02	0.000	***
_cons	-0.017	0.118	-0.15	0.883	

*** p<0.01, ** p<0.05, * p<0.1

According to Table 2, chi square test statistic of 0.0000 which indicates that overall model was statistically significant in explaining the financial performance of commercial banks in Kakamega. The study found an R^2 of 72.94 % indicating that the variable accounts for 72.94% of variations in Return on Assets of the commercial banks. The other 27.06 % is accounted for by other factors that were not assessed. This means that financial risk management greatly affects financial performance of commercial banks in Kenya. The regression coefficient of capital risk was 1.233 implying that an increase in ROA following an increase in 1 unit of capital risk management.

Further, looking at the P-Value, it shows that capital risk management practices have statistically significant influence on financial performance of commercial banks in Kakamega. This is because, the P-Value are less than 0.05 at 0.001 and 0.000 for credit risk and capital risk management practices respectively meaning that we reject the null hypothesis. Thus H_{02}: There is no significant influence of capital risk management practices on performance of commercial banks in Kenya is rejected. findings of this study agrees with those of Aruwa and Musa (2014) who did a study on evaluation of risks and performance of banks in Nigeria and revealed that capital risk had a positive effect on performance of banks in Nigeria. In Ethiopia, Lake (2013) did a study on the effect of financial risks and profitability and found out that capital risk management and foreign exchange risks negatively impacted on profitability of commercial banks in Ethiopia.

V. CONCLUSION AND RECOMMENDATION

The study concluded that capital risk management affects financial performance of commercial banks in Kenya. The relationship between financial performance of banks and capital risk management was found to be statistically significant. Therefore, the study concludes that capital risk management significantly affects performance of banks. This is because capital adequacy ensures that the bank is cushioned against negative externalities that may occur in the industry. Further,

sufficient capital reserves ensure that banks have enough capital that can be reinvested to generate more income. Based on the findings, the following recommendations are made: the study recommends that it is important for banks to improve their risk management as it was found to have a positive effect on financial performance. A high capital reserve provides a cushion in case of negative externalities and also provides funds for more investments.

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