EFFECT OF FINANCIAL LEVERAGE AND RISK MANAGEMENT ON PROFITABILITY OF COMMERCIAL BANKS LISTED AT THE NAIROBI SECURITIES EXCHANGE (NSE) KENYA

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ABSTRACT

This study sought to establish the effect of financial leverage and risk management on profitability of commercial banks listed at Nairobi Securities Exchange (NSE). The theoretical framework encompassed a review of the shift ability theory and risk management theory. The study used a longitudinal research design. The target population comprised of the 11 commercial banks listed at NSE. The sampling technique of this study was drawn from eleven commercial banks listed at NSE hence census sampling. Secondary data was collected from website of Central Bank of Kenya and published banks annual profitability between 2016 and 2020. The data was analyzed using descriptive statistics techniques: standard deviation, means, and minimum, maximum, multiple regression analysis, correlation analysis and t test value analysis. STATA 15 software was used in the analysis. The study found that financial leverage had positive and statistically significance on profitability. The study also established that risk management had positive and statistically significance on profitability. The study concluded that financial leverage and risk management have statistically significant effect on profitability of commercial banks listed (NSE). The study recommended that the regulators should introduce capital buffers above the minimum statutory requirement to shield the listed commercial banks from any unforeseen economic shocks likely to arise from their operating environment. Managers of listed firms should maintain proper proportions of leverage in their capital structure.

Key Words: *Financial Leverage, Financial Risk Management*

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INTRODUCTION

The financial due diligence consists of detailed investigation and analysis of the banks situation, financial statements of the past and current years from all aspects before making a decision, with a special focus on the extraordinary earnings and expenses, significant changes and deviations as well as how internal system control of banks have been exercised. Within the scope of financial projections, plausibility of the bank's planning is reviewed, this review looks at past developments as a major point of reference, the assumptions on which the banks planning are based are analyzed carefully (Pannedy, 2010). Financial due diligence has help the supervisors in the banks are increasingly recognizing the importance of ensuring that their banks have adequate controls and procedures in place so that they know the customers with whom they are dealing, adequate financial due diligence on new and existing customers is a key part of these controls, without this financial due diligence, banks can become subject to reputational, operational, legal and concentration risks, which can result in significant financial cost (Arif and Nees, 2012).

The goal of the whole process of the financial part of due diligence is to normalize and determine the bank's results so that the possibility of one-off, extraordinary events is eliminated, it is particularly important given the following evaluation of the enterprise, as such events may considerably impact its final outcome. Curwin and Slater, (2008), noted that owing to the varied methods of evaluation of the for example, the multiples method or discounted cash flow method) used to establish the investment's value, the normalization process involves any costs impacting the operational outcome, depreciation, the volume of liquidity level, the cash flow statement, as well as other key factors(Murray, 2015) .

In Rwanda, there are still only few listed banks, 11 in total and a slow growth of securities exchange. Also listed banks financing decisions were identified involving a wide range of policy issues, at private, such decisions affect liquidity, financial leverage and banks risk of banks (Maaka, 2013). The researcher therefore recommended a study on effect of the financial due diligence on financial performance of commercial banks listed at securities exchange (Mwangi, 2011). Saunders, Lewis and Thoynhill, (2007), noted that financial due diligence carried out based on the analysis of information made available also aims to determine both past and future, expected results and the company's financial condition, as well as to assess its forecasts and plans, identifying its mains future growth factors. Nikolaus, (2009), said that, furthermore, the analysis comprises the price setting methodology and the structure of future revenues and expenditures, ultimately, the goal of the whole process of the financial part of due diligence is to normalize and determine the company's results so that the possibility of one off, extraordinary events is eliminated.

Kimani, Mugo, Njeje and Otieno, (2015) said that, the banking sector is regulated by and supervised by the Central Bank of Kenya. During the year ended December 2015, the sector comprised 43 Commercial banks, 1 Mortgage finance company, 8 representative offices of foreign, 10 Micro finance Institutions 86 foreign exchange bureaus, 14 money remittance providers and 2 credit reference bureaus. Kenyan commercial banks are licensed and regulated pursuant to the provisions of the Banking Act and the regulations and prudential guidelines issued by the Central Bank of Kenya. CBK, (2015), noted that, the Central bank of Kenya regulations requires commercial banks to maintain a liquidity buffer of twenty percent. In a country where commercial banks dominate the financial sector a liquidity shortage from the commercial banks would have an immense implication on the economic growth of the country. Today banking is known as financial due diligence banking. Li, (2007), said that, financial due diligence associated with technological has totally changed the banking system and that is further tuned by the competition in the banking

industry in Kenya. Spiegel, (2008), reflected that, perplexing commercial environment surrounded by the banking system has formed more improvement in the fields of product, process and market. Information technology has given rise to new technique in the product designing and their delivery in the banking and finance industries.

Li, (2007), use words like, the potential economic benefit of financial due diligence are changes that increase value that would not have been made in the absence of a change in control. These changes in control are potentially most valuable when they lead in the redeployment of assets, providing new operating plans and business strategies. Ayele, (2012), opined that, the motives behind financial due diligence are to improve revenues and profitability, faster growth in scale and quicker time to market, and acquisition are perceived as effective methods of improving corporate performance.

Statement of the Problem

The banking sector in Kenya is going through consolidation as evidenced by heightened mergers and acquisitions over the past 6 years. Despite great milestones, commercial banks have made in the last 6 years, they have also gone through difficult moments. Business environment for commercial banks in Kenya has been affected, with regulatory requirements having a major impact on it. For example Equity Bank's net profit dropped by 3%to Sh14.6 Billion, Co-operative banks Profit dropped by 9.5 % to Sh9.5 Billion and Barclays bank saw its profit down 12 per cent to sh5.3 billion. On the other hand some of banks found themselves in the negative territory. Jamii Bora bank widened its loss to sh337 million, Sidian bank posted a loss of 274 million which was a 225 per cent drop and Consolidated Bank of Kenya posted a loss of 301 million (KBA,2020).

The banks that dropped in profitability or posted losses have been left stranded as they cannot push the interest rates up so as to record more revenue. Other banks have been forced to take up other drastic measures to reduce the cost of operation including laying off staff and also offering early retirement packages for the case of National Bank and Family Bank. A consumer survey dated 22nd March 2017 commissioned by KBA recommended repeal of the law due to lack of growth of credit coupled with a stagnated growth of credit to private sector at single digit levels of 4% which affects economy negatively (Musyimi & Kising'u, 2021).

Muteti, (2012) noted that, financial due diligence has improved the profitability of commercial banks but the research from other countries have failed to agree with it that the financial due diligence improve the profitability of banks. Mwangi (2011), said that, research shows that there was improved bank's profitability by seen in increasing the activities. While the employees had enjoyed positive long term return and the investor may experience negative return from the profitability. Ayele, (2012), opined that, the profitability of bank's employees may also experience poor financial due diligence as result of decline in profitability of commercial banks. This research seeks to reduce the gap problem by assessing the effect of financial due diligence on profitability of commercial banks listed at Nairobi Securities Exchange in Kenya.

However the CBK attributed poor profitability inadequate use of financial due diligence in Kenya's banks. Improvement of profitability can be attributed to methodological shortcomings employed by banks to show indicators of profitability. Angore and Roulet, (2020), said that, the past studies lacked a structural analysis of profitability mechanism and hence lack a proper assessment for financial due diligence. Furthermore, these studies failed from the observation of the financial due diligence and profitability. Vodova (2018), noted that there was notable lack of research in developed as well as developing nations regarding the direct association of financial due diligence and banks performance,

hence this study examined the effect of financial leverage and risk management on financial performance of commercial banks listed at the Nairobi Securities Exchange (NSE) in Kenya.

Research Objectives

The objective of the study was to assess the effect of financial leverage and risk management on financial performance of commercial banks listed at the Nairobi Securities Exchange (NSE) in Kenya. The specific objectives were;

- To examine the effect of financial leverage on financial performance of commercial banks listed at the Nairobi Securities Exchange (NSE) in Kenya.
- To evaluate the effect of Risk management on financial performance of commercial banks listed at the Nairobi Securities Exchange (NSE) in Kenya.

The study addressed the following pertinent research hypotheses;

- H_{o1}: Financial leverage does not statistically significantly affect financial performance on commercial banks listed at Nairobi Securities Exchange.
- H_{o2}: Risk management does not statistically significant affect financial performance of commercial banks listed at the Nairobi Securities Exchange.

LITERATURE REVIEW

Shiftability Theory

Shiftability Theory was proposed by Dodds in 1982. The theory states that liquidity is maintained if it holds assets that can be shifted or sold to other investors for cash or lenders for cash. The arguments indicate that a firm‟s liquidity can be enhanced if it has assets to sell or stands ready to purchase the asset offered for discount. This identifies and states that shiftability or transferability of assets is the basis for improving liquidity. Obilor (2013) adopted the theory to explain the impact of financial leverage on the profitability of banks in Nigeria. The theory was analyzed using short term funds, cash balances, bank balances treasury bills and profit after tax. Findings shows that financial leverage is a crucial problem in profitability hence recommended for optimal level of liquidity to maximize profitability.

The assumption of the theory is that liquidity is always for sell and stands ready to purchase the asset offered. Theory further assumes that highly marketable security held by a firm is an excellent source of liquidity. Eljelly (2004) contends that firms ensure convertibility without delay and appreciable loss that assets must meet financial leverage theory involved in obtaining funds from depositors and other creditors from market. In determining the value of financial distress for particular firms, there is need to seek answer on depositors‟ funds, creditors‟ funds and mix of funds for any firm. Although, the assumption has been made, the criticism analyzes management examining the activities involved in supplementing the liquidity need through use of borrowed finance. It only supplements liquidity can be derived from liabilities of the firm balance sheet.

The theory has been adopted to explain influence of liquidity on financial performance of listed firms. The shiftability approach allows firms to efficiently run with small amount of reserves or by making long term investments on assets. Firms can attempt to prevent liquidity crisis by always selling their securities at good prices as presumed by the shiftability theory. That is, firm hold assets that are marketable and their convertibility will not be at a discount. The theory ensures firms are liquid by assisting in the shiftability of assets (Koranteng, 2015).

Risk Management Theory

The theory of risk management is concerned with how individuals and organizations allocate resources through time to recover from or avoid disasters (Arrow, 1965). The theory seeks to explain how solutions to the problems faced in allocating

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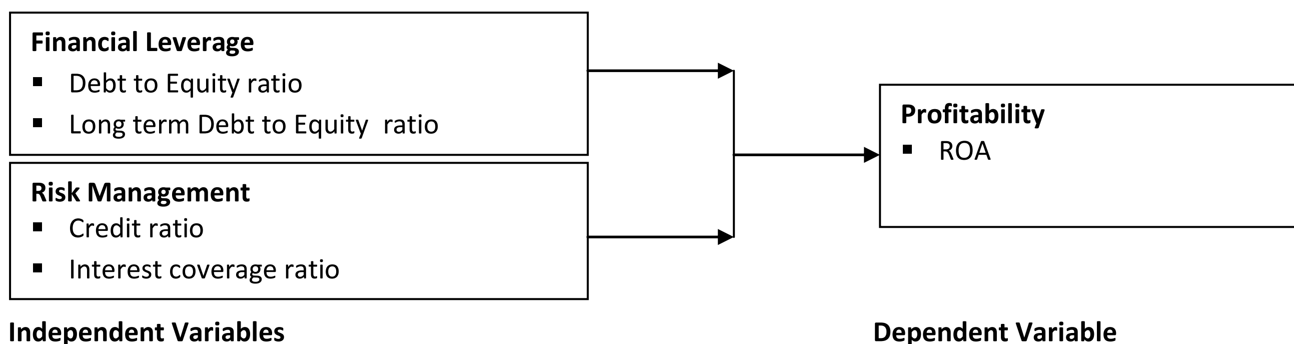
resources through time are facilitated by the existence of risks in the project environment (David, 2007). The concept of risk management theory involves studying the various ways by which businesses and individuals can avoid, mitigate, transfer and accept risk during the project life cycle (Sarkis, 2011).

Tseng (2007) posit that risk management theory focuses on how an organization or an individual can adopt a systematic and consistent approach to manage all kinds of risks. According to this theory, one component in project life cycle affect the next level therefore there is need to adopt multi-directional approach in risk management. The theories considered include models of risk management built within the following agency theory, shareholder theory and modern structural economics within the body (Klimczak, 2007). Agency theory expands the company's research to include division of ownership and control, and incentive for management. Risk management attitudes towards risk-taking issues are demonstrated in the area of risk management companies (Smith and Stulz, 1985). Theory often addresses the possible differences between shareholders, management and shareholders because of asymmetries in earnings distribution which can enable companies to take too much risk or not invest in positive net-value projects (Mayers and Smith, 1987). Consequently, theory of the agency indicates that hedging policies will dramatically impact the value of businesses (Fite and Pfleiderer, 1995).

The theories of finance theory are concerned with the framework of funding and provide predictions similar to financial theory. In a few studies with a negative effect, managerial motivation factors in risk management implementation have been empirically investigated (Faff and Nguyen, 2002). While no empirical studies of the latest approach to risk management in institutional economics have been performed so far the theory provides an alternate explanation of organizational behavior. That is to say, it predicts that risk management activities within a market or sector can be decided by organizations or agreed practice. The most promising contribution to risk management is applying the concept of tacit contracts from employment to other contracts, including funding (Cornell and Shapiro, 1987).



Independent Variables **Dependent Variable**

Figure 1: Conceptual Framework

Review of Variables

Financial Leverage: Financial leverage can be defined as the ratio of total liabilities to total assets (Céspedes, González & Molina, 2010). It can be seen as alternative for the residual claim of equity hoDARs. Leverage is a variable used to examine the effect of change in leverage on the firms' performance, and its defined as the use of various financial instruments or borrowed capital to increase the potential return of an investment. Zeitun and Saleh (2015) argued that changes in leverage also have a significant effect on firm's performance; financial firms should use their debt financing more efficiently in order to maximize their returns and performance. Financial leverage is the

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most important determinant of companies' performance.

Financial Risk: Financial risk management is the practice of protecting economic value in a firm by using financial instruments to manage exposure to risk: operational risk, credit risk and market risk, foreign exchange risk, shape risk, volatility risk, liquidity risk, inflation risk, business risk, legal risk, reputational risk, sector risk etc. Similar to general risk management, financial risk management requires identifying its sources, measuring it, and plans to address them. Financial risk management can be qualitative and quantitative. As a specialization of risk management, financial risk management focuses on when and how to hedge using financial instruments to manage costly exposures to risk.

Profitability: Maditinos (2011) argued that profitability of an organization can be measured by growth revenues that will also indicate the growth of an organization. ROE that measures an organization's profitability by revealing how much profit a company generates with the money shareholders have invested will also be used. ROA reflects the ability of a bank's management to generate profits from the bank's assets and it is calculated as profit after tax divided by total assets. Maditinos (2011) further noted that profitability can also be measured by ROA which is an indicator of how the company is in relation to its total assets and it gives an idea as to how efficient the management uses assets to generate earnings.

Empirical Review

Nyawira (2017) evaluated the relationship that exists between capital requirement set by the Central Bank of Kenya and the profitability for the Kenyan banking sector. The findings of the study was that there was a significant negative relationship between leverage and profitability as measured by ROA and ROE but the relationship was insignificant as measured by NIM. Xu and Banchuenvijit (2014) examined the impacts of leverage on profitability of firms listed on Shanghai Stock Exchange 50 SSE 50） (excluding financial firms). The study covers 28 companies listed on SSE 50 as a sample. Dependent variables of the study are return on assets (ROA) and return on equity (ROE), and independent variables were leverage as measured by debt ratio (DR), and a dummy variable is firm size. For both types of firm performance measurement (ROA and ROE), the results show a negative and significant relationship between leverage and firm performance.

Al-Shamalieh and Khanafar (2014) conducted a research about the impact of leverage on profitability of firms. They took Jordan as their subject matter, more specifically, they studied the tourism industry. The researchers collected data from the randomly selected 5 listed companies out of the 11 companies listed on the Amman Stock exchange. The researchers ran a regression analysis that resulted in a R^2 of 4.4%; however, the results also showed that leverage has a significant and negative impact on profitability.

Kassi, Rathnayake, Louembe and Ding (2019) examined the effect of financial risk management on the profitability of 31 non-financial companies listed on the Casablanca Stock Exchange (CSE) over the period 2000–2016. The results show that the different measures of financial risk management have significant negative influences on the companies' profitability. Maniagi (2018) sought to determine the influence of financial risk management on performance of commercial banks in Kenya. The specific objectives were to determine the influence of financial risk management on performance of commercial Banks. Both primary and secondary data were used in the study. Descriptive statistics, correlation analysis, and random and fixed effects were used for secondary data using E-views software while for primary spss-v 22 where descriptive analysis and inferential where factor analysis, correlation and regression were used. The findings revealed that financial risk

management had a significant positive relationship with performance.

Ekinci (2016) investigates the effects of credit and financial risk management, i.e., interest rate and foreign exchange (FX) rate risk, on the bank performance for the Turkish banking sector in a time-varying framework employing the generalized autoregressive conditional heteroscedastic approach for the 18.01.2002-30.10.2015 period by using weekly data. The results suggest two main findings: (i) Credit risk and FX rate have a positive and significant effect, but interest rate has insignificant effect on banking sector profitability, (ii) credit and financial risk management have a positive and significant effect on conditional bank stock return volatility

METHODOLOGY

The study assumed a longitudinal research design to collect and analyze data. The target population for this study was 11 listed commercial banks at Nairobi Securities Exchange between 2016 and 2020. All the 11 banks were headquartered in Nairobi, which is the political and commercial capital of Kenya. Data was collected for five years therefore, the total observations were 11*5=55. Since the population was fairly small-below 100, a census method was employed to avoid sampling bias. The research utilized secondary data. Secondary data was collected from NSE handbook and various databases of the listed firm for financial statement for the period 2016 to 2020. The study extracted data containing quantitative details from financial institutions, the panel data collected was analyzed quantitatively through a mathematical and regression equations and this was solved by using a statistical tool (STATA). STATA 15 was used to analyze the quantitative data in all the four objectives. Multiple regression analysis was used to determine the influence of four independent variables on the dependent variable.

FINDINGS

Influence of Financial leverage on profitability

The study sought to determine the effect of financial leverage on profitability of listed commercial banks in Kenya. The second null hypothesis denoted, **H_{01}:** Financial leverage does not influence on profitability listed commercial banks in Kenya. Having gone by the fixed effect model basing on the Haussmann test, the results of the fixed effect model were presented in Table 1.

Table 1: Regression Fixed Effect of Financial leverage on Profitability

Fixed-effects (within) regression				Number of obs =		55
Group variable: Listed Banks				Number of groups =		11
R-sq:				Obs per group:		
within =		0.1485		min =		5
between =		0.0803		avg =		5
overall =		0.0861		max =		5
				F(1,43) =		6.62
corr(u_i, Xb) = 0.0764				Prob > chi2 =		0.0141
Profitability	**Coef.**	**Std. Err.**	**T**	**P>t**	**[95% Conf. Interval]**	
FL	2.6199	1.017906	2.57	0.014	0.55926	4.680546
_cons	10.53863	1.019758	10.33	0.000	8.474237	12.60302
sigma_u	0.438485					
sigma_e	0.179306					
Rho	0.856739	(fraction of variance due to u_i)				
F test that all u_i=0: F(12, 38) = 23.78			Prob > F = 0.0000			

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The analysis showed that the panels were strongly balanced for this bivariate analysis as shown by the number of observations per group. The result obtained from fixed effect model indicated that financial leverage accounted for 8.61% (Overall R square=0.08613) of the variation in profitability of listed commercial banks in Kenya. The ANOVA statistics measure the general significance of the model. The F-statistic to the model shows is 6.62 which is greater than 0 implying that the estimated parameters in the model are at least not equal to zero. This infers that financial leverage has an influence on profitability of listed commercial banks in Kenya. The influence is significant at $P<0.05$.

The estimated coefficient of financial leverage is significantly not equal to zero ($\beta=2.6199$, t= 2.57, p-value= 0.014). The P-value is less than 0.05 which implies that the estimated coefficient is significant at 5% significance level. The estimated coefficient of financial leverage here implies that a unit increase in financial leverage would cause the levels of profitability to increase by 2.6199 units. The p-value of the constant is less than 0.05 which shows a significant constant term. The regression model is as shown below

Profitability= 10.53863+2.6199FL (Financial Leverage)

The study therefore rejected the null hypothesis that financial leverage does not influence profitability of listed commercial banks in Kenya and concluded that there is an influence of financial leverage on profitability. This implies that increase in financial leverage would results to increase in profitability of listed commercial banks in Kenya. These findings agreed with Bui (2017) who found that there were strong negative impacts of financial leverage on performances of 18 British Gas and Oil companies from 2009 to 2014. However, the findings disagreed with Almajali, Alamro and Al-Soub (2012) who revealed that leverage have a positive statistical effect on the financial performance of Jordanian Insurance Companies. This finding is supported by Song (2005) assertion that firms finances their assets and operations through debt; short term or long term and through issue of equity and also through reserves such as retained earnings; thus, an unlevered firm is one which does not have debt in its capital structure whereas a levered firm has debt component in its capital structure.

Effect of Financial Risk Management on profitability

The study sought to determine the effect of financial risk management on profitability of listed commercial banks in Kenya. The fourth null hypothesis denoted, $\mathbf{H_{o2}}$: Financial risk management has no effect on profitability of listed commercial banks in Kenya. Having gone by the fixed effect model basing on the Haussmann test, the results of the fixed effect model were presented in Table 2.

Table 2: Regression Fixed Effect of financial risk management on Profitability

Fixed-effects (within) regression		Number of obs =	55
Group variable: Listed Banks		Number of groups =	11
R-sq:		Obs per group:	
within =	0.3825	min =	5
between =	0.1154	avg =	5
overall =	0.1118	max =	5
		F(2,42) =	7.43
corr(u_i, Xb) = -0.1316		Prob > chi2 =	0.0031

Profitability	Coef.	Std. Err.	T	P>t	[95% Conf. Interval]	
PL1	0.499908	0.130234	3.840	0.001	0.2311195	0.768697
FRM	0.13138	0.04705	2.792	0.013	-0.3785086	0.641269
_cons	7.882514	0.082267	95.82	0,000	7.712724	8.052304
sigma_u	0.462898					
sigma_e	0.128141					
Rho	0.928823	(fraction of variance due to u_i)				
F test that all u_i=0: F(12, 24) = 38.02			Prob > F = 0.0000			

The analysis showed that the panels were strongly balanced for this bivariate analysis as shown by the number of observations per group. There were a total of 55 observations used in this analysis considering 11 groups of entities implying strongly balance panels. The minimum, maximum and average numbers of observations per groups were all equal to 5. Fixed effect linear regression analysis revealed that risk management did not significantly accounts for variation in profitability P = 0.051 (p>0.05). Therefore, the study introduced lag for profitability (PL-Profitability of Lag) of previous year which yielded a significant P-Value.

The result obtained from fixed effect model indicated that financial risk management accounted for 11.18% (Overall R square=0.1118) of the variation in profitability of listed commercial banks in Kenya. The F-statistic to the model shows is 7.43 which is greater than 0 implying that the estimated parameters in the model are at least not equal to zero. This implies that financial risk management has an influence on profitability of listed commercial banks in Kenya. However, the influence is significant (P=0.0031).

The estimated coefficient of financial risk management is significantly not equal to zero (β=0.13138, t= 2.792, p-value= 0.013). The P-value is less than 0.05 which implies that the estimated coefficient is not significant at 5% significance level. The estimated coefficient of financial risk management here implies that a unit increase in financial risk management would initiate the levels of profitability to increase by 0.13138 units. The p-value of the constant is however less than 0.05 which shows a significant constant term. The regression model is as shown below

Profitability= 7.882514+0.13138FRM (Financial Risk Management)

The study therefore rejected the null hypothesis that financial risk management does not affect profitability of listed commercial banks in Kenya and concluded that there is an influence of financial risk management on profitability. This implies that increase in financial risk management would results to increase in profitability of listed commercial banks in Kenya. The results are in agreement with Zubairi (2016) who indicated that there is significant positive relationship between risk management and performance of automobile firms in Pakistan. However, Tharshiga and Anandasayanan (2013) failed to establish a significant effect of risk management on financial performance of Listed Financial Sector in Sri Lanka. The relationship between risk management and the financial performance of deposit money banks in Nigeria was investigated by Abubakar (2015). The results showed that the risk management has a positive and significant effect on financial performance. Mule and Mukras (2015), however, investigated the relationship between listed Kenyan companies' risk management and financial performance. The study using panel data analysis found strong evidence that the performance measured using ROA was not significant and negatively affected by risk management.

Testing For Null Hypotheses

The results of simple linear regression were used in testing null hypotheses using P<0.05 and B≠0.

- **H_{01}:** Financial leverage does not statistically significantly affect financial performance on commercial banks listed at Nairobi Securities Exchange.

  H_{A1}: Financial leverage statistically significantly affect financial performance on commercial banks listed at Nairobi Securities Exchange.

  Beta Standardized Coefficient results: $\beta_1 \neq 0$ (β_1=2.567) and P=0.013<0.05

  Verdict: First null hypothesis was rejected

  Interpretation: Financial leverage statistically significantly affect financial performance on commercial banks listed at Nairobi Securities Exchange

- **H_{02}:** Risk management does not statistically significant affect financial performance of commercial banks listed at the Nairobi Securities Exchange

  H_{A2}: Risk management statistically significant affect financial performance of commercial banks listed at the Nairobi Securities Exchange

  Beta Standardized Coefficient results: $\beta_4 \neq 0$ (β_4=0.290) and P=0.022<0.05

  Verdict: Second null hypothesis was rejected

  Interpretation: Risk management statistically significant affect financial performance of commercial banks listed at the Nairobi Securities Exchange

CONCLUSIONS AND RECOMMENDATIONS

The study endeavored to examine the effect of financial leverage on financial performance of commercial banks listed at the Nairobi Securities Exchange (NSE) in Kenya. Financial leverage was measured using debt equity ratio and long term debt to equity ratio. Debt equity ratio had significant relationship with profitability while long term debt to equity ratio also had significant relationship with profitability. However, long term Debt to Equity ratio did not exhibit normal distribution. From the findings it was established that financial leverage has a significant effect on the profitability of listed commercial banks in Kenya because of the positive regression coefficient. The results therefore implied that a single improvement in leverage will lead to improvement in the profitability of listed commercial banks in Kenya. The results further revealed that listed commercial banks in Kenya have raised good capital from fixed-income securities. Most of the banks have effective financial leverage mechanisms.

The second specific objective of this study was to evaluate the effect of Risk management on financial performance of commercial banks listed at the Nairobi Securities Exchange (NSE) in Kenya. Basing on the results of the statistical tests done, and the regression analysis, it was noted that financial risk management has a significant effect on profitability of listed commercial banks in Kenya. A single increase in risk management would results to increase in profitability of listed commercial banks. These included adoption of well outlined plan regulations, application of loan limitation to various classes, clear and comprehensive set of lending policies, implementation of a strict model of client appraisals prior to making the lending decision and an effective collections plan that ensures funds are successfully recovered from borrowers.

The first hypothesis H_{01}: financial leverage does not significantly influence profitability of listed commercial banks in Kenya. When this hypothesis was tested the financial leverage was found to have a significant effect on profitability, showing a positive correlation coefficient which denotes dependency. The study therefore concluded that there is statistical evidence that financial leverage determines the profitability of listed commercial banks in Kenya. This denotes that high debt to equity ratio relates to increased profitability. As a result, it is possible to resolve that all the listed

commercial banks with higher debt to equity ratio are more profitable.

The second hypothesis H_{02}: financial risks management does not influence profitability. When this hypothesis was tested the financial risk management was found to have a significant statistical effect on profitability of listed commercial banks in Kenya. The study concluded that there is statistical evidence that financial risk management significantly explains the profitability of listed commercial banks in Kenya. Credit, in most cases, generates the most amount of income for a bank. As a result, losses from nonperforming loans pose the biggest risk to any bank. Banks must strive to keep nonperforming loans as low as possible.

The study recommended that managers of listed firms should maintain proper proportions of leverage in their capital structure. The amount of debt finance in the financial mix of the firm should be at the optimal level to ensure adequate utilization of the firms' assets and reduce the effect of financial distress on financial performance. Therefore, managers should employ financial leverage in a way that enhances value for their company's owners that will lead to an increase in returns to equity hoDARs of listed firms, other than affecting profitability negatively.

The study recommended that there should be regularly evaluation and monitoring on profitability of commercial banks listed at Nairobi Securities Exchange in Kenya in regard to risk management. The study recommended that managers of listed banks should find ways of minimizing operational risk so as to ensure their income surpasses operating expenses. The managers can minimize risk by ensuring that the credit worthiness of would be borrowers is assessed together with the collateral which should be wholly ensured. Banks should establish risk early warning mechanism so that managers can take effective real time comprehensive management to reflect their financial position including financial structure, profitability and asset utilization to enhance their profitability.

Areas for further Research

The study focused on financial due diligence on profitability of listed commercial banks in Kenya with particular interest on capital adequacy, liquidity management, risk management and financial leverage. The study suggested that future researchers should conduct out the study in all others commercial banks in Kenya not only commercial banks listed at Nairobi Securities Exchange. This study may help committee teams of commercial banks verifying the validity of the result of findings of the study.

In the future years, the researcher should be focused many independents variables and dependent variable, to checked whether the finding will still remain the same in future such as management efficient and asset quality. Further studies should consider incorporating firm characteristics such as size so as to find out if they have significant moderating effect on capital adequacy and financial performance of listed firms. The current study captured the only available secondary data for the period 2016 to 2020 that are available in the NSE handbook and a further study is recommended to include longer period for the panel data. This would help in capturing the potential effects across the economic cycles.

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