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Effect of Capital Structure on the Financial Performance of Non-Financial Firms Quoted at the Nairobi Securities Exchange

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Abstract:
Choosing whether to finance a business with debt or equity has led to a never-ending search for the best capital structure. Researchers have conducted several research studies trying to find out the optimal capital structure. Some indicate that a firm having a high degree of leverage seems to have an optimal capital structure and thus leads to better financial performance. There are others such as that of Modigliani-Miller that differs in argument by concluding that high leverage does not influence the value of the firm. This research study aimed at determining the impact of capital structure on the financial performance of non-financial firms quoted at the Nairobi Securities Exchange. The study was conducted on 16 non-financial firms that were in operation in Kenya and quoted at the NSE between 2013 and 2017. Financial performance was measured by return on assets and return on equity, while the capital structure was measured using the change in debt and debt-equity ratio. Secondary data utilised was obtained from audited financial statements derived from company websites and NSE handbook covering the period 2013 to 2017. Correlation and regression analysis were employed in the statistical analysis that was carried out with the aid of STATA version 15. The findings showed that capital structure has a direct influence on the financial performance of firms listed at the Nairobi bourse. The results showed that the financial performance of firms increases with the increase in the changes in debt in the capital structure. This thus supports debt financing in running the firms as compared to equity financing. The study thus recommended that firms should increase debt financing in their capital structure in order to enhance financial performance and increase value to the companies' stakeholders.

Keywords: Capital Structure, Financial Performance, NSE.

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INTRODUCTION

Whenever a firm needs funds to run its operations and other capital expenditures, it always considers either debt, equity or both. This is its capital structure. Capital structure, therefore, explains how a firm raises its finances for the daily operations through its use of debt, equity or both. This leads to business activities being funded in either manner. If their inadequacy in funds to support the working capital requirement and fixed assets available, no operations might run in the firm. It's, therefore, difficult to run any business and make capital structure decisions without capital structure. This is because it affects the value and profitability of the company. There should, thus, be proper attention and care in making capital structure decisions to enhance the performance of the corporation and achieve the major objective of the firm, that is, profit maximisation (Mutegi, 2016). The choice of a company's capital structure helps in determining how the operating cash flows can be allocated for every period between the shareholders and debt holders. There has been an unresolved debate over the significance of the choice of capital structure for a company that has been on-going for quite some time. However, in essence, it is about the effect on the total market value of the firm, (the combined value of its equity and debt) of dividing the cash flow stream between debt and equity components. In the past, financial and economic experts believed that increasing leverage of a firm would increase the value up to a certain point. However, beyond that point, any other increases in leverage would also increase the overall cost of capital and decreases its total value in the market (Abor, 2007). In their famous article in 1958, Modigliani and Miller challenged that view. They argued that the market values the earning power of a company's real assets and that if the company's capital investment program is held fixed and certain other assumptions are satisfied, the combined market value of a company's debt and equity is independent of its choice of capital structure. After Modigliani and Miller published their paper on the irrelevancy of capital structure, there has been much focus trained on other "assumptions", which include costs of bankruptcy, absence of taxes, and other imperfections that exist in the real world. Due to these imperfections, the choice of the capital structure of a company, without doubt, affects the total market value. However, there is still debate on the extent to which the choice of capital structure affects the market value.

Capital Structure

Capital structure is the mixture of debt and equity that a firm uses in financing its business. It is also regarded as a very significant financial variable because it is highly linked to the capacity of the firm to meet its obligations to stakeholders such as shareholders, community, employees and others. Equity finance is the finance that is contributed by the owners of the business towards the capital. It is the one with the most risk. Shareholders are entitled to the shares of the company's profit, referred to as dividend, and this is following the number of shares held. It is not compulsory, however, to carry dividend payments every time because the company can at times hold part of the profits to support future expansion or use of its business activities. Besides, shareholders also share business risks that may occur and are also the last ones to benefit in the case of company liquidation after settling all debts (Mutegi, 2016).

Debt finance occurs after borrowing from external sources. Such sources include banks or issuance of bonds. In this regard, the financier does not in any way control the activities and running of the firm but is paid a fixed annual return as compensation emanating from use of his funds. Also, the borrower is always required to repay the principal amount borrowed together with interest accrued, regardless of whether the company makes a profit or not. In the case where the business is unable to meet such financial obligations, there can be loss of

collateralized assets, bankruptcy or collapse of the business. There are several benefits of debt financing in running a company. They include reduction of free cash flow problems through enhancing improving managerial behaviour and acting as a tax shield. On the other hand, there also expenses that includes agency expenses and costs emanating from bankruptcy that results from conflicts between shareholders and debt holders. For managers to improve performance when making, they should balance the costs and benefits emanating from debt capital financing. To make a comparison between total debt and total assets owned by a firm, debt ratios are used. Presence of a low ratio means that the company depends less on debt while high percentage insinuates that a firm relies more on debt (Karanja, 2014).

Financial Performance of the Firm

For quite a long time, financial performance is a measure of how best a company uses the resources available in the generation of revenue. In most cases, it provides the guidelines that direct how decisions will be made in future as far as business development, managerial control and asset acquisition are concerned. It also assists in reflecting on what the management has achieved in monetary terms over a certain period. Such achievements can also be used in carrying out comparisons of similar firms. In addition, financial performance provides a way for the evaluation of business activities in monetary terms that are objective. It helps in showing how well shareholders are at the end of an accounting period as compared to the beginning. This can be well realized through clear analysis of market data or financial ratios taken from financial statements (Zeitun, & Tian, 2007). There are various ways of measuring financial performance. There are therefore many varying absolute and relative indicators that include expenses, revenues, and earnings before interest and tax, net income levels, return on equity and return on assets among many others. In most studies, the frequently used measures of performance are ROA and ROE. ROA explains the return on assets of the company. Firms majorly use it as the overall indicator of financial performance. ROA is arrived at through computation whereby Net Income after Taxes is divided by Total Assets. ROA is, therefore, used in measuring the financial performance of companies listed on the Nairobi Securities Exchange. On the other hand, ROE indicates a return on shareholders capital and is arrived at by dividing Net profit after Taxes by Total Equity capital. Furthermore, it explains the level of profitability of companies considering the total sum of invested shareholder capital (Saeedi & Mahmoodi, 2011).

Capital Structure and Financial Performance of the Firm

In managerial finance, how capital structure affects the financial performance of a firm is an essential topic that is regularly discussed. This role has however remained debatable, attracting attention from many researchers, since the days of Modigliani and Miller (1958) who stated that the value of a firm does not depend on the choice of financing adopted. According to this, the real assets are the ones that determine a firm's value but not the mode of financing. There are also researchers who attempt to find out through analysis whether optimal capital structure exists or not. Optimal capital structure is the level at which there's minimisation of cost of capital for the firm and maximisation of the performance of the firm. Considering previous studies capital structure affects the cost of capital, and this, therefore, leads to an influence on the financial performance of the firm and share prices (Miller, 1977). Application of debt financing leads to an increase in the scale of operations and hence increases in performance over a period of time. However, if the return on assets is greater than the cost of debt, debt financing leads to such improvement in performance. Jensen & Meckling (1976) argue that debt has an effect on the quality of investment activities that are undertaken by the management. This is through forcing the managers to concentrate their investments on projects that lead to value for the investors. In return, this minimises costs

thus leading to enhancement of the financial performance of firms. In addition, Eldomiaty & Azim (2008) carried out more research on the topic of the effect of capital structure on the financial performance of firms. They found out that capital structure is positively related to the financial performance of firms. On the other hand, Fama & French (2008) found out that capital structure is negatively related to the financial performance of the firm. Such contradictions in the researches carried out by different researchers are expected and are in most cases due to several factors. Such factors include the use of different periods, companies, sectors, countries, debt ratios, measures of profitability, methodologies in finding out the correlation between capital structure and firm performance.

Firms Listed at Nairobi Securities Exchange

Nairobi Securities Exchange is a regulatory body that is charged with facilitating and ensuring that firms comply with corporate control and governance principles that are set in place. It is also a public market designed for trading of securities by publicly listed firms in Kenya. It was started in 1954 as a voluntary association of stockbrokers under the then Society Act. Its head office is located on Tosica building at 55 Westlands, Nairobi. The NSE helps in mobilising domestic savings hence facilitating the reallocation of financial resources, especially from dormant to active agents. During the transfer of securities from between the various shareholders, there is an occurrence of liquidation of long-term investments. The NSE also gives Kenyans a chance to own shares through enabling companies to engage in local participation in their equity. It is also through this bourse that firms can raise extra finance that is essential for firm expansion and development. In order for a firm to raise funds, it first publishes a prospectus, which has all the required particulars about the operations and future plans of the firms. It also contains the price of the issue. It is also through Nairobi securities exchange that there is facilitation in terms of International Capital Inflow (NSE, 2018).

Capital Markets Authority is a securities market regularity body in Kenya that is charged with monitoring, licensing and supervising Nairobi Securities Exchange. It has a purpose of ensuring that good corporate governance practices within companies listed on the NSE are adhered to and that there is the development of a market that is efficient. There are currently 65 companies listed on the Nairobi securities exchange. They are distributed among various sectors and industries such as real estate investment trust, telecommunication and communication, investment, banking, commercial and services, agricultural, automobiles and accessories, construction and allied, insurance and energy and petroleum. NSE has been using NSE 20-share as a measure of performance of 20 blue-chip companies. This was between 1964 and 2008. However, after 2008, the Nairobi bourse changed its measure of performance to all NSE share index (NASI). This measures the general market performance by incorporating shares traded each day (NSE, 2018). A close analysis of the capital structure of the listed companies on the NSE shows that they have been gradually increasing their debt financing. This aims at getting more capital to run the business activities and put into place development projects. CMA reports that between 2004 and 2014, companies listed on the NSE raised USD 988 million through rights issues. Debt-equity ratios for large companies were higher, whereas those for small companies were lower. Several boards of management of companies have been grappling with the issue of financing their companies (NSE, 2018). There are those of the opinion that it is done through debt financing, and those who think equity financing is the best deal. Several studies have been conducted in this regard to help in finding out the best approach in raising capital that serves both the interests of the management, shareholders, employees, the community, customers and other stakeholders. This study, therefore, seeks to establish whether debt financing has any effect on the

performance of firms listed on the NSE. This study will, however, exclude insurance companies and banks from analysis due to the fact that their industries are highly controlled when it comes to issues concerning liquidity and minimum base capital by the Central Bank of Kenya (CBK) and the Insurance Regulatory Authority (IRA). These are the major regulators for these sectors that are vital to the economy. It, therefore, becomes hard to carry out an independent analysis through the analysis of their financial statements and other related items because of the legislation and control around it.

LITERATURE REVIEW

Determinants of Financial Performance

The primary goal of most companies is the generation of profit. In this regard, the ability of a firm to generate and earn a profit is a good measure of performance. This, therefore, helps in distinguishing performing companies or business organisation from those that are nonperforming. A close analysis of a lot of firms shows that they are designed to perform and achieve this major goal. Firm performance is, therefore, affected by many factors that are further classified into two categories. They are micro and macro factors. Micro factors are usually specific to the firm and affect individual organisations, whereas macro factors affect all firms and sectors in the economy.

Capital Structure of the Firm

The capital structure explains how a firm raises its capital or finances to support their activities'. The capital structure is comprised of debt and equity. The decision, however, of choosing either source of financing is based on finding out the costs associated with them. This is because of the implication they have on the performance of a firm. Debt leads to benefits related to tax and monitoring. However, having debt in excessive amounts makes the firm get exposed to risks associated with bankruptcy and reduction in the value of the firm. For a firm to maximise its returns to shareholders and enhance the firm's ability to compete through cost minimisation, it should use optimal capital structure appropriately in financing acquisition of assets. Capital structure helps managers in decision making. It does this through influencing shareholder risks and returns. Financial managers should always find ways of building up an optimal capital structure that would be advantageous in the long run to the firm's shareholders and other stakeholders. In this regard, corporations have a chance at adjusting their cost of capital and market value through managing the composition of their capital structure (Adekunle & Sunday, 2010). Rajan & Zingales (1995) did a study on the capital structure determinant of common corporations in seven big economies in the world such as Canada, America, Japan, Italy, Germany, France, and Britain for the period 1987-1991. The investigation sampled 4557 firms taken from the seven countries. The results showed that leverage impacts negatively the profitability of the firm. On the other hand, the study found a positive relationship between leverage and firm size and value of tangible assets. Abor (2005) conducted a study investigating the connection between profitability and the capital structure for firms quoted in the Ghana Stock Exchange for the period starting 1998-2002. He found out that short-term debt has a positive relationship with profitability due to low-interest rates involved. The researcher also established that positive correlation is there between total debt and profitability because total debt is mainly comprised of short term financing. However, long-term funding was found to have a negative correlation with firm performance because of being more expensive in the capital markets. Adekunle & Sunday (2010) performed a research study on the impact of financial structure on the firm's profitability in Nigeria for the period 2001-2007. He sampled 30 non-financial firms listed at the Nigerian Stock Exchange and collected secondary data from the firms' financial

statements. The study used debt ratios as the independent variables, while ROA and ROE were dependent variables. In the study, the researcher employed the use of ordinary least square approach of estimation and found out that debt ratio has a negative correlation with how firms perform. Onaolapo & Kajola (2010) conducted a research study on the effects of capital structure on the profitability of firms quoted on the Nigeria Stock Exchange. They sampled 30 non-financial companies for the period 2001-2007. The results showed that a negative relationship exists between capital structure and level of profitability of the firm. The research study employed the ROA and ROE of these firms. Mwangi, Muathe, & Kosimbei, (2014) conducted a research study on capital structure and its relationship with the financial performance of firms listed at the Nairobi Securities Exchange. The study used data collected using structured questionnaires. The study found out that there is a strong positive correlation between leverage and return on equity, return on investment and liquidity. In addition, Magara (2012) performed an investigation on capital structure and its determinants at the Nairobi Securities Exchange. The study investigated the major determinants of capital structure. It was found out that from the period 2007-2011, there was a significant positive correlation between the size of the firm, tangibility and rate of growth and leverage of the firm. The study did not consider macro-economic factors such as interest rates and inflation.
Muchugia (2013) investigated the effects of debt financing on the firm performance of commercial banks in Kenya. The study used a quantitative research design and multiple regression analysis. Machugia (2013) used ROE as the dependent variable, whereas long term debt, total debt, short term liabilities, and firm size as independent variables. The research study concluded that short-term financing has a positive correlation with the profitability of the firm. On the other hand, the study also found out that long-term liabilities have a negative correlation with the firm's profitability.

In Kenya, Langat et al. (2014) investigated the effect of debt financing on the profitability of the Tea Development Authority processing factories in Kenya. The investigation employed the use of ROE and ROA to measure firm performance. The research study realised both long-term debt and total debt have a positive influence on the performance of firms at 1% and 5% respectively. On the other hand, short term debt was found to have a negative correlation with the profitability of the firm. The study concluded that finding financing through short-term debt by firms involved in tea processing does not lead to profitability in the long run.
Bongoye (2017) performed a research study on the effect of capital structure determinants on the financial performance of non-financial firms listed at Nairobi Securities Exchange, Kenya. The study targeted 37 non-financial firms listed at NSE for the period 2011-2015. The study adopted a descriptive research design. The study revealed that capital structure determinants, in general, have a positive correlation with the financial performance of listed non-financial firms. Furthermore, firm size and firm liquidity showed a significant positive relationship with financial performance, whereas growth opportunities have a positive but not significant correlation. Ogenche et al, (2018) conducted a research study on the effect of capital structure on the financial performance of consumer goods firms listed in the Nairobi Securities Exchange. The study targeted 12 firms. A census of all the 12 firms was used as a unit of analysis from the year 2012 to 2016. Secondary data was extracted from the financial statements and used in computing various ratios. The study employed a panel data regression model. The study concluded that there is a significant negative relationship between debt ratio and the financial performance of consumer goods firms listed at NSE. In addition, firm size also had a positive relationship with the financial performance of consumer goods firms listed at NSE.

METHODOLOGY

This is a section that covers the research methodology that was used in conducting this research study. The section under research methodology gives a brief description of the ways and procedures used in completing a study. The research methodology section explains the research design, study population, data collection, data analysis, analytical model and test of significance as far as the study is concerned.

3.1 Research Design

Ghauri & Gronhaug (2005) explain that research design involves developing a plan or a specified framework that will be followed in collecting data for study and analysis. It provides the priorities and approaches that interest the researcher. The research design is a programme that directs the researcher in gathering, analysing and interpreting data. This research study employed descriptive research study in establishing the impact of capital structure on financial performance. Descriptive design refers to a significant type of quantitative design. The reason for choosing the descriptive design is it enables the researcher to explain and describe the research area and find out the relationship so that there is a complete explanation of the data collected in order to examine the similarities and differences with the research frame of references within a certain timeframe. This study aims at establishing the relationship that exists between debt capital which acts as the predictor variable and financial performance as the dependent variable. In this regard, descriptive research is an approach that is well-suited for the study.

3.2 Study Population

The population under study comprised of 16 non-financial listed companies quoted at Nairobi Securities exchange. The companies in the banking and insurance sectors were excluded from analysis because of their operations being regulated by regulators such as the Insurance Regulatory Authority and Central Bank of Kenya. These regulators are concerned with checking on the threshold amount of capital and liquidity that should be maintained. Other firms were not considered in the study as they are not in active production. They have been placed under receivership or suspended from trading hence proving it hard to analyse them on the same matrix as those having normal operations. They include ARM Cement PLC, Deacons (EA) PLC, KenolKobil PLC and Atlas. There were also firms that were left out of the study because of the unavailability of enough data because they listed recently at the Nairobi Securities Exchange. Considering that the target population for this study is small, the review was a census whereby all members of the population were considered. The NSE register marked the population frame (NSE, 2018).

3.3 Data Collection

The study used secondary data. The data in the research was collected from audited financial statements obtained from company websites and NSE Handbook for the period 2013 to 2017. The financial statements used were a statement of comprehensive income and financial position. The data collected was for key variables such as fixed assets, current assets, total assets, short term debt, total debt and net profit after tax.

3.4 Data Analysis

Data analysis is the process of applying statistical techniques in finding answers for the research questions through thorough evaluation and interpretation of data that was collected. The collected data was sorted, edited and verified for accuracy while preparing it for analysis. STATA version 15 and Microsoft Excel was used in analysing the data. This was through the use of descriptive statistics to show the measures of tendencies that include means, tables, standard deviations and percentages. Correlation and regression analyses were also carried out to find out the relationship between debt capital and financial performance. In addition,

t-test was also carried out so as to establish the existence of the relationship between the study variables. The findings of the study were presented in the form of tables and graphs that are used in indicating the trend of variables over the period under study. ROA and ROE were used in measuring the performance, whereas debt ratios measured the capital structure. Debt ratio is important in showing the size of the debt in as far as total assets owned is concerned. Liquidity of the firm was measured using the ratio of current liabilities to current assets, whereas tangibility was measured using fixed assets owned to total assets ratios. In finding out the effects of capital structure on the financial performance of non-financial firms quoted at NSE, regression analysis was carried out by the use of the following model:

$Y= a+B1X1+B2X2+B3X3+ \varepsilon$

Whereby;

Y = Financial performance measured by ROA, ROE

a defines the value of performance without the inclusion of the independent variables

X1 to X3 represent the independent variables of the study.

X 1= Change in Debt (Percentage change in debt)

X2 = Liquidity (Current assets to current liabilities)

X3 = Tangibility of assets (Fixed assets to total assets)

ε = Stochastic error term

B1 to B3 show the coefficients of the model and define the amount by which the dependent variable (Y) is changed for a unit change in the value of the independent variable (X).

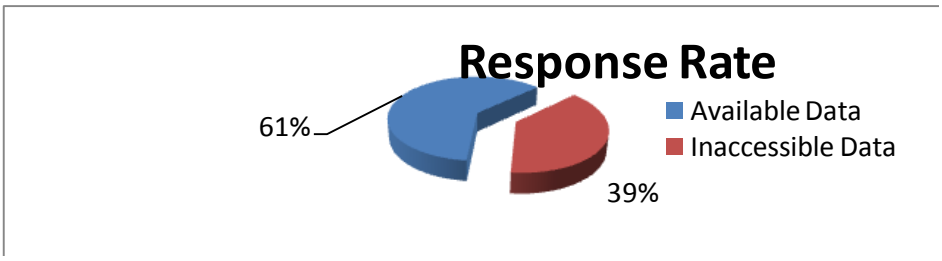
3.5 Test of Significances

To test for the statistical significance of the regression analysis between capital structure and financial performance, all the statistical calculations were done at 95% confidence interval has a p-value of 0.005 or less being considered for a statistically significant correlation. F critical value and a p-value of 0.05 or less will thus be used as indicators of the reliability of the regression model.

EMPIRICAL RESULTS AND DISCUSSIONS

This is the chapter that outlines data analysis and displays research findings. The data analysed here were obtained from audited financial statements collected from NSE handbooks, annual reports and company website for the five years under study between 2013 and 2017. Out of the total population of 26 non-financial and investment firms listed at the NSE, secondary data for 16 companies were found which represent a 62% response rate. This was reasonable for the subsequent statistical analysis. The Secondary data were thus analysed by use of regression analysis using STATA version 15.

Figure 4.1 Response Rate



Descriptive Statistics

Descriptive statistics is an area that outlines the measures of central tendency of the data used in the research project. It covers the mean, minimum, maximum and the standard

deviation. In the table below, the descriptive statistics cover the non-financial firms from 2013 to 2017. Basing on Table 4.2.0, return on assets (ROA) as the dependent variable ranges from -.0664896 to .4636504 while having an average of .0897347 and a standard deviation of .0918787. In addition, the return on equity (ROE) as the dependent variable ranges from -.1542433 to .9328572 while having an average of .1803197 and a standard deviation of .2106555

Table 4.1 Descriptive Statistics

Variable	Observations	Mean	Standard Deviation	Min	Max
ChangeinDebt	80	.1151939	.2917515	-.5175799	1.186521
Liquidity	80	1.944319	1.643157	.2365071	10.08932
Tangibilityofassets	80	.5538424	.2276114	.1115356	.9403227
roa	80	.0897347	.0918787	-.0664896	.4636504
roe	80	.1803197	.2106555	-.1542433	.9328572

Source: Research Findings (2019)

Inferential Statistics

Inferential Statistics in most cases comes up with conclusions that go beyond the current data. In this research study, the inferential statistics used are regression analysis and correlation analysis. These were employed in ensuring that study objectives are met.

Correlation Analysis

Correlation analysis can be defined as the extent to which study variables are related. This analysis was carried out so as to find out the strength of the relationship that exists between dependent and independent variables. Pearson correlation has a variation from -1.00 to+1.00 whereby positive values mean positive relationship whereas negative value connotes negative relationship among the variables.

Table 4.2 Correlation Matrix

Variables	Change in debt	Liquidity	Tangibility of Assets	ROA	ROE
Change in debt	1				
Liquidity	-0.0838	1			
Tangibility of Assets	0.0697	-0.0453	1		
ROA	0.0919	0.0375	0.2238	1	
ROE	0.0430	-0.1577	0.1617	0.6761	1

Source: Research Findings (2019)

Table 4.3 Correlation Matrix

Variables	Leverage	Liquidity	Tangibility of Assets	ROA	ROE
Leverage	1				
Liquidity	-0.3326	1			
Tangibility of Assets	-0.5860	-0.0453	1		
ROA	-0.2382	0.0375	0.2238	1	
ROE	0.1818	-0.1577	0.1617	0.6761	1

Source: Research Findings (2019)

The research study variables are perfectly correlated with themselves, as evidenced by the positive correlation coefficient of 1.000. The financial performance of the firm, as measured by ROA, has a positive correlation of R= 0.7446. Leverage also has a positive correlation of

0.0615. Liquidity also has a positive correlation 0.213353 with the financial performance of the firm. In addition, Tangibility of assets also has a positive correlation of 0.459116 with firm financial performance. In addition, financial performance is also measured by ROE that has a positive correlation of R=0.8484. Change in debt also has a positive correlation of 0.0796946 Liquidity also has a positive correlation 0.0.229039with financial performance of the firm. In addition, Tangibility of assets also has a positive correlation of 0.7569745 with firm financial performance

Regression Analysis

Regression analysis between the dependent variables and independent variables was done. Change in debt, leverage, liquidity, and tangibility of assets were the independent variables, whereas the return on assets and return on equity were the dependent variable. The firms listed at NSE operate under different industries hence to reduce any challenges that might arise from that; regression with dummies was applied. Table 4.5 below shows that r-squared for ROA of the study was 0.7446 while ROE of the study was 0.8484. This shows that the independent variables can be liable in explaining 74% and 84% of the dependent variables of the total variations in the financial performance of non-financial companies listed at NSE.

Table 4.4 Regression Analysis

VARIABLES	(1) roa	(2) roe
changeindebt	0.0608**	0.0797**
	(0.0237)	(0.0374)
liquidity	0.0213***	0.0229**
	(0.00722)	(0.00908)
tangibilityofassets	0.459***	0.0757
	(0.158)	(0.129)
Firm Dummies	YES	YES
Firm Dummies	YES	YES
Constant	-0.205**	-0.00372
	(0.0830)	(0.0736)
Observations	80	80
R-squared	0.745	0.848

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Source: Research Findings (2019)

Table 4.5 Regression Analysis

VARIABLES	(1) roa	(2) roe
leverage	0.0615	0.191
	(0.0441)	(0.126)
liquidity	0.0200***	0.0236**
	(0.00665)	(0.00943)
tangibilityofassets	0.435**	0.0703
	(0.195)	(0.149)
Constant	-0.200*	-0.0351
	(0.104)	(0.0887)
Firm Dummies	Yes	Yes
Observations	80	80
R-squared	0.716	0.846

Robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Source: Research Findings (2019)

The result in table 4.4 shows that the coefficient of determination r-squared for ROA is 0.745 whereas that for the ROE is 0.848. This indicates that 74% and 84% of ROA and ROE of the total variations respectively in the financial performance among the firms listed at NSE can be accredited to the changes in the value of independent variables as captured by the model. Basing on the findings in table 4.5, there is an exhibition of the statistical significance of the

predictor variables used in the study model. It depicts the estimation of independent variables, standard error and t-ratios. In this regard, a unit increase in change in debt in the capital structure of the company will lead to a .0608 and 0.0797 in the financial performance of the firms listed at NSE. In addition, a unit change in the level of liquidity of the firm leads to 0.0213 and 0.0229 increases in financial performance. Similarly, in if tangibility of assets increases with one unit, the financial performance as measured by ROA and ROE of the non-financial firms quoted at the NSE increases by 0.459 and 0.0757. Due to this, the research study can, therefore, be summed up as:

$$\mathbf{ROA=-0.205+0.0608X_1+0.0213X_2+0.459X_3}$$

$$\mathbf{ROE=-0.00372+0.0797X_1+0.0229X_2+0.0757X_3}$$

Whereby;

X_1 refers to the change in debt (percentage change in debt)

X_2 represents the firm's level of liquidity (current assets to current liabilities)

X_3 refers to the tangibility of assets (ratio of fixed assets to the total assets owned by the firm)

E is the stochastic error term that explains the unexplained variations that indicate the existence of other variables 26% and 16% which can make the model better.

Interpretations of Findings

This research study aimed at determining the effect of capital structure components on the financial performance of non-financial firms quoted at NSE. The financial performance of the firms was measured by the aid of return on assets and return on equity while capital structure through the employment of change in debt. The level of liquidity and tangibility were variables that were employed in the research as control variables for liquidity and asset tangibility. This chapter hence carried out inferential statistics in finding out the impact of capital structure on financial performance. The study findings showed that independent variables debt ratio, the tangibility of assets and liquidity could be instrumental in making decisions for non-financial firms quoted at the Nairobi Securities Exchange. These variables could explain about 74% and 84% of the total variations of the financial performance of non-financial firms at NSE.

Change in debt has a positive correlation with financial performance. Liquidity of the firms had a positive correlation with the financial performance of the firms, whereas tangibility of assets also had a positive correlation. The standard error for ROA was .0918 while that for ROE was .2106, thus explaining the unexplained percentage of the model. This means that there other factors that can make the model improve for better predictions in the future. The linear regression model hence shows what the independent variables can achieve through explaining about 74% and 84%of the total variations in firm financial performance. In this regard, the study showed that capital structure affects the financial performance of firms quoted at NSE negatively and in a statistically significant manner.

Findings with similar results were found by Langat et al. (2014) who investigated the effect of debt financing on the profitability the Tea Development Authority processing factories in Kenya. The investigation employed the use of ROE and ROA to measure firm performance. The research study realised both long-term debt and total debt have a positive influence on the performance of firms at 1% and 5% respectively. On the other hand, short term debt was found to have a negative correlation with the profitability of the firm. The study concluded that finding financing through short-term debt by firms involved in tea processing does not lead to profitability in the long run.

CONCLUSIONS AND RECOMMENDATION

Summary

The primary goal for this research study was to find out the effect of capital structure on the financial performance of firms quoted at Nairobi Securities Exchange for the period 2013-2017. The study sampled 16 non-financial firms that accounted for a response rate of 62%.

This response rate was considered good for facilitating statistical analysis and completion of the study. The independent variable for the study was capital structure, and the dependent variable was the firm's financial performance. In addition, the control variables included the tangibility of assets and liquidity. Analysis of data was done with the help of STATA version 15 and Microsoft Excel. In analysing the effects of capital structure on financial performance, descriptive statistics such as standard deviation and means were used. From the findings from the descriptive statistic, the mean change in debt was 0.1151939, and standard deviation of 0.2917515, the average liquidity ratio was 1.944319 while the standard deviation was 1.643157. Furthermore, the average tangibility of fixed assets was 0.5538424 and had a standard deviation of 0.2276114.

The findings of the study indicated that the independent variables change in debt, liquidity, and asset tangibility could explain 74% for ROA and 84% for ROE of the total variations in the financial performance of listed firms at NSE. Change in debt was significant at 5% for both ROA and ROE with coefficients of 0.0608 and 0.0797, respectively. This hence implies that financial performance of non-financial firms listed at the NSE is positively correlated with the capital structure. Liquidity was significant at 1% level of significance with a coefficient of 0.0213 for ROA and 5% confidence level with a coefficient of 0.0229 for ROE. This implies that the financial performance of the non-financial firms listed at NSE is positively correlated with the firm's liquidity. Thus an increase in the level of liquidity increases the financial performance of the firm and vice versa. The tangibility of assets as measured by the ratio of fixed assets to total assets that are owned by the company was significant at 1% with a coefficient of 0.459 for the firm's ROA. This means that financial performance increase with an increase in fixed asset ratio. However, it was not significant for ROE due to the study involving a grouping of small and big companies. In most cases, tangibility is only significant for specific industries. This study involved several industries hence proving difficult. In this regard, the results from the statistical analysis thus who that the independent variables namely; change in debt, liquidity level and tangibility of assets have a significant effect on the level of profitability of the firm.

Conclusions

This study concludes that there is a strong relationship between capital structure channels and financial performance of non-financial firms quoted at Nairobi Security Exchange and that 35% of the total changes in ROA and 84% of the total changes in ROE of the non-financial firms quoted at NSE can be attributed to changes in debt level in the capital structure, liquidity of the firms, and asset tangibility. In addition, the study concludes that capital structure, liquidity level and tangibility level affects the financial performance of the non-financial performance positively and in a statistically significant way. The research study concludes that capital structure, as measured by the change in debt, has a significant influence on the financial performance of on financial firms listed at NSE. This is from the positive correlation between change in debt and financial performance. Furthermore, the research study concludes that the firm's liquidity has a positive influence on the financial

performance. Thus the more liquid a firm is in meeting its short term obligations, the more profitable it becomes. Finally, the study concludes that asset tangibility is positively correlated with the financial performance of the firms listed at NSE. Mwangi et al. (2014) findings also found a capital structure to be positively correlated with financial performance. He conducted a research study on capital structure and its relationship with the financial performance of firms listed at the Nairobi Securities Exchange. The study found out that there is a strong positive correlation between leverage and return on equity, return on investment and liquidity. However, there are other researchers who found a negative correlation between capital structure and financial performance. Such kind of research study is that of Rajan & Zingales (1995) who did a study on the capital structure determinant of common corporations in seven big economies in the world such as Canada, America, Japan, Italy, Germany, France, and Britain for the period 1987-1991. The investigation sampled 4557 firms taken from the seven countries. The results showed that leverage impacts negatively the profitability of the firm. On the other hand, the study found a positive relationship between leverage and firm size and value of tangible assets.

Recommendations

The findings of this research study have several important policy implications on the individual firm, the industry and macro levels. Considering that the research found a positive correlation between capital structure and financial performance, the research study recommends that financial managers should increase debt they employ in their capital structure to increase the value of the firms. Besides, the research study suggests that there should be adequate levels of liquidity to enhance financial performance to create more wealth and for the stakeholders of the firm. This is due to the existence of a positive correlation between liquidity and firm performance. The research study also recommends a proper regulation of the banking industry in Kenya by the government to increase debt acquisition and improve firm performance. This is because numerous companies depend less on debt financing in meeting their financial needs.

Limitations of the Study

The research study emphasised non-financial firms quoted at NSE, and hence their findings cannot be used in generalising for all other companies operating in Kenya. The primary goal of this study was to find out the relationship between capital structure and financial performance of non-financial firms listed at the NSE. Thus, the findings of this research study are only limited to non-financial companies at NSE and not all listed firms at the Nairobi Securities Exchange. This study was also carried out in Kenya; hence the findings may not be applicable in other firms found in other parts of the globe considering that the study aimed at ascertaining the impact of capital structure on the financial performance of non-financial firms quoted at NSE. These research findings cannot thus be applied to financial firms. However, they can be used as a reference point of the firms in developing countries having the same level of growth as Kenya. Furthermore, this study relied heavily on information from secondary sources in establishing the impact of capital structure on the financial performance of non-financial firms quoted at NSE. Secondary data sources were used because of the availability of the required information. Therefore, the accuracy of the statistical results highly depends on the data accuracy that was obtained from the financial statements.

Suggestions for Future Research

This research study suggests similar research studies be carried out for an extended period of time by incorporating more variables. It should also be conducted by considering the prevailing macroeconomic conditions in the country contrary to this study that considered only three variables. This study also suggests more study in different sectors but the same area of study and with extended years of research. The future study should also not concentrate only on companies in Kenya but the entire East Africa region and even sub-Saharan Africa. Further studies should also be done basing on different sectors so as to find out if the results from the statistical analysis are similar or different. These studies should also identify other factors that determine financial performance and examine their effects on the financial performance of non-financial firms quoted at Nairobi Security Exchange. These studies should explore other measures of financial performance such as customer satisfaction, inventory turnover, among others.

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