The Influence of Firm Specific Factors on Capital Structure: Case of Listed Manufacturing and Allied Firms in the Nairobi Securities Exchange

[1]Maina Peter Ng'ang'a, [2]Dr. Jane Omwenga

[1,2] Jomo Kenyatta University of Agriculture and Technology, KENYA

Abstract: **Capital structure is an important management decision as it greatly influences the owners" equity return, the owners" risks as well as the market value of the shares. The main objective of this research study was to establish the influence of firm specific factors on capital structure of listed manufacturing and allied firms in the NSE. Specifically, the study sought to establish whether and the extent to which tangibility of assets, profitability, firm size, and firm growth influence capital structure of listed manufacturing and allied firms in the NSE. This study was carried out through a descriptive research method. The target population for this study included all 10 firms listed in the NSE under the manufacturing & allied segment. The study used secondary data. Secondary data was gathered from published annual financial statements and reports of the manufacturing and allied companies. Data for the period of 5 years (2012-2016) was collected for this study. This study used multiple regression analysis. A regression was then run to measure the impact of the independent variables on the dependent variable. Correlation Coefficient (r) was determined and used to measure the strength of the relationship between the dependent variable (Leverage) and each of the independent variables. The results indicate that over the five years period the manufacturing and allied firms had a mean leverage of 0.59, profitability of 3.20, firm size of 0.03, asset tangibility of 1.11, and firm growth mean of 0.21. The study findings established a correlation value of 0.846. This depicts a strong linear dependence between the two variables. An R-square value of 0.776 was established and adjusted to 0.653. The coefficient of determination depicts that 77.6% of the variations in leverage can be explained by tangibility of assets (TA), profitability (P), firm size (FS), and firm growth (FG) meaning that there are other factors that influence the total leverage of the segment. This study concludes profitability, firm size, asset tangibility, and firm growth are determinants of the capital structure of manufacturing and allied industry firms in Kenya. The most influential variable is the asset tangibility, followed by firm size and firm growth. Liquidity has the least impact on leverage of the cement manufacturing firms in Kenya. Then there is need to replicate the study using many other industries in Kenya in an attempt to compare the findings. There is need to carry out a similar study with the objective of addressing financial structure of firms as opposed to capital structure. This would be worthwhile because it was noticed that a number of firms used large amounts of short term borrowing rather than long term debt.**

Keywords: **Firm Specific Factors, Allied Firms, tangibility of assets (TA).**

1. INTRODUCTION

The move towards a free market, coupled with the widening and deepening of various financial markets has provided the basis for the corporate sectors to optimally determine their capital structure (Muema, 2013). It is imperative for firms to recognize the critical role played by capital structure decisions in determining a firm's performance and work towards adopting best practices with respect to capital structure decisions (Oguna,2014). Selection of an optimal capital structure is always a critical issue for every firm. Kouki & Said (2012) note that capital structure is a fundamental aspect of corporate finance that examines on the approaches a firm chooses its source of finances. In making decisions on capital

structure, the firm should always gauge its operating environment, both external and internal (Nilssen, 2014). Capital structure is an important management decision as it greatly influences the owners" equity return, the owners" risks as well as the market value of the shares (Ali,Yadav, Jamal, 2013). Whenever funds have to be raised to finance investment, a capital structure decision is made (Salawu, 2007). It is therefore incumbent on management of a company to develop an appropriate capital structure decision should be properly analyzed and balanced. Capital structure refers to the mix of debt and equity used by a firm to finance its assets (Brigham & Ehrhardt, 2005). There are various different factors that influence a firm's capital structure, hence a firm should attempt to determine its optimal, or best mix of financing (Muema, 2013). The optimal mix of financing is that which maximizes the value of the firm and minimizes the cost of capital. Kiogora (2000) highlighted that companies within a similar sector have similar capital structure. According to Mahmud, Herani, Rajar, & Farooqi (2009) found in Kariuki & Kamau(2014), debt is usually comes in the form of long-term payable notes and bond issues, while equity normally is common stock, preferred stock and retained earnings. In the world of corporate finance, capital structure is a vital corporate decision since it brings out an optimal financing mix which could maximize the market value of a company (Brogia & Yan, 2013).

2. CAPITAL STRUCTURE

Capital structure is defined as the process in which a firm uses a mix of debt to equity to finance its own assets (Alfred, 2007; Muema, 2013). Capital structure is long term debt divided by total assets (Omet, 2008). Brigham & Ehrhardt (2005) and Pandey (2008) refer to capital structure as an organization's mixture of debt and equity while Van Horne (1989) defines capital structure as the proportion of debt instruments and common stock on a firm's balance sheet. Further, Abor (2005) defines capital structure as a mix of a firm's debt and equity that the firm uses to finance its overall operations and growth. Organizations need operating capital which mostly is raised and mostly a combination of equity and debt. Decisions regarding capital structure are critical in the maximization of shareholders wealth. Capital structure decisions include; an organization's preference of a target capital structure, the average maturity of its debts, and the specific sources of financing the organization prefers to use at any particular time. A poor capital structure decision by an organizations management may lead to a high cost of capital making fewer investments acceptable and reducing the net present value of accepted investments. Even though the actual levels of debt and equity may differ to some extent with time, most company's aim to maintain their financing mix close to a target capital structure. Managers ought to always come up with capital structure decisions aimed towards maximizing the firm's value. It is prudent for an organization to make a capital structure decision every time an investment decision is made. Finance managers have to make one of this three financing capital structure decisions; investment, financing, and dividend decisions (Van Horne, 1989). Fuad (2015) contends that the capital structure of a firm determines the weighted average cost of capital (WACC). Fuad (2015) refers to WACC as the minimum rate of return required on a firm's investments and used as the discount rate in determining the value of a firm. A firm can create value for its shareholders as long as earnings exceed the costs of investments (Damodaran, 2001). Every firm should plan an optimal capital structure, however, Muema (2013) notes that a perfectly optimal capital structure is almost impracticable to establish in practice since a number of firm specific factors influence capital structure.

Overview of Manufacturing and Allied Firms Listed in the NSE:

The manufacturing and allied sector over the past years has been crucial in supporting economic growth and development in Kenya (Kubia, 2016). According to the 2016-2017 budget, Kenya set out to enhance the economic growth by double digits by the year 2030 and this is through prioritizing key industries in the manufacturing sector as the vehicles to deliver these goals (Wakiaga, 2016). The manufacturing sector recorded a growth of 3.5 percent in 2015 compared to 3.2 percent as at 2014. The contribution of the manufacturing sector to the GDP grew to 10.3 per cent in 2015 from 10.0 per cent in 2014 and maintained the second position in ranking. Also, the sector contributed 11.9 per cent of the formal jobs in the country (Kubai, 2016). Kubai (2016) affirms that the manufacturing sector performance was favorable in 2015 attributable to the good macroeconomic environment except for the cost of borrowing that somewhat curtailed the availability of cheap credit to fund the sector's activities. Mwaniki (2016) and Kubai (2016) further note, it is common with companies in the manufacturing and allied sector to have a more frequent and higher need of raising capital than those in the service sector like professional services. A more common method of raising finance in this sector is through debt or equity which is dominant in their capital structure. Manufacturing firms have a more frequent and higher need of raising capital, this has seen the overall credit to the sector increasing from Kshs 237,422 million in 2014 to Kshs 290,069 million in 2015 (Economic Survey, 2016). The Nairobi Securities Exchange (NSE) is the principal stock exchange of Kenya that was established in 1954 as an overseas stock exchange while Kenya was still a British colony with

acquiescence of the London Stock Exchange (Oguna, 2014). The NSE is Africa's fourth largest stock exchange in terms of trading volumes, and fifth in terms of market capitalization as a percentage of GDP (Iraya & Musyoki, 2013). Nairobi Securities Exchange aims at supporting trading clearing settlement if equities, debts, derivatives and other associated instruments. It's mandated to list companies on the securities exchange and enables investors to trade in securities of companies thus its charged with the health of securities Exchange (NSE, 2017). The Nairobi Securities Exchange (NSE) has grouped firms into 10 market segments depending on their operations. These categories are: Agricultural sector, Automobiles & Accessories, Banking, Commercial & Services, Construction & Allied, Energy & Petroleum, Insurance, Investment, Manufacturing & Allied, and Telecommunication & Technology market segment. Currently there are 60 companies listed at the NSE, this study focused on all 10 companies listed under the Manufacturing & Allied market segment (NSE, 2017).

Statement of the Problem:

The capital structure decision is one of the most important decisions made by financial managers in this modern era. The business environment within which the manufacturing firms operate in Kenya has been vibrant and turbulent. Several changes such as political anxieties, threats posed by new entrants, social reforms, technological advancement, legislative changes, government policy changes, and economic changes that have greatly affected short and long-term strategic actions in this industry (Kale, 2015). These challenges cannot be ignored because they directly impact on the value addition to the stakeholders in the medium and long-term. Manufacturing firms have a more frequent and higher need of raising capital, this is due to the fact that the overall credit to the manufacturing sector increased from Kshs 237,422 million in 2014 to Kshs 290,069 million in 2015 (Economic Survey, 2016; Kubai, 2006). Due to capital, intensive nature of this sector, they are required to determine their optimal capital mix in order to realize gains from their investments. The manufacturing sector performance was favorable in 2015 due to the good macroeconomic environment except for the cost of borrowing that somewhat curtailed the availability of cheap credit to fund the sector's activities. There is need to find out whether and to what extent firm specific factors influence capital structure of listed manufacturing and allied firms in Kenya. Although several studies have been done on capital structure determinants such by Turere (2012), Kuria (2010), Kinyua (2005), Muema (2013). Although these studies among others attained their objectives, they did not delve into the influence of firm specific factors on capital structure of listed manufacturing and allied firms in the NSE. There is a paucity of published work on the influence of firm specific factors on capital structure of listed manufacturing and allied firms particularly in the context of developing countries in the dynamic African region and specifically in Kenya. Hence this study attempted to establish the influence of firm specific factors on capital structure of listed manufacturing and allied firms in the NSE intending to bridge this gap in knowledge that exists.

Objectives of the Study:

The general objective of this study was to establish the influence of firm specific factors on capital structure of listed manufacturing and allied firms in the NSE. The study specifically sought to:

i) To assess the extent to which tangibility of assets influence capital structure of listed manufacturing and allied firms in the NSE.

ii) To determine the extent to which profitability influences capital structure of listed manufacturing and allied firms in the NSE.

iii) To find out whether firm size influences capital structure of listed manufacturing and allied firms in the NSE.

iv) To establish whether firm growth influences capital structure of listed manufacturing and allied firms in the NSE.

3. THEORETICAL LITERATURE

This section presents the theories on which this study is grounded upon. The study will review theories related to capital structure majority of which were drafted by Modigliani and Miller. The theories of capital structure are; the theory of Modigliani and Miller, the irrelevance theory, agency theory, pecking order theory, and the market timing theory.

Theory of Modigliani and Miller:

Modigliani and Miller cited in Koert (2013) note that firms seek to find a capital structure that presents the highest value for a firm. The highest value can be achieved when the capital structure maximizes the value of the shareholders. In a perfect market, it does not matter which sources are used to finance a company. In proposition I, the theory of Modigliani

& Miller states that in a perfect world without imperfections, differences between using debt and equity do not exist. To maximize the value of the company it makes no differences if a company's capital structure consists of debt or equity (Modigliani & Miller, 1958). In a world with only tax as an imperfection this proposition changes. A company needs to borrow as much debt as possible. With more debt, the tax payments become lower, because the interest can be subtracted. Therefore, more cash flow remains whereby the value of the company increases. Proposition I with taxes explains that companies with more debt have a higher value due to interest that lowers the tax payments (Koert, 2013). Proposition II of Modigliani and Miller (1958) assert that companies with more debt have a higher cost of equity. In times of slump less profit is available, because of the interest which must be paid. Proposition II of Modigliani and Miller with tax clarifies that leverage add more risk to companies, but the tax "shield" reduces something of that risk. Tax changes the slope of the Weighted Average Cost of Capital (WACC). At the point that the WACC is the lowest, the company has the highest value due to the fact that a part of the interest can be subtracted from the tax payments (Hillier, Ross, Westerfield, Jaffe & Jordan, 2010). Modigliani and Miller mentions taxes as the imperfection in the real world, however other imperfections include; distress cost, information asymmetry and agency costs (Koert, 2013).

The Irrelevance Theory:

In their paper titled „The cost of capital, corporation finance, and the theory of investment‟, Modigliani and Miller (1958) revealed that in the absence of taxes, transaction costs and asymmetric information and the same rate of interest of borrowing by individuals and corporations, the value of a firm is independent of its financial structure. According to Modigliani and Miller (1958), a firm cannot increase its value by using debt as part of its permanent capital structure. This argument is based on perfect arbitrage such that investors can assume personal debt to help financing the purchase of unlevered shares, if the value of the levered shares is greater than the unlevered ones. By including tax deductibility of interest payments into their model, Modigliani and Miller (1963) show that borrowing causes the value of the firm to rise by the amount of the capitalized value of the tax subsidy. The introduction of tax deductibility of interest payments has an implication on the choice of capital structure. Profitability increases, non-debt tax shields reduce and liquidity increases.

4. RESEARCH METHODOLOGY

Research methodology is an overall scheme, plan or structure conceived to aid the study in answering the raised research questions and objectives (Bridget and Lewin, 2005). This chapter analyzes the methods and design that will used to carry out the study. It is a blueprint for the collection, measurement and analysis of data. Therefore, in this section the research identifies the procedures and techniques that will be used in the collection, processing and analysis of data.

Research Design:

The current study employed a descriptive research design. The research design was chosen for this research due to its ability to ensure minimization of bias and maximization of reliability of information gathered. Kothari (2008) contends that a descriptive research design is appropriate where the study needs to draw conclusions from a larger population. Mugenda and Mugenda (2003) asserts the purpose of descriptive research is to determine and report the way things are and it helps in establishing the current status of the population under study. Descriptive research design was ideal for this study because it ascertains and describes the characteristics of the variable of interest in a situation (Nachmias and Nachmias, 2007).

5. RESULTS AND DISCUSSION

This chapter presents the results of data analysis and research findings. The research findings presented were based on the study whose research objective was to establish the influence of firm specific factors on capital structure of listed manufacturing and allied firms in the NSE. Data of targeted listed companies under each segment was collected from published financial statements available at NSE and CMA as well as the company head offices for those that are not listed. This was then used to compute the various ratios which constituted variables in the study. The chapter presents the summary of descriptive statistics and regression analysis followed by a summary and interpretation of the findings

Regression Analysis Results:

$$LG = \beta_0 + \beta_1 TA + \beta_2 P + \beta_3 FS + \beta_4 FG + \varepsilon$$

Where;

LG = Leverage, as given by; Total interest-bearing Debt divided by Total Assets

TA = Tangibility of assets, as given by; Total fixed Assets divided by Total assets

PF = Profitability, as given by; EBIT divided by Total Assets

FS = Firm Size, as given by; Natural logarithm of sales

FG = Firm Growth, as given by; % change in Total Assets

$\beta 0$ = Constant term

$\beta 1 - \beta 4$ =Regression coefficients – define the amount by which LG (variable) is changed for every unit change in the predictor variable.

ε = the error term, which defines the variation in the response variable, LG, which cannot be explained by the included predictor variables.

A separate regression analysis for each segment was performed to determine the relationship between leverage and each independent variable

Table 1: Model Goodness of Fit

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.846[a]	.776	.653	0.02138

Predictors: (Constant), size, growth, tangibility, profitability

The study used Table 1 to establish whether the dependent variable leverage has a linear dependence on the independent variables namely tangibility of assets (TA), profitability (P), firm size (FS), and firm growth (FG). The correlation coefficient (R) measures the strength and direction of a linear relationship between two variables. The study established a correlation value of 0.846. This depicts a strong linear dependence between the two variables. The R-squared indicates the coefficient of determination, which is the proportion of variance in the dependent variable that can be explained by independent variables. An R-square value of 0.776 was established and adjusted to 0.653. The coefficient of determination depicts that 77.6% of the variations in leverage can be explained by tangibility of assets (TA), profitability (P), firm size (FS), and firm growth (FG) meaning that there are other factors that influence the total leverage of the segment.

Table 2: Analysis of Variance (ANOVA)

Mo		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.040	5	.007	8.336	.004
	Residual	.005	7	.002		
	Total	.037	12			

a. Predictors: (Constant), size, growth, tangibility, profitability b. Dependent Variable: leverage

Analysis of Variance was used to test the significance of the regression model as pertains to significance in the differences in means of the dependent and independent variables. The table shows that the independent variables statistically predicts the dependent variable (6, 95) =8.336, $p<0.05$ (i.e. the regression model is a good fit for the data).

Table 3: Regression Coefficients

Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	-1.098	.679		-1.450	.169
	Profitability	-.252	.089	-.805	-2.789	.019
	Tangibility	.129	.020	.493	1.111	.198
	Size	.061	.050	.279	1.267	.227
	Growth	.020	.079	.051	.225	.738

a. Dependent Variable: Leverage

Holding other factors constant, Profitability is the only variable with a negative correlation with leverage and also statistically significant at 1.9% level of significance. This implies that for this segment, as the level of profits increases, the use of debt to finance investments decreases. Tangibility has a positive correlation with leverage and is also statistically significant at 19.9% level of significance. Growth has a positive correlation with leverage and is also statistically significant at 22.7% level of significance. This implies that as growth increases, the level of leverage also increases. Size also has a positive but insignificant correlation with leverage and is also statistically significant at 73.8% level of significance. This implies that as size increases, the level of leverage also increases.

Therefore:

$LG = \beta 0 + \beta 1TA + \beta 2P + \beta 3FS + \beta 4FG + \varepsilon$

$LG = -1.098 + 129TA - 252P + 061FS + 020FG + \varepsilon$

6. SUMMARY OF FINDINGS

The objective of the study was to establish the influence of firm specific factors on capital structure of listed manufacturing and allied firms in the NSE in Kenya. The results indicate that over the five years period the manufacturing and allied firms had a mean leverage of 0.59, profitability of 3.20, firm size of 0.03, asset tangibility of 1.11, and firm growth mean of 0.21. The standard deviation values were all less than 1 indicating that there were no significant variations in the responses. The study findings established a correlation value of 0.846. This depicts a strong linear dependence between the two variables. The R-squared indicates the coefficient of determination, which is the proportion of variance in the dependent variable that can be explained by independent variables. An R-square value of 0.776 was established and adjusted to 0.653. The coefficient of determination depicts that 77.6% of the variations in leverage can be explained by tangibility of assets (TA), profitability (P), firm size (FS), and firm growth (FG) meaning that there are other factors that influence the total leverage of the segment. The study findings further show that the independent variables statistically predict the dependent variable (6, 95) =8.336, p<0.05 (i.e. the regression model is a good fit for the data). The findings also reveal that Profitability is the only variable with a negative correlation with leverage and also statistically significant at 1.9% level of significance. This implies that for this segment, as the level of profits increases, the use of debt to finance investments decreases. Tangibility, growth, and size has a positive correlation with leverage and are also statistically significant at 19.9%, 22.7% and 73.8% level of significance. This implies that as growth increases, the level of leverage also increases.

7. CONCLUSIONS

Literature suggests that debt requirements of a firm in one industry differ from the firm in another industry; hence determinants of capital structure are different across industries (Titman & Wessels, 1988). The reason for this is because in the environment, business risk varies across the industries. The manufacturing and allied industry is unique in many aspects compared to other sectors in Kenya. This study concludes profitability, firm size, asset tangibility, and firm growth are determinants of the capital structure of manufacturing and allied industry firms in Kenya. The most influential variable is the asset tangibility, followed by firm size and firm growth. Liquidity has the least impact on leverage of the cement manufacturing firms in Kenya. The study also concludes that profitability has a negative correlation with the leverage of the manufacturing and allied industry firms in Kenya. This implies that as leverage of the firms increases profitability will fall. All the other variables have a positive correlation with leverage.

8. RECOMMENDATIONS OF THE STUDY

On the basis of the above, conclusions, the following recommendations were made for the influence of firm specific factors on capital structure of listed manufacturing and allied firms in the NSE.

Recommendations for policy and practice:

The study recommends that some of the factors to consider when making capital structure choice include profitability, size of the firm, growth of the firm and tangibility of assets. Chief Finance officers of firms in the manufacturing and allied firms should take into account the industry norms when developing their financial policies. The study further recommends that capital structure of comparable companies in the industry should be considered because it might reflect the unique risks inherent in that industry.

REFERENCES

[1] Abor, J. (2005). The effect of capital structure on profitability: empirical analysis of listed firms in Ghana. Journal of Risk Finance, 6 (5), 438-45.

[2] Alfred, D. (2007). Corporate finance: issues, investigations, innovations and applications (2nd ed). Lagos: High Rise Publication.

[3] Ali, S., Yadav, R., Jamal, A. (2013). Theories of capital structure: Analysis of Capital Structure Determinants, International Research Journal of Management Science and Technology, 4 (3), 695-704.

[4] Al-Najjar, B. and Hussainey, K. (2011). Revisiting the capital-structure puzzle: UKevidence, The Journal of Risk Finance, 12 (4), 329-338

[5] Anwar, W. (2011). Cross-Industry Determinants of Capital Structure: Evidence fromPakistani data. African Journal of Business Management, 7(17), 1625-1629. Baker, H. K., and Martin, G. S. (2011). Capital Structure and Corporate FinancingDecisions: Theory, Evidence, and Practice (Vol. 15). NY: John Wiley & Sons Inc.

[6] Borgia, D. and Yan, N. (2013). The Impact of Institutional Factors on Capital Structure: Evidence from Chinese Private Listed Firms.

[7] Bridget, S., and Lewin, C. (2005). Research Methods in the Social Sciences. London: Sage publications Inc.

[8] Brigham, E., and Ehrhardt, M. (2005). Financial Management: Theory and Practice. USA: Elm Street publishing services.

[9] Chode, P. (2003). Determinants of capital structure of public sector enterprises in Kenya. Unpublished MBA research project, University of Nairobi. Cohen, B. Manion, C. and Morrison, A. (2007). Essentials of education and social science research methods. Canada: Masolp publishers. pp 12-24. Damodaran, A. (2001). Corporate Finance: Theory and Practice. United States: John Wiley & Sons.

[10] Daskalakis, N., Eriotis, N., Thanou, E., and Vasiliou, D. (2014) .Capital structure and size: new evidence across the broad spectrum of SMEs. Journal of Managerial Finance, 40 (12), 1207 – 1222

[11] De Haan, L., and Hinloopen, J. (2003). Preference hierarchies for internal finance, bank loans, bond, and share issues: evidence for Dutch firms. Journal of Empirical Finance, 10(5), 661-681.

[12] Deesomsak, R., Paudyal, K., and Pescetto, G. (2004). The determinants of capital structure: evidence from the Asia Pacific region. Journal of Multinational Financial Management, 14(4), 387-405.

[13] Degryse, H., De Goeij, P., and Kappert, P. (2009). The Impact of Firm and Industry Characteristics on Small Firms' Capital Structure: Evidence from Dutch Panel Data. Tilburg University.

[14] Donaldson, G. (1961). A study of corporate debt capacity. Boston: Harvard Business School.

[15] Drobetz, W. and Fix, R. (2003). What are the determinants of the capital structure?

[16] Some evidence from Switzerland. Working Paper, University of Basel. Frank, Z., and Goyal, K. (2003). Testing the pecking order theory of capital structure. Journal of Financial Economics, 67(2), 217-248.

[17] Fuad, R. (2015). Determinants of capital structure of cement manufacturing firms in Kenya. An unpublished MBA thesis, University of Nairobi. pp 2-7.

[18] Gaud, P., Hoesli, M., & Bender, A. (2007). Debt-equity choice in Europe. International Review of Financial Analysis, 16(3), 201-222.

[19] Gaud, P., Jani, E., Hoesli, M., and Bender, A. (2005). The capital structure of Swiss companies: an empirical analysis using dynamic panel data. European Financial Management, 11(1), 51-69.

[20] Gibson, H. (2012). Financial reporting and analysis: Using financial accounting information. Independence: CengageBrain.

[21] Gill, A., Biger, N., and Bhutani, S. (2009). Corporate performance and the chief executive officer''s compensation in the service industry. Open Bus J, 1, pp.53-77.

[22] Hillier, J., Clacher, I., Ross, S., Westerfield, R., Jaffe, J., and Jordan, B. (2011).

[23] Fundamentals of corporate finance: European edition). NY: McGraw-Hill. Hillier, J., Ross, A., Westerfield, W., Jaffe, J., and Jordan, D. (2010).Corporate finance: 1st European edition. NY: McGraw-Hill.

[24] Iraya C. and Musyoki, N. (2013). Performance of socially screened portfolio at the Nairobi Securities Exchange. International journal of humanities and social science, 3 (6). 2-15.

[25] Jensen, C. and Meckling, H. (1976). Theory of the Firm: Management Behaviour, Agency Costs and Ownership Structure. Journal of Financial Economics, 3, 305-360.

[26] Jensen, M. (1986). Agency Costs of Free Cash Flow: Corporate Finance and Take-overs. American Economic Review, pp.76.

[27] Kale, F. (2015). Determinants of capital structure of cement Manufacturing firms in Kenya. Unpublished MBA research project, University of Nairobi.

[28] Kamau, N. (2010). The relationship between capital structure and financial performance of insurance companies in Kenya. Unpublished MBA research project, University of Nairobi.

[29] Kamere, N. (1987). Some factors that influence capital structure of public companies:An empirical study. Unpublished MBA research project, University of Nairobi.

[30] Kariuki, S. and Kamau, C. (2014). Determinants of Corporate Capital Structure among Private Manufacturing Firms in Kenya: A Survey of Food and Beverage Manufacturing Firms. International Journal of Academic Research in Accounting, Finance and Management Sciences, 4 (3), 49-62.

[31] Kinyua, J. M. (2005). An empirical investigation of capital structure determinants for small and medium-sized enterprises in Kenya. Unpublished MBA research project, University of Nairobi.

[32] Kiogora, M. (2000). Testing for variations in capital structure of firms listed in Nairobi Securities Exchange: An empirical study. Unpublished MBA research project, University of Nairobi.

[33] Koert, N. (2013). Important factors in determining the capital structure of a company. Empirical evidence from Dutch companies. An unpublished MBA thesis, University of Twente. pp 3-10.

[34] Kothari, C. (2008). Research Methodology; Methods and Techniques. New Delhi: New Age International Publishers.

[35] Kouki, M. and Said, B. (2012). Capital Structure Determinants: New Evidence from French Panel Data, International Journal of Business and Management, 7(1), 214-229.

[36] Kubai, F. (2016). The effect of capital structure on the financial performance of manufacturing firms in Kenya. An unpublished MBA thesis, University of Nairobi. pp 1-13.

[37] Kuria, R. W. (2010). Determinants of Capital Structure of Companies Quoted in the Nairobi Securities Exchange. Unpublished MBA research project, University of Nairobi.

[38] Liang, J., Li, F., and Song, H. (2014). An explanation of capital structure of China's listed property firms", Journal of Property Management, 32(1), 4-15.

[39] Mahmud, M., Herani, M., Rajar A., and Farooqi W. (2009). Economic Factors Influencing Corporate Capital Structure in Three Asian Countries: Evidence from Japan, Malaysia and Pakistan. Industrial Journal of Management & Social Sciences, 3(1), 9-17.

[40] Matibe, M. (2005). Relationship between ownership structure and capital structure for companies quoted in the Nairobi securities exchange. Unpublished MBA research project, University of Nairobi.

[41] Modigliani, F. and Miller, H. (1958). The Cost of Capital, Corporation Finance and the Theory of Investment. American Economic Review, 48, 261-277.

[42] Modigliani, F. and Miller, H. (1963). Corporate Income Taxes and the Cost of Capital: A Correction. American Economic Review, 53, 433-443.

[43] Muema, A. (2013). The determinants of capital structures of firms listed under the various market segments in the Nairobi Securities Exchange.

[44] Mugenda, O. and Mugenda, A. (2003). Research methods: Quantitative and qualitative approaches.2nd. Rev. ed. Nairobi: Act press.

[45] Muthoni, E. and Muturi, W. (2016). Determinants of Capital Structure of Private Firms in Thika Town. International Journal of Management and Commerce Innovations, 4 (1), 431-440.

[46] Myers, C. and Majluf, S. (1984). Corporate Financing and Investment Decisions When Firms Have Information the Investors Do Not Have. Journal of Financial Economics, 13(2), 187-221.

[47] Myers, S. (1977). Determinants of corporate borrowing. Journal of Financial Economics 5, pp.147-76.

[48] Myers, S.C. (1984). The Capital Structure Puzzle. Journal of Finance, 39(3), 575–92.

[49] Nachmias, C. F., and Nachmias, D. (2007). Research Methods in the Social Sciences, 7th Ed., Oxford University Press, New York.

[50] Nguyen, T. and Ramachandran, N. (2006). Capital structure in small and medium-sized enterprises: the case of Vietnam. ASEAN Economic bulletin, 23(2), 192-211.

[51] Nilssen, C. (2014). Determinants of Capital Structure in Listed Norwegian Firms Master''s Thesis in Economics and Business Administration, Lancaster University

[52] Odinga, G. (2003). Determinants of capital structure of small and medium-sized enterprises in Kenya. Unpublished MBA research project, University of Nairobi.

[53] Oguna, A. (2014). Examining the effect of capital structure on financial performance: a study of firms listed under Manufacturing, construction and allied sector at the Nairobi Securities Exchange. An unpublished MBA thesis, University of Nairobi. pp 1-13.

[54] Padron G., Apolinario, C., Santana, M., Conception, M., Martel, V., and Sales, L. (2005). Determinant factors of leverage: an empirical analysis of Spanish corporations. Journal of Risk Finance, 6(1), 60-68.

[55] Pandey, M. (2008). Financial Management. 10th Edition, Vikas Publishing House Pvt. Ltd., India.

[56] Salawu, O. (2007). An empirical Analysis of the Capital Structures of selected quoted companies in Nigeria. The International Journal of Business and Finance Research. 1(13), pp.375-384.

[57] SbetiW, M. and Moosa, I. (2012). Firm-specific factors as determinants of capital structure in the absence of taxes. Journal of Applied Financial Economics, 22(3), 209-213.

[58] Serrasqueiro, S., and Rogão, M. (2009). Capital structure of listed Portuguese companies: Determinants of debt adjustment. Review of Accounting and Finance, 8(1), 54-75.

[59] Sheikh, N. and Wang, Z. (2011). Determinants of capital structure: An empirical study of firms in manufacturing industry of Pakistan. Journal of Managerial Finance, 37 (2), 117 - 133

[60] Turere, P. (2012). The Determinants of capital structure in the energy and petroleum companies listed in the Nairobi securities. Unpublished MBA research project, University of Nairobi.

[61] Van-Horne, J. (1989). Financial Management and Policy. 12th Edition, Upper Saddle River, Prentice-Hall, New Jersey, U.S.A.

[62] Wagenvoort, M. (2016). The firm specific determinants of capital structure and the influence of the financial crisis: Evidence from Dutch firms. 8th IBA Bachelor Thesis Conference, University of Twente

[63] Wambugu, L., Kyalo, D., Mbii, M., and Nyonje, R. (2015). Research Methods: Theory and Practice. Aura Publishers. Pp. 101-104

[64] Wiwattanakantang, Y. (1999). An empirical study on the determinants of the capital structure of Thai firms. Pacific-Basin Finance Journal, 7, 371-403.