

Effects of Capital Structure on Financial Performance of Firms in the Commercial and Services Sector Listed at Nairobi Securities Exchange in Kenya

Linnet Kemunto Simion¹ Duncan Otieno Ouma²

1. MBA Student Department of Finance and Accounting, Kenyatta University

2. PhD Student Department of Finance and Accounting, University of Nairobi

*Email of corresponding Author: dancanouma@gmail.com

Abstract

Performance of firms can be attributed to many factors; capital structure often considered one of the factors. A number of empirical reviews indicate that firms with higher leverage often exhibit features of an optimal capital structure, hence to good performance. However, Modigliani and Miller theorem disapproves this notion and asserts that capital structure has no effect on firm value. This study investigates the effects of capital structure on financial performance of firms in the Commercial and Services sector at Nairobi Securities Exchange (NSE) in Kenya. A descriptive survey design was used to gather primary data from 9 Commercial and Services sector firms covering a period between 2007 and 2010 and secondary data obtained from NSE handbook. Descriptive statistics and correlation and regression analysis model was adopted for data analysis. The correlation and regression result between financial leverage and ROE finds that there is a negative correlation of -0.235 and the coefficient of financial leverage of -3.781 respectively. Similarly, the regression result finds that the coefficient for financial leverage and ROA is - 0.1.178, which is not statistically significant at 10 percent level, at t-value of -1.234 and p-value of 0.228 that is greater than 0.1. Finally, Phi and Cramer's V tests finds the hybrid system to be the preferred financing structure. This study rejects the null hypothesis and concludes that there is significant relationship between financial leverage and financial performance of enterprises listed in NSE, Kenya.

Keywords: Capital Structure, Financial Performance, Nairobi Security Exchange

DOI: 10.7176/RJFA/14-13-01

Publication date: July 31st 2023

1. INTRODUCTION

Financial performance of an organization is a subjective assessment of how optimum an organization can utilize its assets to create revenue. Novaes (2004) averred that financial performance measurement attributes such as profitability and liquidity of firms among others presents a valuable tool to sector stakeholders to assess the historical financial performance verses the present position so as to make informed financial decisions. A firm's financial performance in the view of the shareholders is evaluated based on how well off they become at the end of the financial period and this can be determined using profitability ratios derived from financial statements (Berger & Patti, 2002).

Decisions about capital structure relates to considering a specific mixture of debt and equity that a firm adopts to finance its operations (Abor & Biekpe, 2005, Damodaran, 2001). Myers 2001 defines capital structure as the study of capital structure as the mix of securities and financing sources adopted by corporate establishments to finance real investment. Better capital structure decision making amongst listed firms helps to minimize risk, optimize financial flexibility, and embolden the long-term solvency needed to deliver sustainable services to their clients (Boateng, 2004). Consequently, the association between equity and debt and company value has been widely examined in the past few years. Modigliani and Miller (1958) postulated that, in a world short of friction, there is no difference between equity and debt financing with respect to the value of the firms. Thus, financing decision add no value and are therefore of no concern to the managers. Nevertheless, capital structure is lately considered a significant financial decision for any firm that intends to maximize returns and to grow the value of the firm. The consequence of the capital structure decision is the expected to improve the ability of the company to cope with the competition in the industry.

Gleason (2000) noted that a firm's capital structure is one such firm-specific strategy employed by managers to facilitate growth in performance. Most firms strive to attain an optimal capital structure so as to minimize the cost of capital finance the firm's activities or to maximize the firm value, and in so doing, enhancing the company's competitiveness in the finance sector through efficient mixture of debt and equity financing (Bancel & Mittoo, 2003). It is evidenced by several theoretical studies that have been carried out on this subject mostly in developed countries yet there is little consensus on how firms choose their capital structure. Also evidence shows that capital structure has received much attention especially among very large firms in developed countries but less recognition in developing countries like Kenya, As Prasad, et al., (2001).

The continued varying performance, with different firms recording different levels of performance despite

that fact that they apply the same capital structure modes continue to raise more questions than answers. Some firms record stunning profits and improvements, while others report slow or stagnant growth. This difference in performance informed the objective of the researchers to establish whether the mixture between equity and debt adopted by a firm influenced financial performance among the listed commercial and services sector firms at NSE. According to Berger (2006), the capital structure adopted by such institutions could be a reason behind the registered financial performance trends. Abor (2005) on the other hand investigated the effects of capital structure on profitability of listed financial institutions, while Boateng (2004) concentrated on the determinants of capital structure in international joint ventures. None of these studies looked at the connection between capital structure and financial performance in the commercial and services sector. It is on this basis that the researcher investigates the effects of capital structure on financial performance of the commercial and services sector firms quoted at Nairobi Securities Exchange in Kenya.

This main objective is broken down into specific objectives; to determine the impact of equity financing, to examine effects of debt financing and to investigate the relationship between a mixture of debt and equity financing on financial performance of commercial and services sector firms quoted at NSE. The study adopts a null hypothesis (H_0), representing no relationship between capital structure and financial performance of firms in the commercial and services sector quoted at NSE and the alternative hypothesis (H_1), stating that there is a relationship between capital structure and financial performance of firms in the commercial and services sector quoted at NSE.

2. LITERATURE REVIEW

This study is founded on five capital structure theories; Modigliani and Miller Theory, pecking order theory, signaling and information asymmetry, and the tradeoff theory.

2.1 Modigliani and Miller Theory

Modigliani and Miller (1958) in their pioneering research came up with the Modigliani and Miller theory regularly referred to as MM I theory, which controversially concluded that capital structure does not affect the value of the firm in a perfect market environment. Later, this theory became known as ‘Capital Irrelevancy Theory’. The theory has been supported by Berk and DeMarzo who argued that in a perfect capital market, the total value of an organization is equivalent to the market value of the aggregate cash flows generated by the company’s assets. This means that firm value is not influenced by its choice of capital structure (Berk & DeMarzo, 2007). Thus this study intends to investigate whether the capital structure adopted by the commercial and services sector listed at NSE has no effect on the firm value and financial performance.

After some criticism and questioning of the validity of their thesis, Modigliani and Miller (1963) issued a correction in which they argued that although the value of the firm does not change with changes in debt/equity ratio there are two major points to note when taxes and other transaction costs are brought into consideration. The correction by Modigliani and Miller (1963) (MM II) leads to the conclusion that capital structure is essential in the real world of taxes, inflation and bankruptcy/transaction costs. Modigliani and Miller assertions are also the fundamentals of capital structure today. However, the MMII theory is founded on highly restrictive assumptions that do not apply in practical situations (Abor, 2005; Kyereboah-Coleman, 2007). Other studies by Kyereboah-Coleman (2007), Grossman & Hart, (1982), Myers, (1977), Harris & Raviv, (1990), Jensen, (1986) and Williams, (1987), rejected the assertion put forward by Modigliani and Miller. This study thus will either confirm or reject the proposition put forward by Modigliani and Miller theory.

2.2 Pecking Order Theory

The pecking order theory put forth by Myres (2004) posits that companies primarily depend on internally generated funds, that is, undistributed earnings before turning to debt in case surplus funds are needed or finally considering issuing equity only as a last resort. This is due to the type of message that the different types of securities send to the market. For instance, debt gives an indication to investors of the confidence the management team has about the ability to service the debt, while equity signals that management believe the firm to be overvalued and could potentially trigger a fall in its share price (Machel, 2013). The order of preferences is dependent on the comparative costs of the different financing options (Abor, 2005; Berk & DeMarzo, 2007). This is driven partly by the general view that retained earnings are cash are meant for shareholders, which do not earn as much yield as it could when invested elsewhere. This theory is particularly important to this study since it tells the preference of the source of capital and the researchers looks at the relationship between the choices of source of capital to the financial performance.

2.3 Signalling and Information Asymmetry Theory

Ross & Leland & Pyle (1977) assert that the signaling and information asymmetry theory is founded on the asymmetry of the information about the real firm’s value and the real investment opportunity between the

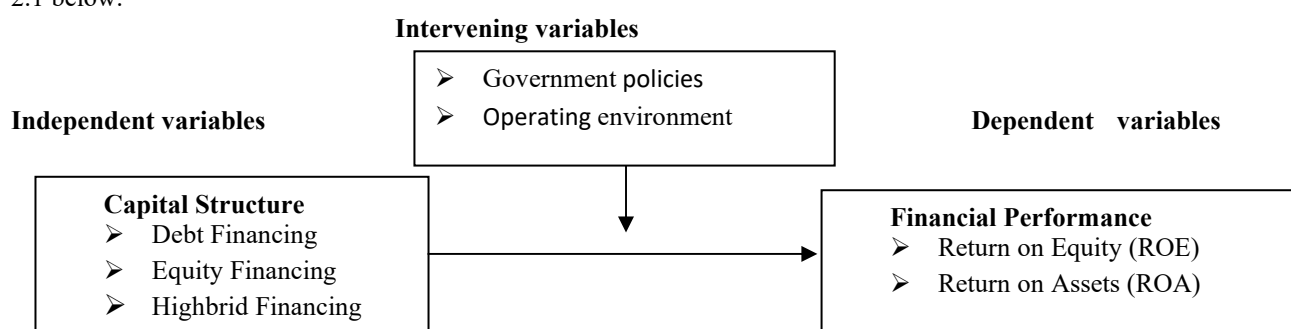
managers and investors. Different capital structure mix sends different signals about the quantity and performance of the company to the market, and they try their best to avoid sending the negative signal. In the Ross model, the good performing companies can raise the debt ratio to differentiate themselves from the poor performing companies. This means that the firm's value or the profitability has the positive relationship with the debt ratio.

2.4 Trade-off Theory

The tradeoff theory envisages that the profitability of an organization is established through optimizing the benefits of the tax shield offered by debt. According to Myers (2001) the tradeoff theory places significance on taxes and puts forward that firms pursue debt levels that balance the tax advantages of additional debt against the costs of potential financial distress. Myers is extending the concept to take into account the prevailing conditions in the real world. The tradeoff theory postulates that a company will pursue debt up to the level where the marginal value of tax shields on supplementary borrowing is compensated by the growth in the present value of potential cost of financial distress. The value of the firm diminishes as a result of the financial distress (Myers, 2001). Based on this theory, debt is typically cheaper for a firm to service because it does not imply any form of risk-sharing and it can be collateralized, different from equity that is a residual claim. In this sense, a company can diminish its weighted average cost of capital (WACC), at least initially, through leverage.

2.5 Conceptual Framework

The conceptual framework contains the independent and dependent variables. The independent variables are the variables that cause a change on other variables. The independent variable is the capital structure which comprises of equity financing, debt financing and hybrid financing. Conversely, the dependent variable is the financial performance of firms which is measured by; return on equity (ROE) and return on assets (ROA). The intervening variables include the government policies and the operating environment. This is presented in figure 2.1 below.



Source: Researcher, 2015.

3. RESEARCH METHODOLOGY

The study was quantitative and qualitative in nature employing both survey research and descriptive study based on secondary data from NSE handbook and from other related literature review. Descriptive research was preferred because the researcher used the already available data to analyze whether financial performance of the quoted commercial and services sector firms measured by ROA and ROE are affected by the capital structure decisions taken by the management teams of the institution. Survey design on the contrary is ideal when selecting a portion of the population and subjectively examining the relationships among variables (Kraemer, 1991). The secondary data of nine (9) commercial and services firms (Appendix IV) was collected from NSE handbook, while primary data was collected through the use of questionnaire from 36 respondents that included finance managers, financial controllers, finance analysts and the chief accountants drawn from the 9 sampled firms listed at NSE.

3.1 Empirical Analytical Model

To establish the relationship between capital structure and financial performance of firms in the commercial and services sector quoted and NSE, regression analysis of the variables was computed. The β_1 and β_2 coefficients were calculated to measure the percentage of debt ratio. ANOVA was used to measure the effect of debt ratio on return on equity. The regression model is expressed as:

$$ROE = \alpha + \beta_1 I + \varepsilon$$

$$ROA = \alpha + \beta_2 I + \varepsilon$$

Where

ROE = return on shareholders' funding (equity)

ROA = return on asset of Company
 α , β_1 , β_2 = Coefficients of the model
 I = Debt ratio
 ε = error term

Debt ratio = long term debt / (shareholders equity + long term debt)

ROE = Net Profit after Tax-Preference dividends/ Equity capital

ROA= Net profit after tax/total asset

4. DATA ANALYSIS, RESULTS AND DISCUSSION

The purpose of the study is to investigate the effects of capital structure on financial performance of firms in the commercial and services sector quoted at NSE. Analysis of primary data revealed a response rate of 78 percent completed and returned questionnaires, which is considered adequate (Dixon, 2012).

4.1 Effects of Equity Financing on Financial Performance

The first objective of the study sought to find out the effects of equity financing on financial performance of commercial and services sector firms quoted at NSE. Respondents were enquired to state the degree to which their firms relied on equity financing as a form of capital structure. From the findings obtained, it was noted that majority of the firms relied on equity financing as a form of capital structure; 25 percent of the firms highly depended on equity financing, 10.7 percent did not depend on equity, 21.4 percent were uncertain to equity financing representing a big percentage close to those who highly relied on it. The reasons given by the respondents was that equity financing positively affected the financial performance as it increases profit and liquidity position the firm. It also affected the cash flow and earnings per share.

4.2 Effects of Debt Financing on Financial Performance

To establish the impact of debt financing on financial performance of corporations in the commercial and services sector listed at NSE in Kenya. The respondents were enquired to state the degree to which their corporations relied on debt financing as a form of capital structure. The study found that 36 percent of the firms relied on debt financing to a higher extent as a form of capital structure while 46 percent showed a lower extent of reliability on debt financing. It was found that debt financing resulted into increase in costs, lower profits and lower earnings per share. This result confirms Zeitun and Tian (2007) who also found that capital structure has a substantial negative effect on firm performance.

4.3 Descriptive Statistics of Effect of Capital Structure on Financial Performance

This section uses descriptive statistics to analyze the effect of capital structure on financial performance of firms quoted at NSE. The analysis show a mean value of return on assets for 28 observations was 2.1902 with a standard deviation of 2.71006 and minimum and optimum values of -0.14 and 12.73 respectively. The recorded positive ROA realized signifies that the firms were averagely profitable albeit some firms running at a loss as revealed by the negative minimum value of ROA recorded. The mean value for ROE was 27.0086 with a standard deviation of 130.47530 and minimum and optimum values of 0.01 and 692.49 respectively for 28 observations. This is represented in table 4.8 below.

Table 4.1 Descriptive Statistics

Variable	Observation	Minimum	Maximum	Mean	Std. Deviation
ROA	28	-.14	12.73	2.1902	2.71006
ROE	28	.01	692.49	27.0086	130.47530
I	28	.40	2.66	1.0308	.54105
Total Asset	28	483284.00	2196429250.00	187313407.4107	399743344.22075

Source: Research Data

The result in table 4.1, show the mean value of financial leverage to be 1.0308. This indicates that, on average, firms quoted at NSE were extremely geared. A larger proportion of the assets of the firms in the commercial and services sector were bankrolled by long term debt. The standard deviation of 0.54105 denotes a great variation in financial leverage as demonstrated by the minimum recorded financial leverage of 0.40 and a optimum of 2.66. Finally, the mean for the total assets for the firms under consideration was Kshs 187,313,407.41 with a standard deviation of Kshs 399,743,344.22. The optimum value of the asset for the period covered was Kshs 2,196,429,250.00 million while the minimum value was Kshs. 483,284.00.

The analysis on the correlations between financial leverage and the ROE found that there is a negative correlation of -0.235. This means that an increase in debt financing as measured by financial leverage causes a decrease in the return on equity. This is shown in table 4.2.

Table 4.2 Correlations

		ROE	I
Pearson Correlation	ROE	1.000	-.235
	I	-.235	1.000
Sig. (1-tailed)	ROE	.	.114
	I	.114	.
N	ROE	28	28
	I	28	28

Source: Research Data

Significance T-Testing

This study tests the following hypothesis:

Null Hypothesis: There is no relationship between capital structure and financial performance of firms in the commercial and services sector quoted at NSE.

Alternative Hypothesis: There is a relationship between capital structure and financial performance of firms in the commercial and services sector quoted at NSE.

The hypothesis testing to measure the relationship between capital structure and financial performance of commercial and services sector firms companies at NSE in Kenya was done using the ANOVA, at 90 per cent confidence ($p < 0.1$) and found that there is substantial relationship between capital structure and financial performance. This leads to the rejection of null hypothesis. The analysis on ROE found a significance level of 0.937 which is greater than the P- value of 0.1 level of significance. This is presented in table 4.3.

Table 4.3 ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	112.982	1	112.982	.006	.937 ^b
	Residual	459529.707	26	17674.220		
	Total	459642.689	27			

a. Dependent Variable: ROE

b. Predictors (Constant), I

Source: Research Data

The regression results as outlined in table 4.4 points out that the coefficient of financial leverage of -3.781 was statistically immaterial at 10% level with t-value of -0.08 and p-value of 0.937 which is greater than 0.1. The results designate that there was an insignificant negative relationship between financial leverage and ROE and a measure of financial performance of institutions quoted in the NSE as measured by return on equity.

Table 4.4 Regression Results (Dependent variable: ROE)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	30.906	54.838		.564	.578
	I	-3.781	47.288	-.016	-.080	.937

a. Dependent Variable: ROE

Source: Research Data

The regression result in table 4.5 indicates that the coefficient for financial leverage is - 0.1.178 and is not statistically significant at 10% level, with t-value of -1.234 and p-value of 0.228 which is greater than 0.1. The results points to that fact that there was an insignificant negative relationship between financial leverage and ROA as a measure of performance of financial firms listed at NSE as measured by ROA. These findings are consistent with capital structure relevance theories.

Table 4.5: Regression Results (Dependent variable: ROA)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.405	1.107		3.075	.005
	I	-1.178	.955	-.235	-1.234	.228

Source: Research Data

Chi-square tests performed to establish whether the hybrid system is a preferred mode of financing found a chi-squared statistic of 756. The chi-squared statistic has 729 degrees of freedom and a p-value of 0.237. There is an important warning at the bottom of the Chi-Square output. The warning tells us that 100% of the cell has expected frequencies less than 5. Thus, all the assumptions of chi-square have been violated and the results may not be meaningful. In this study, the p value is larger than $\alpha = 0.1$, so we fail to reject H_0 . That is, there is

insufficient evidence to conclude that there is significant relationship between financial leverage and performance of commercial and services sector companies listed in NSE, Kenya. This is presented in table 4.6-4.8 below.

Table 4.6: Chi-Square Tests for ROA

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	756.000 ^a	729	.237
Likelihood Ratio	186.603	729	1.000
Linear-by-Linear Association	.007	1	.935
N of Valid Cases	28		

a. 784 cells (100.0%) have expected count less than 5. The minimum expected count is .04.

Source: Research Data

Table 4.7: Chi-Square Tests for ROE

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	756.000 ^a	729	.237
Likelihood Ratio	186.603	729	1.000
Linear-by-Linear Association	1.494	1	.222
N of Valid Cases	28		

a. 784 cells (100.0%) have expected count less than 5. The min expected count is .04.

Source: Research Data

Phi and Cramer's V are both tests of the strength of association. It is noticed that the strength of correlation between the variables is very weak. This is an indication that both debt and equity financing are independent and important in the performance of commercial and services sector listed at NSE. In a way this is an indication that mode of preferred financing structure is the hybrid system. In general, it is clear from the findings that there is significant relationship between financial leverage and financial performance of commercial and services firms listed in NSE, Kenya. The overall financial performance model is then reduced to the following general linear regression equation:

$$Y = a + b_1x_1 + b_2x_2 + e$$

Where:

Y = is performance measured in terms of ROA and ROE

a = Constant term representing financial performance which is explained by other factors other than capital structure

b₁ and b₂ = the coefficients of equity and debt variables respectively

e = is the standard error.

Table 4.8: Symmetric Measures

		Value	Approx. Sig.
Nominal by Nominal	Phi	5.196	.237
	Cramer's V	1.000	.237
N of Valid Cases		28	

a. Not assuming the null hypothesis.

b. Using the asymptotic standard error assuming the null hypothesis.

Source: Research Data

Interpretation of the Findings

The correlations and regression results between financial leverage and the ROE found that there is a negative correlation of -0.235 and coefficient of financial leverage of -3.781 respectively. The hypothesis testing using the ANOVA, at 90 per cent confidence (p<0.1) found a significance level of 0.937 which is greater than the P-value of 0.1 level of significance that there is substantial correlation between capital structure and financial performance as measured by ROE. The results posit that there was paltry negative association between financial leverage and ROE and a measure of financial performance of companies listed in the NSE. Similarly, the regression result found that the coefficient for financial leverage and ROA is - 0.1.178 and is not statistically significant at 10%, with t-value of -1.234 and p-value of 0.228 which is greater than 0.1. The results show that there was an insignificant negative relationship between financial leverage and ROA. Finally, Phi and Cramer's V tests found the hybrid system to be the preferred financing structure. This study therefore concludes that there is significant relationship between financial leverage and financial performance of companies listed in NSE, Kenya.

5. SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

The study established that all capital structure variables affect the financial performance of firms. Equity financing positively affected the financial performance as it helped to improve the liquidity position of the firm and also profits. Equity financing was preferred because the profits earned were reinvested in the firm without incurring any costs. On the other hand debt financing negatively affected financial performance of firms in the commercial and services sector listed at NSE. As the firms increased the amounts of leverage the financial performance of those firms reduced because the firms were incurring financial costs out of the profits that have been earned. Also hybrid financing was very important since most firms used it. Hybrid financing is a combination of equity and debt in financing the firm's activities whereby the finance managers had to decide on the proportions of equity and debt that they should have employed to realize optimal capital structure.

The study concludes that high financial leverage has a negative effect on financial performance as measured by both ROE and ROA of commercial and services companies quoted at NSE, Kenya. Debt financing affected the financial performance by lowering the profits and as a result low earnings per share. Equity financing on the other hand positively affected the financial performance as it increased profits and liquidity position thus improving the financial performance. It also affected the cash flow and earnings per share. This was achieved by use of retained earnings and also issue of more shares to the public to raise capital at a lower cost compared to borrowing.

Recommendations for Policy

Finance managers should not overly utilize leverage in their capital structure, but need to finance projects using equity capital and only consider using leverage as the last option and to labor to achieve the optimal capital structure level to optimize the firms' financial performance and endeavor to sustain it as much as possible. Corporate managers need to employ a conservative investment policy in order to heighten the performance of their firms. This study further recommends that the government through the financial institution regulator to regulate the financial sector through various fiscal and monetary policies with a view to minimize the cost of borrowing given that most firms depend on external borrowing to finance their operations.

References

- Abor, J. & Biekpe, N. (2005). The effect of capital structure on profitability: an empirical analysis of listed firms in Ghana. *Journal of Risk Finance*, 6(5), 438-44
- Berger, Allen, & Udell, (2002). Capital Structure and Firm Performance. A new approach to testing agency theory and an application to the banking industry. Retrieved from www.federalreserve.gov/pubs/feds/2002.
- Berger A. & Udell E. (2006). Capital Structure and Firm Performance; a new approach to testing agency theory and an application to the banking industry. *Journal of Banking and Finance*, Volume 30, pp 1065-1092
- Berk, J., & DeMarzo, P. (2007). *Corporate finance*. Boston: Pearson/Addison Wesley.
- Boston, G. J. & Evan, J. D. (2006). Performance Compensation Contracts and CEO's Incentive to Shift Risk to Debtholders. An Empirical Analysis *Journal of Economics and Finance*, 30(1) 70-92
- Champion, D. (1999). Finance: the joy of leverage. *Harvard Business Review*, 77(4), 19-22.
- Damodaran (2001). "Corporate Finance Theory and Practice" 2nd edition Wiley.
- Firer, C. Ross S. A., Westerfield R. W. and Jordan B. D. (2004). *Fundamentals of Corporate Finance* 3rd Edition Berkshire: McGraw Hill
- Frank Z. M. & Goyal V. K. (2003). Capital Structure Decisions. Unpublished paper Sauder School of Business the University of British Columbia
- Gleason, K. C., Mathur, L. K., & Mathur, I. (2000). The Interrelationship between Culture, Capital Structure, and Performance. Evidence from European Retailers. [Article]. *Journal of Business Research*, 50, 185-191.
- Hamada, R. S. (1969). Portfolio analysis market equilibrium and corporation finance *The Journal of Finance*, 31(1), 13-31.
- Hadlock, C. J., & James, C. M. (2002). Do Banks Provide Financial Slack? *Journal of Finance*, 57(3), 1383-1419. doi: <http://www.blackwellpublishing.com/journal.asp?ref=0022-1082>
- Harris, M., & Raviv, A. (1990). Capital structure and the informal role of debt. *The Journal of Finance*, 45(2), 321-349.
- Ilyas (2010). The determinants of Capital Structure: Analysis of Non-Financial Firms Listed in Karachi Stock Exchange in Pakistan. *Journal of Managerial Sciences* Volume II, Number 2
- Jensen, M.C. (1986). Agency Costs of Free Cash Flow, Corporate Finance and Takeovers. *American Economic Review*, Vol. 26(May), pp. 323
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: managerial behaviour, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305-360.
- Kraemer, K. L. (1991). Introduction. Paper presented at The Information Systems Research

- Challenge: Survey Research Methods.
- Kyereboah-Coleman, A. (2007). The impact of capital structure on the performance of microfinance institutions. [Article]. *Journal of Risk Finance (Emerald Group Publishing Limited)*, 8(1), 56-71.
- Machel S. (2013). *The effect of bond issues on the stock price performance of firms listed at the Nairobi Securities Exchange*. Unpublished thesis. University of Nairobi
- Mason R. D. et al (2003). *Statistical Techniques in Business and Economics*, Irwin McGraw-Hill, USA
- Meyer, R. L. (2002). Track Record of Financial Institutions in Assisting the Poor in Asia.
- MicroRate, & InterAmericanDevelopmentBank. (2003). Performance Indicators for Microfinance Institutions. Washington D.C.
- Miller, M. H., & Modigliani, F. (1958). The cost of capital, corporation finance and the theory of investment *The American Economic Review*, 48(3), 261-297.
- Miller, M. H., & Modigliani, F. (1966). Some estimates of the cost of capital to the electric utility industry. *The American Economic Review*, 56(3), 333-391.
- Mugenda, O. M. & Mugenda, A. G (2003). *Research Methods: Quantitative and Quantitative Approaches*. Acts Press: Nairobi
- Myers, S. C. (1977). The determinants of corporate borrowing. *Journal of Financial Economics*, 5(2), 147-175.
- Myers, S.C. (1984). "The Capital Structure Puzzle". *Journal of Financial Economics* Vol. 39, pp. 375-592.
- Myers, S. & Majluf, N. (2004). "Corporate Financing and Investment Decisions: When Firms Have Information that Investors Do Not." *Journal of Financial Economics*, pp. 187-221.
- Novaes, W. (2004). Capital Structure Choice when Managers are in Control: Entrenchment Versus Efficiency. *Journal of Business* 76(1) 49-81
- Prasad, S., Green, C. J., and Murinde, V., (2001). Company Financing, Capital Structure and Ownership SUERF Study No 12, Vienna, SUERF
- Ross S.A. (1977). The determinants of financial structure.; the incentive signaling approach. *Bell J. Econ.*,8, 23-40
- Stiglitz, J. E. (1974). On the irrelevance of corporate finance policy. *The American Economic Review*, 64(6), 851-866.