# A TEST OF RELATIONSHIP BETWEEN FIRM CHARACTERISTICS AND CAPITAL STRUCTURE OF LISTED FIRMS AT THE NAIROBI SECURITIES EXCHANGE IN KENYA. CASE STUDY OF NON FINANCIAL FIRMS.

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# ABSTRACT

Non-financial firms are experiencing declining performance and others have been delisted from the NSE in the last decade and shareholders of these firms are losing billions of shillings each year due to directors' failure to shop for appropriate hedging instruments because of the decline of market price of the shares. This study aimed at investigating the effect of firm characteristics on capital structure of listed firms at the Nairobi Securities Exchange a case study of non-financial firms. The study was guided by two objectives: To establish the effects of firm size on capital structure of non-financial firms at the Nairobi Securities Exchange; To investigate the effects of firm profitability on capital structure of non-financial firms at the Nairobi Securities Exchange; The study will be of significance to listed non-financial firms, policy makers, investors, consultants and entrepreneurs. The study found out that all the two variables namely firms Size, and firm profitability, had a significant positive association with firms' performance. This study used a causal research design to collect raw data and create data structures and information that allowed the researcher to model cause-and-effect relationships between two or more variables. Forty four (44) firms in Nairobi Securities Exchange formed the target population for the study. The study used data for 5 years from 2009 to 2013 from these companies. The study used primary data and secondary panel data contained in the annual reports and financial statements of listed nonfinancial companies. The researcher used descriptive statistics in analyzing the data.

**Keywords**: Capital structure; firm size; firm profitability; non-financial firms; Nairobi Securities Exchange.

# Introduction

The capital structure of a firm is basically a mix of debt and equity which a firm deems as appropriate to enhance its operations in the midst of several constraints it poses. Berger & Bonaccorsi di Patti (2006) have noted that high leverage or low equity/assets ratio reduces agency cost of outside equity and thus increases firm value by compelling managers to act more in the interest of shareholders. Important theories have been advanced to explain capital structure decisions. The trade-off theories of corporate financing are built around the concept of target capital structure that balances various costs and benefits of debt and equity (Modigliani and Miller, 1963; Hovakimian, 2004). But, Harkbarth, Miao & Morellec (2006) postulate that, if one determines optimal leverage by balancing the tax benefit of debt and bankruptcy costs, then both the benefits and costs should depend on macroeconomic conditions. The expected benefit of debt (tax benefit to be derived as a result of debt utilization and mitigation of agency conflicts between managers and shareholders) depends on whether there is an economic expansion or recession since this has cash flow implications.

Empirical results indicate that the major trends in stock-bond correlation are determined primarily by uncertainty of expected inflation. Korajczy & Levy (2000) found that a firm's choice of security issuance is dependent on macroeconomic conditions and firm-specific variables. They postulate that firms tend to time the issuance of securities to periods of favorable macroeconomic conditions. Antoniou et al., (2002) find that the capital structure choice of a firm is not only affected by its own specific characteristics, but also by its surrounding environment such as general health of the economy, the existence of a stock market as well as the size of banking sector. Choe et al., (1993) argue that adverse selection costs vary counter-cyclically to explain the general increases in equity issues during expansion.

#### **Statement of the problem**

When capital markets are perfect, hedging at the corporate level does not add to firm value and, thus, cannot be justified (Booth, 2001). According to Marchica and Mura (2010), firms that have a sound financial structure are able to increase performance by approximately 37% whereas for the non financial listed firms in Kenya, the increase is a modest 15% for the period between 2002 and 2013. Studies from developed countries show that non financial firms are experiencing declining performance and others have been delisted from the NSE in the last decade (Tian & Zeitun, 2007).

According to Bessembinder (2006), shareholders in Kenyan firms are losing billions of shillings each year due to directors' failure to shop for appropriate hedging instruments. Documented evidence available from the World Bank (2014) shows that non financial firms in Kenya were characterized by a decline in performance. For instance, Uchumi Supermarket was put under receivership due to leverage (RoK, 2012). According to Otieno (2010), after thirteen years of profitability, Kenya Airways reported an annual loss of KES10 billion as its fuel-hedging loss ballooned to KES 8.9 billion equivalent to KES 8.8 per share in 2014. In 2015, Kenya Airways reported a loss of KES 26 billion. Further statistics from the Capital market Authority reveals that market price of the shares declined in the year 2007 – 2013 (CMA, 2013). More evidence available in Kenya for example Furniture firm Hutchings Biemer which was listed on the commercial and services sector, had been suspended for over ten years before being de-listed from the Nairobi Stock Exchange in 2006 (Wandera, 2006). Reports from the Republic of Kenya reveal that the

decline in performance is a major hindrance in the realization of Vision 2030 leading to lower economic development and loss of jobs in Kenya which is associated with social injustices (RoK, 2014).

Locally, many researchers have reviewed various aspects of capital structure in the Kenyan context. Omondi (1995) did a study of capital structure in Kenya; Kiogora (2000) carried out an empirical study testing for variations in the capital structure at the NSE; Lutomia (2002) studied the relationship between the firm's capital structure and the systematic risk of common stocks in an empirical study of CQS quoted on the NSE; Munyui (2005) reviewed the capital structure choice in an empirical testing of the pecking order theory among firms quoted on the NSE; Wandeto (2005) carried out an empirical investigation of the relationship between dividend changes & earnings, cash flows & capital structure for firms listed in the NSE while Esther (2008) researched on the relationship between capital structure and agency cost. To the best of the researcher knowledge, there exists no literature on the effects of firm characteristics on capital structure in the Kenyan context. This is the gap the study seeks to address by investigating the effect of firm characteristics on performance of non financial firms at the Nairobi Securities Exchange.

# Objectives of the study

### **General Objective**

The general objective of this study was to establish the effect of firm characteristics on capital structure of listed firms at the Nairobi Securities Exchange in Kenya a case study of non financial firms.

# **Specific Objectives**

The specific objectives of this study were;

- To establish the effects of firm size on capital structure of non financial firms at the Nairobi Securities Exchange.
- To analyze the effects of firm profitability on capital structure of non financial firms at the Nairobi Securities Exchange.

## **1.4 Research Questions**

This study sought to answer the following questions;

- i. What is the effect of firm size on capital structure of non financial firms at the Nairobi Securities Exchange?
- How does firm profitability influence the capital structure of non financial firms at the Nairobi Securities Exchange?

# **2.2 Theoretical Review**

According Kothari (2004) a theory is a coherent group of tested propositions commonly regarded as correct that can be used as principles of explanation and prediction for class of phenomena. In line with this definition, the study used two theories that helped explain the arguments advanced in this study. The theoretical review presents the theories which explain why the problem under study exists - it is but a theory that serves as a basis for conducting research. This study will be based on The Modern Portfolio Theory (MPT) and Agency theory.

#### **Empirical review**

Leedy and Ormrod (2010) note that empirical review is the authors' review of information and theories currently available concerning the topic under study in order to demonstrate the author's

thorough understanding of the topic which he/she is conducting research. Further, it shows that the problem being studied had not been done before or has not been done before in the way proposed by the researcher.

### **Firm Size**

There exist different points of view about the relationship between the level of debt and the firm size. Modigliani and Miller (1958) suggested that there is no relationship between size and level of debt, keep in mind that this result is reliable with the market efficiency hypothesis. However, numbers of authors argue that the negative or positive relationship among the two concepts is vast. According to Heshmati (2008), listed companies have easier access to the equity market, in comparison to the smaller companies because of low fixed costs. Therefore, there should be a negative relationship between the firm size and the leverage. Fama and Jensen (2003) argued that transaction cost and asymmetric information problem are lesser in large firms, in comparison to small firms. Therefore, it is expected that large firms prefer to raise fund from equity rather than debt.

Financiers are not willing to offer small firms capital, or the price of the offered capital is too high for small firms (Ferri and Jones, 2009). Another reason, which makes small firms reluctant to use outside financing, is the market access limitations. In many cases, the minimum volume of capital is required in order to raise external fund (Cassar and Holmes, 2003). This idea is supported by empirical evidence concludes that non financial listed companies are often forced to use internal source, and then short-term debt contracts due to the limited access to the long term financing (Osteryoung et al., 2002; Chittenden et al., 2006; Michaela's et al., 2009).

Many authors have suggested a positive relationship between a firm leverage and its size (Fama and French, 2002). Warner (2007) and Ang et al. (2012) stressed out, that when the value of the

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firm increases; the ratio of direct bankruptcy costs to the firm value would decrease. The effect of these expected bankruptcy costs might be little on large firms' borrowing decisions, which empower them to take on more leverage (Rajan and Zingales, 2005). On the other side, smaller firms face a different reality in raising the long term debt.

Asymmetric information is not the main reason, but the reason is the significant negative correlation between firm size and the probability of bankruptcy (Hall et al., 2004). One explanation could be that relatively large firms tend to be more diversified; therefore, they are less prone to insolvency (Titman and Wessels, 2008). Chittenden et al. (2006) believed in the large companies the cost of monitoring is much lower than small firms. They argued that moral hazard and adverse selection problems are decreased reasonably in large companies, subsequently using debt as an external funding is much better in selected supermarkets. Hence is a positive relationship between the level of debt and the firm's size.

#### **Firm Profitability**

The profitability of a firm measures its gains over its operative years. As contained in Bauer (2004), firms with a more profit should have higher leverage for income they shield from taxes. It holds the view that more profit firms should make use of more debts purposely to serve as a disciplinary measure for the managers. Empirical evidence from the previous studies are in consistence with Bauer (2004) for their reporting of negative relationship between capital structure and profitability. Joshua (2008) contains the list to include: Friend and Lang (1988); Barton et al., (1989); Van der Wijst and Thurik (1993); Chittenden et. al., (1996); Jordan et al., (1998); Shyam-Sunder and Myers (1999); Mishra and McConaughy (1999); Michaela's et al., (1999) but Petersen and Rajan, (1994) reported a positive relationship.

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The relationship between firm profitability and capital structure can be explained by the pecking order theory (POT) discussed above, which holds that firms prefer internal sources of finance to external sources. The order of the preference is from the one that is least sensitive (and least risky) to the one that is most sensitive (and most risky) that arise because of asymmetric information between corporate insiders and less well informed market participants (Abor, 2004). By this token, profitable firms with access to retained profits can rely on them as opposed to depending on outside sources (debt).

# **2.6 Conceptual Framework**

A conceptual framework is a tool researchers uses to guide their inquiry; it is a set of ideas used to structure the research, a sort of a map (Kothari, 2004). It is the researcher's own position on the problem and gives direction to the study. The conceptual framework shows the relationship between variables that investigate firm characteristics on capital structure (Simon, 2011). The researchers argues that there is a relationship between firm size and firm profitability and the capital structure dependent variable. This study sought to verify these arguments. The study was guided by the following conceptual framework.

# **Independent variables**

# **Dependent variable**



**Figure 2. 1: Conceptual Framework** 

Source: (Study, 2015)

http://www.ijsse.org



#### **Research Methodology**

#### **Research Design**

This study used a causal research design. Causal research is designed to collect raw data and create data structures and information that allowed the researcher to model cause-and-effect relationships between two or more variables (Hair et al., 2006). Causal research is most appropriate when the research objectives include the need to understand the reasons why certain market phenomena happen as they do.

### **Target Population**

According to the Nairobi Securities Exchange, as at 2014, there are 60 listed firms at the NSE under different categories. Excluding the financials - Banking (10) and Insurance (6), there remain forty four (44) firms which formed the target population and the study was a census and thus use all 44 non financial firms listed firms as the study sample for the study. The study used data for 5 years from 2009 to 2013 from these companies (see Appendix I). This makes it easier to get adequate and accurate information necessary for the research. The population that was selected is considered to have a higher level of information disclosure (Ngechu, 2004).

## **Data Collection**

The study used primary and secondary panel data contained in the annual reports and financial statements of listed non-financial companies. Panel data consists of time series to enhance quality and quantity of data adequacy (Gujarati, 2003). Primary data was collected by administering questionnaires to the finance departments of the listed non financial firms and secondary data was extracted from the Nairobi Securities Exchange hand books for the period 2009 – 2013 and annual reports and financial statements of listed non-financial companies.

#### **Data analysis and Presentation**

The study used quantitative techniques in analyzing the data. Data was edited, classified, coded and tabulated to analyze quantitative data using Statistical Package for Social Science (SPSS) version 21.0. The capital structure variables are  $\beta$  (independent variables) and dependent variable is Y. The regression equation used was:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \alpha$$

Where Y is the dependent variable (capital structure),  $\beta_0$  is the regression coefficient,  $\beta_1$ , and  $\beta_2$ , are the slopes of the regression equation,  $X_1$  is the firm size independent variable,  $X_2$  is firm profitability independent variable, while  $\alpha$  is an error term.

## **RESULTS AND DISCUSSION**

#### **Descriptive Statistics**

Secondary data collection method was used for the study. Data collected were used to calculate the variables used in the analysis. Table 4.1 Descriptive Statistics 2009-2013; Combined, gives the summary descriptive statistics of the dependent and independent variables of the sample.

From the findings as indicated in table 4.1, firm profitability had a mean of 24940175.9231 and standard deviation of 85443178.85457 with a minimum and maximum value of -69580603.00 and 493338460.00 respectively. Firm size had a mean value 57666193310.4594 and standard deviation of 130781178819.55588 and a minimum and maximum value of 969719118.00 and 77800000000.00.

	Ν	Minimum	Maximum	Mean	Std. Deviation
Firm Size	42	969719118	778000000	576661933	130781178
		.00	000.00	10.4594	819.55588
	42	-	493338460	24940175.	85443178.
Firm Profitability		69580603.	.00	9231	85457
-		00			

#### Table 4.1 Combined Descriptive Statistics 2009-2013

#### **Regression results**

## **Firm Size**

There exist different points of view about the relationship between the level of debt and the firm size. Modigliani and Miller (1958) suggested that there is no relationship between size and level of debt, keep in mind that this result is reliable with the market efficiency hypothesis. However, numbers of authors arguing that the negative or positive relationship among the two concepts is vast. According to Heshmati (2008), listed companies have easier access to the equity market, in comparison with the smaller companies, because of low fixed costs. Therefore, there should be a negative relationship between the firm size and the debt level. Fama and Jensen (2003) argued that transaction cost and asymmetric information problem are lesser in large firms in compare with small firms. Therefore, it is expected that large firms prefer to raise fund from equity rather than debt. SMEs often find costly to disperse asymmetric information.

## Table4. 2: Model Summary

Model	R	R Square	Adjusted R Square	e Std. Error of the
				Estimate
1	.329 <sup>a</sup>	.108	.086	22800809.95

# ANOVA

The F critical at 5% level of significance was 4.0847. Since F calculated is greater than the F critical (value =4.847), this shows that the model was significant as shown by significance level of 0.034 which is less than 0.05.

# Table 4. 3: ANOVA<sup>a</sup>

Model		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	2519764001811	1	2519764001811	4.847	.034 <sup>b</sup>
		756.000		756.000		
1	Residual	2079507738008	40	5198769345020		
1		0240.000		06.200		
	Total	2331484138189	41			
		2000.000				

a. Dependent Variable: Performance Net profit

b. Predictors: (Constant), Firm size

From the hypothesis:

H<sub>0</sub>: Firm size does not affect the Capital structure of listed non-financial firms in Kenya.

Since F calculated is greater than the F critical (value =284.796), we reject the null hypothesis and conclude that Firm size affects the capital structure of listed non-financial firms in Kenya.

Model	R	R <sup>2</sup>	Adjusted	Std. Error of the Durbin-Wa	
			$\mathbb{R}^2$	Estimate	
1	.490 <sup>a</sup>	.240	.221	4.20760	1.877

### Table 4. 4: Model Summary<sup>b</sup>

a. Predictors: (Constant), firm profitability

b. Dependent Variable: capital structure

Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (capital structure) that is explained by the independent variable firm profitability.

Firm profitability variable explain only 24% of the capital structure as represented by the R<sup>2</sup>. This therefore means that other factors not studied in this research contribute76% of the firms' performance. The value of the Durbin-Watson statistic ranges from 0 to 4. As a general rule of thumb, the two variables are uncorrelated since the Durbin-Watson statistic is approximately 2. A value close to 0 indicates strong positive correlation, while a value of 4 indicates strong negative correlation. The value of Durbin-Waston is 1.877, approximately equal to 2, indicating no serial correlation

# **Anova Model**

The F critical at 5% level of significance was 4.0847. Since F calculated is greater than the F critical (value =12.647), this shows that the overall model was significant. The significance is less

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than 0.05, thus indicating that the predictor variable firm profitability, explain the variation in the dependent variable which is Firms capital structure of listed non-financial firms in Kenya. If the significance value of F was larger than 0.05 then the independent variables would not explain the variation in the dependent variable.

Table 4. 5: AN	<b>IOVA</b> <sup>a</sup>
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Model		Sum	of	Df	Mean	F	Sig.	
		Squares			Square			
1	Regression	223.904		1	223.904	12.647	.001 <sup>b</sup>	
	Residual	708.154		40	17.704			
	Total	932.058		41				

a. Dependent Variable: Firms capital structure

From the hypothesis:

H<sub>0</sub>: firm profitability does not affect the capital structure of listed non-financial firms in Kenya.

Since F calculated is greater than the F critical (value =12.647), we reject the null hypothesis and conclude that firm profitability affects the capital structure of listed non-financial firms in Kenya.

# Simple Regression Model

As shown in the tables below simple regression from the year 2009-2013 was ran and then results were shown as under; the result indicates that firm profitability has a positive significant association with firms capital structure .

A simple regression model

Model I:

 $Y = \beta_0 + \beta_1 X_1$ 

Where  $X_1$  is the firm profitability can be written as

 $Y = 0.607 + 2.832E - 008X_1$ 

Implying that a unit increase in firm profitability will lead to 2.832E-008 increase in the dependent variable that is ROA. The tolerance value (VIF) is 1 and since the closer to 1 is a variable, the stronger the relationship between the variable and the other predictor variables therefore firm profitability has a strong relationship with ROA.

# Table 4. 6: Effect of Firm Profitability on Capital Structure

Model			Unstandardized		Standardized	t	Sig.	
				Coefficie	ents	Coefficients		
				В	Std.	Beta		
					Error			
	(Const	tant)		.607	.675		.900	.373
1	firm	profitability	2013	2.832E-	.000	.490	3.556	.001
	2009			008				

a Dependent Variable: Capital Structure

## SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

### **Summary of findings**

From the findings as indicated in table 4.1, Firm Profitability had a mean of 24940175.9231 and standard deviation of 85443178.85457 with a minimum and maximum value of -69580603.00 and 493338460.00 respectively. The findings indicate that some companies were working below their means as indicated by the negative minimum value. Firm size had a mean value 57666193310.4594 and standard deviation of 130781178819.55588 and a minimum and maximum value of 969719118.00 and 77800000000.00.

## Conclusion

#### **Firms Size**

Finally the study found out that firms Size has a significant positive association with firms' performance. This was indicated by the positive unstandardized coefficient of 6.233E-005 in 2013-2009.We therefore rejects the H<sub>0</sub>. Firm size does not affect firms capital structure of listed non-financial firms in Kenya. The study collates with those of (Beard & Dess, 1981) who suggest that a positive relationship exists between company size and financial performance. Bigger firms are presumed to be more efficient than smaller ones. If firm size goes up consequently the capital structure of the firm will also go up. The size of the company will affect the company's funding structure. The need for greater funding may have a tendency that the company wanted the growth in profits. Finally the study concludes that firms' size has a positive influence on the performance of a firm.

The study collates with those of (Beard & Dess, 1981) who suggest that a positive relationship exists between company size and financial performance. Bigger firms are presumed to be more efficient than smaller ones.

#### **Firms Profitability**

From the findings the result indicated an insignificant positive association between firms' profitability holdings and ROA for the years 2013, 2011, 2010 and 2009. However a negative association between the two variables was recorded in the combined data for year 2009-2013 and 2012 as shown by the Unstandardized Coefficients -.001 respectively.

We therefore accept the Ho: H<sub>03</sub>: firms' profitability do not affect firms capital structure of listed non-financial firms in Kenya.

The study findings conquer with those of Myers and Majluf (1984) who discuss how cash and deposits provide firms with financial slack, which allows them to manage operations without costly external funding. If there is a large asymmetry of information between borrowers and lenders, firms with large agency costs from the asymmetry of information tend to reserve more liquid assets instead of using external funding.

#### **Recommendations**

The recommendations are based on the findings on chapter 4 of the study whereby it was establishes Firms size has a positive association with the firm's capital structure, hence it is recommended that financial managers should have adequate operational cash for the growth of the company. While Financial Managers should not worry about leverage since it has been proved that leverage does not affect the growth of the company. The study recommends that efforts should be made by management to improve the capital structure of the firms such as to carry out a policy to maximize the use of debt in capital spending activity. Looking at the relationship between firm's profitability and capital structure, it is concluded that since the 2009, with large investment opportunities, the positive relationship between firms' returns on assets and firms profitability had increased.

## **REFERENCES**

- Antoniou, A., Guney, Y., and Paudyal, K. (2002). Determinants of Corporate Capital Structure: Evidence from European Countries, *Working paper*, University of Durham.
- Bessembinder, H. (2006). Forward Contracts and Firm Value: Investment Incentive and Contracting Effects. *Journal of Financial and Quantitative Analysis*, 26(4), 519-532.
- Berger, AN & Bonaccorsi, di Patti 2006, <u>Capital Structure and Firm Performance: A New Approach to Testing Agency Theory and an Application to the Banking Industry</u>, *Journal of Banking and Finance*, Vol. 30, pp. 1065-1102.
- Booth, L, Aivazian, V, Demirguc-Kunt, A, and Maksimovic, V., (2001). Capital structures in Developing Countries, *The Journal of Finance* LVI, 87-130.
- Choe, H., Masulis, R., Nanda, V., (1993). Common stock offerings across the business cycle: theory and evidence. *Journal of Empirical Finance* 1, 3-31.
- Fama, E. F., French, K. R. (2002), "Testing Trade-Off and Pecking Order Predictions about Dividends and Debt", *The Review of Financial Studies*, Vol. 15 No. 1, pp. 1-33.
- Fama, E. F., Jensen, M. C. (2003), "Separation of Ownership and Control", *Journal of Law and Economics*, Vol. 26 No. 2, pp. 301-326.
- Myers, S. C. (1984), 'The Capital Structure Puzzle", Journal of Finance, Vol. 34, pp.575-592.
- Myers, S. C., Majluf, N. S. (1984), "Corporate Financing and Investment Decisions When Firms Have Information that Investors Do Not Have", *Journal of Financial Economics*, Vol. 13 No. 2, pp. 187-221.
- Marchica, M.T. and R. Mura, (2010), "Financial flexibility, Investment Ability and Firm Value: Evidence from Firms with Spare Debt Capacity," *Financial management*, 1329–1365.
- Modigliani, F., and Miller, M., (1958). The Cost of Capital, Corporation Finance and the Theory of Investment, *The American Economic Review* 48, 261-297.

- Modigliani, F., Miller, M. (1963), "Corporate Income Taxes and the Cost of Capital: A Correction", *the American Economic Review*, Vol. 53 No. 3, pp. 433-443.
- Ngechu M (2004). Understanding the Research Process and Methods: An Introduction to Research Methods Nairobi, Acts Press.
- Hair, J. F. Jr., Black, W. C., Babin, B. J., Anderson R. E., & Tatham, R. L. (2006). *Multivariate Data Analysis* (6th ed.), Upper Saddle River, NJ: Prentice Education, Inc.
- Otieno, K. (2010). Kenya Airways reports huge fuel-hedging loss. Retrieved on 19th May 2015.
- Tian G. G. and R. Zeitun (2007), "Capital Structure and Corporate Performance: Evidence from Jordan" *Australasian Accounting Business & Finance Journal*, Vol. 1, Issue 4, pp. 40–61.
- Hackbarth, D., Miao, J., and Morellec, E. (2006). Capital structure, credit risk, and macroeconomic conditions, *Journal of Financial Economics*, 82(3), 519-550.
- Hovakimian, A., Opler, T., and Titman, S. (2001). The debt-equity choice. *Journal of Financial and Quantitative Analysis*, 36, 1-24.
- Korajczy, R. A and Levy, A. (2003). "Capital structure choice: Macroeconomic conditions and Financial constraints", *Journal of Financial Economics*, pp 68,75-109.
- Kothari, C.R (2004) *Research methodology; Methods and techniques*. New Delhi; New Age International (p) Ltd publishers.
- Simon, M. K. (2011). Dissertation and scholarly research: Recipes for success (2011). Seattle, WA, Dissertation Success, LLC.
- Republic of Kenya (2012). Ministry of Finance Annual Report.
- Republic of Kenya (2014). Ministry of Finance Annual Report.
- Wandera, N. (2006) Hutchings Biemer Heads for De-Listing. The Standard 7 APRIL 2006
- Wandeto P. (2005). An empirical investigation of the relationship between dividend changes & earning, cash flows & capital structure for firms listed in the NSE. *Unpublished MBA project* University of Nairobi.