RELATIONSHIP BETWEEN THE CAPITAL STRUCTURE AND THE FINANCIAL PERFORMANCE OF INVESTMENT AND BANKING FIRMS LISTED AT THE NAIROBI SECURITIES EXCHANGE IN KENYA

John Kuria and Dr. Bernard Omboi
The capital structure of a firm plays a key role in the operational, investment and financing decisions of an organization. These decisions directly impact the growth and profitability of the organization as they are focused on maximizing the shareholders’ wealth to optimum levels. Capital structure and financial performance is still debatable and this study therefore sought to examine the extent to which the capital structure influences financial performance by examining the secondary data for investment companies and banking institutions listed on the Nairobi Securities Exchange (NSE). Investment companies and banking institutions were evaluated through the analysis of their published financial statements for the period 2009 to 2013. Descriptive analysis and post estimation tests were conducted to adhere to the assumptions of regression analysis. Regression results for the influence of capital structure on ROE revealed that debt to equity have a positive and negative significant relationship with ROE. The findings further revealed a negative significant relationship between debt to capital and ROE. Finally the result established that long term debt does not have a statistically significant relationship with financial performance of investment companies and banking institutions listed in NSE. Based on the findings above it can be concluded that long term debt has no statistical significant relationship with financial performance of both investments and banking firms listed in NSE. It can also be concluded that debt to equity affects ROA negatively but it affects ROE positively for investments and banking firms listed in NSE. From the findings it can be concluded that capital structure influences the financial performance of investments and banking firms listed on NSE. Based on the findings it is recommended that companies that are in position to finance their operations using equity should reduce debt financing to improve their financial performance. Despite the negative relationship firms should not shy away from debt financing since it allows businesses to pay for new buildings, equipment and other assets used to grow business before earning the necessary funds.

Keywords: Capital Structure, Debt, Capital, Equity Financial Performance, NSE

INTRODUCTION

Background and research gap
Capital structure is the means by which an organization is financed. It is the mix of debt and equity capital maintained by a firm. The literature is full of theories on capital structure since the seminal work of Modigliani and Miller (1958). How an organization is financed is of paramount importance to both the managers of the firms and providers of funds. This is because if a wrong mix of finance is employed, the performance and survival of the business enterprise may be seriously affected.

It has also been defined as the mix of a firm’s permanent long-term financing represented by debt, preferred stock and common stock equity, Van Horne and Wachowicz, (1995). It is the combination of the company’s debt, equity and retained earnings, which are used to finance its operations and consequently its growth. Sound financial decisions of a company could lead to an optimal capital structure because the capital structure in general has an effect on the financial performance of a company vis-à-vis its net profit, earnings per share, dividend...
payout ratio and the liquidity position, Dhankar and Boora (1996).

The capital structure of a firm plays a key role in the operational, investment and financing decisions of an organization. These decisions directly impact the growth and profitability of the organization as they are focused on maximizing the shareholders’ wealth to optimum levels. Companies therefore attempt to strike a balance between financial risk and return, where with minimal risk organizations’ seek to reap maximum returns. To accomplish this balance, an organization must have an optimal capital structure consisting of the right mix of debt to equity ratio. This ratio assists management in minimizing the cost of financing and maximizing shareholders’ wealth through proper resource allocation. However, it is worth noting that to date, researchers have not been able to provide financial managers with an accurate methodology of determining a firm’s optimal capital structure (Gitman and Zutter, 2010). Capital structure is important in determining the risk level of the company, and fixed cost is the key factor whether it is involved in production process or fixed financial charges. It should be kept low if the management is likely to confront an uncertain environment.

Financial leverage refers to the proportion of debt in the capital structure. Capital structure has for long been regarded as an important parameter from a financial economics standpoint since it is linked with a firm’s ability to meet the demands of various stakeholders (Jensen, 1986). Firms can obtain funds from either external or internal sources. Internal sources of funds include retained earnings while external sources include loans from financial institutions, trade credit, issuance of loan stock, and issuance of equity shares. The creation of a capital structure, therefore, can influence the governance structure of a firm which, in turn, may influence the ability of a firm to make strategic choices (Jensen, 1986). Financing decisions which results into a given capital structure constitutes one category of managerial decisions.

The financial performance of financial and investment firms can be analyzed at micro and macroeconomic level, being determined both by internal factors represented by specific characteristics of the company, and external factors regarding connected institutions and macroeconomic environment. Identifying the factors that contribute to financial firm’s profitability is useful for investors, researchers, financial analysts and supervisory authorities.

The importance of financing decisions cannot be over emphasized since many of the factors that contribute to business failure can be addressed using strategies and financial decisions that drive growth and the achievement of organizational objectives (Salazar et al., 2012). The finance factor is the main cause of financial distress (Memba & Nyanumba, 2013). Financing decisions result in a given capital structure and suboptimal financing decisions can lead to corporate failure. A great dilemma for management and investors alike is whether there exists an optimal capital structure. The objective of all financing decisions is wealth maximisation and the immediate way of measuring the quality of any financing decision is to examine the effect of such a decision on the firm’s performance.

Different views have however been given by the various schools of thought on the relationship between the capital structure and the performance of an organization. Some researchers have concurred that there is a positive relationship between capital structure and financial performance (Akintoye, 2008; Wald, 1999); other researchers have reported a negative relationship (Kambuthu, 2011; Stephen, 2012) whilst others have reported that there is no relationship between capital structure and financial performance (Ebaid, 2009; Prahalathan and Ranjan, 2011).

From the above, the relationship between capital structure and financial performance is still debatable and this term paper shall therefore seek to further examine the extent to which the capital structure influences financial performance by examining the secondary data for investment companies and banking institutions listed on the investment segment at the Nairobi Securities Exchange (NSE). The NSE is categorized into various market segments as follows: the agricultural segment with 7 listed companies; automobile and accessories segment with 3 listed companies; the banking segment which has 11 listed companies; commercial and services segment with 8 listed companies; energy and petroleum segment that has 6 listed companies; investment segment which has 3 listed companies; insurance segment that has 6 listed companies; investment services segment with 1 listed company; manufacturing and allied segment that has 8 listed companies; telecommunication and technology segment with 1 listed company; and the growth and enterprise market segment has 1 listed company.

As mentioned above, this study shall examine the banking and investment segment that has three listed investments companies and eleven banking institutions. The general characteristic of investments industry is that it has the primary role of mobilizing resources and in particular investments from a number of sources. The sources could be mainly individuals who have vast amounts of cash or from companies that are seeking investment opportunities. Based on the various investments that these companies have invested in for instance energy, real estate, etc., this industry is critical in mobilizing resources that would help in economic growth. In the recent past we have also seen a company like Centum get involved in bids for coal mining which is one of the pillars that the Government of Kenya has identified in achieving vision 2030. Though such projects are bound
to provide significant returns for the shareholders of these companies, they also act as catalyst for economic development and hence enhancing the role that this sector plays in the economic development of Kenya.

On the other hand, Banks play an important role in the operation of an economy since they are the financial intermediaries that channel funds from savers to borrower for investment which is an important thing for one’s country economic growth (Abebe, 2014). Healthy and efficient financial systems contribute immensely in the allocation of resources to their most productive use; raising and pooling funds; providing techniques for risk mitigation; financial intermediation; and support the overall growth of the economy.

Objectives of the study
The study shall seek to answer the following research questions:
- Is there any relationship between the capital structure and the financial performance of investment and banking institutions listed at the NSE?
- What is the nature of the relationship that exists between the capital structure and the financial performance of investment and banking institutions listed at the NSE?

LITERATURE REVIEW
Stakeholder theory aims at increasing the efficiency of organizations by bringing new definitions to organizational responsibilities (Jamali, 2008; Carroll and Buchholtz, 2000). In this respect, the theory suggests that the needs of stakeholders cannot be met before the needs of stakeholders are met. Similarly, it claims that developing strategies by considering a broader stakeholder network and interaction will produce more successful results than focusing merely on direct profit maximization attempts (Jamali, 2008). Carroll and Buchholtz (2000) point out that the concept stakeholder has a basic role in understanding enterprise-society relationship. Moreover, this theory involves certain elements such as interests, demands and rights by giving a new dimension to the share concept. Stakeholders might have legal rights on the enterprise as well as the rights in terms of ethic (Carroll & Buchholtz, 2000). To deal with the concept of sharing in such a wide perspective enables enterprises to understand the expectations of society and to meet these expectations more effectively.

The shareholder wealth maximization (SWM) theory states that the immediate operating goal and the ultimate purpose of an organization is and should be to maximize return on equity capital (Windsor & Boatright, 2010). Shareholder wealth maximization focuses on the motives and behaviors of financial stakeholders. The thesis of separation of ownership and control (Berle & Means 1991) posits that principals (or shareowners) employ agents (or management) who must have some reasonable discretion (for example, the business judgment rule).

According to this theory, directors provide the most efficient governance structure for normal day-to-day business operations. In fact, this stance is incorporated into most corporate law regimes (Berle & Means 1932). But there is some disagreement among wealth maximization theorists as to whether directors should focus on shareholders’ interests only or whether they should be permitted to consider the interests of a larger group of corporate stakeholders. This theory is relevant to this study since shareholder wealth maximization is an indicator of improved financial performance. In the context of this study, shareholder wealth maximization would result to improved capital structure and the financial performance of investment and banking companies listed at the Nairobi securities exchange in Kenya.

San and Heng (2011) also carried out a study on the relationship between capital structure and the financial performance of construction companies in Malaysia. Performance was measured using Earnings per Share (EPS) whilst capital structure was measured by Debt to Capital (DC) and Long term Debt to Capital and Equity (LDCE). The results of the study indicated that there was a negative relationship between the EPS and DC for large companies. In Nigeria, Akintoye (2008) sought to establish the sensitivity of performance to the capital structure of selected companies. Performance was measured using Earnings before Interest and Taxes (EBIT), Earnings per Share (EPS) and Dividends per Share (DPS) whilst capital structure was measured by Degree of Operating Leverage (DOL) and Degree of Financial Leverage (DFL). From the study, it was concluded that financial leverage had a significant positive relationship with financial performance as measured by EBIT and EPS.

Other researchers have however given opinions contrary to the above and are of the view that the capital structure of a company does not influence its financial performance. From his research on companies listed at the Egyptian Securities Exchange, Ebaid (2009) was of the view that the capital structure of a company has a weak to no-influence on the financial performance. The proxies used to arrive at this conclusion included, ROA, ROE and gross margin (GM). He deduced that ROA had a negative impact on the organizations’ performance while ROE and GM had no significant impact on the organization performance. Similar sentiments have been shared by Iorpev and Kwanum (2012) and Berger and Bonaccorsi (2006) as cited by Jerjerzadeh et al. (2013).

In Kenya, various researchers have also sought to establish if there is a relationship between capital structure and financial performance for companies listed at the NSE. Mwangi et al. (2014) carried out a study to
establish the relationship between capital structure and performance of non-financial companies listed at the Nairobi Securities Exchange. Performance was measured using ROE and ROA whilst capital structure was measured by financial leverage, total current liabilities to total assets ratio and total current assets to total assets ratio. The results revealed that financial leverage had a statistically significant negative relationship with performance as measured by return on assets (ROA) and return on equity (ROE).

A study of the industrial and allied sector at the NSE by Kaumbuthu (2011) concluded that there was a negative relationship between debt equity ratio and ROE. In the study, the capital structure was proxied by debt equity ratio while performance focused on return on equity. In a study of listed firms in the NSE, Stephen (2012) found out there was a negative correlation between an organization’s debt with its ROA and ROE. The study used ROA and ROE as measures of the firm performance. It also used debt to equity ratios and profitability to analyze the relationship between capital structure and the organization’s performance. Zeitun and Tian (2007) were of the view that the organization’s capital structure had a significantly negative impact on the organization’s financial performance and market measures.

Theoretical review

According to Prahalathan and Rajan (2011) there are various theories on capital structure however there are two theories that have been commonly been identified by previous researchers in discussing capital structure. These two theories are the trade-off theory and the pecking order theory.

In the trade-off theory, Jensen and Meckling (1976) were of the view that there exists a trade-off between an organization’s optimal capital structure and the effects of taxes, bankruptcy costs and agency costs. This trade off determines how much debt and equity finance an organization opts to use. Frank and Goyal (2003) assert that the benefits of debt include tax savings since the interest expense is an allowable expense that is deducted from profit before tax. Further there is reduction of agency cost since managers are conscious of the threat of bankruptcy and liquidation and as such they are able to utilize the organization’s resources optimally. According to the trade-off theory, there is a positive relationship between debt and the company’s financial performance.

Further, Modigliani and Miller (1963) in their second seminal paper have altered the underlying argument of their classical proposition of capital structure. They incorporate the corporate income tax and contend that the value of the firm, if levered, equals the value of the firm if unlevered plus the value of the generated tax benefit. Modigliani and Miller (1963) as Modigliani and Miller (1958) ignore the agency and bankruptcy costs of debt. To certain limits, the presence of agency and bankruptcy costs of debt may outweigh its tax benefit, suggesting that there is some threshold level of debt, under which the firm’s value is maximised. This threshold of debt is generally called the optimal level of capital structure and is defined by the trade-off between costs of debt and its benefits. More precisely, it will be at the point where the marginal benefits of each additional unit of debt equal to its marginal costs. In what follows, we provide a brief discussion of the costs and benefits of debt that derive the optimal capital structure such as the tax benefits, costs of financial distress and agency costs of shareholders managers and shareholders debt holders conflicts.

Pecking order theory predicts that due to the information asymmetry between a firm and outside investors regarding the real value of both current operations and future prospects, external capital (debt and equity) will always be relatively costly compared to internal capital. Myers and Majluf (1984) argue that information asymmetry will lead to a mis-pricing of a firm’s equity in the marketplace, causing a loss of wealth for existing shareholders. This is because of the adverse selection problem that arises because managers are more knowledgeable than outsiders (investors). Myers and Majluf (1984) claim that if the firm finances its new project by issuing new securities, these securities will be under-priced. This is because managers cannot credibly convey the quality of their existing assets and available investment opportunities to potential investors. As a result, outsiders may not be able to discriminate between good and bad projects, consequently interpreting the firm’s decision to issue new securities as a sign of possible bad news and then pricing new securities accordingly. They will demand a premium to invest, or firm can only issue equity at a discount.

Aware of the resulting dilution of current shareholders’ wealth, firms may not issue new equity even for projects with positive net present values, causing what is known as under-investment problem prompting Myers and Majluf (1984) to argue that borrowing through debt instruments, especially the less risky ones, helps firms mitigate the inefficiencies in their investment decisions that are caused by the information asymmetry. Compared to equity, debt is likely subject to lower degree of mis-evaluation or adverse selection problem, simply because debt contracts are safer in that they limit the possible ways by which holders could lose. From this theory, it is noted that managers prefer internally generated funds rather than externally generated funds. Organizations tend to use external funding such as issuing new shares as a last resort when they have exhausted their ability to get more debts (Myers, 1984).
From the literature review, it is apparent that there are divergent views on whether there is a relationship between the capital structure and financial performance of an organization. Using the proposed conceptual model in figure 1, the study sought to answer the research questions.

From the proposed conceptual model, the independent variables are leverage, long-term debt and total debt. The dependent variable is the financial performance of the organization, which shall be measured with ROA and ROE.

**RESEARCH METHODOLOGY**

The study sought to establish whether there is a relationship between the capital structure and the financial performance of a company. To determine this, investment companies and banking institutions that are listed on the Nairobi Stock Exchange (NSE) were evaluated through the analysis of their published financial statements for the period 2009 to 2013. The published financial statements are audited and as such their use increased the reliability and validity of the findings and conclusions. Audited statements of comprehensive income, statements of financial position, statements of changes in equity and statement of cash flows for the three investment companies were collected from the NSE and the respective companies' websites.

The measures of financial performance were used as dependent variables and they included; return on equity (ROE), and return on assets (ROA), whilst the capital structure ratios were used as independent variables and they included; long-term and total debt ratios and debt-to-capital as well as the debt-to-capital ratios. Statistical methods such as mean, standard deviation, and regression analysis were used to establish the relationship between the variables.

Descriptive analysis and post estimation tests were conducted to adhere to the assumptions of regression analysis. The study conducted post-estimation tests such normality test on the residuals, test for heteroskedasticity and serial auto-correlation. The study used Jarque-Bera to test for normality, white test was used to test for heteroskedasticity and Breusch–Godfrey test was adopted to test for serial auto-correlation. This was done to meet the assumptions of using regression model. The research process used econometric views (e-views) for empirical analysis of the data.

**RESULTS AND DISCUSSIONS**

**Descriptive Statistics**

Descriptive statistics of the study variables was conducted. Table 1 contains the results of descriptive statistics. From the result the mean of ROA and ROE of both investment firms and financial firms listed in NSE were 2.98% and 5% respectively. The Maximum and minimum values for ROA were 12 and 0.04 respectively while that of ROE were 56 and 0.0018 respectively.

**Correlation**

Correlation tests established a negative association between ROA and all the independents variables i.e. long term debt, debt to equity and debt to capital. The association between ROA and debt to capital was stronger than that of other variables. Table 2b contains the correlation tests for ROA and independent variables. The findings in Table 2b show that ROE had positive association with both long term debt and debt to equity. The association between ROE and debt to equity was negative.

**Trend Analysis**

The trend of capital structure variables and performance indicators of investment firms indicate that averagely
Table 1: Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>ROA</th>
<th>ROE</th>
<th>Long Term Debt</th>
<th>Debt To Equity</th>
<th>Debt To Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>2.9877</td>
<td>4.9572</td>
<td>5792652</td>
<td>0.23794</td>
<td>1.713712</td>
</tr>
<tr>
<td>Median</td>
<td>3.5578</td>
<td>0.258</td>
<td>2493000</td>
<td>0.204425</td>
<td>0.285084</td>
</tr>
<tr>
<td>Maximum</td>
<td>12</td>
<td>56</td>
<td>31070000</td>
<td>2.901001</td>
<td>13.9141</td>
</tr>
<tr>
<td>Minimum</td>
<td>0.0476</td>
<td>0.0018</td>
<td>4294</td>
<td>0.005157</td>
<td>0.001581</td>
</tr>
<tr>
<td>Std. Dev.</td>
<td>2.5730</td>
<td>10.706</td>
<td>8168872</td>
<td>0.368825</td>
<td>2.794003</td>
</tr>
<tr>
<td>Skewness</td>
<td>0.546963</td>
<td>2.8869</td>
<td>1.8435</td>
<td>6.010388</td>
<td>2.763493</td>
</tr>
<tr>
<td>Kurtosis</td>
<td>3.410282</td>
<td>11.987</td>
<td>5.27966</td>
<td>44.14991</td>
<td>11.86488</td>
</tr>
</tbody>
</table>

Figure 2: Trend for capital structure and financial performance in listed investment firms

Table 2a: Correlations Results for ROA

<table>
<thead>
<tr>
<th></th>
<th>ROA</th>
<th>Long Term Debt</th>
<th>Debt To Equity</th>
<th>Debt To Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td></td>
<td>-0.09</td>
<td>-0.17</td>
<td>-0.21</td>
</tr>
<tr>
<td>Long Term Debt</td>
<td>-0.096</td>
<td></td>
<td>0.439</td>
<td>0.49</td>
</tr>
<tr>
<td>Debt to equity</td>
<td>-0.177</td>
<td>0.43</td>
<td></td>
<td>0.23</td>
</tr>
<tr>
<td>Debt To Capital</td>
<td>-0.21</td>
<td>0.49</td>
<td>0.23</td>
<td></td>
</tr>
</tbody>
</table>

Table 2b: Correlations Results for ROE

<table>
<thead>
<tr>
<th></th>
<th>ROE</th>
<th>Long Term Debt</th>
<th>Debt To Equity</th>
<th>Debt To Capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROE</td>
<td></td>
<td>0.093</td>
<td>0.60</td>
<td>-0.114</td>
</tr>
<tr>
<td>Long Term Debt</td>
<td>0.0930</td>
<td></td>
<td>0.439</td>
<td>0.493</td>
</tr>
<tr>
<td>Debt to Equity</td>
<td>0.6024</td>
<td>0.439</td>
<td></td>
<td>0.254</td>
</tr>
<tr>
<td>Debt To Capital</td>
<td>-0.114</td>
<td>0.493</td>
<td>0.23</td>
<td></td>
</tr>
</tbody>
</table>

Returns on equity for investment firms was very volatile for the period of between 2009 and 2013. ROE decreased from 2009 to 2011 then rose again in 2012 and 2013. The result indicates that long term debt, debt to equity and debt to capital remained averagely constant with the period. ROA rose in 2010 before falling again in 2011. The listed investment firms maintained their debt to capital at its lowest as indicated by the trend. Long term debt for both listed investment and banking firms was significantly high as shown in figure 2.

Figure 2 shows that on average capital structure indicators and financial performance indicators for financial firms showed almost constant trend. The average of long term debt was significantly high compared to other variables. The results also show that ROA for financial firms also performed well the period of between 2009 and 2013. Returns on equity experienced slight shock in 2012 but recovered towards 2013. This shock corresponded to a slight increase in debt to capital. Debt to equity of listed financial firms was maintained at its lowest during the period (table 2a and 2b).
Regression results of influence of capital structure on ROA

A pooled regression model was used to ascertain the relationship between capital structure and ROA. The findings indicate that the model used was significant as shown by the F-statistics. R-squared indicate the independent variables explain 16% of the variations in dependent variable. The findings established that debt to equity and debt to capital have a negative significant relationship with ROA. Long term debt was established to have a positive but insignificant relationship with ROA (table 3a).

These findings imply that investment companies and banking institutions listed inNSE with high debt to equity ratio and high debt to capital ratio report lower return on assets as compared to firms with low debt to equity and low debt to capital ratio. San and Heng (2011) findings also established a negative relationship between the capital structure and performance for large companies in Malaysia. Further the findings on the relationship between long term debt and ROA imply that investment and banking firms listed on NSE can still report high return on assets regardless of the amount the firms are in debt in long term debt.

Regression results of influence of capital structure on ROE

Regression results for the influence of capital structure on ROE revealed that debt to equity have a positive and negative significant relationship with ROE. A unit change in debt to equity implies 20.46 units variation in ROE. Given that the debt/equity ratio measures a company’s debt relative to the total value of its stock, it is most often used to gauge the extent to which a company is taking on debts as a means of leveraging (attempting to increase its value by using borrowed money to fund various projects). A high debt/equity ratio generally means that a company has been aggressive in financing its growth with debt. Aggressive leveraging practices are often associated with high levels of risk. These findings imply that if a lot of debt is used to finance increased operations (high debt to equity), the company potentially generate more earnings than it would have without this outside financing.

The findings further revealed a negative significant relationship between debt to capital and ROE. This finding implies that investment and banking firms with high debt to capital ratio report lower financial performance than firms with lower debt to capital. The debt-to-capital ratio gives users an idea of a company’s financial structure, or how it is financing its operations (high debt to capital ratio gives users an idea of a company's financial structure, or how it is financing its operations, along with some insight into its financial strength. Finally the result established that long term debt does not have a statistically significant relationship with financial performance of investment firms and financial firms listed inNSE. This finding implies that investment and banking firms can have high long term debt and still report high financial performance i.e. high return on equity (table 3b).

### Table 3: Regression results of influence of capital structure on ROA

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LONG_TERM_DEBT</td>
<td>0.090322</td>
<td>0.180559</td>
<td>0.500237</td>
<td>0.6187</td>
</tr>
<tr>
<td>DEBT_TO_EQUITY</td>
<td>-1.142343</td>
<td>0.319388</td>
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<tr>
<td>DEBT_TO_CAPITAL</td>
<td>-0.205174</td>
<td>0.077738</td>
<td>-2.639297</td>
<td>0.0105</td>
</tr>
<tr>
<td>C</td>
<td>2.336842</td>
<td>2.54676</td>
<td>0.917077</td>
<td>0.3624</td>
</tr>
<tr>
<td>R-squared</td>
<td>0.169623</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adjusted R-squared</td>
<td>0.123866</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S.E. of regression</td>
<td>2.542204</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Sum squared resid</td>
<td>394.2308</td>
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<td></td>
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<tr>
<td>Log likelihood</td>
<td>-15.93081</td>
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<tr>
<td>F-statistic</td>
<td>12.52198</td>
<td></td>
<td>2.987779</td>
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<tr>
<td>Prob(F-statistic)</td>
<td>0.017916</td>
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</tbody>
</table>

### Table 3b: Regression Results of Influence of Capital Structure on ROE

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Std. Error</th>
<th>t-Statistic</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td>LONG_TERM_DEBT</td>
<td>-0.452552</td>
<td>0.509141</td>
<td>-0.88854</td>
<td>0.3776</td>
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<td>DEBT_TO_EQUITY</td>
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<td>1.356864</td>
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<td>0.0000</td>
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<tr>
<td>DEBT_TO_CAPITAL</td>
<td>-0.879892</td>
<td>0.318954</td>
<td>-2.755731</td>
<td>0.0077</td>
</tr>
<tr>
<td>C</td>
<td>7.978940</td>
<td>6.570041</td>
<td>1.214443</td>
<td>0.2293</td>
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<tr>
<td>R-squared</td>
<td>0.439299</td>
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<tr>
<td>Adjusted R-squared</td>
<td>0.411724</td>
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<tr>
<td>S.E. of regression</td>
<td>2.119444</td>
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<tr>
<td>Log likelihood</td>
<td>-29.5857</td>
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</tr>
<tr>
<td>F-statistic</td>
<td>15.93081</td>
<td></td>
<td>2.987779</td>
<td></td>
</tr>
<tr>
<td>Prob(F-statistic)</td>
<td>0.017916</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
Post estimation tests
Post estimation test conducted indicate that the assumptions of regression model were adhered to. The white test for heteroskedastic indicate that the residual were Homoskedastic. This implies that regression estimates are not biased. Normality test on the residual was carried to ascertain whether the residuals were normally distributed. The Jarque test revealed that the residuals were normal distributed. The results on serial correlation also indicated that there was no first order serial correlation in the residuals. Tables 4a and 4b shows the results.

CONCLUSION
Based on the findings above it can be concluded that long term debt have no statistical significant relationship with financial performance of both investment companies and banking institutions listed in NSE. This conclusion is based on the empirical data collected and analysed from financial statements of investment and banking firms listed on NSE. It can also be concluded that debt to capital has a negative relationship with financial performance of financial and investment firms listed in NSE. It can also be concluded that debt to equity affects ROA negatively but it affects ROE positively for investments and financials firms listed in NSE. From the findings it can be concluded that capital structure influences the financial performance of investments and financial firms listed on NSE.

Recommendations
Based on the findings it is recommended that companies that are in position to finance their operations using equity should reduce debt financing to improve their financial performance. Despite the negative relationship firms should not shy away from debt financing since it allows businesses to pay for new buildings, equipment and other assets used to grow business before earning the necessary funds.

REFERENCES


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


