Capital Structure of Kenyan Firms: What determines it?

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Abstract

The study sought to find what determines the capital structures of publicly quoted firms, unquoted firms and the small and medium enterprises (SMEs). More specifically, the study aimed to assess whether the size of the firm (FS), asset growth of the firm (AG), profitability (PR), liquidity (LQ), cost of debt (CD), risk of the business (BR) and the industry type (IN) were crucial in influencing the capital structure decisions of Kenya firms. The study employed descriptive design. Stratified sampling technique was used to select 200 firms which included 22 quoted firms, 25 unquoted firms and 153 SMEs. The data for the empirical analysis were derived from the financial statements of these firms during the period 2000–2010. Information on the heterodox factors was obtained through a questionnaire survey. The field survey was carried out between June and July 2012. Statistical package "STATA/IC 10" was used to analyze the data and a panel regression model was used for analysis of data. Wald goodness-of-fit test statistics was carried out. Correlation analysis and ANOVA test were carried out. It was found that only 36% of the variations in the debt-equity ratio could be explained by the variations in the explanatory variables of the model. On the other hand, the adjusted R^2s of the individual regressions fitted in each of the five industries separately have ranged from about 50% to over 80%, indicating a relatively high explanatory power. The size of the firm (FS), asset growth of the firm (AG), profitability (PR), liquidity (LQ), cost of debt (CD) were concluded to have positive effect on the capital structure of a firm. On the other hand, risk of the business (BR) and the industry type (IN) were not very strongly correlated to the capital structure of the firm as revealed by the study. Modified Pecking Order theory was confirmed by the study.

Key words: Corporate leverage, Cost of equity, Financial distress, Pecking order, Trade-off theory.

1.0 Background/Introduction

Corporate sector growth is vital to economic development in any country. The issue of finance has been identified as an immediate reason why businesses in developing countries fail to start or to progress. It is imperative for firms in developing countries to be able to finance their activities and grow over time if they are ever to play an increasing and predominant role in providing employment as well as income in terms of profits, dividends and wages to households. Growing SMEs will also contribute to expanding the size of the directly productive sector in the economy; generating tax revenue for the government; and facilitating poverty reduction through fiscal transfers and income from employment and firm ownership (Prasad et al., 2001). To understand how firms in developing countries finance their operations, it is necessary to examine the determinants of their financing or capital structure decisions.

Company financing decisions involve a wide range of policy issues. At the macro level, they have implications for capital market development, interest rate and security price determination, and regulation. At the micro level, such decisions affect capital structure, corporate governance and company development (Green, Murinde & Suppakitjarak, 2002). Knowledge about capital structures has mostly been derived from data from developed economies that have many institutional similarities (Booth et al., 2001). It is important to note that different countries have different institutional arrangements, mainly with respect to their tax and bankruptcy codes, the existing market for corporate control, and the roles banks and securities markets play. There are also differences in social and cultural issues and even the levels of economic development. These differences actually warrant taking a thorough look at the issue from the perspective of developing economies, especially within the context of sub-Saharan Africa. The few studies on developing countries have not even agreed on the basic facts.

In a study of large companies in ten developing countries, Booth et al. (2001) found that debt ratios varied substantially across developing countries, but overall were not out of line with comparable data for industrial countries. In the last decade, most countries have shifted their development strategies towards a greater reliance on private companies and on the use of organized capital markets to finance these companies. This underlines the importance of research on the functioning and financing of private companies in a wide range of institutional environments, particularly in developing countries (Green, Murinde & Suppakitjarak, 2002).

This study examined the determinants of financing choices (capital structure) of Kenyan firms. By comparing the capital structures of quoted firms, large unquoted firms, and small and medium enterprises (SMEs) in Kenya, this study is relevant in the Kenyan context given the important role the private sector is expected to play as the engine of growth.

2.0 Theoretical Framework

Capital structure is defined as the specific mix of debt and equity a firm uses to finance its operations. Four important theories are used to explain the capital structure decisions. These are based on asymmetric information, tax benefits associated with debt use, bankruptcy cost and agency cost. The first is rooted in the pecking order framework, while the other three are described in terms of the static trade-off choice.

3.0 Empirical Review

Empirical evidence on the relationship between size and capital structure supports a positive relationship. Several studies show a positive relationship between firm size and leverage (Al-Sakran, 2001, Hovakimian et al., 2004).Their results suggest that smaller firms are more likely to use equity finance, while larger firms are more likely to issue debt rather than stock. In a study of six African countries, Bigsten et al.(2000) also showed that about 64% of micro firms, 42% of small firms and 21% of medium firms appear constrained, while this is only 10% for the large firms. Cassar andHolmes (2003), Esperança et al. (2003), and Hall et al. (2004) found a positive association between firm size and long-term debt ratio, but a negative relationship between size and short-term debt ratio.

Growth is likely to place a greater demand on internally generated funds and push the firm into borrowing (Hall et al., 2004). In addition, firms with high growth will capture relatively higher debt ratios. In the case of small firms with more concentrated ownership, it is expected that high growth firms will require more external financing and should display higher leverage (Heshmati, 2001). Al-Sakran (2001) suggests that higher growth firms use less debt. Cassar and Holmes (2003) and Hall et al. (2004) showed positive associations between growth and both long-term debt and short-term debt ratios, while Esperança et al. (2003) found mixed evidence. It is also important to note that the dividend payout of the firm could affect choice of capital in financing growth. Generally, firms with low dividend payout are able to retain more profits for investments. Such firms would therefore depend more on internally generated funds and less on debt finance. On the other hand, firms with high dividend payout are expected to rely more on debt in order to finance their growth opportunities. Age is a standard measure of reputation in capital structure models. As a firm continues longer in business, it establishes itself as an ongoing business and therefore increases its capacity to take on more debt; hence age is positively related to debt. Before granting a loan, banks tend to evaluate the creditworthiness of entrepreneurs as these are generally believed to pin high hopes on very risky projects promising high profitability rates. In particular, when it comes to highly indebted companies, they are essentially gambling their creditors' money. Hall et al. (2004) agreed that age is positively related to long-term debt but negatively related to short-term debt. Esperança et al.(2003), however, found that age is negatively related to both long-term and short-term debt. Green, Murinde and Suppakitjarak (2002) also found that age has a negative influence on the probability of incurring debt in the initial capital equation, and no impact in the additional capital equation.

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. By this token, profitable firms with access to retained profits can rely on them as opposed to depending on outside sources (debt). Murinde et al. (2004) observe that retentions are the principal source of finance. This is mainly because they have less access to external funds, debt as well as equity, than do large enterprises. The theory's application to SMEs implies that external equity finance issues may be inappropriate since these firms may not be listed on the stock market or may not qualify to go through private placements. However, the tax trade-off model predicts that profitable firms will employ more debt since they are more likely to have a high tax burden and low bankruptcy risk. Also, profitable firms are more capable of tolerating more debt since they may be in a position to service their debt easily and on time. Profitable firms are more attractive to financial institutions as lending prospects; therefore they can always take on more debt capital. Cassar and

Holmes (2003),Esperança et al. (2003), and Hall et al. (2004) also suggest negative relationships between profitability and both long-term debt and short-term debt ratios.

The asset structure of a firm plays a significant role in determining its capital structure. The degree to which the firm's assets are tangible should result in the firm having greater liquidation value (Hovakimian et al., 2004). Firms that invest heavily in tangible assets also have higher financial leverage since they borrow at lower interest rates if their debt is secured with such assets. By pledging the firm's assets as collateral, the costs associated with adverse selection and moral hazards are reduced. This will result in firms with assets that have greater liquidation value having relatively easier access to finance at lower cost, consequently leading to higher debt or outside financing in their capital structure. In the case of small firms, the concession of collateral reduces the under-investment problem in the firms by increasing the probability of obtaining credit –functioning also as a management instrument in conflicts between entrepreneur and financiers, since the degree of the entrepreneurs' involvement in sharing business risk, by granting personal collateral, is clearly evident.

Other studies specifically suggest a positive relationship between asset structure and long-term debt, and a negative relationship between asset structure and short-term debt (Cassar and Holmes, 2003; Hall et al., 2004). Esperança et al. (2003) found positive relationships between asset structure and both long-term and short-term debt. Booth et al. (2001) suggest that the relationship between tangible fixed assets and debt financing is related to the maturity structure of the debt. In such a situation, the level of tangible fixed assets may help firms to obtain more long-term debt, but the agency problems may become more severe with the more tangible fixed assets, because the information revealed about future profit is less in these firms. If this is the case, then it is likely to find a negative relationship between tangible fixed assets and debt ratio.

Given agency and bankruptcy costs, there are incentives for the firm not to fully utilize the tax benefits of 100% debt within the static framework model. The more likely a firm is exposed to such costs, the greater their incentive to reduce their level of debt within its capital structure. One firm variable that affects this exposure is the firm's operating risk; in that the more volatile the firm's earnings stream, the greater the chance of the firm defaulting and being exposed to such costs. Esperança et al. (2003) also found positive associations between firm risk and both long-term and short-term debt.

The type of Industry that the business is involved has a big bearing the structure of capital. Furthermore the type of managers, (officers and directors), have a somewhat different perspective since many of them have large portions of their personal wealth invested in the firm. The personal wealth managerial insiders have invested in their employer is composed largely of their employer's common stock and the firm-specific human capital they have accumulated while working for their employer. Since these items tend to represent a large proportion of an insider's total wealth, the bankruptcy of the employer would have a major impact on their personal wealth. Noe and Rebello (2006) argue that the locus of control within a firm is an important determinant of choice of finance. When corporate decisions are dictated by the manager, equity issues will be favored over debt because of the managers' inclination to protect their undiversified human capital and to avoid the performance pressure associated with debt commitments. However, if the locus of control rests with substantial shareholders that are not represented on the management board, especially of quoted firms, the company may take on more debt to limit the scope for managerial discretion.

4.0 Research Methodology

The study was conducted through a descriptive research design. This is a research design where a researcher provides a numeric descriptions of some parts of the population (OSO and ONEN 2009).The survey is ideally suitable for studies where independent variables are described as they are. The sampling frame was firms registered by the Kenya Association of Manufacturers. A stratified sampling technique was used to select the sample for purposes of study from quoted, non-quoted and SMEs. A total of 200 participants was selected. The data for the empirical analysis were derived from the financial statements of these firms during the period 2000–2010. Information on the heterodox factors was obtained through a questionnaire survey. The field survey was carried out between June and July 2012.

A panel regression model was used in this study. Panel data involves the pooling of observations on a cross-section of units over several time periods. A panel data approach is more useful than either cross-section or time-

series data alone. One advantage of using the panel data set is that, because of the several data points, degrees of freedom are increased and collinearity among the explanatory variables is reduced, thus the efficiency of economic estimates is improved. The Model Panel data can also control for individual heterogeneity due to hidden factors, which, if neglected in time-series or cross-section estimations leads to biased results (Baltagi,1995). The panel regression equation differs from a regular time-series or cross-section regression by the double subscript attached to each variable. The general form of the model can be specified as:

$$Y_i = \alpha + \beta X_i + e_i$$

with the subscript i denoting the cross-sectional dimension and t representing the time-series dimension. The left-hand variable, Y_{it}, represents the dependent variable in the model, which is the firm's debt ratios. X it contains the set of explanatory variables in the estimation model, α is the constant and β represents the coefficients. The regression was carried out using a Prais–Winsten specification because this approach is useful for estimating linear cross-sectional time series models when the disturbances are assumed to be either heteroscedastic across panels or heteroscedastic and contemporaneously correlated across panels. Consideration of the correlation bias in the fixed effect was therefore a factor in the decision to do the estimation using a Prais–Winsten regression. Generally, the Prais-Winsten regression results show signs consistent with theoretical predictions. The regression model employed for this study is also in line with what was used in previous studies, with some modifications for the analysis. The model for the empirical investigation for both quoted and unquoted firms is therefore given as follows:

5.0 Data analysis

Data collected was analyzed with descriptive statistics using SPSS which includes percentages, mean scores and frequency tables. Factor analysis which is widely used in business research to reflect hidden variables that cannot be directly measured but tend to be indirectly measured by other measures such as series of questions was used by the researcher. In order to reduce the data to manageable levels, factor analysis was used to reduce a given set of data to fewer variables. The objective was to form new variables by finding a linear combination of variables which are highly correlated. That means that besides making the data more manageable by reducing the number of variables, it also meant to overcome the problems of multicolinearity. Where the degree of association between variables was required, the Pearson's product correlation coefficient (r) which tends to vary between -1 and +1 was applied. To test the causal relation between the firms' capital structure and its potential determinants, a random effects Feasible GLS regression was conducted using the statistical package "STATA/IC 10", being considered one of the best statistical packages available to deal with panel data. Finally, several ANOVA tests are carried out to determine the most significant and influential explanatory variables affecting the capital structure of the firms in each industry in Kenya.

6.0 Research Findings

When examining the sample as a whole, it can be observed that the average debt-equity ratio of the listed firms is 0.712. This implied that they tend on average to maintain an almost balanced capital structure, financing the growth of their investments about 58% (= 100% / [1+0.712]) by equity finances and 42% (= 100% - 58%) by debt. However, the results show that there was some positive skewness (= 2.12) towards the small values. The calculated percentiles show that 10% of the sample observations are zero, i.e. 10% of the investments in Kenya are totally financed through equity. Furthermore, 25% of the D/E observations are below 4%, while half are less than 30%. In addition, only 25% are higher than 100%, indicating equal financing through debt and equity issues; and only 10% of the sample observations are higher than 200%, signifying double financing through debt than equity issues.

The debt-equity ratios also tend to vary across the different industries. If the mean value of the D/E is considered thoroughly in every industry, one can observe that only in the construction and real estate industry does the D/E ratio reach 100%. In the household products and textiles and in the services industries it ranges around 60%, indicating relatively less use of debt than equity to finance investments' growth, while in the food & beverages and in the chemicals and pharmaceuticals industries this ratio is below 50%, designating that equity funds are taking up two-fold the debt issues in the capital structure of the firms in these industries.

Moreover, when the D/E ratio was plotted against time over the whole sample period, it was observed that even in the industries with relatively high D/E ratios there is a general trend towards reducing this ratio in favor of more equity and less debt finances over time. This observation is confirmed when calculating the correlation coefficient between the D/E ratios of each firm over time. The figures showed a negative correlation (-0.123) over the sampled firms taken as a whole. Looking in greater depths, 27 companies (constituting 73% of the sample) have a negative trend in their D/E ratio over time. The other 10 companies (27%) are scattered across all industries, meaning they are not located in any one or two industries. Accordingly, they do not affect the general trend of the D/E ratio in any industry, which is found to be declining across all industries in Kenya over the sample period. This tendency conforms to the existence of a hierarchy of finance that is consistent with the "Modified Pecking Order" theory, where equity is preferred over debt finances.

A correlation test to determine the most significant factors in the list of hypothesized independent variables was carried out. Results are shown on table 1 below. According to business risk (BR), profitability (PR), and liquidity (LQ) seem to have a relatively high correlation with the D/E ratio of the sampled firms, where the relation between PR and LQ on the one side and the D/E ratio on the other side is negative, while the relation between BR and the D/E ratio seems to be positive. Next in strength comes firm size (SZ) with a positive relation with the D/E ratio of the Kenyan Quoted, unquoted and SME firms. Moreover, the relation between industry type (IN) and the capital structure appears to be moderate in strength.

When fitting the FGLS regression model, the results of the correlation test are confirmed to a great extent. In this respect, the estimated regression equation of the D/E ratio of the overall sampled firms over the period 2000-2010 can be written as follows:

$$DE = 0.438 + 0.168SZ + 0.044AG - 3.403PR - 0.196LQ - 0.03CD + 0.0000489BR - 0.026IN$$

The significant Wald goodness-of-fit test statistic denotes that the model as a whole is statistically significant, while the adjusted R^2 points out that about 36% of the variations in the D/E ratio can be explained by the variations in the explanatory variables included in the previous regression model. The estimated results further show that SZ has a significant positive effect on the D/E ratio of the overall sampled firms. In addition, both PR and LQ have a significant negative effect, while BR exhibits a positive relation with the D/E ratio. As for AG and CD, the P-value of the parameters' estimates indicate that at 5% confidence level they have no significant effect on the firms' choice of capital structure.

Regarding the effect of IN on the firms' financing choice between debt and equity, the results illustrate some feeble findings. While the correlation test confirms a relatively strong relation with the dependent variable, yet its FGLS estimated parameter is statistically insignificant at 5% confidence level. Thus, the researchers favored to conduct an additional test (ANOVA) to examine whether the mean of the D/E ratio tends to differ significantly among the five industries; that is to say whether firms in different industries tend to have significantly different D/E ratios. Indeed, the calculated test statistic of IN yielded a statistically significant P-value, which supports the conclusion that the capital structure of firms in different industries tend to be dissimilar. This confirms with the results obtained by the descriptive statistics of the D/E ratio illustrated in section 5.1. For further investigation of the matter, the next part examines how the firms in each of the five industries in Kenya choose between the use of equity and debt to finance their investments' growth.

In order to analyze the key factors influencing the capital structure of firms in each of the five industries in Kenya, the researchers conducted separate ANOVA tests as shown on table 2 and 3 to examine the statistical significance of the explanatory variables in each industry separately. The findings of this table indicate that the key determinants of the firms' choice of capital structure tend to differ across the five non-financial industries in Kenya. In the food and beverages industry, the debt-equity ratio of the firms seems to depend on PR and BR, with a negative and a positive effect respectively. In the chemicals and pharmaceuticals industry, the leverage of the firms is affected mainly by SZ, PR, LQ and BR, where the first exhibits a positive and the rest a negative effect on the debt-equity ratio. Moreover, in the household products and textiles industry SZ, LQ and BR tend to significantly influence the firms' choice between debt and equity, where SZ has a positive and the others a negative effect on the capital structure. In addition, the capital structure of the firms in the construction and real estate industry was found to be highly

dependent on SZ, PR and LQ, where SZ exerts a positive effect and the others a negative effect on the firms' choice of capital structure in this industry. Finally, in the services industry, only BR seems to have a significant positive effect on the firms' debt-equity ratio.

7.0 Discussions and Conclusion

The statistical tests showed that, in four out of the five sampled industries in Kenya, firms preferred equity over debt when financing their investments, thus maintaining a relatively low debt-equity ratio. Even in the fifth industry, where the debt-equity ratio was relatively high (almost 1:1), a considerable decreasing trend was observed in their level of leverage over the sample period. This could be explained by the absence of or the existence of an underdeveloped bond market to which companies can resort to raise debt instruments. This has lead to relatively low leverage ratios in Kenya.

These findings confirm with the Modified Pecking Order theory, which was also observed in several other developing countries during the past few years (Delcoure, 2007; Yartey, 2006). In this respect, DeAngelo (2006) and Delcoure (2007) found that firms in developing countries tend to have low long-run leverage targets and that their debt issuances are only temporary in order to meet unanticipated capital needs. Furthermore, managers realize that the utilization of debt capacity today risks the firm's ability to raise further debt tomorrow. Firms, thus, substitute debt with equity financing since low leverage provides unused debt capacity, which can be tapped to meet future investment opportunities.

The findings of the estimated model and the various other tests confirm the existence of a significant positive relation between the "firm size" and the debt-equity ratio of the actively Kenyan quoted, unquoted and SME corporations. This finding conforms to those of the other empirical studies (refer to Abdullah, 2005; Panno, 2003).

The findings verified existence of a negative effect of the "profitability" and the "liquidity" of the firms in Kenya on their leverage ratio. The statistical tests verified this relation mainly due to the fact that the Kenyan Quoted, unquoted and SME firms tend to prefer equity over debt. This is also found to exist in different countries (Miglo, 2007; Bierley and Bunn, 2005).

On the relationship between the "business risk" of the firm and its debt-equity ratio, surprisingly enough, the results signify a positive relation instead, which contradicts the theoretical background and the findings observed in most developed and developing countries (Panno, 2003; Frank and Goyal, 2003). A probable justification of such result could be that the investors in Kenya –out of pure cultural reasons- tend to be highly risk-averse and low-trusting relative to their counterparts in other foreign countries. Thus, once the business risk of any firm acquires an increasing trend, the investors can sensibly be expected to move away from its stock, making it increasingly difficult for the firm to raise additional equity from the stock market. On the other hand, the strong personal relationships that tend to exist between the firm's managers and their main banks, especially for large firms, in most developing countries (Deesomsak, Paudyal and Pescetto, 2004) enable them to raise more debts to assist them out of their financial distress, as the bank would be willing to launch several rescue operations to save the firm for example by renegotiating loans, reducing the interest rate, or refinancing existing debt. Thus, as the firms' business risk increases, they would find it easier to raise debt rather than equity finances, causing their leverage ratio to increase; and vice versa, when their business risk falls, investors will be more willing to provide equity finances to the firm, causing its debt-equity ratio to decrease.

With respect to "assets growth", it is palpable that the investments' growth in developing countries, among which is Kenya, are not as immense as in more developed countries, where the firms' goal is mainly directed at going global. Thus, there is no extensive need to acquire considerable more funds to meet the growth of investments' demand. As for the "cost of debt", it is apparent in Kenya that the bank interest rate on debts have not changed significantly over the sample period, where the lowest rate was 12.4% and the highest 13.7%. Furthermore, since firms in Kenya tend to prefer equity over debt, they will only resort to debt as a means of last resort, which renders the cost of this debt to be relatively less important for the decision-making process. In addition, the personal firm-bank relationships tend to facilitate the attainment of credit funds, regardless of the change in the interest rates.

8.0 Conclusion and Recommendations

When fitting the regression model, only 36% of the variations in the debt-equity ratio could be explained by the variations in the explanatory variables of the model. On the other hand, the adjusted R^2s of the individual regressions fitted in each of the five industries separately have ranged from about 50% to over 80%, indicating a relatively high explanatory power. This means that searching for an optimal capital structure is not one-way to go. Myers (2001) has stated that each capital structure theory works out under its own assumptions and, thus, does not offer a complete explanation of the financing decisions of firms. Furthermore, this relatively low overall explanatory power reveals that there might be other factors affecting the firms' financing decision than those hypothesized by this study. It could safely be expected that those factors are institutional in nature, considering the relatively comprehensive list of firm-specific determinants examined by this paper. These institutional factors might encompass the level of protection of investors' rights, the ownership structure of the firm, the extent of the stock and the bond market development, the level of corporate governance, and the legal framework that exists in the country in which the firm operates (Delcoure, 2007 and Jong, Kabir and Nguyen, 2008). Hence, further research is warranted in two main directions. First, additional investigations are required to examine whether the firms in the different industries in Kenya tend to follow different capital structure theories under different conditions while maintaining a Modified-Pecking-Order trend over the long run. Second, a supplementary analysis ought to be conducted to test whether the different institutional factors suggested by the other empirical studies have a significant effect on the way firms in Kenya choose to finance their investments' growth. It is important to note here, however, that the problem with such qualitative factors resides in the fact that they are difficult to be measured and quantified. Consequently, in order to be able to have a full understanding of the financing decisions of the Kenyan quoted, unquoted and SME corporations, we first have to find an appropriate statistical means to measure these institutional factors so as to be able to include them in the general model suggested in this study.

References

Abor, J. 2004. "Internationalisation and financing options of Ghanaian SMEs". Acta Commercii,4: 60–72.

Cassar, G. and S. Holmes. 2003. "Capital structure and financing of SMEs: Australian evidence".Journal of Accounting and Finance, 43: 123–47.

Esperança, J.P., P.M.G. Ana and A.G. Mohamed. 2003. "Corporate debt policy of small firms: Anempirical (re)examination". Journal of Small Business and Enterprise Development, 10(1):62–80.

Green, C.J., P. Kimuyu, R. Manos and V. Murinde. 2002. How Do Small Firms in Developing Countries Raise Capital? Evidence from a Large-Scale Survey of Kenyan Micro and Small Scale Enterprises. Economic Research Paper No. 02/6. Centre for International, Financial and Economics Research, Department of Economics, Loughborough University.

Hall, G.C., P.J. Hutchinson and N. Michaelas. 2004. "Determinants of the capital structures of European SMEs". Journal of Business Finance and Accounting , 31(5/6): 711–28.

Table 1: Results of the correlation test between the D/E ratio of the listed Kenyan quoted, unquoted and SME firms and each of its hypothesized determinants

	de	sz	ag	pr	lq	cd	br	inn
de	1.0000							
sz	0.1957	1.0000						
ag	0.0799	0.2674	1.0000					
pr	-0.3318	0.3046	-0.0316	1.0000				
lq	-0.3121	-0.2521	-0.0179	0.0435	1.0000			
cd	-0.1011	0.1498	0.0790	0.0846	0.1892	1.0000		
br	0.3644	0.6006	0.3391	0.0516	-0.2225	-0.0000	1.0000	
inn	0.1715	-0.0466	0.1571	-0.2333	0.0276	0.0000	0.3920	1.0000

Table 3: Results of fitting an FGLS regression model and applying ANOVA to the overall sample of Kenyan quoted, unquoted and SME corporations over the period of 2000-2010

	No. of obs = 333		Wald chi2 = 338.44		R2 = 0.3943	
	Root MSE = 0.7462		Prob > chi2 = 0.0000		Adj. R2 = 0.3616	
Source	Coef.	Std. Err.	FGLS (Z)	Prob > |z|	ANOVA (F)	Prob > F
Model					12.06	0.0000
SZ	0.1681	0.0409	4.11	0.000	6.03	0.0146
AG	0.0438	0.0739	0.59	0.553	2.77	0.0971
PR	-3.403	0.3561	-9.56	0.000	74.09	0.0000
LQ	-0.1955	0.0438	-4.47	0.000	19.74	0.0000
CD	-0.0299	0.0191	-1.56	0.118	1.18	0.3118
BR	-0.0000489	0.0000111	4.42	0.000	14.60	0.0002
INN	-0.026	0.0243	-1.07	0.284	8.80	0.0000
Constant	0.4911	0.3058	1.61	0.108		

Table 3: STATA results of applying ANOVA and FGLS on the determinants of capital structure in each of the five industries in Kenya

Sou-rce	IN 1: Food & Beverages				"IN 2: Chemicals & Pharmaceuticals"				"IN 3: Household Products & Textiles"				"IN 4: Construction & Real Estate"				IN 5: Services			
	No. of obs = 63		R2 = 0.7273		No. of obs = 63		R2 = 0.6703		No. of obs = 63		R2 = 0.5743		No. of obs = 90		R2 = 0.7214		No. of obs = 54		R2 = 0.8986	
	Root MSE = 0.3755		Adj. R2 = 0.6550		Root MSE = 0.6022		Adj. R2 = 0.5828		Root MSE = 0.5567		Adj. R2 = 0.4825		Root MSE = 0.9157		Adj. R2 = 0.6700		Root MSE = 0.3673		Adj. R2 = 0.8727	
	Coef.	Std. Err.	F	Prob > F	Coef.	Std. Err.	F	Prob > F	Coef.	Std. Err.	F	Prob > F	Coef.	Std. Err.	F	Prob > F	Coef.	Std. Err.	F	Prob > F
Model			0.05	0.0000			7.66	0.0000			6.26	0.0000			14.05	0.0000			34.65	0.0000
SZ	0.0512	0.0967	2.55	0.1168	0.2174	0.0359	34.43	0.0000	0.2397	0.0772	13.02	0.0007	0.3557	0.0395	142.94	0.0000	0.1259	0.0689	0.61	0.4403
AG	-0.1249	0.2296	1.92	0.1721	0.0696	0.0513	0.12	0.7296	-0.0441	0.1053	0.36	0.5534	-0.0214	0.1057	0.86	0.3578	0.1891	0.1053	1.25	0.2705
PR	-3.2395	1.2418	5.95	0.0000	-2.5682	0.2943	10.44	0.0022	0.4322	1.0180	0.86	0.3583	-5.3340	0.4906	23.59	0.0000	-1.3490	0.8260	1.97	0.1680
LQ	0.0659	0.1902	0.15	0.7046	-0.1338	0.0240	0.71	0.4023	-0.2347	0.1023	4.11	0.0479	-0.3966	0.0833	21.58	0.0000	-0.0601	0.0427	1.65	0.2064
CD	0.0164	0.0549	1.55	0.1652	0.0083	0.0199	2.27	0.0376	-0.0136	0.0383	3.24	0.0780	0.0025	0.0245	0.45	0.9006	-0.0317	0.0385	1.75	0.1926
BR	0.0000336	0.0000113	6.19	0.0163	0.0000348	0.0000044	17.21	0.0001	-0.0000718	0.0000247	7.87	0.0000	0.0000345	0.0000261	3.72	0.0576	0.000369	0.0000097	7.57	0.0000