

Influence of Capital Structure on Leverage of Small and Medium Size Enterprises in Kenya

Carolyn Mwende Kyule

Jomo Kenyatta University of Agriculture
and Technology Department of
Entrepreneurship and Procurement (EPD)

KENYA

Dr. Karanja Ngugi

Kenyatta University Department of
Accounting and Finance

KENYA

CITATION: Kyule, M. C. & Ngugi, K. (2014). Influence of Capital Structure on Leverage of Small and Medium Size Enterprises in Kenya. *European Journal of Business Management*, 1 (11), 161-181.

ABSTRACT

An extremely essential element for start-ups and growing businesses to achieve is the availability of capital. There are always obstacles for SMEs to raise sufficient external finance to meet their needs. In Kenya SMEs have high collapse rate. Researches on the SMEs capital structure clearly show that there is a massive difference between SMEs financing behavior and their large counterparts. Therefore the study seeks to find out whether the mortality of SMEs in Kenya is caused by Capital Structure on the leverage of the firm. The study variables include: firm size, firm profitability, firm age, firm risk and firm asset structure. This study adopted a descriptive survey design. The study was conducted on the SMEs in Nairobi. The population comprises of 4300 SMEs. Stratified proportionate random sampling technique was used to select the sample. The study grouped the population into the various sectors i.e. Manufacturing, Trading and Service sectors. From each sector the study used a proportion of 10% from each stratum to select 430 SMEs. Primary as well as secondary data was collected. Primary data was collected using questionnaires. Secondary data was obtained from relevant literature review from studies, journals, magazines and the internet. The completed questionnaires was then tabulated, coded and processed by use of a computer Statistical Package for Social Science (SPSS) version 21 to analyze the data. Descriptive statistics such as mean and standard deviation was used. Tables, pie charts, and graphs were used to present responses and facilitate comparison.

Keywords: Capital Structure, Leverage of Small and Medium Size Enterprises in Kenya

Introduction

One definition of a small and medium-size enterprise (SMEs) is a business with less than 250 employees. In the UK, SME accounts for fifty eight percent of the private sector jobs and fifty

two percent of the private sector revenue (Chittenden, Hall & Hutchinson, 2006). Between years 1999 and 2003, employment in the private sector SMEs increased by 4.7 percent while large firms in the private sector experience a four percent decreased in employment. Numerous studies have indicated enterprise as an element to a higher rate of growth, productivity and innovation (Geroski & Pomeroy, 2005).

An extremely essential element for start-ups and growing businesses to achieve is the availability of capital (HMT/SBS, 2002). Capital market is imperfection like any other markets. There are always obstacles for SMEs to raise sufficient external finance to meet their needs (Graham, 2004). In the Kenya, these obstacles have caused to substantial government interventions in both equity and debt markets

Small and medium size enterprises or SMEs are getting recognized due to their contribution to the national economy. The significant role of SMEs has evolved over a time. A shift has been occurred from the view point of SMEs as a contribution to society and political stability to more on an economic ground. The development and success of the SMEs may help smooth transition of the economy to market base one. However, SMEs have some characteristics, which confine them to enjoy the same access to capital market as the large firms do (Cosh, Hughes & Wood, 2003).

Capital structure and its compositions are one of the most prominent topics in the corporate finance theories, which have reflected in Modigliani and Miller theorem (1958). The main proposition of Modigliani and Miller theorem, under certain assumptions, is that the market value of the firm is independent of its capital structure composition. Numerous financial economist introduced leverage relevance theories to explain the different composition of debt ratios across the firms, after Modigliani and Miller proposition in 1958. In some theories introduced by DeAngelo and Masulis (1980), the existence of bankruptcy cost and taxes make debt relevant. In other theories, debt is relevant due to the existence of information asymmetry (Myers, 1984; Ross, 1977). A third debt relevant theory is called agency theory, which is introduced by Jensen and Meckling (1976). Agency theory is about the conflict among managers and outside shareholders and bondholders.

Various capital structure researches have come to the conclusion that the combination of leverage related cost and tax advantage of the debt, results in an optimal capital structure. This optimal capital structure is below 100% debt since the tax advantage is traded against the probability of bankruptcy cost. However, the question arises here is if different gearing related cost and advantage are economical serious enough to affect an optimal capital structure. Various empirical studies have been conducted to answer this question. The empirical result indicates that the capital structure is related to the firm's characteristics. Such characteristics as firm size, profitability, growth rate, firm risk, and industry characteristics are recognized by many authors (Marsh, 2002; Bradley, Jarrell and Kim, 2004; Kester, 2006; Titman and Wessels, 2008). It is believed that each of the above characteristics play a different role in large firms and SMEs capital structure.

Statement of the problem

Review on the relevant literatures regarding the capital structure issues, shows that the focus of the most capital structure studies is on the listed firms, and the small business's capital structure is highly overlooked (World Bank, 2013). Various empirical researches on capital structure gathered data from the firms, which are classified as large businesses (Van der Wijst and Thurik, 2003; Chittenden et al., 2006). Researches on the SMEs capital structure clearly show that there is a massive difference between SMEs financing behavior and their large counterparts.

According to Agn, Chua and McConnell (2012), SMEs are not engaged in the problems, as well as opportunities, of large firms. However, SMEs in Kenya face different complexities, such as the presence of tax, shorter expected life than large firms, intergenerational transfer problems, and prevalence of implicit contracts (RoK, 2013). Moreover, Pettit and Singer (2005) argued that standard problems like asymmetric information and agency cost is more severe in small firms than large firms. According to Cassar and Holmes (2003), lack of management skills, and the limited separation of business decisions from personal purpose is another problem in SMEs. Sessional paper No. 2 of Republic of Kenya (2005) showed that in Kenya SMEs have high collapse rate. According to the Global Economic Report surviving firms have significantly less debt outstanding than failing firms. Yet, the average ratio of total debt to total assets is still very high at 87.68% in the subsample of surviving firms, with a median value of 81.10%. Next, on average 36.90% of the assets of surviving firms are financed by means of bank debt (World

Economic Forum, 2010). According to a World Bank report, decrease in capital is also known to interfere with the collapse rate of SMEs. Therefore the study seeks to find out whether the mortality of SMEs in Kenya is caused by Capital Structure on the leverage of the firm.

Studies on the failure of the SMEs reveal that financial leverage is a main cause of decline (Keasey and Watson, 2007; Storey et al., 2008; Lowe et al., 2001). SMEs borrowing decisions are different from large companies, due to the borrowing constraints they face. Therefore, the problem is to find out how capital structure determinants affect the borrowing behavior of the SMEs. Therefore, the study seeks to investigate influence of capital structure on the leverage of SMEs in Kenya.

Research objectives

The main objective of this study was to establish the influence of capital structure on leverage of small and medium size enterprises in Kenya.

Specific objectives

- i. To find out the effect of firm size on leverage of small and medium size enterprises in Kenya.
- ii. To assess the effect of firm profitability on leverage of small and medium size enterprises in Kenya.
- iii. To explore the influence of firm age on leverage of small and medium size enterprises in Kenya.
- iv. To establish the effect of firm risk on leverage of small and medium size enterprises in Kenya.
- v. To assess the effect of firm asset structure on leverage of small and medium size enterprises in Kenya.

Justification of the Study

The findings of the study would be useful to SME managers, owners, shareholders and government policy makers. SME managers would be able to make guided choices of capital structure to remain competitive while the owners and shareholders would be able to make appropriate choices for sustainable growth and profitability. The government would benefit in

formulating palatable reforms and monetary policies to enable SME's industry to access cheap funds either through equity or debt.

Scope of the Study

The study focused on the influence of capital structure on leverage of small and medium size enterprises in Kenya. The population of the study was all the SMEs in Kenya. The study focused on the SMEs in Nairobi. Data available from the Ministry of Trade and Ministry of Industrialization, (2011) reveal that there are 2500 SMEs in Manufacturing, 1500 SMEs Trading and 560 SMEs in the service industry (RoK, 2012). These were considered as major respondents in the study.

Literature Review

Theory of Capital Structure

Capital structures explain how projects and plans are financed. The proportion of capital structure varies for each company. In fact, capital structure proportion determines how the profit should be divided between creditors and the company's owners. According to Ross, Westerfield and Jordan (2008), if all the assets divided into equity and debt, then the capital structure can be figured as a pie.

The ratio below shows the proportion of a firm's assets which are financed through debt. The ratio is called debt ratio, and if it becomes less than one then most of the firm's assets are financed by equity. If the debt ratio becomes greater than one, then most of the firm's assets are financed by debt. "Highly leveraged" term is given to the firms with the high debt/asset ratio.

$$\text{Debt Ratio} = \frac{\text{Total debt}}{\text{Total assets}}$$

A firm's financial leverage is calculated by dividing total debt by total equity. A high debt/equity ratio means that a firm is aggressive in financing its growth with debt. Highly levered firms are more vulnerable to downturns in their business cycles, due to their legally binding payments.

$$\text{Leverage} = \frac{\text{Total debt}}{\text{Total equity}}$$

Total equity

Deciding about the proportion of capital structure is one of the major concerns for company's director, since it is a tradeoff between risks and costs (Ross et al. 2008). Issuing equity is expensive in compare to debt which is less expensive; however, debt generates higher risk than equity. Therefore, the principal issue in capital structure composition is to find the best proportion between debt and equity (Modigliani & Miller, 1958).

Modigliani and Miller (MM)

Modigliani and Miller (1958) developed their theorem further because there is no such an economy with the perfect capital market. In the economy with the transaction costs and taxes, capital structure composition is a significant matter. In most of the countries, taxes are deductible; hence the value of the levered firm exceeds the value of the un-levered firm. The effect of leverage generates the tax shield with the same value of the deductible interest of the debt. The conclusion is that if a firm wants to maximize its value then it should be financed by debt only. Therefore, the propositions were extended to contain tax shield, which affect the market capitalization and the expected return on equity.

Static Trade-off Theory

According to the trade off theory, at the point of optimal balance between the cost and the benefit of debt finance, a firm should stop increasing the D/E ratio. At the optimal D/E ratio the firm market value should be maximized and the cost of capital should be as low as possible. As mentioned before, the cost of debt is the cost of financial distress and bankruptcy. Therefore, the expected cost of financial distress in future is the cost if financial distress happens multiply its probability:

$$E (\text{Cost of Future Financial Distress}) = Pr (\text{Future financial Distress}) \cdot \text{Cost of Future Financial Distress} \quad (1)$$

The financial distress cost differs among different industries, depends on the assets the firm own, the volatility of asset value and cash flow. One of the advantages of this theory is about costs, which are 'fiscally deductible' from the company's tax as a result of paying interests (Modigliani and Miller, 1963; DeAngelo and Masulis, 1980); the other advantage is lessening of the free cash

flow problem (Jensen and Meckling 1976; Stulz, 1990). The disadvantage of debt contains the potential costs as a result of financial distress (Kraus and Litzenberger, 1973; Kim, 1978), and the agency costs occurring between the financial creditor and the company's owner (Jensen and Meckling, 1976).

Pecking Order Theory

According to this theory, manager's first choice is to use internal financing or retained earnings. Internal financing indicates that there is no need to issue debt or equity and the firm can inject its own money to finance a project. If the firm does not possess enough internal resources, the second option will be external financing (Shyam – Sunder and Myers, 1999).

The external financing is divided into issuing debt and equity, and there is a preference with the issuance of debt and equity. The first choice in external finance is issuing debt. Debt is a safer security and less risky than equity. The pecking order allows issuing equity when the capacity of debt is fully used (Myers and Majluf, 1984). The consequence of issuing risky new securities as a source of external finance is under priced problem. This means that the new security might be priced under its real value. If there is too severe under pricing, the new investor will get more than the net present value (NPV) of the project, and the project will be rejected even with the positive NPV. Therefore, managers prefer to raise less risky sources of capital; for example use retained earnings before debt and debt before equity (Myers and Majluf, 1984).

A vast literature concludes on SMEs financing patterns consistent with the pecking order theory (see [Chittenden et al 1996; Cressy and Olofsson 1997; Michaelas et al 1999; Voulgaris et al 2004; Gregory et al 2005; Sogorb Mira 2005; Daskalakis and Psillaki 2008; Mac an Bhaird and Lucey 2010]). The conclusion in all of these studies suggests that SMEs primarily rely on internally generated funds and only a fraction of SMEs considers issuing external equity, with Holmes and Kent (1991) noting that some firms categorically exclude external equity as a financing option. According to Bhaird (2010) the utilization of debt in accordance with the pecking order theory is affected by two distinct factors; supply side factors and demand side choices.

Agency theory

Agency theory is concerned with the diverging interest when the firm ownership and management are separated. The theory argues about the relationship between the agent (e.g. the manager), and the principal (e.g. the shareholders). The major assumption of this theory is that the separation of ownership and management creates conflicts among principals and agents. Emergence of the conflicts in the firm creates tension and result in high agency cost. It is assumed that the final objective of all stakeholders is to maximize their wealth. On the other side, agents may have other objective rather than maximizing principals' wealth. If the agents do not meet the principals' interests and objectives, then the conflict arise among them (Jensen, 1986).

In regard to agency theory, Jensen and Meckling (1976) argued that there is less conflict between principals and agents in small and medium size enterprises. The reason is that in the SMEs owner and the manager is one person. According to Ang et al. (2000), family or small firms can be considered as zero agency cost since the level of conflict is low in these kinds of firms. The idea of zero agency cost is also supported by Anderson and Reeb (2003) and McConaughy (2000). They argued that the existing incentive structured in the small and medium size firms create fewer agency conflicts between different claimants. However, SMEs may experience agency cost, when the principals and agents are separated. In addition, problems like entrenched ownership and asymmetric altruism within the SMEs may create difficulties (Gomez-Meija et al., 2001; Schulze et al., 2001). In fact, SMEs have agency cost problem when they decide to separate managers from stakeholders.

It is tempting to conclude that SMEs have fewer conflicts; hence they are able to minimize the agency costs. However, contrasting views have suggested that SMEs are experiencing conflicts which make them vulnerable. In fact, existence of conflicts may paralyze SMEs to make a decision and threaten the firm survival (Schulze et al., 2003). SMEs may raise more debt in order to control the self-interests of the agents, and to limit the negative consequences of altruism within the firm. According to Schulze et al. (2003) altruism results in the problem of free ride. Schulze et al. (2003) argued that the phenomenon of altruism shows how the agency problem becomes more apparent in SMEs if they do not allocate the resources properly. Therefore, the level of the agency conflict becomes a decisive factor that affects the capital structure of the

SMEs. The idea of higher level of agency cost in SMEs is also supported by Gomez-Mejia, Nunez-Nickel and Gutierrez (2001).

Empirical review

Leedy and Ormrod (2010) note that empirical review is the author's 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 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 compare 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.

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 that concludes SMEs 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; Michaelas et al., 2009).

Firm Profitability

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).

Murinde et al. (2004) observe that retentions are the principal source of finance. Titman and Wessels (2008) and Barton et al. (2004) agree that firms with high profit rates, all things being equal, would maintain relatively lower debt ratios since they are able to generate such funds from internal sources.

As Myers (1984) explained, firms with the ability to generate acceptable amount of profit and earnings are tend to use their own internal source of funds to finance their project. Therefore, it can be concluded that there is a negative relationship between the firm profitability and the level of leverage. This conclusion is compatible with pecking order theory and other relevant studies like Cassar and Holmes (2003).

Firm Age

Age of the firm 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. If the investment is profitable, shareholders will collect a significant share of the earnings, but if the project fails, then the creditors have to bear the consequences (Green, Murinde & Suppakitjarak, 2002).

Deesomsak, Paudyal and Pescetto (2004) argued that the life cycle of the firm influences the debt level. Dollinger (2005) stressed out that the developing firms are more likely to finance their

project with retained earning rather than external fund. He argued that developing firms face difficulties in reassuring the creditors to provide them with funds; hence they are more willing to use their internal source. However, the case is otherwise for the mature companies; since they have proved their ability to staying alive and becoming mature in the competitive market.

In contrast, Van Der Wijst (2003) argued that older firms are using less debt to raise fund in compare with their younger counterparts. Dollinger (2005) stress out that the firms' condition can influence on the level of debt. For example, mature firms are more likely to use equity instead of debt, and the vice versa for developing and small firms. Young and small firms prefer to use internal sources like trade credit, family loans instead of external source. As the number of years increase since a firm starts its operation, the amount of accumulated funds accordingly will increase. Therefore, older firms are less likely to use external funding since they can use their internal funds to finance their projects. On the other side, young firms may not have access to a sufficient amount of internal funds, and they are more likely to use external financing.

Firm Risk

SMEs by nature are riskier than the larger companies. Cassar and Holmes (2003) mention in their work that the characteristics of SMEs like higher agency and bankruptcy cost encourage these firms to avoid the tax benefits of debt. When the firms become exposed to these sorts of costs they would get more motivation to decrease their level of debt financing, which might cause bankruptcy in SMEs. Operational risk is one of the most serious risk that affect SMEs.

According to Cassar et al (2003) using debt will bring tax shield benefits, but bankruptcy and agency costs make enough incentives for firms not to use debt to raise funds. Various authors (Bradley et al., 2004; Kester, 2006 and Titman and Wessels, 2008) argued that an optimal level of gearing in a firm is a decreasing function of the volatility of earnings, due to the bankruptcy and agency cost. Volatility of earnings is a measure of the operating risk. Michaelas et al (2009) pointed out that the fluctuation of the firm's future income is the cornerstone for anticipating the firm's ability to meet the fixed charges. Therefore, a firm may anticipate that operating risk is negatively related to the amount of the debt in a firm capital structure.

Despite the broad consensus that firm risk is an important determinant of corporate debt policy, empirical investigation has led to contradictory results. A number of studies have indicated an inverse relationship between risk and debt ratio (see Bradley et al., 2004; Titman and Wessels,

2008). Other studies suggest a positive relationship (Jordan et al., 1998; Michaelas et al., 1999). Esperança et al. (2003) also found positive associations between firm risk and both long-term and short-term debt.

Firm Asset Structure

Asset structure of the firms is one of the factors that contribute in shaping the level of debt. The degree to which the firm's assets are tangible should result in the firm having greater liquidation value (Titman & Wessels, 2008). According to Harris and Raviv (2007), the firm level of tangible and generic asset result in the higher liquidation value of the firm. As an example, Fraser (2004) argued that, in many cases, banks prefer to lend money to those firms with more tangible asset to secure their funding. According to the previous studies (Cassar & Holmes, 2003), one of the crucial determinants of capital structure of SMEs is the structure of the assets in these firms. If a firm has more tangible assets it would decrease the probability of default since the liquidation of the firm increases subsequently. Therefore, firms are less probable to be bankrupt after using the debt financing, which in turn decrease the debt financing cost and encourages the firms to increase the debt level.

Donckels (2008) believed that there is a direct positive relationship between the agency problem and the level of asymmetric information. When the level of asymmetric information is high, the agent has the capacity and motivation to transfer wealth among the parties. The agent partial ownership let him use the firm's assets, and pay less than the sum of the individual cost to the principals. Driffield, Mahambare and Pal (2007) argued that the agency cost is higher in SMEs because the owner of a small firm has a tendency to follow his own interest prior to other stakeholders. In addition, agency problems solutions are expensive for SMEs, which increase the cost of transaction between SMEs and its stakeholders. Monitoring is even more difficult and expensive for the SMEs because small firms are not required to disclose much of the information. Therefore, providing audited financial information causes a significant cost for SMEs. Adverse selection and moral hazard problems are also more severe for SMEs than large firms, because of their closely held characteristics.

Critical Review

Heshmati (2008) in his study on micro and small firms found that listed companies have easier access to the equity market compared to the smaller companies because of low fixed costs thus

indicating a negative relationship between the firm size and the debt level. The study has richly aided the current study but it was carried out in Sweden which presents a Scandinavian country and a Kenyan perspective is required.

Hall, Hutchinson and Michaelas (2004) on their study on determinants of the capital structures of European SMEs found a positive relationship between gearing and growth while Jordan et al. (1998) found the positive correlation between growth and capital structure is acceptable. These studies are also very beneficial to the current study but they were also done in Europe a decade ago and a more recent study is required. In a study on the relationship between firm profitability and capital structure, Murinde et al. (2004) observed that retentions are the principal source of finance. This revelation has greatly aided the current study but a more recent study is required.

Data Analysis/Findings

Regression analysis

The researcher conducted a multiple regression analysis so as investigate the influence of capital structure on leverage of small and medium size enterprises in Kenya. The researcher applied the statistical package SPSS, to enter and compute the measurements of the multiple regressions for the study as presented below.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.708 ^a	.842	.796	.99656

Source: Research, 2013

a. Predictors: (Constant) firm size, firm profitability, firm age, firm risk and firm asset structure.

b. capital structure on leverage of small and medium size enterprises in Kenya

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 on leverage of small and medium size enterprises in Kenya) that is explained by all the 5 independent variables (firm size, firm profitability, firm age, firm

risk and firm asset structure). The five independent variables that were studied, explain 84.2% of variance to establish the influence of capital structure on leverage of small and medium size enterprises in Kenya as represented by the R^2 . This therefore means that other factors not studied in this research contribute 15.8% of variance in the dependent variable. Therefore, further research should be conducted to investigate the influence of capital structure on leverage of small and medium size enterprises in Kenya.

ANOVA^a

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.484	4	1.671	15.478	.000 ^b
	Residual	71.293	417	.156		
	Total	82.777	421			

a. Predictors: (Constant) firm size, firm profitability, firm age, firm risk and firm asset structure.

b. capital structure on leverage of small and medium size enterprises in Kenya.

The significance value is .000 which is less than 0.05 thus the model is statistically significant in predicting (firm size, firm profitability, firm age, firm risk and firm asset structure) the F critical at 5% level of significance was 3.56. Since F calculated is greater than the F critical (value 15.478), this shows that the overall model was significant. The significance is less than 0.05, thus indicating that the predictor variables explain the variation in the dependent variable which is capital structure on leverage of small and medium size enterprises 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.

Multiple Regression Analysis

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	8.778	.984		8.110	.000
Firm size	.370	.117	.272	2.302	.005
Firm profitability	.042	.165	.025	.195	.004
Firm age	.405	.148	.256	2.065	.003
Firm risk	.491	.180	.275	2.175	.001
Firm asset structure	.033	.175	.035	.185	.004

The regression equation ($Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \beta_4X_4 + \beta_5X_5$) was interpreted to mean

$$Y = 8.778 + .370X_1 + .042X_2 + .405X_3 + .491X_4 + .033X_5$$

Y = Capital structure on leverage of small and medium size enterprises in Kenya.

X_1 is Firm size, X_2 Firm profitability, X_3 is Firm age, X_4 is the Firm risk and X_5 is the Firm asset structure. According to the equation, taking all factors (firm size, firm profitability, firm age, firm risk and firm asset structure) constant at zero, overall Capital structure on leverage of small and medium size enterprises in Kenya will be 8.778. The data findings also show that a unit increase Firm size will lead to a 0.370 increase Capital structure on leverage of small and medium size enterprises in Kenya; a unit increase in Firm profitability will lead to a 0.042 increase in Capital structure on leverage of small and medium size enterprises in Kenya; a unit

increase in Firm age will lead to a 0.405 increase in Capital structure on leverage of small and medium size enterprises in Kenya; a unit increase in firm risk will lead to a 0.491 increase in Capital structure on leverage of small and medium size enterprises in Kenya and a unit increase in Firm asset structure will lead to a 0.33 increase in Capital structure on leverage of small and medium size enterprises in Kenya. This means that the most significant variable is Firm risk followed by Firm age.

Conclusion

The study concludes that a positive relationship between a firm leverage and its size stressed out, that when the value of the 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. 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. One explanation could be that relatively large firms tend to be more diversified; therefore, they are less prone to insolvency in the large companies the cost of monitoring is much lower than small firms. Moral hazard and adverse selection problems are decreased reasonably in large companies, subsequently using debt as an external funding is much better in listed companies than SMEs. Hence there is a positive relationship between the level of leverage and the firm's size.

Firms with the ability to generate acceptable amount of profit and earnings are tend to use their own internal source of funds to finance their project. Therefore, it can be concluded that there is a negative relationship between the firm profitability and the level of leverage. The level of risk is said to be one of the primary determinants of a firm's capital structure. The tax shelter-bankruptcy cost theory of capital structure determines a firm's optimal leverage as a function of business risk. 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.

REFERENCES

- Aboagye, A.A., (2006), *Informal sector employment in Kenya: A survey of informal sector activities in Nairobi, Kisumu and Mombasa*, International Labour Organisation Jobs for Africa and Skills Programme, Addis Ababa.
- Abor, J. (2004). "Internationalisation and financing options of Ghanaian SMEs". *Acta Commercii*, 4: 60–72.
- Alqadhafi, S., (2002). *Libya and the XXI Century* (One 9 Media, Italy)
- Al-Sakran, S., (2001). Leverage Determinants in the absence of Corporate Tax System: The Case of Non-financial Publicly traded Corporation in Saudi Arabia, *Managerial Finance* 27, 58-86.
- Anderson, R. C., Reeb, D. M. (2003), "Founding-Family Ownership, Corporate Diversification, and Firm Leverage." *The Journal of Law and Economics*. Vol.46 No. 2.
- Ang J.S., Cole R.A., Lin J.W. (2000), "Agency costs and ownership structure." *Journal of Finance*, Vol. 37 No. 2, pp. 219-226.
- Ang, J. S., Chua, J. H., McConnell, J. J. (2012), "The Administrative Costs of Corporate Bankruptcy: A Note", *The Journal of Finance*, Vol. 37 No. 2, pp. 219-226.
- Aryeetey, E. (2002). Informal Finance for Private Sector Development in Africa. *Economic Research Papers* No. 41. The African Development Bank, Abidjan.
- Aryeetey, E., A. Baah-Nuakoh, T. Duggleby, H. Hettige and W.F. Steel. (2004). Supply and Demand for Finance of Small-Scale Enterprises in Ghana. World Bank Discussion Paper No. 251. The World Bank, Washington, D.C.
- Barnea, A., Haugen, R.A., Senbet, L.W. (1980), "A Rationale for Debt Maturity and Call Provision in the Agency Theoretic Framework". *The Journal of Finance*, Vol.35 No.5, pp. 1223–34.
- Barton, S.L., C.H. Ned and S. Sundaram. (2004). "An empirical test of stakeholder theory predictions of capital". *Financial Management*, 18(1): 36–44.
- Bevan, A. and Danbolt, J., (2008). Dynamics in the determinants of capital structure in the UK, Working paper, University of Glasgow.
- Booth, L, Aivazian, V, Demircuc-Kunt, A, and Maksimovic, V., (2001). Capital structures in Developing Countries, *The Journal of Finance* LVI, 87-130

- Bradley, M., Jarrell, G. A., Kim, E. H. (2004), "On the Existence of an Optimal Capital Structure: Theory and Evidence", *Journal of Finance*, Vol. 39 No. 3, pp. 857- 878.
- Bryman, A., Bell, E. (2003), *Business Research Methods*, New York: Oxford University Press.
- Cassar, G., Holmes, S. (2003), "Capital structure and financing of SMEs: Australian evidence". *Journal of Accounting and Finance*, Vol. 43 No.2, pp. 123–47.
- Castanias, R. (2003). "Bankruptcy risk and optimal capital structure". *The Journal of Finance*, 38: 1617–35.
- Chittenden, F., Hall, G, Hutchinson, P. (2006), "Small Firm Growth, Access to Capital Markets and Financial Structure: Review of Issues and an Empirical Investigation", *Small Business Economics*. Vol. 8 No.1, pp. 59–67.
- Clementi, G. L. (2002), IPOs and the growth of firms, Working paper (Carnegie Mellon University).
- Cobham, D. and R. Subramaniam. (2008). "Corporate finance in developing countries: New evidence for India". *World Development*, 26(6): 1033–47.
- Cook, P. and Nixon, F., (2000), "Finance and Small and Medium-Sized Enterprise Development", Finance and Development Research Programme *Working Paper*, No. 14, April.
- Cooper, R. & Schindler, P.S. (2008). *Business research methods*, 10th ed. Boston, MA: McGraw-Hill Irwin
- Cosh, A.D., Hughes, A., Wood. E. (2004), "Innovation in SMEs: Causes and Consequences for Firm Failure and Acquisition" in Acs, Z., Carlsson,B., and Karlson, C., (eds) *Entrepreneurship, Small and Medium Sized Firms and the Macroeconomy*, Cambridge University Press, Cambridge.
- Daskalakis N. and M. Psillaki, (2008), Do Country or Firm Factors Explain Capital Structure? Evidence from SMEs in France and Greece", *Applied Financial Economics*, Vol. 18, issue 2, pp. 87-97.
- DeAngelo, H., Masiulis, R.W. (1980), "Optimal Capital Structure under Corporate and Personal Taxation." *Journal of financial economics*, Vol. 8 No. 1, pp.3-29
- DeAngelo, Harry, Linda DeAngelo, and René M. Stulz, (2006), Dividend policy and the earned/contributed capital mix: A test of the life-cycle theory?, *Journal of Financial Economics* 81, 227-254.

- Deesomsak, R., Paudyal, K., & Pescetto, G. (2004). The determinants of capital structure: evidence from the Asia Pacific region. *Journal of Multinational Financial Management*, 14(4–5), 387-405.
- Dollinger, M. (2005), *Entrepreneurship: Strategies and Resources*. First edition, Flossmoor IL: Irwin/Austen Press.
- Donckels, R., (2008), Financing growth. Recent development with special reference to the European Scene. In: Sexton, D., Landström, H (Ed), (2000), *The Blackwell handbook of entrepreneurship*, Oxford, Blackwell.
- Driffield N., Mahambare V., Pal S. (2007),” How does ownership structure affect capital structure and firm value? Recent evidence from East Asia”, *The Economics of Transition*, Vol.15 No. 3, pp. 535.
- Esperança, J.P., P.M.G. Ana and A.G. Mohamed. (2003). “Corporate debt policy of small firms: An empirical (re)examination”. *Journal of Small Business and Enterprise Development*, 10(1): 62–80.
- 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.
- Ferri, M. G., Jones, W. H. (2009), “Determinants of Financial Structure: A New Methodological Approach”, *Journal of Finance*, Vol. 34 No.3, pp.631–644.
- Fraser, S. (2004), *Finance for Small and Medium-Sized Enterprises, A Report on the 2004 UK Survey of SME Finances*, Centre for Small and Medium-Sized Enterprises Warwick Business School
- Geroski, P.A., Pomroy. R. (2005), “Innovation and the Evolution of Market Structure”, *Journal of Industrial Economics*, Vol. 38, No.3, pp. 219-314.
- Gomez-Mejia, L.R., Nunez-Nickel, M., Gutierrez, I. (2001). “The role of family ties in agency contact.” *Academy of Management Journal*, Vol. 44 No.1, pp. 81-95.
- Goodwin, C. J. (2005). *Research in psychology: Methods and design*. USA: John Wiley & Sons, Inc.
- Graham, J.R. (2004), “Do personal taxes affect corporate financing decisions?” *Journal of Public Economics*, Vol. 73 No.2, pp. 147–185.

- 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.
- Green, C.J., V. Murinde and J. Suppakitjarak. (2002). Corporate Financial Structure in India. *Economic Research Paper* No. 02/4. Centre for International, Financial and Economics Research, Department of Economics, Loughborough University, Loughborough.
- Green, C.J., V. Murinde and J. Suppakitjarak. (2002). Corporate Financial Structure in India. Economic Research Paper No. 02/4. Centre for International, Financial and Economics Research, Department of Economics, Loughborough University, Loughborough.
- Hall, G.C., Hutchinson, P.J., Michaelas, N. (2004), “Determinants of the capital structures of European SMEs”. *Journal of Business Finance and Accounting*, Vol. 31 No. 5-6, pp.711–28.
- Harris, M., Raviv, A. (2007), “The Theory of Capital Structure”, the *Journal of Finance*, Vol. 46 No.1, pp.297-355.
- Heshmati, A. (2008). “The dynamics of capital structure: Evidence from Swedish micro and small firms”. *Research in Banking and Finance*, 2: 199–241.
- Hillier, D., Ross, S., Westerfield, R., Jaffe, J., & Jordan, B. (2010), *Corporate Finance*, European Edition. Berkshire: McGraw-Hill/Irwin.
- Huang, S, and Song, F., (2002). The determinants of capital structure: Evidence from China, *Working paper*, The University of Hong Kong
- Jensen, M., Meckling, W. (1976), “Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure”, *Journal of Financial Economics*, Vol. 3 No.4, pp. 305-360
- Kale, J.R., H.N. Thomas and G.G. Ramirez. (2006). “The effect of business risk on corporate capital structure: Theory and evidence”. *The Journal of Finance*, 46: 1693–715.
- Keasey, K., Watson, R. (2007), “Non-Financial Symptoms and the Prediction of Small Company Failure: A Test of Argenti’s Hypothesis”, *Journal of Business Finance & Accounting*, Vol.14 No.3.
- Keister, L., (2000). Capital Structure in Transition: Financial Strategy in China’s Emerging Economy, *Working paper*, The Ohio State University.

- Kester, W. C. (2006), "Capital and Ownership Structure: A Comparison of United States and Japanese Manufacturing Corporations", *Financial Management*, pp. 5–16.
- Kim, W.S. and E.H. Sorensen. (2006). "Evidence on the impact of the agency costs of debt on corporate debt policy". *Journal of Financial and Quantitative Analysis*, 21: 131–43.
- Kim, W.S. and E.H. Sorensen. (2006). "Evidence on the impact of the agency costs of debt on corporate debt policy". *Journal of Financial and Quantitative Analysis*, 21: 131–43.
- Kimuyu, P and Omiti, J., (2000), "Institutional impediments to access to credit by micro and small scale enterprises in Kenya", Institute of Policy Analysis and Research Discussion Paper, No. DP/026, Nairobi.
- Kothari, C.R (2004) *Research methodology; Methods and techniques*. New Delhi; New Age International (p) Ltd publishers.
- Leedy, P.D. & Ormrod, J. E. (2010) *Practical Research: Planning and Design*, Ninth Edition. NYC: Merrill.
- Leland, H. and Pyle, D. (1977) "Information Assymetries, Financial Structure and Financial Intermediation," *Journal of Finance* 32, 371-387.
- Lowe, J., Tibbits, G. E., McKenna, J. (2001), "Small Firm Growth & Failure: Public Policy Issues and Practical Problems", in Renfrew, K. M., McCosker, R. C. (eds.), *The Growing Small Business*, Proceedings of Fifth National Small Business Conference, pp. 175–190.
- Marsh, P. (2002), "The Choice between Equity and Debt: An Empirical Study", *Journal of Finance*. Vol. 37 No. 1, pp. 121
- Marsh, P. (2007). "The choice between equity and debt: An empirical study". *Journal of Finance*, 37(1): 121–44.
- McConaughy, D. (2000). "Family CEOs vs. nonfamily CEOs in the family controlled firm: An examination of the level and sensitivity of pay to performance" *Family Business Review*, Vol. 13 No. 2, pp. 121–131.
- Michaelas, N., Chittenden, F., Poutziouris, P. (2009), "Financial Policy and Capital Structure Choice in U.K. SMEs: Empirical Evidence from Company Panel Data", *Small Business Economics*, Vol. 12 No. 2, pp. 113–130.
- 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.