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The Relationship between Capital Structure and Agency Cost of Companies Listed In the Nairobi Security Exchange in Kenya

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Abstract

It is widely acknowledged that managerial interests are not aligned with shareholders interest. With this scenario then, in the presence of free cash flows in Companies, managers tend to incur higher expenditure which raises the overall cost, consequently reducing asset turnover. Therefore the choice of capital structure could help mitigate against these agency cost. The purpose of this study was to assess the relationship between capital structure and agency cost of companies listed on the Nairobi security Exchange in Kenya. The study adopted a quantitative approach and the target population was 45 listed Companies on the Nairobi Security Exchange for a period of eight years between 2000 and 2007. A purposive sample of 20 non-financial firms was used, secondary data collected and analysed using statistical power for excel. The findings indicated that, in high growth firms, there was a strong relationship between debt and efficiency ratio, but weak relationship between debt and asset turnover ratio. In low growth firms, there was a strong relationship between debt and asset turnover ratios and a weak relationship between debt and efficient ratio. It was concluded that, the use of debt decreases expenses in high growth firms but increases asset turnover in low growth firms. The study recommends that high growth firms should use debts to reduce expenses and low growth firms should utilize debt to increase assets turnover ratio. Therefore firms could reduce agency costs by using debt in their capital structure.

Key Words: Capital Structure, Agency Cost, Efficiency Ratio, Debt Ratio, Listed Firms

1. Introduction

Distinguishing characteristic of public quoted companies is the separation of ownership of assets from control of the assets. While ownership of these assets is vested in the shareholders of the companies, control of these assets is in the hands of professional managers (Brealey & Myers 2003). A number of researchers have provided insights of problems, known as agency costs, which may arise as a result of this separation (Brealy & Myers 2003; Baker & Powell). Whereas shareholders have interest in increase in the firm's value, managers may want to pursue selfish goals of increasing perquisites, company size and market share. The question asked by several researchers is how can shareholders mitigate the selfish interests of managers.

More often than not, Shareholders lack time, money and experience to make full use of their rights as shareholders. Most shareholders pay little attention to corporation management as long as they receive dividends. Shareholders choose to remain inactive as individual votes may unlikely affect success or failure of a resolution. The only way to make an impact is through voting collectively. But the cost of organizing this collective action is prohibitive and would outweigh the benefits. Shareholders not satisfied by management prefer selling off their shares. The result of this is that managers can potentially pursue their own objectives.

On the other hand, Managers are employed to use their skills, judgment and experience on behalf of shareholders. In order to do so they need a significant element of discretion and relative freedom of actions. Such freedom can often be abused if they are not called to account for their actions. Given the information asymmetry between the shareholders and managers, where managers know more about the firm, we do not expect a firm to operate as well as it would have, if all information were shared cost free. Berle and Means (1932) in their study of the modern corporation found that even though the state seeks to regulate the corporations, the corporations are becoming more powerful and make every effort to avoid such regulations.

Corporate literature suggests several techniques by which agency conflict can be reduced. The techniques can be distinguished between internal mechanisms, which include compensation contracts, bonding, and monitoring activities within the firm and external mechanisms which include; monitoring activities by the capital market and legislators. However, perfect control is extremely costly and thus out of question (Vasiliou, Eriotis, Daskalakis 2005). For this reason, agency problems can never be perfectly solved and managers may never act totally in the best interest of shareholders. As a result shareholders experience loss in wealth due to divergence behaviors of managers especially when there are free cash flows in firms with low growth opportunities.

When managers' objectives differ from those of shareholders', the presence of internally generated cash flow in excess of that required maintaining existing assets in place creates the potential for those funds to be squandered (Richardson 2005). Agency cost is more severe in low growth, free cash flow firms and where the economic interests of shareholders and managers diverge substantially and information monitoring is costly. Agency problems are also more likely to prevail in large companies (Jensen, 1986).

1.2 Statement of the Problem

It is widely acknowledged that managerial interests are not aligned with shareholders interest. As a result, too much cash can be a problem if monitoring is costly and managers have information that investors do not have. Financial theory maintains that firms should return excess cash back

to shareholders. However, managers do not always agree with shareholders perception of returning excess cash to shareholders (Mahar, 1998).

Mahar gives two primary reasons why managers retain excess cash; first, it lowers the probability of financial distress. Secondly, it gives them greater discretion over investments. For example; Kenya airways earnings per share of 6.54 while dividends per share was 1.25 during financial year 2005. Shareholders were dissatisfied with the dividends during the annual general meeting and were of the opinion that management should increase dividends. The company managers' response was that most earnings are retained as the airline must have huge amounts of cash available at all times since the industry is very unpredictable and also for fleet expansion. Same case with Sameer Africa which having made pre-profits of 166.5 million in the year 2007, no dividends were declared. The questions asked by shareholders in annual general meetings have much to do with too little dividends and too much directors' fees giving an indication of general dissatisfaction among shareholders.

Most researchers have come up with evidence that, in the presence of free cash flows, managers tend to incur higher expenditure. They are highly involved in non-value maximizing activities including indulging in their needs for power and prestige, an increase in perquisites consumption and compensations at the expense of shareholders as well as the manipulation of accounting numbers (Gui, 2001; Jensen, 1986).

Evidence from most researchers is that choice of capital structure may help mitigate these agency cost ((Papa & Speciale, 2007; Richardson, 2005; Douglas, 2002; Mahar, 1998; Westphalen, 2002; Hongxia &Luming, 2003). High leverage reduces agency cost by constraining or encouraging managers to act more in the interests of shareholders, by reducing cash flows available for spending to managers.
The focus of this research therefore was to investigate whether there exist a relationship between capital structure and agency cost in Kenyan firms listed in the Nairobi Security exchange. No empirical analysis has been conducted so far on companies listed in Nairobi security exchange. This study fills the gap in this area.

1.3 Objectives of the Study

1.3.1 General Objective

The general objective of the study was to assess the relationship between capital structure and agency cost of firms listed on the Nairobi Security Exchange in Kenya.

1.3.2 Specific Objectives

This study was guided by the following specific objectives;

i. To investigate the relationship between capital structure and agency cost of low growth firms listed on the Nairobi Security Exchange.

ii. To evaluate the relationship between capital structure and agency cost of high growth firms listed on the Nairobi Security Exchange.

1.4 Hypotheses

The following hypotheses were tested at 5% confidence level

HO1There is no relationship between capital structure and agency cost of low growth firms listed on the Nairobi Security Exchange

HO2 There is no relationship between capital structure and agency cost of high growth firms listed in the Nairobi Security Exchange

1.5 Significance of the Study

The findings of this study are valuable to the academicians who may find useful research gaps that may stimulate interest in future research in this area of study. They also add to the body of knowledge in this area.Investors will also find the findings of this study very useful as it provides insights on the relationship between capital structure and agency cost which may help them gather more information as regards to their investments and therefore make better decisions. At the same time financial advisers may also use the findings in resolving conflict between shareholders and managers and consequently improve performance as capital structure can be used as a strategy. These results will further help members of the public to articulate policies made by the government. They are therefore more enlightened when it comes to voting for vital decisions which affects them as regards to the economy of the country.

2. Literature Review

2.1 Agency Theory

Jensen and Meckling (1976) define agency relationship as a contract under which one party (the principal) engages another party (the agent) to perform some service on their behalf. The principal delegates some decision-making authority to the agent. This delegation of decision making by the principal and resulting division of labor are helpful in promoting efficiency and productivity. The principal hires or retains the agent because of the agent's specific talents, knowledge and capabilities to increase the value of the assets. In order to increase the value of the assets, all or some of the principal's decision rights over those assets are transferred to the agent (Moldoveanu and Martin 2001).Such delegation means the principal has to place trust in an agent. Agency theory looks at conflicts of interest, which may arise between principal, and the agent when motives of agents are questionable and trust no longer exist. The principal seeks to gain information by inspection or evaluation and designing systems to ensure agents acts in the principal's interest (Berle and Mean 1932).

2.1.1 A Basic Principal Agent Model

In Hoque (2006) the simplest form of an agency model can be viewed to comprise two parties: the principal and the agent. The principle is expected to supply the capital, bear risks and to construct incentives, while the agent is required to complete tasks, make decisions, on the

principal's behalf and to bear risks. The normal sequences of events over a single time period may be viewed as follows:-

Agent selects (a)	Performance measures (x,y etc) observed		Agent is paid s(x,y) principal keeps x-s(x,y)	Contract s(x,y) agreed upon action

The sequence begins with a compensation contract between the principal and the agent specifying the performance measures upon which the agent compensation will be assessed. Let the compensation function be denoted as 's' and 'x' as the outcome of the firm and 'y' as the vector of performance measures used in the contract.
The agent is then seen to, based on the terms of the contract, choose a vector of actions , which include operating decisions, financing decisions or investment decisions. The agent's actions along with the exogenous factors (generally modeled as random variables) influence the realizations of the performance measures and the outcome of the firm as well. After the performance measures are jointly observed, the agent is paid according to the terms of the contract.

Key assumptions in the overall sequence of events are: - First, the outcome of the firm, that is x is observed and can be contracted on. Further ,it is assumed x can be measured in monetary terms and relate to a single period, such as end of period cash flow or the liquidating dividend of the firm gross of the compensation paid to the agent. Another assumption is that the agent choose an action and the principal is not able to fully observe this choice, and there is a stochastic term attached to the agents output. Thus both the agent and the principal assume a certain amount of risk and in general, the greater the risk assumed by the agent, the higher the agents compensation.

2.1.2 The Principal-Agent Problem

The basic principal-agent problem is confronted with a fundamental issue. The principal and the agent are utility maximizers, whereby both parties seek to maximize their return. Secondly, not always, the interests of the principal and agent are aligned. (Berle and Mean1932; Jensen and Meckilng, 1976). The agent may not act to the best interest of the principal. For instance, the principal and the agent may differ in their risk preference resulting in the agent's action being different from that expected by the principal. Unless the risk preference are known and made clear between the parties at the outset, that is prior to contract formation and factored into the compensation, the agency problem is likely to increase.

2.1.3 Information Asymmetry and Agency Theory

Further, the agency problem is seen to exacerbate under conditions of information asymmetry, in that, one party has more information than the other (Jensen and Meckling 1976).It is usually the

agent who is seen to posses information advantage over the principal. Information asymmetry may in turn lead to two types of agency problems: -

a) Moral hazards at times referred to as hidden costs. This relates to lack of effort by managers. The principal has restricted effort to assess the agent's action directly. In such situations, the managers may be tempted to consume perquisites in excess of what was agreed or take easy on the jobs as the principal is not able to observe managers actions.
b) Adverse selections- which arise even when the principal is able to observe managers behavior but is unable to ascertain if the effort extended by the agent is the most appropriate behavior. For example the managers may choose an accounting policy that maximizes reported net income in order to gain higher bonuses. Investors may not receive full and proper disclosures of firm's prospects and managers stand to gain from non-disclosure. Another example is when the job is complex and the agent misrepresents his or her ability to complete the task. The principal is not able to verify agent's ability at the time of hiring or even when the agent is working on the project.

2.1.4 Shareholders Managers' Relationship

In public quoted companies, ownership of assets is separated from control of these assets. Shareholders are the principals, while managers are the agents who control the assets. The relationship centers on the issue of the separation of ownership and control, resulting in limitation of shareholders ability to observe managers action. This in turn gives risk that managers may not always act to the interest of the firm.

The shareholders will seek to resolve these concerns by putting in place mechanisms to align their interests and that of managers (Jensen and Meckling 1976).The agency theory holds that managers will not act to maximize the returns to shareholders unless appropriate governance structures are implemented in the large corporation to safeguard the interests of shareholders (Jensen and Meckling 1976).

2.2 Agency Cost of Equity

Agency costs are cost that arises due to the conflict between shareholders and managers. While stockholders want managers to maximize the value of their stock, managers also tend to have personal agenda of consuming huge perks, prestigious offices and cars (Westaphalen 2002). The managers may indulge in excessive or unnecessary expenditures on luxury items such as business trips, luxury office fittings (Hoque, 2006).

According to Baker & Powell (2005), there are two types of costs; direct and indirect as agency cost. Shareholders incur direct costs in order to reduce potential conflicts with managers. These are bonus, stock option plan, audit fees, managerial incentives and infrastructure put in place to control the behavior of managers. Indirect costs result from managers failure to make profitable investment due their aversion of risk, managers exerting insufficient work effort, poor investment decisions, choosing inputs or outputs that suits their own preferences, executive perquisites such as fancy office space, office furnishing, automobiles or paying themselves

higher compensation at the expense of shareholders ((Ang,Cole & Lin, 2000; Berger &Patti ,2003)). The value lost by shareholders arising due to divergences of interest between shareholders and corporate managers is known as agency cost (McColgan, 2001).

Managers also tend to retain profits instead of distributing to shareholders. They use the retained profits in expansion of business even when the projects have low returns .In a perfect capital market, there should be no association between firm investing activity and internally generated cash flows. Free cash flow should be distributed to shareholders. If a firm needed an additional cash to finance an investment, it would simply raise that cash from external capital market. Firms with excess cash flow should distribute the free cash flow to external market. Existence of variety of capital market friction renders the inability of managers to raise capital from external market instantly. For this reason, managers prefer retaining internally generated funds rather than distributing it (Jensen & Meckling, 1976).

Manager's benefit from retained earnings as size growth grants a larger power base, greater prestige, and an ability to dominate the board and award themselves higher levels of remuneration (Jensen, 1986). This reduces the amount of firm specific risk within the company, and therefore, strengthens executive job security. However, finance theory dictates that investors will already hold diversified portfolios. Therefore, further corporate diversification may be incompatible with their interests. Empirical evidence suggests that such a strategy is ultimately damaging to shareholder wealth. Such earnings retentions reduce the need for outside financing when managers require funds for investment projects. However, despite the potential costs of raising new capital, external markets provide a useful monitoring function in constraining managerial investment policies. Earnings retention reduces the likelihood of this external monitoring encouraging management to undertake value maximising decisions.

Separation of ownership from management makes it costly to monitor the management. Therefore the existence of free cash flow makes management engage in self-serving projects rather than distributing the free cash flows to shareholders. Such engagement includes empire building, perquisites consumption, diversifying acquisitions, and subsidizing poor performing divisions.

Prior research has documented a positive relationship between agency costs and free cash flows. The positive relation is a manifestation of an agency problem whereby managers in these firms engage in wasteful expenditure. Traditionally, free cash flow should be distributed to shareholders. When manager's objective differs from those of shareholders, the presence of free cash flow not distributed to shareholders creates a potential for those funds to be squandered in form of increase in compensation and also expenditure on projects, which add no value to shareholders. The managers also have incentives to cause their firms to grow beyond their optimal size. Growth gives them immense power by increasing resources under their control.

Free cash balances provide firms with flexibility in investment decisions while shielding them from capital markets discipline imposed during security issuing. This reduced market supervision, which leads to organizational inefficiencies, explains agency theory prediction that cash rich firms will over invest at shareholders expense (Mahar 1998). Firms with negative cash flow are forced to alternative sources to finance their projects and because the external markets are expected to serve an additional monitoring role in disciplining managerial use of funds, their agency cost are reduced.

Richardson (2005), Mahar (1998) and Jensen (1986) study of over investment and free cash flows found evidence consistent with agency cost explanation in that, over -investment was consistence in firms with the highest cash flows and low growth firms. Excess cash is detrimental to shareholders because managers waste it through over investment and diversifying acquisitions. The impact of free cash flow on organizational inefficiencies are more pronounced in low growth firms because they have few positive net present value investment opportunities. A good example of inefficiencies due to presence of free cash flow is set forth by Gui and Tsui (2001) study which examined the impact of free cash flow by studying fees charged by six audit firms in 140 Australian firms. The results showed that low growth firms with high cash flows were associated with high inherent risk. Therefore high audit effort was needed which resulted to high audit fees. This finding suggests that auditors recognize the agency risks present in low growth, high cash flow firms and adjust fees accordingly.

However, in the study carried out by Mitra (2005), showed no evidence that increase in information technology spending was associated with free cash flow and low growth companies. Evidence of agency cost of free cash flow is also seen in the oil industry between 1970s and 1980s.In the early 1970s the crude oil prices increased tenfold. The industry expanded rapidly with managers experiencing huge free cash flows at their disposal. But in early 1980s the consumption of fuel fell drastically. The expectations of future oil prices also fell leaving the industry with excess capacity. The oil industry started shrinking. Consistent with agency cost of free cash flow, management did not pay out the excess resources to the shareholders. Instead, the industry started spending heavily on acquisitions. The oil companies purchased firms in retailing, manufacturing, mining and office equipment. The acquisitions turned out to be among the least successful investments partly because of lack of managerial expertise outside the oil industry. Acquisitions are one way managers spend cash instead of paying out to shareholders. The experience of oil industry gives evidence of agency cost theory, which implies that managers with unused borrowing power and large cash flows are more likely to undertake low-benefit or even value destroying mergers (Jensen, 1986).

In the study of varying ownership structures, Johan (2002) examined existence of agency cost and results showed that agency cost was positively associated with the number of non-manager shareholders. Although So (2005) study of agency costs and ownership structure in small business finance found evidence that agency cost on owner managed and outsider-managed firms

were not significantly different, most researchers such as Gui (2001) have supported Johan (2002) view on the existence of higher agency cost in non-owner managed companies.

2.2.1 Strategies to Mitigate Agency Problems

Agency cost can be mitigated through several strategies or courses of actions that involve monitoring of agents behavior or providing incentives that engender behavior congruent with the principal's interests. The costs that are associated with these strategies that mitigate agency problems are known as agency costs for instance mandatory internal and external audits. The provision of audited financial statement is usually regarded as a cost effective control of agency cost (Deangelo 1981).The mandatory statutory audit of public listed companies serves as an example of how management actions can be scrutinized and validated by independent auditors.

Fama and Jensen (1983b) examined the role of board of directors as a monitoring device .The result of their study was that independent directors generally hold higher reputation in the business community and they view the directorship as a means of further developing their reputations as experts in decision making. Information systems and other oversight processes that curb opportunistic behavior are some of the diligent duties of directors.

Performance evaluations systems are largely designed to mitigate managers' actions. Budgeting for instance is viewed as an important multi-faceted activity within an organization that not only enables the setting of performance targets, but also facilitates monitoring and restricting managers' behavior. For example, through variance analysis, a principal is able to asses' managers' performance (Hoque 2006).Performance related rewards such as bonuses, promotion, stock option plans and other organization perks help in aligning managers' interest with those of shareholders'. Jensen (1986) study of free cash flow theory, argue that debt can mitigate the agency problems between managers and shareholders. The creditors monitor firms closely and require minimum financial disclosures .This ensures the firms are run efficiently, thus reducing agency cost.

2.3 Capital Structure and Agency Cost

Stockholders and managers have an interest with the use of free cash flows .The managers would use the cash flow on the low return projects rather than assign it to stakeholders. The use of debt can prevent managers from investing in low return projects and increase efficiency because of rigidity of the repayment of capital and interest Xu (2005). The managers who use debt are contractual bound to repay the interest and principle. If they spend the free cash in wasteful expenditures, the probability that the repayment schedule will be met decreases. In case of default, debt holders may take the firm to bankruptcy court and get a claim over the assets. Manager will lose their decision rights and possibly their jobs. This threat prevents managers from undertaking wasteful actions and aim at utilizing assets efficiently, thus increasing firm's value. Payment under debt contracts reduces free cash flows available to managers to finance non-value adding projects (Jensen, 1986).

Xu (2005) studied capital structure and corporate performance in China. Data of listed companies in both Shanghai and Shezhen Stock markets in 2001 was used. The empirical study showed that there is a strong correlation between corporate performance and debt ratio. More evidence on the importance of debt in reducing shareholders/managers' conflict is witnessed in the study of the relationship between Financial Leverage and managerial incentives by Papa and speciale (2007).The results showed that high levels of debt lowered pay-for-performance sensitivity. The results indicated that with financial leverage in place, the use of managerial incentives as a means of improving performance is less important.

In their paper on the effect of capital structure when expected agency cost are extreme, Harvey, Lins and Roper (2003) found out that incremental benefit of debt is concentrated in firms with high expected managerial agency cost. These firms are also most likely to have overinvestment problems resulting from high levels of assets in place or limited future growth opportunities. High level of assets in place generates cash flow that can create potential for overinvestment (Jensen 1986). Debt should create value if the use of debt directly reduces overinvestment. For instance in long term debts, unlike short term debts, managers face frequent scrutiny by capital markets and hence make every effort to honor debt obligations.

Debt issues will not always have positive control effects on agency costs (Jensen, 1986). For example, the effect of debt will not be as important for rapidly growing organization with large and highly profitable investment projects with no free cash flows. Such organization will have to go regularly to the financial markets to obtain capital. At these times, the market has an opportunity to evaluate the company, its management, and its proposed projects. The capital market plays an important role in monitoring the organization hence agency costs are expected to go down.

Banks always require firms to report results honestly and to run business efficiently with profits. In Ang, Cole and Lin (2000) study of agency cost and ownership structure, banks compliments shareholders monitoring of managers, indirectly reducing agency cost of equity. The banks incur monitoring cost in order to safe guard their loans. In the process, firms are forced to operate more efficiently and moderate perquisites consumption in order to report better performances to banks. Additionally, banks have ability to acquire knowledge of their clients from various sources such as by interacting with firm's customers and suppliers, and in social gatherings. Therefore shareholders should expect lower agency cost by influencing managers to utilize debt.

Studies done by Gui (2001), Johan (2002), Zheng and Liang (2005), Berger and Patti (2003), Campbell Harvey and Karl Lins and Andrew Roper (2003), Li and Cui (2002) and Westphalen (2002) agree with agency theory, which argues that as debt ratio rises, equity agency cost drops. Agency theory considers additional debt beneficial since the firms attempt to improve productivity of its assets as a result of additional debt acquired. Grosseman and Hart (1982)

recognized bonding role of debt and argued that managers could work hard by using debt rather than equity. However increase of debt, as a means of decreasing agency cost cannot be done without limits. Trade off theory of capital structure allows financial distress cost to exist.

The marginal benefit of further increases in debt declines as debt increases, while marginal cost increases, so that a firm that is optimizing will focus on this trade-off on choosing its capital structure. Therefore, in choosing their debt-equity level, firms should trade off between the agency costs of debt and agency costs of equity. By appropriately allocating finance between debt and equity, capital structure can balance the conflict between investors, management and creditors. In other words tradeoff theory justifies moderate debt ratios (Myers, 2001).

However, other studies have reported negative relationship between leverage and profitability. Lehman (1979) examined leverage factor in the US oil industry of 32 companies during the year 1960.Capital structure was found to be essential in determining profitability. Oil companies with the lowest returns had largest proportion of debt. Conversely companies with large proportion of common stock earned the largest rate of return. Observation of Tian (2002) in the study Chinese listed firms showed that most banks having government shared ownership had a positive relationship between leverage and the size of managerial perquisites. Those findings suggest that the role of debt on government-shared ownership does not function in china.

Similar results were observed in Time Warner Inc, a US incorporated company as reported by Fabricant in the New York Times newspaper dated 15'th July 1991. Despite huge debts, the firm was observed to be spending large sums of money on luxury homes, lavish lifestyle and huge bonuses were paid to the managers (Fasricant,1991). The huge debts actually increased agency costs contrary to agency cost theory. In Hortlund (2005) study of Swedish banks between 1870 and 2001, a strong linear relationship between return on equity and debt to equity ratio was postulated between 1870 and 1980 but not 1980 to 2001. While results between 1870 and 1980 reaffirms previous study of long term positive relationship between leverage and profitability, results between 1980 and 2001 showed negative relationship between leverage and profitability.

In Berger (1995), in the study of the relationship between capital and earnings on banking in the US firms during the mid to late 1980s showed a negative relationship between leverage and profitability. This result differs from those of agency theory in that debt improves performance due to reduction of agency costs. Performance fell because in Mid 1980s, banks faced risk factors. Some banks may have had greater than optimal risk of bankruptcy and the associated heavy liquidation costs and as a result paid very high risk premium on uninsured funds and suffered lower earnings (Berger, 1985).

3. Research Methodology

3.1 Research Design

This was an empirical study of the relationship between capital structure and agency cost on companies listed on the Nairobi Security Exchange. Descriptive research design was adopted where quantitative data was analysed to establish this relationship.

3.2 Population

For the purpose of this study, the population was from companies quoted on the Nairobi Security Exchange (NSE). Population of the study was made up of 45 companies listed in the main investment market segment in the NSE for a period of eight years, 2000 to 2007. This study was limited to companies listed in the Nairobi security Exchange because of greater availability, accessibility and reliability of data than those of non listed companies.

3.3 Sampling

A sample of 20 companies which have been continuously quoted for eight years from 2000 to 2007 was chosen from this population. In the sample, financial institutions were left out due to their unique regulatory requirements.

3.4 Data Collection

The secondary data utilized was extracted from financial annual reports of the sampled companies that fall under the sample. The financial reports were obtained from Nairobi security exchange and the data consisted of; total assets at the end of each year, year-end market share prices, nominal share prices, total long-term liabilities at the end of each year and total expenses at the end of each year.

3.5 Data Analysis

The dependant variable was agency costs. Two agency cost measures are chosen, efficiency ratio and asset utilization ratio drawn mainly from existing literature (Li & Cui, 2002; Ang , Cole, & Lin, 2000)

Simple regression analysis:

Agency cost = B1 + B0

B1 is the coefficient of capital structure and B0 a constant.

Agency Cost

According to Baker & Powell (2005), there are two types of agency costs, direct and indirect agency cost. Shareholders incur direct costs in order to reduce potential conflicts with managers. These are bonus, stock option plan, audit fees, managerial incentives and infrastructure put in place to control the behavior of managers. Indirect costs result from manager's failure to make profitable investment due their aversion of risk, managers exerting insufficient work effort, poor investment decisions, choosing inputs or outputs that suit their own preferences, executive

perquisites such as fancy office space, office furnishing, automobiles or paying themselves higher compensation at the expense of shareholders. Indirect agency cost was measured using two ratios .That is efficiency ratio and asset turnover ratio.

Efficiency Ratio

Efficiency ratio explains the efficiency of managers' in controlling costs of the organization. The higher the ratio, the higher the agency cost. This means, managers fail to control cost in relation to sales, and also may be spending huge sums of money on perquisites, high compensations and lavish lifestyle using companies finances. Low ratio means low agency cost as managers maximize shareholders value through control of cost. Expense ratio was calculated as total expense over annual sales (Ang, Cole & Lin, 2000). Efficiency ratio= Total annual expenses/Annual sales

Asset Turnover Ratio

Another measure of indirect agency cost was asset turnover ratio. The turnover ratio shows the extent to which managers' utilize the asset for purpose of increasing firm's value. The higher the turnover ratio, the lower the indirect agency cost. That means shareholders interests are aligned with managers' interest. Lower ratio means higher agency cost. In such a case, shareholders interest of maximizing firm's wealth is not aligned with managers' interests. It will be calculated as annual sales divided by totals assets. This ratio measures how effectively the firm's management deploys its assets. Johan (2002); and So (2005) results showed that sales to total assets is a better estimator of agency cost. Li and Cui (2002) also used asset turnover ratio to measure agency costs. The higher the ratio, the lower the agency cost. The ratio is; Asset turnover ratio=Annual Sales/Total Assets

Capital Structure

Capital structure ratio was measured using long-term debt to equity ratio Gul (2001).

Growth Rate

To Measure growth opportunities, ratio of market value of equity to book value of equity will be used Gui (2001).

4. Findings and Discussions

4.1 Descriptive statistics

Findings of debt to equity ratios, asset utilization ratio, efficiency ratios for high growth firms and low growth firms are shown on table 4.1. Results showed that debt to equity ratio of high growth firms was at a mean of 3.46 while debt to equity ratio mean for low growth firms was 1.75 .Asset utilization ratios mean for high growth firms was at 1.34 while mean for asset utilization for low growth firms was 1.11. Findings also showed that efficiency ratio mean for high growth firms was 0.94 while efficiency ratio mean for low growth firms was 0.96.

Table 4.1 Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis
Debt to Equity ratio high growth firms	80	1.50	7.90	3.46	2.42359	1.079	-.211
Debt to Equity ratio low growth firms	80	1.40	2.60	1.75	.42762	1.454	1.231
Asset Utilization ratio high growth firms	80	1.09	1.58	1.34	.15408	-.013	.082
Asset Utilization ratio low growth firms	80	.95	1.25	1.11	.10025	-.330	-.750
Efficiency ratio high growth firms	80	.90	.97	.94	.02100	-.958	1.504
Efficiency ratio low growth firms	80	.90	1.05	.96	.04357	1.218	2.911

4.2 Correlation Results

Table 4.2 presents correlation results of relationship between debt equity ratio and agency costs for both high growth firms and low growth firms. Agency cost was measured using efficiency ratio and asset utilization. The findings revealed that efficiency ratio was significant at 5% ($r = -0.699$, $p<0.05$) for high growth firms. The results in table 4.2 showed that debt to equity ratio was not associated with asset utilization ratio ($r = -.0.0214$, $p > 0.05$) for high growth firms. Efficiency ratio in low growth firms was not associated with debt to equity ratio ($r = - .152$, $p = 0.356$). On the other hand asset utilization ratio was positively associated with debt to equity ratio for low growth firms ($r = .713$, $p < 0.05$)

Table 4. 2: The correlation coefficient for debt to equity ratio on Efficiency and Asset Turnover ratios for the high growth firms and low growth firms.

	High growth firms	Low growth firms
Efficiency ratio	Correlation Coefficient= - 0.699 Coefficient of determination=0.489 P-Value- 0.0267 T-Test -2.39	Correlation Coefficient= -0.152 Coefficient of determination=0.0 P-Value = 0.356 T-Test = -.3787
Asset utilization ratio	Correlation Coefficient= 0.0214 Coefficient of determination=0.0005 P-Value 0.479 T-Test 0.052	Correlation Coefficient= 0.713 Coefficient of determination=0.5 P-Value = .0234 T-Test = 2.495

4.3 Discussions

4.3.1 Efficiency ratio model

Table 4.2 above illustrates the correlation between debt to equity ratio with efficiency ratio for high growth firms and low growth firms. Results of efficiency ratio model for high growth firms indicated a negative correlation coefficient thus suggesting that as debt to equity ratio rises, total expenses to annual sale ratio reduces. Debt to equity ratio explained 69.9% of variance in efficiency ratio. The correlation coefficient was significant at 5 % confidence level suggesting positive relationship between debt and efficiency ratio. On the other hand low growth firm results showed debt to equity ratio explained 15.2 % variance in efficiency ratio. The results were not significant at 5% confidence level implying that in low growth firms, increase in debt do not reduce expenses.

4.3.2 Asset Turnover Ratio model

Results in Table 4.2 shows that 2.1% of asset utilization ratio was explained by debt to equity ratio. The results were not significant at 5% confidence level implying that increase in debt did not increase asset utilization in high growth firms. In low growth firms, debt to equity ratio explained 71.3 % variation in asset utilization suggesting that as debt increases low growth firms increases asset utilization ratio.

5.1 Summary of Findings and conclusion

The purpose of this study was to investigate the relationship between capital structure and agency cost of firms listed in the Nairobi Security Exchange. The correlation coefficient for high growth firms was not significant at 5 % confidence level but was significant at low growth firms when using efficiency ratio model as a measure of agency cost. At 5% significance level, the coefficient of correlation was significant for high growth firms, but not significance for low growth firms when using asset turnover as a measure of agency costs. Only 0.05 % of asset turnover ratio was explained by debt in high growth firms while 71 % of asset turnover ratio for

low growth firms was explained by debt implying that high growth firms do not increase utilization of assets when debt increases but low growth firms do increase efficiency use of assets when debt increases.

5.2 Conclusions

This study sought to examine the relationship between capital structure and agency cost for firms listed in the Nairobi Security Exchange. It was established that, there existed a relationship between capital structure and agency cost for both high growth firms and low growth firms in the Nairobi Security Exchange. With high debt ratios, high growth firms would minimize expenses. On the other hand, high debt ratios in low growth firms would improve asset utilization but experience no reduction in expenses in relation to sales. The high growth firms minimize expenses so as to cater for increase in interest charges by lenders. The high growth firms do not experience increase in asset utilization of assets because the assets are already fully utilized. For low growth firms, increase in debt ratio would lead to increase in asset utilization. The increase of debt has little effect on expenses in relation to sales in low growth firms.

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