

Corporate Debt Policy of Small and Medium Enterprises in Ghana

Joshua Abor and Nicholas Biekpe
University of Stellenbosch Business School, South Africa

Abstract

One of the areas of financial theory that is of great concern to academics and professionals is the issue of debt policy decisions in companies. Although there are many previous empirical studies about financing decisions of large, publicly quoted companies, the scientific community has only started to pay attention to the small firm sector much more recently but focusing on developed economies. This study examines the determinants of debt policy or capital structure decisions of small and medium enterprises (SMEs) in Ghana. The issue is of critical significance given the important role SMEs play in the Ghanaian economy. Panel regression model is used to estimate the relationship between the firm level characteristics and debt policy measured by debt ratios. The results of the study suggest that variable such as age, size, asset structure, profitability and growth opportunities affect the debt policy decisions of Ghanaian SMEs. The findings of this study have important implications for policy-makers and entrepreneurs of SMEs in Ghana.

Keywords: *debt policy, capital structure, SMEs, Ghana*

JEL Classification: G3, G32

1.0 Introduction

This study examines the determinants capital structure of SMEs. The capital structure of a firm is the relative amount of debt and equity the firm uses to finance its operations. Capital structure decisions are crucial for the survival of any business organization. The key is for firms to choose a portfolio of capital structure that will maintain sustainability and generate more wealth. In general, a firm can choose among many alternative capital structures. This subject matter is one of the most contentious issues if not a puzzle in finance. A number of these theories have attempted to explain the variation in debt ratios across firms. The theories suggest that firms select capital structure depending on attributes that determine the various costs and benefits associated with debt and equity financing.

However, these theories have been developed to explain financing preferences focusing on large listed firms. The issue of whether these findings are valid for other firms, especially SMEs, has received limited attention. Zingales (2000) asserts that, “empirically, the emphasis on large companies has led us to ignore (or study less than necessary) the rest of the universe: the young and small firms, who do not have access to public markets”. The few empirical studies in this area tend to concentrate mainly on developed economies with varied and inconclusive results (see Van der Wijst & Thurik, 1993; Chittenden *et al*, 1996; Cressy and Olofsson 1997a; Jordan *et al*, 1998, Michaelas *et al*, 1999; Esperanc,a *et al*, 2003; Hall *et al*, 2004). 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 with respect to social and cultural factors. Level of economic development may make the difference, then. Variations in this factor will be possible if corporate capital structure studies are carried out in developing countries.

The issue for that matter has received little or no attention in the context of Sub-Saharan Africa. This present study examines the factors affecting the capital structure of Ghanaian SMEs. The issue is of critical significance given the important role SMEs play in the Ghanaian economy. The paper remainder of the paper is organized as follows: Section two provides discussion of the background literature Section three contains a discussion of the research methodology and hypotheses. Section four presents and discusses the results of the empirical analysis. Finally, section five summarizes the findings of the research and also concludes the discussion.

2.0 Literature Review

The theoretical literature for explaining the capital structure of large firms generally applies in the case of SMEs*. Three of the most important theories developed to explain capital structure of firms are based on costs deriving from asymmetric information, bankruptcy costs and agency costs. The concept of optimal capital structure is expressed by Myers (1984) and Myers and Majluf (1984) based on the notion of asymmetric information. The conclusion drawn from the asymmetric information theories is that, there is a hierarchy of firms' preferences with respect to the financing of their investments (Myers and Majluf, 1984). This "pecking order" theory suggests that firms will initially rely on internally generated funds, i.e. undistributed earnings, where there is no existence of information asymmetry, then they will turn to debt if additional funds are needed and finally they will issue equity to cover any remaining capital requirements. Bankruptcy costs are the cost directly incurred when the perceived probability that the firm will default on financing is greater than zero. The bankruptcy probability increases with debt level since it increases the fear that the company might not be able to generate profits to pay back the interest and the loans (Titman, 1984). Agency costs arise as a result of the relationships between shareholders and managers and those between debt-holders and shareholders (Jensen & Meckling, 1976).

The literature focuses mainly on the determinants of SMEs' capital structure. Previous studies have identified a number of firm level characteristics in examining the capital structure of SMEs. These include age of the firm, size of the firm, asset structure, profitability, growth and risk. These are discussed below:

Age of the Firm

Age of the firm is a standard measure of reputation in capital structure models. As a firm ages, it establishes itself as a continuing business and it 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 (Myers, 1977). To overcome problems associated with the evaluation of creditworthiness, Diamond (1989) suggests the use of firm reputation. He takes reputation to mean the good name a firm has built up over the years, which is understood by the market and which has observed its ability to meet its obligations in a timely manner.

Directors concerned with a firm's reputation tend to act more prudently and avoid riskier projects in favour of safer projects, even when the latter have not been approved by shareholders, thus reducing debt agency costs (by reducing the "temptation" to gamble

* The major exception to this being the theories which involve conflicts between owners and management. Basically, SMEs tend to have a less pronounced separation of ownership and management than larger firms

at creditors' cost). This perspective is also seconded within the context of small business (see Ang, 1991). It is important to note the extension of firm risk to the personal area of the businessman (given the unlimited liability of entrepreneurs) to be a way of managing the agency costs resulting from cases of more opportunistic behaviour. Given the fragmentation of information, the high costs of control and evaluation, the firm and the entrepreneurs' reputation become a valuable asset in the management of relations between the principal (investor) and the agent (businessman) (Landstrom, 1993). Petersen and Rajan (1994) found that older firms have higher debt ratios since they should be higher quality firms. Hall *et al* (2004) confirmed that age is positively related to long term-debt but negatively related to short-term debt. Esperanca *et al* (2003) however found that age is negatively related to both long-term and short-term debt.

Firm Size

Size has been viewed as a determinant of a firm's capital structure. Larger firms tend to be more diversified and hence have lower variance of earnings, making them able to tolerate high debt ratios (Castanias, 1983; Titman and Wessels, 1988; Wald, 1999). Smaller firms on the other hand may find it relatively more costly to resolve information asymmetries with lenders, thus, may present lower debt ratios (Castanias, 1983). With respect to information asymmetries, Johnson (1997) reminds that Fama's (1985) argument about differing amounts of information supplied by large and small firms suggest that monitoring cost would decrease and the lender informedness increases with firm size. Another explanation for smaller firms having lower debt ratio is if the relative bankruptcy costs are an inverse function of firm size (Titman and Wessels, 1988). This view is also explained differently by Castanias (1983). He states that if the fixed portion of default costs tends to be large, then marginal default cost per dollar of debt may be lower and increase more slowly for larger firms. Facts about larger firms may be taken as evidence that these firms are less risky (Kim and Sorensen, 1986). Cosh and Hughes (1994) add that if operational risk is inversely related to firm size, this should rather predispose smaller firms to use relatively less debt.

Empirical evidence on the relationship between size and capital structure of SMEs supports a positive relationship. Several works show a positive relationship (Barclay & Smith, 1996; Barton *et al*, 1989). Their results suggest that smaller firms are more likely to issue equity while larger firms are more likely to issue debt rather than stock. Cassar & Holmes (2003), Esperanca *et al* (2003) and Hall *et al* (2004) found a positive association between firm size and long-term debt but a negative relationship with short-term debt. Some studies also support a negative relationship between short-term debt and firm size (Chittenden *et al*, 1996; Michaelas *et al*, 1999). According to Titman and Wessels (1988), small firms tend to use more short-term finance than their larger counterparts because smaller firms have higher transactions costs when they issue long-term debt or equity. They further add that such behaviour may cause a "small firm risk effect": by borrowing more short term, these types of firms will be more sensitive to temporary economic downturns than larger, more longer-g geared firms.

Asset Structure

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 (Harris and Raviv, 1991; Titman and Wessels, 1988). Bradley *et al* (1984) assert that firms that invest heavily in tangible assets tend to have higher financial leverage since they borrow at lower interest rates if their debt is secured with such assets. It is believed that, debt may be more readily used if there are durable assets to serve as collateral (Wedig *et al*, 1988). By pledging the firm's assets as collateral, the cost 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. The concession of collateral reduces the under-investment problem in small 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. In the area of bank financing it is suggested that bank financing will depend upon whether the lending can be secured by tangible assets (Storey 1994; Berger and Udell 1998). The empirical evidence also suggests a positive relationship between asset structure and leverage for large firms. The limited smaller firm research, though not conclusive, shows evidence of a positive relationship between asset structure and long-term debt, and a negative relationship with short-term debt (Van der Wijst and Thurik, 1993; Chittenden *et al*, 1996; Jordan *et al*, 1998; Michaelas *et al*, 1999; Cassar and Holmes, 2003; Hall *et al*, 2004). Esperança *et al* (2003), found positive relationship between asset structure and both long-term and short-term debt.

Profitability

The relationship between firm profitability and capital structure can be explained with the pecking order theory (POT). According to this theory, firms prefer internal sources of finance to external sources. The order of the preference is from the one which is least sensitive (and least risky) to the one which is most sensitive (and most risky) that arise because of asymmetric information between corporate insiders and less well-informed market participants (Myers 1984). By this token, profitable firms, which have access to retained profits, can rely on it as opposed to depending on outside sources (debt). Titman and Wessels (1988) and Barton *et al* (1989), agree that firms with high profit rates, all things being equal, would maintain relatively lower debt ratio since they are able to generate such funds from internal sources.

The POT, with its emphasis on the desirability of the use of funds generated within the business rather than funds raised externally, can readily be applied to SMEs (Cosh and Hughes, 1994). Indeed SMEs seem to face a more extreme version of the POT described as a “constrained” POT by Holmes and Kent (1991) and a “modified” POT by Ang (1991) because they have less access to external funds, debt as well as equity than do large enterprises. The POT suggests that use of external funds is very much related to profitability on the basis that SMEs, particularly if they are not listed, will make use of internally generated funds as a first resort, i.e. those which make use of external funds will be those with a lower level of profit. The theory's application to SMEs implies that

external equity finance issues may be inappropriate. In relation to the owner-manager's control over operations and assets, if the POT holds, then internal equity finance will be preferred, because this form of finance does not surrender control. Cressy and Olofsson (1997a), found that SMEs exhibit control aversion, as demonstrated by a preference to sell the firm rather than relinquish equity, and that owners prefer to use internally generated funds to finance further investment. If they are unable to do this, they seek debt financing. Empirical evidence from previous studies seems to be consistent with the pecking order theory. Most studies found a negative relationship between profitability and capital structure (Friend and Lang, 1988; Barton *et al* 1989; Shydam-Sunder and Myers, 1999; Van der Wijst and Thurik, 1993; Chittenden *et al*, 1996; Jordan *et al* 1998; Mishra and Mc Conanghy, 1999 Michaelas *et al.*, 1999). Cassar and Holmes (2003), Esperanc,a *et al* (2003) and Hall *et al* (2004) suggest a negative relationship between profitability and both long-term and short-term debt. Petersen and Rajan, (1994) however found a significant positive association.

Firm Growth

Growth is likely to place a greater demand on internally generated funds and push the firm into borrowing (Hall *et al* 2004). According to Marsh (1982), 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).

There is also a relationship between the degree of previous growth and future growth. Michealas *et al* (1999) argue that future opportunities will be positively related to leverage, in particular short term leverage. They argue that the agency problem and consequentially the cost of financing are reduced if the firm issues short term rather than long-term debt. Myers (1977) however, holds the view that, firms with growth opportunities will have smaller proportion of debt in their capital structure. This is due to the fact that, conflicts between debt and equity holders are especially serious for assets that give the firm the option to undertake such growth opportunities in the future. He argues further that, growth opportunities can produce moral hazard situations and small-scale entrepreneurs have an incentive to take risk to grow. The benefits of this growth, if realized, will not be enjoyed by lenders who will only recover the amount of their loans, resulting in a clear agency problem. This will be reflected in increased costs of long-term debt which can be mitigated by use of short-term debt. Empirical evidence seems inconclusive. Michaelas *et al* (1999) found future growth to be positively related to leverage and long-term debt. Cassar and Holmes, 2003 and Hall *et al* (2004) showed positive association between growth and both long-term and short-term debt, while Chittenden *et al.* (1996), Jordan *et al.* (1998) and Esperanc,a *et al*, 2003 found mixed evidence.

Firm Risk

The level of risk is said to be one of the primary determinants of a firm's capital structure (Kale *et al*, 1991). The tax shelter-bankruptcy cost theory of capital structure determines a firm's optimal leverage as a function of business risk (Castanias, 1983). Given agency and bankruptcy costs, there are incentives for the firm not to fully utilize the tax benefits

of 100% debt within static framework model. The more likely a firm will be exposed to such costs, the greater their incentive to reduce their level of debt within the capital structure of the firm. One firm variable which impacts upon 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. According to Johnson (1997), firms with more volatile earnings growth may experience more states where cash flows are too low for debt service. Kim and Sorensen (1986) also observe that, firms with high degree of business risk have less capacity to sustain financial risks and thus, use less debt.

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*, 1984; Titman and Wessels, 1988; Friend and Lang 1988; Mackie-Mason 1990; Kale *et al*, 1991). Others studies suggests a positive relationship (Jordan *et al*, 1998; Michaelas *et al* 1999). Esperanc,a et al 2003 also found positive associations between firm risk and both long-term and short-term debt.

2.1 Hypotheses

In the light of the above theoretical and empirical discussions, the following hypotheses are formulated to test the relationship between the capital structure and firm level characteristics;

- H_{1a}:** Age of the firm is positively related to long-term debt ratio.
- H_{1a}:** Age of the firm is negatively related to short-term debt ratio.

- H_{2a}:** Firm size should be positively related to long-term leverage.
- H_{2b}:** Firm size should be negatively related to short-leverage.

- H_{3a}:** Asset structure is positively related to long-term debt ratio
- H_{3b}:** Asset structure is negatively related to short-term debt ratio

- H_{4a}:** Profitability is negatively related to long-term debt ratio
- H_{4b}:** Profitability is negatively related to short-term debt ratio

- H_{5a}:** Growth is positively associated with long-term debt ratio.
- H_{5b}:** Growth is positively associated with short-term debt ratio.

- H_{6a}:** Risk will be negatively related to long-term debt ratio
- H_{6b}:** Risk will be negatively related to long-term debt ratio

3.0 Data and Methodology

The study data used in this study were from the Association of Ghanaian Industries' database of firms and that of the National Board for Small Scale Industries. The selection of the sample was based on criteria set by Regional Project on Enterprise Development (RPED) for SMEs in Ghana. That means firms with employee size of less than 100 were included in the study sample. A total of 160 firms that satisfied the SME definition and data requirements for this research were selected.

The data used in the empirical analysis was derived from the financial statements of these SMEs during a six-year period, 1998–2003. Debt ratio is the dependent variable and is used as a measure of debt policy or capital structure. This is defined as the ratio of debt divided by the total capital of the firm. Debt contains both long-term and short-term debts. Measures of debt policy thus include; long-term debt ratio and short-term debt ratio. Short-term debt is defined as the proportion of the company's debt repayable with one year. This includes bank overdraft, bank loans payable within a year and other current liabilities. Long-term debt is the firm's debt repayable beyond one year. This includes long-term bank loans and other long-term liabilities repayable beyond one year such as directors' loans, hire purchase and leasing obligations. The independent variables include age of the firm (*AGE*), Size of the firm (*SIZE*), Asset structure (*AST*), Growth (*GROW*), profitability (*PROF*), firm risk (*RISK*). The study employs a panel regression model used by Cassar and Holmes (2003), and Hall and Michaelas (2004) with some modifications for the analysis. This takes the following form:

$$LDR_{i,t} = \beta_0 + \beta_1 AGE_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 AST_{i,t} + \beta_4 PROF_{i,t} + \beta_5 GROW_{i,t} + \beta_6 RISK_{i,t} + \ddot{e}_{i,t} \dots \dots 1$$

$$SDR_{i,t} = \beta_0 + \beta_1 AGE_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 AST_{i,t} + \beta_4 PROF_{i,t} + \beta_5 GROW_{i,t} + \beta_6 RISK_{i,t} + \ddot{e}_{i,t} \dots \dots 2$$

where:

$LDR_{i,t}$ = long-term debt/ (total equity + total debt) for firm i in period t

$SDR_{i,t}$ = long-term debt/ (total equity + total debt) for firm i in period t

$AGE_{i,t}$ = number of years in business for firm i in period t

$SIZE_{i,t}$ = log of total assets for firm i in period t

$AST_{i,t}$ = the ratio of fixed assets to total assets for firm i in period t

$PROF_{i,t}$ = the ratio of profit before tax to total assets for firm i in period t

$GROW_{i,t}$ = growth in sales for firm i in period t

$RISK_{i,t}$ = the standard deviation of the difference between the firm's profitability in time t and the mean profitability for firm i,

\ddot{e} = error term

4.0 Empirical Results

Table 1: Descriptive Summary Statistics

	LDR	SDR	AGE	SIZE	AST	PROF	GROW	RISK
Mean	0.0449	0.3690	9.9888	21.0412	0.4839	0.0857	0.5054	0.1078
Median	0.0000	0.2998	8.0000	21.0915	0.4951	0.0674	0.3105	0.0506
Maximum	0.9699	0.9930	29.000	27.5212	0.9999	1.3524	13.824	9.0000
Minimum	0.0000	0.0004	1.0000	16.2587	0.0006	-0.5437	-0.9996	0.0000
Std. Dev.	0.1294	0.2882	6.8566	1.83466	0.2915	0.1441	1.0903	0.4413

Table 1 shows the descriptive summary statistics of the variables. The mean long-term leverage of the sampled firms is 0.0449. The mean long-term leverage suggests that it represents about 4.5 percent of the capital of SMEs. The mean short-term leverage of the sampled firms is 0.3690, highlighting the importance of short term debt over long-term debt in financing Ghanaian SMEs. This is consistent with existing empirical evidence. Since the mean long-term debt and mean short-term debt are given as 0.0449 and 0.3690 respectively, the mean total debt ratio will be 0.4139. Total assets of the firms are financed by 41.39 percent debt capital and 58.61 percent by equity. Average (median) age is 9.988 (8.0000). Size, determined as log of total assets has a mean (median) of 21.0412 (21.0915). Asset structure has a mean of 0.4839, suggesting that, on average, fixed assets accounts for 48.39 percent of total assets. Average (median) profitability is shown as 8.57 percent (6.74 percent). The average (median) growth rate in sales is 50.54 percent (31.05 percent). Also, risk has a mean (median) of 0.1078 (0.0506).

Table 2: Regression Coefficients

Variable	Model 1: Long-term debt				Model 2: Short-term debt			
	β	Std-error	t	Sig.	β	Std-error	t	Sig.
Age	0.0014	0.0001	13.6107	0.0000	0.0038	0.0009	4.0998	0.0000
Size	0.0047	0.0003	14.0564	0.0000	0.0311	0.0031	9.8843	0.0000
Asset Structure	0.0468	0.0045	10.3707	0.0000	-0.5662	0.0192	-29.4473	0.0000
Profitability	-0.0543	0.0162	-3.3548	0.0000	-0.3206	0.0702	-4.5700	0.0000
Growth	0.0011	1.59E-05	71.1675	0.0000	-5.00E-05	6.76E-05	-0.7395	0.4600
Risk	0.0026	0.0038	0.6783	0.4979	0.0152	0.0062	2.4427	0.0150
Constant	-0.1138	0.0085	-13.3894	0.0000	-0.0357	0.0720	-0.4954	0.6206
R ²		0.5215				0.6821		
Adjusted R ²		0.5151				0.6780		
S.E. of regression		0.1147				0.2220		
F-statistics		82.4533		0.0000		164.5354		0.0000

Table 3: Wald Coefficient Test

Model 1: Long-term debt ratio	
Coefficient	F-statistics
β_1	185.2522 (0.0000)
β_2	197.5823 (0.0000)
β_5	5064.817 (0.0000)
Model 2: Short-term debt ratio	
Coefficient	F-statistics
β_1	16.8082 (0.0000)
β_2	97.6999 (0.0000)
β_6	5.9670 (0.0150)

Test Ho: $\beta_1 \beta_2 \beta_5 = 0$

Ha: $\beta_1 \beta_2 \beta_5 \neq 0$

Test Ho: $\beta_1 \beta_2 \beta_6 = 0$

Ha: $\beta_1 \beta_2 \beta_6 \neq 0$

The results of the Ordinary Least Squares (OLS) regression between the two dependent variables and independent variables are reported in Table 2. The F-statistics confirm the validity of the estimated models. The estimation was done based on White heteroscedasticity consistent standard errors and covariances. Also, the regressions proved to be statistically significant at 1% for both models. However the effects of some of the parameters are marginal (that is age, size, and growth in the case of the long-term debt ratio and age, size, and risk in the case of the short-term debt ratio). Therefore a Wald coefficient test based on a chi-square distribution was carried out to further test whether each of these coefficients are different from zero. The results as shown in Table 3 indicate that the null hypotheses, that the coefficients of the variables are equal to zero can be rejected in favour of the alternate hypotheses. Thus, the coefficients, though marginal can be used to explain the debt policy or capital structure of Ghanaian SMEs.

The results of this study support the hypothesis of a positive relationship between long-term debt ratio and age of the firm but contradict the negative relationship between short-term debt ratio and age of the firm. This implies that older firms are believed to have good track records and as such are able to access debt more easily than newer firms which have no track record or credit history. Relatively mature SMEs in terms of their age in business are assumed to have good reputation with both long-term and short-term debt providers, thus increasing their chances of attracting more debt capital. For instance SMEs with long business relationships with banks and suppliers could have easier access to bank loans at favourable terms and also trade credits at a reasonably longer period compared to their newer counterparts.

As expected, the results show a positive and statistically significant relationship between long-term debt ratio and size of the firm. This is explained by the fact that relatively

bigger firms are more diversified and are perceived as having lower risk. Thus, they are capable of attracting more debt especially long-term debt. Smaller firms on the other have difficulty attracting long-term debt because of the severe information asymmetry problems between owner-managers of the small firms and potential lenders. Also long term debt is likely to be proportionally more expensive for small firms because of the fixed transaction cost. The information asymmetries and transaction cost arguments therefore limit the attractiveness of debt, in particular long-term debt. Contrary to theorizing, the results of this study show that size is also positively related to short-term debt.

With respect to asset structure, the results show signs as hypothesized. There is a significantly positive relationship between asset structure and long-term debt. Since small firms are perceived as risky ventures, they are often required to provide more valuable collateral when applying for long-term debt financing. As the assets substitution effect is stronger within small firms the owner has greater discretion, leading to higher monitoring costs by banks and other suppliers of long-term debt financing. This leads these institutions to require for more valuable collateral rather than concentrating on accounting information. The statistically significant inverse relationship between asset structure and short-term debt is consistent with firms matching their duration of assets and liabilities. The results also support the findings of previous empirical studies (see Van der Wijst and Thurik, 1993; Chittenden *et al*, 1996; Jordan *et al*, 1998; Michaelas *et al*, 1999; Cassar and Holmes, 2003; Hall *et al*, 2004).

Consistent with pecking order arguments, in all two regressions, the coefficient for profitability is negative and significant. The significantly negative relation obtained between profitability and debt ratios (long-term and short-term) also confirms the hypothesis that less profitable SME are more likely to require external debt financing than more profitable ones. This implies higher profits increase the level of internal financing, thus, SMEs that generate internal funds generally tend to avoid external debt finance. While profitable firms may have better access to debt finance than less profitable ones, the need for debt finance may possibly be lower for highly profitable firms if the retained earnings are sufficient to fund new investments. Therefore the more profitable the firm, the less need it has to borrow either long-term or short-term. The findings clearly provide support for results of previous studies (see Cassar and Holmes, 2003; Esperanc,a *et al*, 2003; Hall *et al*, 2004).

The relationship between growth and debt ratios proved to be positive for long-term debt and negative for short-term debt. The signs for the growth variable are consistent with our hypothesis but the short-term model lacks statistical significance. This could be explained by the fact that growth is likely to put a strain on retained earnings and push the firm to borrow long-term. In other words, SMEs with high growth will require more external financing to finance their growth. Financing growth opportunities often result in conflict between the owner-manager and outside lenders (moral hazard in the form of asset substitution). In order to avoid such conflict, small firms often resort to short-term debt.

Contrary to expectation of a negative association, the results of this study show a positive relationship between risk and both long-term and short-term debt ratios. This result may reflect the difficulty associated with measuring firm risk in the strict sense. There is no uniformity in the existing literature in terms of the definition of the appropriate variable to measure bankruptcy costs and how that affects firms' capital structure. The positive and statistically-significant relationship with short-term debt may be explained by the positive association between the economic impact of small activity variations and leverage of the firm. This higher risk may leave the indebted small firm little choice but to demand short-term debt. This position is also supported by Scherr and Hulburt, 2001, and Esperanc,a *et al*, 2003.

5.0 Summary and Conclusions

The capital structure decision of firms is still an ongoing and important research area. The issue is particularly important for SMEs who do not have access to public capital, yet make very significant contributions to the economic growth of most countries. This study examines the determinants of debt policy of SMEs in the context of Sub-Saharan Africa, where the issue has been under researched. This study specifically focuses on SMEs in Ghana. The results of this study can be summarized as follows:

- Short-term debt constitutes a relatively high proportion of total debt of Ghanaian SMEs. This represent close to 40% of total financing of SMEs in Ghana.
- Age and size of the firms are very important in increasing SMEs access to debt finance. Newer and younger firms are often discriminated against when applying for external debt finance.
- Asset tangibility or collateral plays an important role in SMEs access to debt finance. SMEs with lower portions of fixed assets in their total assets are likely to have difficulty accessing debt capital because of their inability to produce the required collateral. Thus, the ability to provide collateral still remains a determining factor for SMEs access to credit.
- The results clearly support the pecking order theory that more profitable SMEs demand less debt. This is because profitable SMEs will have a preference for inside financing over outside debt financing, as the cost of outside financing should be greater for the firm.
- SMEs in Ghana also require long-term debt in financing their growth. This is evident of positive relationship between long-term debt and the growth variable.

The results of this study have delivered some insights on the corporate debt policy of Ghanaian SMEs. Clearly, the issue of capital structure is an important strategic financing decision that SMEs have to make. However, the results have shown that SMEs are often discriminated against since age, size and asset 'collateralability' are used as measures for SMEs access to long-term credit. It is essential for government and donor funding agencies to consider developing innovative financial package for Ghanaian SMEs. Policy makers would have to usefully place greater emphasis on the facilitation of equity capital. Equity capital provides a base for further borrowing, reduces businesses' sensitivity to economic cycles, and provides SMEs with access to syndicates of private and institutional venture capital suppliers. There could also be policies aimed at encouraging

SMEs to access public equity capital through the reduction of listing requirements and subsidizing flotation cost. This should enable SMEs to restructure their financing so as to rely on less debt, particularly short-term debt, and thereby improve their liquidity. Also, for academics, trainers and consultants, it may be beneficial to help SMEs access equity capital and to work at structuring deals that minimize perception of threats to control.

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