CAPITAL STRUCTURE AND FIRM PERFORMANCE: AN EMPIRICAL STUDY OF SMALL AND MEDIUM-SIZED FIRMS IN CAMEROON

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ABSTRACT

Corporate financing decisions and corporate governance are quite complex processes and existing theories can at best explain only certain facets of their diversity. The main objective of this paper is to examine the effect of financial leverage on firm financial performance using a sample of manufacturing SMEs in Cameroon. We use the return on equity to measure performance and debt-to-asset ratio to capture leverage. Firm growth rate, tangible assets and firm size are used as control variables in the study. Our results show that leverage is negatively related to performance and support the pecking order hypothesis that firms favor the usage of internal resources and will shy away from external financing as long as they are able to generate enough cash from operations to finance their investment opportunities.

Keywords: Capital structure, financial leverage, firm performance.

1. INTRODUCTION

The main objective assigned to a firm management team is to maximize shareholders’ wealth. To achieve this goal, management has to make rational financing decisions regarding optimal capital structure to minimize the cost of capital and hence maximize the value of the firm. Therefore, financing decisions may have direct impact on capital structure and on firms’ financial performance. They also may enhance the firm ability to operate in a competitive environment.

A firm capital structure refers to the mix of its financial resources available for carrying on the business. Debt and equity are the two major classes of financing in a business. Debt holders exert lesser control over the company and earn a fixed rate of return and are protected by contractual obligations. Those debtors must be paid when obligations are due. Equity holders are the residual claimants of the firm’s assets and bear more risks and also have greater control over the firm’s decisions.

The study of capital structure was first introduced by Modigliani and Miller (1958) and provides the theoretical framework in which later studies were developed. The authors argued that under very restrictive assumptions of perfect capital market, investors’ homogeneous expectations, a tax-free economy and no transaction costs, capital structure is irrelevant in determining firm value. As this theory was based on unrealistic assumptions, Modigliani and Miller (1963) relaxed their earlier assumptions of perfect capital markets and no-tax environment to conclude that the value of the levered firm is equal to the value of the unlevered firm plus the present value of the tax shield. The reason is that under capital market imperfections where interest expenses are tax deductible, the firm value will increase with higher financial leverage. But Baxter (1963), and Brigham and Gapenski (1996) and others warn against excessive leveraging due to abusive use of debt and the associated risks of bankruptcy.

The empirical literature on capital structure and financial performance has produced mixed results. Some studies such as Roden and Lawellen (1995), Champion (1999), Gosh and al. (2000), Hadlock and James (2002) find a positive relationship between financing choices and performance (profitability). Other studies such as Kester (1986), Friend and Lang (1988), Rajan and Zingales (1995), Huang and Song
(2006) evidenced a negative relationship between leverage and profitability. In the midst of these empirical undertakings, research work such as those from Tang and Jange (2007), Ebaid (2009), find no significant impact of leverage on profitability.

The objective of this study is to examine the effect of capital structure on small and medium-sized firms (SMEs) in Cameroon. More specifically, we investigate the effect of financial leverage on firms ‘return on equity using a sample of SMEs. Our main hypothesis in this study is that financial leverage enhances financial performance.

Although substantive research has been done on this area throughout the world, only scant empirical work has been conducted in developing countries where the market for loanable funds is very limited and only open to few large and mostly foreign entities. For those SMEs that have access to debt finance, it is interesting to evaluate the validity of the capital structure/performance relationship.

This paper is organized as follows: we next present a brief review of theoretical and empirical literature on capital structure and its impact on performance. We then present the methodology of the paper. A discussion of results will follow. Finally, we conclude by summarizing our main findings and making a few recommendations.

2. REVIEW OF THEORETICAL AND EMPIRICAL LITERATURE

2.1 Brief Review of the Theoretical Literature

The pioneer work on capital structure theory emanates from Modigliani and Miller (1958). That theory provides the groundwork from which much other thinking later developed.

The Irrelevancy Theory

The Modigliani and Miller original theory was founded on the assumption that (1) capital markets were perfect, (2) there were no transaction costs, (3) there were no taxes and no inflation, (4) lending and borrowing costs were equal, and (5) there were no bankruptcy costs. Their theory also assumes that investments and financing decisions were independent of each other. As a result, they concluded that the value of levered firms exactly equaled that of unlevered firms, rendering capital structure neutral and the aim of searching for its optimality useless.

Reacting to critics, Modigliani and Miller (1963) revised the original conclusion after relaxing some of their original assumptions. They recognized the imperfection of capital markets and the fact that firms operate in an environment where tax cannot be ignored. Indeed, because interest expenses are tax-deductible, use of debt can reduce the cost of borrowing, boost after-tax earnings and ultimately enhance the firm performance.

Baxter (1976) introduced the issue of bankruptcy in the analysis and argued that the cost of bankruptcy may affect the value of the indebted firm. Because those costs include liquidation fees, legal fees, and reorganization costs which could result from the firm going out of business, firms with higher debt will be riskier and may carry a lesser value.

Berens and Cuny (1995) criticized the Modigliani and Miller proposition with corporate tax on grounds that if firm value is an increasing function of indebtedness due to tax deductibility of the interest payments on debt at the corporate level, then the more debt a firm employs, the less tax it will have to pay (since those tax are maximized), indicating that the value-maximizing (optimal) capital structure should be all debt. However, this implication is not supported by empirical facts of firm behavior. Firms that adjust their capital structure away from excessive debts reduce the risk of exposure to debt-equity mix and thus, lower their cost of financing (Agharwal and Mohtadi, 2004).

Brigham and Gapenski (1996) however, assert that the Modigliani-Miller model is probably true in theory. However, in practice, bankruptcy costs exist and increase when equity is traded off for debt. Hence, they argue that an optimal capital structure is reached when the marginal cost of bankruptcy is equal to the marginal benefit from tax-sheltering triggered by an increase in the debt ratio.
The Agency Theory

An agency relationship is a contract in which one or more persons (principal) engage another person (agent) to perform some service on their behalf, which involves delegating some decision-making authority to the agent. The agency theory concept was initially developed by Berle and Means (1932). They argued that due to a continuous dilution of equity ownership of large corporation, ownership and control become more separated. That separation gives professional managers the opportunity to pursue their own interest instead of that of shareholders (Jensen and Ruback, 1983). The theory brings about the agency cost which arises as a result of the relationships between debtholders and shareholders, and those between shareholders and managers (Jensen and Meckling, 1976). The separation of execution from that of ownership interprets the agency relation between the proprietors (principal) and the manager (agent).

The principal is exterior to the firm and does not have complete information. He relies on the agent who withholds accurate and total information. The conflict between debtholders and shareholders is due to moral hazard. The conflict arises because equity holders have an incentive to invest sub-optimally in very risky projects after the loan is awarded. On the other hand, the conflict between shareholders and managers arises because shareholders hold the entire residual claim and consequently managers do not capture the entire gain from their profit-enhancing activities but bear the entire cost (Harris and Raviv, 1990). Small and medium sized enterprises are mostly shareholder-managed; they are not likely to suffer from this second problem (Sogorb-Mira, 2005). However, the agency conflict between shareholders/owners and debt providers may be particularly severe for SMEs, increasing the moral hazard and adverse selection problems (Van der Wijst, 1989; Ang, 1992; Chittenden et al., 1996).

The agency cost can be resolved by the entire structure of the financial claim. Barnea et al. (1980) argue that the agency problems associated with information asymmetry, managerial (stockholder) risk incentives and forgone growth opportunities can be resolved by means of the maturity structure and call provisions of debt. For example, shortening the maturity structure of debt and the ability to call the bond before the expiration date can help reduce agency costs of under-investment and risk-shifting. The solution to the conflict of interest between shareholders and managers can be known as agency costs which are supported by the shareholders to make the managers attain the goal of maximization of shareholders ‘wealth. These costs are monitoring costs (linked to the system of governance such as meeting expenses, board meetings expenses, control expenses), the modification of the work contract which assures the manager of a long life in the firm, costs of dilution of shareholder’s power through stock options given to managers or a strong diffusion of capital, opportunity costs incurred by the principal due to the fact that the agent engages in short-term projects which are not profitable, the obligation cost supported by the agent to prove the principal that he is the best to handle the principal’s patrimony.

The Life-Cycle Approach

The life-cycle approach suggests that a firm’s access to finance depends on its stage of development. Newer firms rely on owners’ initial equity, because they may not initially be in a position to present an attractive investment avenue for finance providers (Berger and Udell, 1998). If they survive the dangers of under-capitalization, they are then likely to be able to make use of other sources of financing such as trade credit and short-term loans (Chittenden et al. 1996). Survival and moderate growth open access to short-term debt especially for SMEs. That source of funding remains a continued source because of the difficulty of attracting long-term funds and/or equity. High growth SMEs also rely on short-term debt initially until they become capable of entering the public equity market and longer-term debt market.

The Trade-Off Theory

This theory explains why debt ratios of firms are in fact moderate and the strategy firms use to finance their investments using a mix of debt and equity. The theory suggests that there are advantages and drawbacks to the use of debt. Therefore firms select an optimal capital structure so as to balance out those advantages and drawbacks (Mayer and Sussman, 2002). Trade-off theory predicts that a weak firm will rely exclusively on a bank for debt capital. This is in contradiction with the notion that small/young firms avoid public debt because they lack access to such market or face prohibitive costs in so doing (Hackbarth, Hennessy, and Leland, 2007). The use of
debt gives the firm some relief on tax as the interest payment is tax-deductible. On the other hand, the increase of debt raises the risk of bankruptcy and its related costs of liquidation and other legal costs. The trade-off theories presume a balance point (optimum gearing ratio) of these two opposing factors when the tax advantages begin to be outweighed by the risks of bankruptcy and related costs.

Mayer (2001) noted that the firm would borrow up to the point where the marginal value of tax shields on additional debt is offset by the increase in the present value of possible costs of financial distress. According to Modigliani and Miller (1998), the attractiveness of debt decreases with the personal tax on interest income. A firm experiences financial distress when it is unable to cope with the debtholders' obligations. If the firm continues to fail in making payments to debtholders, it can become insolvent. The insolvent is explained by a rise in the costs of financial distress and agency costs.

**The Pecking Order Theory**

This theory as developed by Myers and Majluf (1984) argue that firms prefer internal sources of financing; they adapt their target dividend payout ratio to their investment opportunities although dividends and payout ratios are gradually adjusted to shifts in the extent of valuable investment opportunities. The main idea here is firms adhere to a hierarchy of modes of financing and prefer internal sources to any other source when available. Should external financing be required, firms are most likely to issue the safest security first; that is they would issue debt first, then possibly convertible debt, then equity last. Hence issuing shares will only be used as the last resort. This theory was able to explain the negative relationship between profitability and debt ratio within industry. Holmes et al. (1991) and Quan (2002) considers the pecking order theory as an appropriate description of Medium Sized enterprises' financing practices because debt is by far the largest source of financing and SMEs managers tend to be owners of the business who do not want to normally dilute their ownership. SMEs managers have preference on internal financing over external financing. That order of preference reflects the relative costs of various financing options. SMEs would prefer internal source of financing as compared to expensive or costly external financing; and firms that are profitable and therefore generate earnings are expected to use less debt than those that do not generate high earnings.

Cosh and Hughes (1994) on the other hand posit that within the overall pecking order theory, SMEs when compared to large firms would depend more on holding excess liquid assets to meet discontinuities in investment programs, will depend more on short-term debts including trade credits and overdrafts, and rely to a greater extent on hire purchase and leased equipment.

**The Signaling Theory**

The proponents of this model suggest that issuing debt indicates that a firm has investment opportunities that exceed its internally generated funds. Hence, changes in the capital structure often signal to outsiders the current situation of the firm and managerial expectations concerning future earnings. The debt offering is believed to reveal information that management of a firm is expecting future cash flows that will cover the cost of the debt. In this model, bankruptcy fears are still present however, and intensify the cost of the signal (Asquith and Mullins, 1986; Eckbo, 1986). The actions of managers would communicate their anticipations over the future of the firm: when they own shares of the firm, they communicate a good signal; the reverse is true. The participation of managers in the capital is an excellent signal to investors and the market. Changes in the financial policies in a firm automatically change the perception that the market has on the firm.

**The Free-Cash Flow Theory**

The free-cash flow argument advanced by Jensen (1989) states that when top managers have free-cash flow available, they tend to invest it in projects with negative net present value instead of paying it out to shareholders as dividends. Because it is believed that managers ‘salary increase with an increase in turnover, managers have an incentive in investing in operations in order to increase the size of the company even when those investments have a negative net present value (NPV). Some studies have found that for a 10% increase in company turnover, managers ‘compensation tends to increase by 20-30% (Lambert and Larcker, 1986). However, since free cash flow is defined as the amount of money left after the firm has invested in all available projects with
positive net present value (Jensen, 1986), calculating the exact amount of free cash-flow is extremely complicated because it involves a perfect knowledge of all available investment opportunities. Testing the Jensen free cash flow argument is therefore cumbersome. Past empirical studies have used very different proxies for the quality of investment opportunities and as a result, their findings were very different and often contradictory. The empirical work conducted by Lang, Stulz and Walking (1991) is considered the most reliable because it uses Tobin’s “q” as proxy for quality of investment opportunities. Tobin’s “q” which is defined as the ratio of the market value of the firm’s assets to their replacement costs is believed by economists to be the most accurate measure for investment opportunities. Under the Land, Stulz and Walking’s hypothesis (1991), firms with high “q” are likely to have investment opportunities with positive NPV, and thus they are likely to use their funds productively. Firms with low “q” on the contrary, are likely to have only investment opportunities with negative net present value, and thus should pay excess funds out as dividends to shareholders. Therefore cash flow increases the agency costs of firms with poor investment opportunities.

A firm capital structure which is composed of debt and equity has proven to have an influence over performance. The theoretical background from which empirical studies are conducted is mainly drawn from the agency hypothesis, the capital structure irrelevance theory, the pecking order theory, and the trade-off theory. The agency theory focuses on the conflict of interest between managers, shareholders and creditors concerning financing decisions. The trade-off theory and the pecking order theory highlight the hierarchical and preferential use of some sources of financing starting from funds internally generated. The capital structure irrelevancy theory favors the neutrality of debts on firm performance no matter the amount of debts utilized. From these various standpoints, it is useful to highlight some of the major empirical studies on the link between financial leverage and firm financial performance.

2.1 A Review of the Empirical Literature

Empirical research has shown mixed findings with respect to the direction of the relationship between financial leverage and performance.

Hutchinson (1995) study found a positive effect between financial leverage and return on equity provided that earnings ‘power of the firm’s assets exceeds the average interest cost of debt. He developed the argument that the extent to which a firm’s earnings’ power is likely to remain above the break-even point and the potential speed or flexibility with which it can adjust its debt usage if its earnings’ power falls below average interest cost, should help determine the level of debt that the firm is willing to commit itself to at a given point in time.

Taub (1975) also found significant positive relationships between debt ratios and measures of profitability. Nerlove (1968), Baker (1973), and Peterson and Rajan (1994) identified a positive association between debt and profitability. In their study of 48 American firms during the period 1981-1990, Roden and Lewellen (1995) evidenced a significantly positive relation between profitability and total debts as a percentage of the total buyout-financial leverage. Champion (1999) pointed out that the use of leverage was one way to improve the performance of the firm. Gosh and al (2000), Hadlock and James (2002) follow the same line by suggesting that corporations with high level of profitability use high level of debts.

A study in the African context from Abor (2005) reports a positive relation between capital structure measured by the ratio of short-term debt over total debt, and performance for Ghanaian firms over the period 1998-2002. Arabiyah and Safari study (2009) investigated the effects of capital structure on profitability using 100 Iranian listed firms from 2001 to 2007: they find that short-term debts and total debts are positively related to profitability (ROE) while long-term debts were negatively related to profitability. Holz (2002) found capital structure to be positively related to firm performance. On the same manner, Dessi and Robertson (2003) found that financial leverage positively affects expected performance. In this study, they argue that low growth firms attempt to depend on borrowings for utilizing the expected growth opportunities and investing borrowed money on profitable projects, thus increasing firm performance.

If a substantial number of studies have evidenced a positive relation between financial leverage and profitability, a non-negligible number of other studies...
have found either a negative relation or no significant effect at all between these two variables.

Fama and French (1998) for instance argued that the use of excessive debt creates agency problems among shareholders and creditors that could result in negative relationship between leverage and profitability. Kester (1986) found a negative relation between capital structure and performance (profitability) in America and Japan. Similar results were reported by Friend and Lang (1988), Rajan and Zingales (1995) in the G-7 countries. Majumbar and Chibber (1999) found in their study for India that leverage has a negative effect on performance. Hammes study (1998) supported the same view and re-examined the relationship in another study (2003) of Polish and Hungarian firms compared to a large sample of firms in industrialized countries. He used panel data analysis to investigate total debt and performance. That study posits that the source of debt (bank loan or trade credit) does not alter the negative relation between debt and performance. In the same line, studies from Huang and Song (2006) for China firms show a negative relation between leverage and performance (earnings before interest and tax to total assets). We could also cite studies from Abor (2007) on SMEs from Ghana and South Africa, the work of Rao, Hamed, Al-yahee and Syed (2007) for Oman firms, all pleading for a negative relation between debt and profitability.

Several studies show either a poor (no statistical) relation between capital structure and performance or obtained mixed results. This is the case for Tang and Jange (2007), Ebaid (2009) studies. The latter study investigated the impact of capital structure choice on performance of 64 firms from 1997 to 2005 for firms in the Egyptian capital market. Using three accounting-based measures of profitability including the return on asset, the return on equity, and gross profit margin, Ebaid found a weak to no impact of leverage on performance. Weill (2007) investigated the effect of financial leverage on firm performance in seven European countries. The study found that financial leverage related positively and significantly on firm performance in Spain and Italy, whereas related negatively and significantly in Germany, France, Belgium and Norway, and insignificantly in Portugal. Cheng, Liu, and Chien (2010) used a threshold regression model on 650 Chinese firms (2001-2006). Their findings revealed that debt ratio and firm value relates positively when debt ratio is between 53.97% and 70.48%; on the contrary, relationship is negative when debt ratio is more than 70.48%.

The relationship between firm profitability and capital structure can be explained by the pecking order theory as earlier discussed. In that model, firms prefer internal sources of finance to external sources. The order or preference is from the least sensitive (and less risky) to the most sensitive (most risky). This arises because of asymmetric information between corporate insiders and less informed market participants (Myers, 1984). By this token, profitable firms which have large retained profits can rely on such profits and not depend on outside sources (debt).

Murinde et al. (1988) observe that retentions are the principal source of finance. Titman and Wessels (1988) and Barton et al. (1989) agree that firms with high profit rates would, all things equal, maintain relatively lower debt ratios since they are able to generate such funds from internal sources. Small and medium-sized enterprises face a more extreme version of the pecking order theory described as the “constrained” pecking order theory (Holmes and Kent, 1991) and “modified” pecking order theory (Ang, 1991) because they have less access to external funds (debt and equity) than do large firms. The theory’s application to SMEs implies that external equity finance issues may be inappropriate since they may not be listed in the stock market or may not qualify to go through private placements. However, the tax trade-off model predicts that profitable firms will employ more debt since they are more likely to have a high tax burden and low bankruptcy risk. Furthermore, those firms will be in a position to service their debt more easily.

The somewhat inconclusive arguments concerning the influence of capital structure (leverage) on firm performance compel more investigation onto the direction of the relationship. This study used data collected from manufacturing SMEs in Cameroon to re-assess the issue.

3. METHODOLOGY

This section presents the model used to conduct the investigation, analyzes the variables (dependent and
fixed variables) selected in the model and discuss the data sources.

3.1 The Model

Model Specification

This study used a multiple linear regression model specified as follows:

\[ \text{ROE}_{i,t} = \beta_0 + \beta_1 \text{LEV}_{i,t} + \beta_2 \text{SIZE}_{i,t} + \beta_3 \text{GRO}_{i,t} + \beta_4 \text{TAN}_{i,t} + \varepsilon_{i,t} \]

Where,

\( i = 1, \ldots, 40 \) for the various companies and \( t = 1, 2, 3 \) representing the time period chosen (2009-2011)

ROE is the return on equity for firm \( i \) at time \( t \).

LEV, SIZE, GRO, TAN respectively represent the percentage of debt in the capital structure, the firm size, the firm growth rate, the tangibility of the firm’s assets. The \( \beta \)s are their respective coefficients and \( \varepsilon \) is the error term.

Choice of variables

In this study, we chose the return on equity (ROE) to be the dependent variable. ROE is a measure of how the stockholders fared during the year. Since benefiting shareholders is the ultimate goal, ROE can be viewed in an accounting sense, as the true bottom-line measure of performance. It is the ratio of net income over shareholders’ equity. Net income is the amount of money the firm has generated for the full fiscal year after deducting total cost and expenses such as depreciation and tax. Net income also determines how profitable the business is over a time period. Shareholders equity on the other hand is a financial variable coming from two main sources: the money originally invested in the company by owners and any additional investment made thereafter plus retained earnings that the firm is able to accumulate overtime through operations. ROE is the dependent variable in the study.

Financial leverage (LEV) is used as a measure of capital structure. It has been captured by the ratio of total liabilities over total assets. Total liabilities include long-term debts, short-term debts and outstanding interest expenses on those debts. Long-term debts refer to the firm’s outstanding debt that is repayable over the period of one year; and short-term debts are outstanding debt repayable within one year.

Three control variables are also used as independent variables in the regression: size, growth and tangibility.

- Firm size (SIZE) can influence the relationship between leverage and performance (Barontini and Caprio, 2005; Carter, Simkins and Simpson, 2003; Chu, 2009; Santalo, 2009; and Diestre, 2006). We used total assets as a proxy for firm size.
- Firm growth (GRO) was measured by the annual growth rate of total assets;
- Firm asset tangibility (TAN) was measured by the ratio of fixed tangible assets over total assets. This control variable was used in Titman and Wessels (1988), Zingales and Rajan (1995), and Frank and Goyal (2003) studies.

3.2 The Data

Data were obtained from 40 manufacturing firms located in Douala (35 firms) and Yaounde (05 firms). A large proportion of firms came from the construction industry (20%), energy sector (25%), and chemical industries (10%). Other sectors of the economy such as agriculture, food and beverage, building materials, and wood were also sampled.

Data were collected from various sources. Data on financial performance and level of indebtedness were obtained from the National Institute of Statistics and from firms’ yearly tax declaration documents. Some data were also directly collected from company sources. The data covered a period of 3 years starting from 2009 to 2011.

4. DISCUSSION OF RESULTS

Table 1 shows the descriptive statistics of different variables used in the paper. Firms sampled have an average ROE of .09 with minimum value of -21.34 and a maximum of 2.66. The average level of financial leverage has a ratio of 0.65. This indicates...
that on average Cameroonian manufacturing firms are not heavily indebted.

Table 2 portrays correlations between variables. The table shows a negative association between ROE, leverage, size, and growth although the association is pretty weak for the latter two variables.

Table 3 presents the regression results. Only the leverage coefficient of -0.0274 is significant at 1% level. The negative sign displayed establishes the negative relation between financial leverage and financial performance suggesting that any increase in indebtedness would likely reduce firm performance as measured by the return on equity. This result is in conformity with the pecking order hypothesis in which firms prefer internal sources of funding in place of external sources. Firms shy away from the risks associated with incurring more debt and firms with high growth rate will, all things being equal, maintain a relatively low debt ratio as they can generate funds on their own from operations. The finding is also in line with several previous studies in African finance environments where most SMEs favor equity financing in place of debt. When debts are used, firms will have access to short-term debts (Yumgue, 2007; Um-Ngouem, 1996) and will postpone the use of other alternative sources of external financing.

**TABLE 1: DESCRIPTIVE STATISTICS OF VARIABLES**

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>NUMBER OF OBSERVATIONS</th>
<th>MEAN</th>
<th>STANDARD DEVIATION</th>
<th>MINIMUM</th>
<th>MAXIMUM</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROE</td>
<td>120</td>
<td>0.092</td>
<td>2.4302</td>
<td>-21.34</td>
<td>2.6611</td>
</tr>
<tr>
<td>LEV</td>
<td>120</td>
<td>0.658</td>
<td>32.729</td>
<td>-281.5</td>
<td>198.35</td>
</tr>
<tr>
<td>SIZE</td>
<td>120</td>
<td>21.68</td>
<td>1.7411</td>
<td>14.53</td>
<td>24.901</td>
</tr>
<tr>
<td>TAN</td>
<td>120</td>
<td>13.47</td>
<td>93.740</td>
<td>0.001</td>
<td>867.74</td>
</tr>
<tr>
<td>GRO</td>
<td>120</td>
<td>318.2</td>
<td>3889.1</td>
<td>-42478</td>
<td>2695.1</td>
</tr>
</tbody>
</table>

Source: The authors using STATA 12

**TABLE 2: CORRELATION TABLE**

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>ROE</th>
<th>LEV</th>
<th>SIZE</th>
<th>TAN</th>
<th>GRO</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROE</td>
<td>1</td>
<td>-0.3871</td>
<td>-0.0342</td>
<td>0.0132</td>
<td>-0.0252</td>
</tr>
<tr>
<td>LEV</td>
<td>-0.3871</td>
<td>1</td>
<td>0.0702</td>
<td>0.0303</td>
<td>-0.0027</td>
</tr>
<tr>
<td>SIZE</td>
<td>-0.0342</td>
<td>0.0702</td>
<td>1</td>
<td>-0.5436</td>
<td>-0.0355</td>
</tr>
<tr>
<td>TAN</td>
<td>0.0132</td>
<td>0.0303</td>
<td>-0.5436</td>
<td>1</td>
<td>0.0102</td>
</tr>
<tr>
<td>GRO</td>
<td>-0.0252</td>
<td>-0.0027</td>
<td>-0.0355</td>
<td>0.0102</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: The authors using STATA 12

**TABLE 3: OLS REGRESSION RESULTS**

<table>
<thead>
<tr>
<th>PARAMETERS</th>
<th>COEFFICIENTS</th>
<th>P-VALUE</th>
<th>INFLUENCE</th>
<th>SIGNIFICANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEV</td>
<td>-0.0274***</td>
<td>0.001</td>
<td>Negative</td>
<td>Significant</td>
</tr>
<tr>
<td>SIZE</td>
<td>0.274</td>
<td>0.153</td>
<td>Positive</td>
<td>Non-significant</td>
</tr>
<tr>
<td>TAN</td>
<td>0.00176</td>
<td>0.600</td>
<td>Negative</td>
<td>Non-significant</td>
</tr>
<tr>
<td>GRO</td>
<td>-1.31 e-05</td>
<td>0.845</td>
<td>Negative</td>
<td>Non-significant</td>
</tr>
<tr>
<td>CST</td>
<td>-6.051</td>
<td>0.15</td>
<td>Positive</td>
<td>Non-significant</td>
</tr>
</tbody>
</table>

Source: The authors from STATA 12; standards errors are in brackets; *** indicates significance at 1% level.

5. CONCLUDING REMARKS

The objective of this study was to assess the effect of the composition of capital structure on firm performance. More specifically, the goal was to re-examine the impact of financial leverage on firm financial performance as measured by the return on equity. We have seen by reviewing the empirical literature that the ultimate effect of capital structure on firm performance is still controversial and has no definite answer.

In this study using a sample of SMEs from manufacturing firms in Cameroon, we ran an OLS regression of ROE using financial leverage as independent variable and controlling for firm size, growth rate and tangible assets owned by firms. The
results clearly show that financial leverage has a negative impact on firm performance and reject the paper’s hypothesis of a positive relation between those two variables. That result is in line with the trade-off theory and the pecking order theory in which an increase in the level of indebtedness raises the risk of bankruptcy and its associated costs of liquidation and potential legal fees. So, here is the question: in order to maximize shareholders ‘wealth, how should capital be structured to be optimal? Myers (2001) has suggested that a firm should borrow up to a point where the marginal value of tax shield on additional debt is offset by the increase in the present value of possible costs of financial distress. These two opposing forces start to balance out when the tax advantages begin to be outweighed by the risks of bankruptcy and related costs. Our findings of a negative association between leverage and performance add credence to previous empirical studies such as those developed by Majumbar and Chhibber (1999) for India, Gleason and al. (2000) and Hammes (1998) for Poland and shed additional light on the role agency problems may cause in the market of loanable funds.

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