A PAPER SUBMITTED AT THE 14TH INTERNATIONAL CONFERENCE ON AFRICAN ENTREPRENEURSHIP AND SMALL BUSINESSES DEVELOPMENT

EFFECT OF CORPORATE CHARACTERISTICS ON CAPITAL STRUCTURE DECISIONS OF SMES: A CASE OF DTMs IN KENYA

By: Erasmus S. Kaijage¹ and Duncan Elly²

29-30TH MAY 2014, WHITE SANDS HOTEL, DAR ES SALAAM, TANZANIA.

¹ Professor at the University of Nairobi School of Business
² PhD student at the University of Nairobi School of Business
ABSTRACT
The choice between debt and equity has a strategic importance for corporate managers. Capital structure of small - and medium - sized enterprises (SMEs) has become a research topic only recently given that SMEs play a crucial role in fostering growth and employment in many countries. This paper examines the influence of corporate characteristics on the capital structure of deposit taking microfinance institutions (DTMs), which is a special group of SMEs in Kenya.

Using secondary data from financial reports of nine DTMs in Kenya for the period 2008 to 2012, the study finds that size and growth positively influence capital structure of DTMs in Kenya. Liquidity, profitability, and tangibility of assets negatively influence capital structure of the DTMs. These study findings generally concur with the predictions of the pecking order theory and the signaling effects of capital structure.

Key Words: Deposit taking microfinance institutions, Small and medium enterprises, capital structure, and corporate characteristics.

INTRODUCTION
The role of small and medium-scale enterprises (SMEs) in economic development has been recognized worldwide. For most developing countries, the absence of many large firms implies that the SME is the main engine of growth (Floyd and McManus, 2005; Abor, 2008). One category of SMEs that play a critical role as the engine of growth and the backbone of the world economy are the Microfinance institutions (MFIs). Microfinance has been a tool for poverty alleviation since the 1970s, when the Self Employed Women’s Association (SEWA) in India, Bangladesh Rural Advancement Committee (BRAC) in Bangladesh, and ACCION\(^3\) in Latin America became non-profit MFIs lending at low interest rates. In 2007, the Kenyan parliament passed a Microfinance

\(^3\) ACCION International is a global non - profit organization that supports microfinance institutions in their work to provide financial services to low income clients.
Bill to regulate MFIs because of the vital role played by microfinance-related services in the economy.

The concept of capital structure has attracted an intense debate over years. According to Graham and Harvey, 2001 the choice between debt and equity has a strategic importance for corporate managers. Much research since the seminal work of Modigliani and Miller (1958) has focused on testing the implications of a firm’s capital structure. The majority of research studies in this area follow two traditional views of capital structure i.e. the static trade-off model and the pecking order of capital.

The factors that could influence a firm’s optimal capital structure have also aroused frequent debate in capital structure literature. These debates point to how vital the financing decision is to a firm’s financial success. It is therefore critical for a firm to obtain an optimal capital structure that suits its purpose. However this is challenging, as there is a variety of factors to be considered that affect the capital structure of a firm. Korkeamaki and Rutherford (2006) posit that studies on determinants of capital structure were from the point of view of large firms. Therefore, the capital structure of SMEs becomes only a recently researched topic. This study therefore seeks to determine the effects of corporate characteristics on capital structure decisions of DTM s, which are generally SMEs in nature.

THEORETICAL BACKGROUND AND REVIEW OF LITERATURE

A number of theories have been advanced in attempt to explain the capital structures of firms. These theories include Trade-off theory, Pecking order theory, Market timing theory and Agency theory. None of the theories so advanced has succeeded in establishing the existence of an optimal capital structure for a firm. In general, empirical studies have examined the validity of these theories, but no consensus has emerged among researchers as regards the theory that best explains the capital structure choice.

Theoretical Framework
**Trade-off Theory:** Static trade-off theory is based on a tradeoff between the tax advantages of debt financing and the costs of financial distress. As discussed in Myers (1984), a firm’s optimal debt ratio as determined by a trade-off of the costs and benefits of borrowing, holding the firm’s assets and investment plans constant. The firm is portrayed as balancing the value of interest tax shields against various costs of bankruptcy or financial embarrassment. The firm is supposed to substitute debt for equity, or equity for debt, until the value of the firm is maximized.

**Pecking order Theory:** Pecking order theory of capital structure suggests that firms prefer internal financing. Beattie et al. (2004) noted that within the framework of pecking order theory of capital structure, companies relate profit and growth opportunities to their long-term target dividend payout ratios in order to minimize the need for external funds. Allen (1991) explains that the preference for internal equity implies that firms will use less debt than suggested by the trade-off theory. Firms adapt their target dividend payout ratios to their investment opportunities, but the ratios are adjusted slowly and if firms have cash requirements for investments, they will run down cash balances or sell marketable securities first. If they have to resort to external financing, they will issue the safest security first, i.e. debt, followed by hybrids such as convertibles, and finally equity as the last resort.

**Market timing Theory:** This theory, as proposed by Baker and Wurgler (2002), suggests that managers can increase current shareholder’s wealth by timing the issue of securities. Accordingly, firms are likely to issue equity when the stock prices are overvalued and repurchase equity when stock prices are perceived to be undervalued. By using the book-to-market ratios (B/M) and the historical market-to-book ratio as the measure of market timing, Baker and Wurgler (2002) examined the propensity of managers to time the equity markets and found that market timing was significantly related to the capital structure and the fluctuations in market valuations had large effects on capital structure that persisted for at least a decade.
**Agency Theory:** Agency theory has been fruitfully applied in examining the nature of the relationship in a firm that exists between the principal and the agent (Denise, 2001). The firm is viewed as a “nexus of contracts between different stakeholders of the organization” Jensen and Meckling 1976. The authors provided a formal analysis of the agency problem by defining the agency relationship as a contract under which one party (the principal) engages another party (the agent) to perform some service on their behalf. As part of this arrangement, a principal will delegate some or all of the decision-making authority to an agent.

According to the agency theory, the optimal financial structure of the capital results from a conciliation between various funding options (equity, debts and hybrid securities) that allow the settlement of conflicts of interests between the capital suppliers (shareholders and creditors) and managers. The indebtedness allows shareholders and managers to adhere to same objectives, but causes other conflicts (between managers and shareholders, on the one hand, and creditors on the other). According to the theory, the optimal level of indebtedness is the one that allows the minimization of overall agency costs.

**Empirical Review**
Wiwattanakantang (1999) investigated the determinants of Thai firms’ capital structures based on the optimal capital structure theories. The study found that taxes, bankruptcy costs, agency costs, and information costs were important to Thai firms when making their financing decisions. The non-debt tax shields and profitability were found to have negative effects on the debt-equity ratio, while firm size and tangibility were positively related to the firms leverage ratio. The study noted that single-family owned firms had higher debt than the other firms including state-owned companies.

Sogorb Miraa (2001) examined how SME uniqueness affected capital structure. The aim was to test how firm characteristics affected SMEs capital structure. The study concluded that leverage was negatively related to alternative tax shields like depreciation and taxes. Size and asset structure were both found to be positively correlated with firm debt level.
However, regarding asset structure a positive correlation was obtained with long-term debt level but negative with short-term debt level. Thirdly, SMEs with more growth options seemed to employ more debt, although this relationship becomes negative with short-term debt. Finally, predictions of Pecking Order Theory seemed to explain debt policy in SMEs relatively well, although the underlying justification of this theory in this case may resemble manager’s propensity to not losing part of their control in the firm. Put another way, the financing of SMEs relies on internal resources instead of external means.

Menendez Requejo (2002) examined the importance of the different theoretical proposals that explain a firm’s capital structure. The results from the Structural Equation Model revealed that both the preference for internal financing and sectorial debt ratio were determinants of capital structure in a similar proportion. Business features linked to financial constraints were also significant and had a greater incidence. The interpretation of the relation found showed the lesser possibility of SMEs, together with firms not belonging to a business group, more recently created firms and firms with a lower market share, to defer investment and leverage. These results also agreed with the significantly higher leverage level observed in SMEs versus large enterprises in Spain, having also significantly higher financial costs.

Aybar-Arias et al (2003) conducted an empirical examination of the pecking order theory on capital structure, in the field of SMEs. The research indicated that the higher the growth opportunities and the lower the cash flow, the higher the debt ratio would be. The study offered strong support for the growth opportunities and cash flow hypotheses. Firms that had many growth opportunities and small cash flows clearly showed more debt in their capital structure. Moreover, results did not change when different SME definitions or sample sizes were used.

Nguyen and Ramachandran (2006) conducted a study to identify the factors influencing the capital structure of SMEs in Vietnam. The study results showed that SMEs employed mostly short-term liabilities to finance their operations. A firm’s ownership also affected
the way the SMEs financed their operations. Short-term liabilities accounted for a significant proportion of the capital structure, while long-term debts were rarely employed by SMEs in Vietnam. Most apparent is the fact that state-owned SMEs had higher debt ratios than privately owned SMEs. Secondly, it was found that firm size and level of business risk had a significant and positive relationship with all measures of capital structure. The results also indicated that profitability did not appear to influence capital structure at any significant level. Tangibility had a negative relationship with the total debt and short-term liabilities ratios. Thirdly, determinants related to management behavior had a strong impact on a firm’s capital structure. The stronger its relationship with a bank become, the larger the amount of bank loans an SME could obtain to finance its operations. Furthermore, once SMEs were deeply involved in networks, they had more opportunities to obtain trade credits and other financial resources.

Abor (2008) investigated the determinants of the Capital Structure of Ghanaian Firms with the objective of comparing the capital structures of publicly quoted firms, large unquoted firms, and SMEs in Ghana. The study found that publicly quoted and large unquoted firms had higher debt ratios than SMEs inferring that listed and unquoted firms exhibited different financing behavior from that of SMEs. Older SMEs were more likely to rely on long-term debt finance. Firm size was found to have a positive relationship to short-term debt ratio of SMEs and debt ratios of quoted firms, but negative with respect to long-term debt ratio in the case of unquoted firms. Both long term and short-term debts had inverse associations with profitability. Firm growth was found to have a positive association with long-term debt for the unquoted firms’ sample and short-term debt ratio for SMEs. Firms with high-risk profile avoid taking more financial risk by using less long-term debt. SMEs with high managerial shareholding rely less on short-term debt. Industry was found to be important in explaining the SMEs capital structure. SMEs located outside the capital city depended less on debt finance. Limited liability companies were more likely to obtain long-term debt finance relative to sole-proprietorship businesses. The pecking order theory appeared to dominate the Ghanaian capital structure story.
Applying ordinary least squares fixed effects regression, Benkraiem and Gurau (2013) investigated the influence of various corporate characteristics on the capital structure of French SMEs. The study found that medium-sized enterprises had more leverage than small enterprises. The two groups of firms showed preference for short-term debt rather than long-term debt. Firm size was found to be negatively related to total and short-term debt and positively related to long-term debt. SME profitability was established to be negatively related to the different types of debt, but this relationship was especially strong for long-term debt. The tangibility of assets was found to be negatively related to total and short-term debt but positively related to long-term debt. Growth had a positive and significant coefficient in relation to total and long-term debt.

Corporate Characteristics and Firm capital structure

**Firm Size:** Several studies, e.g. Titman and Wessels (1988) and Wald (1999) have outlined that firm size is a relevant determinant of capital structure, opined that small size was likely to worsen the information asymmetry between the SME owner - manager and potential capital lenders. As a result, the cost of debt was likely to be higher for SMEs than for large firms. Ang, et al. (1982) specified that bankruptcy costs were relatively higher for small companies, because large firms showed more stability and held more diversified portfolios of activities. This situation supports a positive relationship between firm size and total and long-term debt, and a negative one between size and short-term debt. Osteryoung, et al. (1992), Chittenden et al. (1996), Michaelas, et al. (1999) and Hall et al. (2004) have indicated that study findings signified that large firms usually chose long-term debt, while small companies preferred short-term debt.

**Profitability:** In line with pecking order theory of capital structure, Chittenden, et al. (1996), Jordan, et al. (1998), Michaelas, et al. (1999) and Mishra and McConaughy (1999) reason that SME profitability was negatively related to leverage. Profitable firms therefore tended to primarily use internal capital for their financing needs to avoid the costs of external debt. In other words, even if profitable firms could have easier access to
leverage than less profitable organizations, they would prefer internal funds as the cost for external capital might be higher.

**Growth:** Firm growth creates demand for investment funds. In this situation, internal funds and equity are often insufficient to power the growth process; hence managers have to consider alternative sources of funding. Pecking order theory predicts that short-term debt represents the first financing option, followed by long-term leverage. Cosh and Hughes (1994); Michaelas, et al. (1999) found a positive relationship between growth, short and long-term leverage, while the study of Jordan, et al. (1998) showed mixed results. Overall, high-growth firms will take on more debt than the less performing organizations (Cassar and Holmes, 2003), which suggests a positive relationship between growth and leverage. Moreover, applying the pecking order arguments, high growth will be more related to short-term than to long-term debt.

**Tangibility:** Jensen and Meckling (1976) argue that shareholders of levered companies were inclined to overinvest, which intensified the classical conflict of interests between stockholders and debt holders. If a firm had a high tangibility of assets (i.e. a high proportion of long term physical assets), leverage could be secured against these assets. However, in this situation the corporate manager would be restricted to use debt funds for specific projects. Thus, a high tangibility of assets may increase the liquidation value of the firm and improve the guarantee of repayment, reducing the risk to debtors (Harris and Raviv, 1991). On the basis of this reasoning, the leverage capacity should increase with the proportion of tangible assets on the balance sheet. Trade-off theory predicts that leverage will be positively related to the proportion of tangible assets. Previous empirical findings confirm this positive relationship between tangibility and leverage (Rajan and Zingales, 1995; Titman and Wessels, 1988; Shyam - Sunder and Myers, 1999; Fama and French, 2002; Frank and Goyal, 2003; MacKay and Phillips, 2005; Faulkender and Petersen, 2006; Jimenez et al., 2006). Moreover, a number of research studies on SME capital structure indicate a positive association of tangibility with total and long-term debt, and possibly a negative relation with short-term debt (Michaelas et al., 1999; Cassar and Holmes, 2003).
**Volatility of Earnings:** Volatility of earnings is considered as a determinant of leverage by both trade-off and pecking order theories. Trade-off theory suggests that a low volatility of earnings will decrease the indirect bankruptcy costs, permitting the firm to take on more debt (Drobetz and Fix, 2003). On the contrary, a high volatility will increase the possibility of default, inducing a negative relationship between volatility and leverage. Pecking order theory considers that a high volatility of earnings worsens the information asymmetry problem since investors cannot predict the future earnings of the firm using the available information (DeAngelo and Masulis, 1980), which increases the cost of debt in comparison with other sources of finance. The anticipated relationship between volatility and leverage is also negative. The two theories predict that the volatility of earnings is inversely related to the capacity of a firm to obtain debt (Drobetz and Fix, 2003).

**METHODOLOGY**

A total of nine licensed DTMs in Kenya was obtained from the Central Bank of Kenya (CBK) website. The study used secondary data from annual financial reports of all the DTMs for the period from 2008 - 2012. Ordinary least squares (OLS) regression was employed to establish the relationship between the capital structure proxied by leverage ratio and the independent variables and also to determine the parameters of each variable in the model.

A multiple regression model was used to analyze the variables that explain the determinants of capital structure. The dependent variable in the regression model is Leverage (LEV) while the independent variables include profitability, tangibility, growth opportunities, size and age respectively.

\[ \text{LEV}_{it} = a_0 + \beta_1 \text{TANG}_{it} + \beta_2 \text{SIZE}_{it} + \beta_3 \text{GROWTH}_{it} + \beta_4 \text{PROF}_{it} + \beta_5 \text{AGE}_{it} + \epsilon_{it} \]

Where:

- \( a_0 \): Constant or intercept.
- \( i \): represents the firm (which is the cross-section)
- \( t \): represents the time/year (which is the time series)
\( \beta_{1-5} \): Coefficients of explanatory variables.

\( \varepsilon_t \): Error term representing other explanatory variables that were not captured.

\( \text{LEV}_{it} \): represents leverage (measured as book value of long term debts divided by Capital Employed, that is, long term debts plus shareholder funds).

The dependent and independent variables were operationalized as follows:

Leverage: \( \text{Leverage} = \text{Debt Ratio (DR}_{it}) \)

Debt Ratio \( = \frac{\text{Book value of long term debt}}{\text{Capital employed}} \)

\( \text{TANG} = \) Tangibility of Assets calculated as Fixed Assets divided by Net Total Assets i.e.

\[ \text{TANG} = \frac{\text{Fixed Assets}}{\text{Net Total Assets}} \]

\( \text{SIZE} = \) Size of the firms (measured as log of total assets)

\( \text{GROWTH} = \) Growth Potentiality (calculated as \% Increase in Net Total Assets)

\[ \text{Growth} = \frac{\Delta \text{Net total asset}}{\text{Net total asset}} \]

\( \text{PROF} = \) Profitability calculated as profit after tax divided capital employed. i.e.

\[ \text{PROFIT} = \frac{\text{PAT}}{\text{Capital Employed}} \]

\( \text{AGE} = \) number of years in which the firm was incorporated. Measured as the natural logarithm of number of the years of incorporation (number of years of incorporation)

**DISCUSSION OF THE FINDINGS**

Descriptive statistics of dependent and independent variables are summarized in Table One.

*Table One: Descriptive Statistics*
From table one, the ratio of total debt to total assets, shows that on average, DTM is financing 4% of total assets with total debts. The average value of profitability is -1.7014285 with the variation of individual data set from the mean value by 5.560945449. The maximum profitability for a firm in any year is 3.03 while the minimum value is -13.89. The mean value of tangibility shows that, on average DTM use 0.103714286 of net fixed assets in their assets structure. The maximum and minimum values of tangibility for DTM were 0.25 and 0.035, respectively. The average growth rate of selected firms is 0.70871 with a standard deviation of 1.411397. The liquidity ratios indicate that on average firms use current assets by 40.4014286 times of current liabilities. The mean value of size measured in log of sales is 6.94429 while the standard deviation is 0.93436. The maximum and minimum values of size are 8.28 and 5.91 respectively.

Results of the pooled multiple regression analysis are as summarized in table two.

Table Two: Summary of coefficients of independent variables

<table>
<thead>
<tr>
<th></th>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t Stat</th>
<th>P-value</th>
<th>Lower 95%</th>
<th>Upper 95%</th>
<th>Lower 95.0%</th>
<th>Upper 95.0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>-22.749</td>
<td>6.987</td>
<td>-3.256</td>
<td>0.190</td>
<td>-111.531</td>
<td>66.033</td>
<td>-111.531</td>
<td>66.033</td>
</tr>
<tr>
<td>size</td>
<td>3.865</td>
<td>1.1698</td>
<td>3.304</td>
<td>0.187</td>
<td>-10.996</td>
<td>18.729</td>
<td>-10.9996</td>
<td>18.72895</td>
</tr>
<tr>
<td>profitability</td>
<td>-0.0079</td>
<td>0.1724</td>
<td>-0.0457</td>
<td>0.9709</td>
<td>-2.199</td>
<td>2.183</td>
<td>-2.199</td>
<td>2.183</td>
</tr>
<tr>
<td>Tangibility of assets</td>
<td>-6.619</td>
<td>17.535</td>
<td>-0.378</td>
<td>0.770</td>
<td>-229.418</td>
<td>216.179</td>
<td>-229.418</td>
<td>216.179</td>
</tr>
<tr>
<td>Liquidity</td>
<td>-0.0058</td>
<td>0.014</td>
<td>-0.431</td>
<td>0.741</td>
<td>-0.177</td>
<td>0.166</td>
<td>-0.177</td>
<td>0.166</td>
</tr>
<tr>
<td>Growth</td>
<td>1.022</td>
<td>0.541</td>
<td>1.890</td>
<td>0.3098</td>
<td>-5.848</td>
<td>7.892</td>
<td>-5.848</td>
<td>7.892</td>
</tr>
</tbody>
</table>
The coefficients of size and growth opportunity in total assets are 3.8646 and 1.0222 respectively. These findings imply that there is a positive relationship between the leverage ratio and the variables of size and growth opportunity. Fixed-effects panel estimation results indicate that the coefficients of the variables of profitability, liquidity, and tangibility are -0.00789, -0.00582, and -6.6194 respectively. Having corroborated the relationships between the significant explanatory variables and the dependent variable, we have found a negative relationship between the leverage ratio and these variables.

Pearson correlation is used to analyze the relationship between debt to equity ratio of DTMs and their selected corporate characteristics. From the analysis, corporate characteristics positively affect the debt to equity ratio adopted by the DTMs. For instance, as the size of a DTM increases, a higher debt to equity ratio is adopted in financing. This is consistent with profitability, tangibility of assets, liquidity, and growth. On the other hand, there exists a negative relationship between asset tangibility and both liquidity and growth. This means that when asset tangibility is increased, both liquidity and growth decline. These results are summarized in table three.

**Table Three: Summary of Pearson Correlation Coefficients**

<table>
<thead>
<tr>
<th></th>
<th>Debt/equity ratio</th>
<th>size</th>
<th>profitability</th>
<th>Tangibility of assets</th>
<th>Liquidity</th>
<th>Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt/equity ratio</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>0.874678013</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Profitability</td>
<td>0.459467578</td>
<td>0.541782</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tangibility of assets</td>
<td>0.456736613</td>
<td>0.549561</td>
<td>0.50326538</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liquidity</td>
<td>0.067583456</td>
<td>0.243443</td>
<td>0.17108313</td>
<td>-0.414107845</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Growth</td>
<td>0.401360366</td>
<td>-0.0343</td>
<td>0.05203</td>
<td>-0.01412677</td>
<td>-0.2417</td>
<td>1</td>
</tr>
</tbody>
</table>

The positive correlation of 0.874678 between size of a DTM and debt to equity ratio approaches 1. This shows a strong relationship. Thus, as the size of a DTM increases,
there is a high tendency that its capital structure will be finance by more debt than equity, and vice versa.

The extremely weak relationship that exists between liquidity and debt to equity ratio implies that the liquidity level least affects a DTM’s capital structure. As the DTM’s current ratio increases, there is little to almost no influence on its capital structure decision.

A firm’s liquidity has a negative relationship with its asset tangibility. The higher the level of liquidity, the lower the level of asset tangibility. This is because; amongst the factors that make a firm more liquid is disposal of its assets. As more assets are disposed off, the level of asset tangibility decreases as the liquidity level increases.

Firm’s growth and liquidity depict a negative relationship. For DTM, a need for growth calls for extensive investments, which reduce the level of liquidity as the liquid cash, and cash equivalents are pumped into investments. Thus, as a DTM grows, its liquidity level reduces significantly.

GENERALIZATIONS FROM THE STUDY, CONCLUSIONS, AND IMPLICATIONS

The coefficient value of profitability of -0.00789 confirms that profitability has a negative impact on leverage. A negative coefficient of profitability implies that 1% increase in the ratio of PAT/Total Assets causes the ratio of TD/TE to decrease by 0.789%. The negative relation between profitability and leverage is consistent with the pecking order theory, whereas Trade-off theory is not substantiated. This in practice means that profitable DTM use internal funds at first to finance their assets before seeking debt. Thus, more profitable DTM would tend to use lower debt in their capital structure. This finding is consistent with other studies such as Rajan and Zingales (1995), Sayilgan et al. (2006) and Sheikh and Wang (2010).

The negative coefficient value of tangibility of -6.6194 implies that 1% increase in the ratio of net fixed assets to total assets of licensed DTM in Kenya leads to 6.6% decrease in the ratio of total debt to total assets. This negative association between tangibility and
leverage is consistent with implication of pecking order theory but contradicts with Trade-off theory. According to Gaud et al. (2005), in favoring of this association, the companies with lower levels of tangible assets are more subject to information asymmetry problems that lower the price of equity, and consequently, more willingness to use debt to finance their assets. The results also support the findings of Sheikh and Wang (2010), Sayilgan et al. (2006), and Abdullah (2005).

A positive coefficient value of growth of 1.0222 implies that 1% change in growth rate leads to 1.0222% change in leverage ratio. Although this relationship is in contradiction with what the trade-off theory predicts, it is consistent with the pecking order theory and signaling theory with the explanation that growing firm require more financing but may not have sufficient retained earnings and thus go to finance their new projects with debt financing before equity financing. The results of this study are consistent with the results of Titman and Wessels (1988), Chen (2004), Abdullah (2005), Sheikh & Wang (2010), Lima (2009), and Faris (2010).

Another explanatory variable in this study is liquidity. The negative -0.00582 coefficient of liquidity suggests that liquidity has a negative impact on leverage for licensed DTM.s. This association of liquidity with leverage conforms to the prediction of pecking order theory. Firms that maintain high liquidity ratios tend to employ less debt in their capital structure because it is expected that they are able to generate high cash inflows and the resultant excess cash flows can be used to finance the operations and investment activities. The findings also confirm some earlier studies such as Friend and Lang (1988), Sheikh and Wang (2010), Icke and Ivgan (2011) and Abdullah (2005).

The regression model finds a significant positive relationship between firm size measured in log of total assets and leverage. One possible explanation regarding the positive sign of size may be that bigger size firms have more easy access to debt markets from where they can raise substantial long-term funds at true price due to their wide asset base as compared to firms of smaller size. This result is in line with the findings of a previous study done by Sayeed (2011).
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