The Influence of Corporate Governance on Capital Structure Decisions of listed Companies in Sri Lanka

Nishani Mudalige\textsuperscript{1} and Athula Ekanayake\textsuperscript{2}
\textsuperscript{1}Department of Business Finance and \textsuperscript{2}Department of Operations Management
Faculty of Management
University of Peradeniya, Peradeniya, Sri Lanka.

Abstract

Unlike in mature markets, scant attention has been paid to investigate the relationship between corporate governance and capital structure in emerging markets. This study aims to fill this research gap by undertaking an empirical study in the Colombo Stock Exchange in Sri Lanka. Following the notions of agency, stewardship and stakeholder theories, corporate governance variables have been hypothesized to investigate their influences on capital structure measured using total debt-to-equity ratio. The corporate governance variables considered in the study are number of meeting held during the year, board independence, managerial and institutional ownerships. Data for the period of 5 years between 2008 and 2012 were gathered in relation to 30 manufacturing companies listed on the Colombo Stock Exchange. The study finds that 37.4 per cent of assets of the Sri Lankan listed manufacturing companies are financed by debt. Further, the study finds evidence to accept all the hypotheses at 5 per cent significance level. The study also investigates the influence of capital structure on firm value measured using Tobin's Q by developing a fifth hypothesis, which also has been accepted at 5 per cent significance level. The study has both theoretical and practical implications. While it finds evidence to generalize the notions of the three theories employed in the study, it also reveals how corporate governance variables influence capital structure decisions and firm value in the manufacturing companies in Sri Lanka.

Keywords: Corporate governance; capital structure; firm value, manufacturing firms; Sri Lanka.

\textsuperscript{*}Corresponding Author

Modern Sri Lanka Studies - Vol. VI, No. 01, 2015
1. Introduction

Governance has become a major concern since people began to organize themselves towards a common purpose. Similarly, corporate governance has become an issue of interest when ownership is separated from management in company form of organizations where the goal incongruence behavior of the latter is likely (Berle and Means, 1932; Jensen and Meckling, 1976). More specifically, separation of ownership from management in companies creates information asymmetry problems between inside managers and outside shareholders (and other stakeholders), and this situation allows the managers to engage in wealth expropriation of the shareholders. In the absence of accounting information, effective monitoring and adequate control systems, rational investors are likely to price-protect against such agency costs, raising the company's cost of equity capital (Collins et al., 2004). On the other hand, managers can create shareholder wealth by reducing the value of the debt capital via engaging in high risk investments, since shareholders are the residual claimant with limited liability for the firm's debt (e.g., Moerland, 1995). These situations could affect adversely particularly on the Anglo-American countries where private sector investments are the engine of economic development. Hence, corporate governance acts as a mechanism to reduce agency problems by increasing the monitoring of managements' actions, limiting managers' opportunistic behavior, and reducing the information risk borne by the shareholders and debt holders (Bushman and Smith, 2001).

Corporate governance reforms have been introduced in Sri Lanka from late 1990s by way of codes of best practices on corporate governance that set out recommendations on the responsibilities, structure and organization of Board of Directors (BOD) to function as a corporate governance mechanism (Ekanayake, Perera and Perera, 2009). Such reforms in corporate governance aim to play an important role, ensuring corporate accountability, enhancing reliability and quality of public financial information, and improving efficiency of capital markets leading to investor confidence.
Despite the adoption of codes of best practices on corporate governance certain recent incidents in Sri Lanka raised doubts over the quality of corporate governance. For example, there have been failures of a number of financial institutions, including a savings bank, several finance companies, and a number of small-scale money lenders. A number of stakeholders, including the shareholders and debt holders, were adversely affected by these failures. Following these incidents, questions were raised about proper implementation of corporate governance regulations in the country (Ekanayake and Perera, 2014).

Companies in the current day are affected largely by factors, such as technology, competition, economy and financial crisis in the external environment. Hence, they need to plan their capital structures carefully by taking these risks also into account. Capital structure in companies refers to a mixture of a variety of long term sources of funds and equity shares including reserves and surpluses. It plays an important role in determining firm value because financial position of a company would depend on resources it owns and the obligations it has to meet. For example, Rezaei, Ghorbani and Yaghoubi (2012) state that integration of long term and short term financial sources contribute greatly to profit and enterprise value. Thus, implementing proper corporate governance practices and forming an optimal capital structure are likely to minimize corporate failures, by improving corporate structures and control systems, reducing financial risks, and disciplining inside managers (Ganiyu and Abiodun, 2012).

Given its importance to identify the relationship between corporate governance practices and capital structure in improving the firm value, this study aims to examine the ways in which capital structure and firm performance are affected by corporate governance practices in the companies listed on the Colombo Stock Exchange in Sri Lanka.

The issue of corporate governance has been a growing area of finance research especially among listed companies where ownership and management
are separated. Such companies require considerable amount of financial resources to promote company objectives. Also, finance literature points out that agency problem can affect financing decisions of those companies (Anderson et al. 2004). Hence, factors affecting capital structure decisions needs a close attention. Although a number of studies have been conducted to examine the study phenomenon in developed economies (Rajagopalan and Zhang 2008) scant attention was given in the developing economies. For example, prior research in emerging markets was conducted in countries, such as Malaysia, Indonesia, Thailand, India and Taiwan, where there is a high echelon of economic performance. Although Sri Lanka has a high potential for economic development it has not reached to that level. Firms in emerging economies can have less developed governance structures and high agency problem. In such circumstances, managers have the opportunity to seek more private benefits in contrast to shareholder wealth maximization objective (Core et al., 1999). To enhance the reliability of companies' activities and management policies in favor of stakeholder interests it is important to identify the relationship between corporate governance and capital structure of firms.

Further, corporate governance assists companies via better management practices, effective control systems, stringent monitoring, effective regulatory mechanism and efficient utilization of firms' resources resulting in improved performance (Anderson et al, 2004). Thus, firms with well-established governance structures find easy access to credit at lower cost. Hence, corporate governance is an important factor contributing to capital structure and debt management.

The remainder of the paper is organized as follows. Section two reviews the relevant literature and formulates the hypotheses. The research model is outlined in Section three. Section four presents the results and discussion of the findings. Conclusions and implications are presented in section five.
2. Literature Review and Development of Hypotheses

Good corporate governance practices are important in reducing risk for investors, attracting investment capital and improving the performance of companies (Velnampy and Pratheepkanth, 2012). Even though Modigliani and Miller’s irrelevance theory (Modigliani and Miller, 1958) argues that the value of a firm is unaffected by how that firm is financed in an efficient market, later it was accepted that capital structure can greatly alter firm value in the real world (Modigliani and Miller, 1963). Hence, many studies have been carried out to examine how capital structure is optimally determined (Banceland Mitto, 2004).

The ways in which the capital of a firm is constructed and thus the importance of the governance mechanisms under each capital structure can be explained by drawing on concepts developed in the literatures on agency, stewardship and stakeholder theories. According to agency theory, firms experience conflicts of interest arising between owners (principals) and managers (agents) due to the separation of ownership and management. Agency theory highlights the possibility of an agent not performing in the best interests of the principal (Berle and Means, 1932; Coase, 1937; Jensen and Meckling, 1976), and suggests various mechanisms to be employed to align the interests of corporate managers with those of shareholders (e.g., Bushman and Smith, 2001).

The BOD that has a fiduciary duty to outside shareholders to monitor activities of managers and to provide strategic direction to the firm is an important corporate governance mechanism (Cadbury Report, 1992). The effectiveness of the BOD as a corporate governance mechanism depends mainly on two factors, namely how roles of the board are defined and the way in which it is structured (Cadbury Report, 1992). These alternative tasks of the BOD have been examined widely in corporate governance research in a variety of disciplinary areas. Firstly, as explained above, the BOD performs monitoring and advisory roles to oversee the activities of managers and to provide strategic direction to the company. In this connection, empirical research suggests the importance of frequency of board meetings for effective governance purposes.
More frequent meetings would improve the ability of the BOD to monitor and advise managers. For example, Vafeas (1999) reveals that an increase in board meeting frequency is followed by improvements in operating performance. Further, Rajendran (2012) finds a positive relationship between the number of board meeting and leadership style, and the leverage of the firm. These arguments lead to the development of the first hypothesis as follows:

**Hypothesis 01 (H₁): Debt ratio of a firm is influenced positively by the number of BOD meetings held during year.**

Secondly, an appropriately structured board can more efficiently contribute to the performance of firms. The literature suggests a number of factors that should be considered in structuring the BOD in order to perform well as a governance mechanism. For example, as suggested by most of the international corporate governance guidelines, such as the NYSE corporate governance rules (2003), board independence can contribute positively on the performance. The assumption is that an effective BOD comprised of a greater proportion of outside directors (Zahra & Pearce 1989) is significant for firm performance. According to the agency theory, these outside non-executive directors are able to provide superior performance as a result of their independence and freedom from the firm management (Dalton *et al* 1998). Hence, ensuring independence of the BOD from management is considered crucial in developing effective board structures and operation (Liu and Fong, 2010).

When firms have more outside directors, it increases the firms’ ability to raise external debt (Pfeffer, 1973). For example, Abor (2007) and Berger *et al.*, (1997) find a positive relationship between non-executive directors’ percentage on the BOD and leverage ratio. They conclude that non-executive directors ensure management’s accountability towards shareholders, reduce agency conflict between shareholders and management which leads to have a high debt policy. Based on these arguments, a second testable hypothesis can be developed as follows:
Hypothesis 02 (H₂): Firm debt ratio is influenced positively by the number of non-executive directors in the Board.

In contrast to agency theory, stewardship theory presents a different model of management, where managers are considered good stewards who will act in the best interest of the owners (Donaldson & Davis 1991). The fundamentals of stewardship theory are based on social psychology, which focuses on the behaviour of executives. Stewardship theory sees a strong relationship between managers and the success of the firm, and therefore the managers protect and maximize shareholder wealth through firm performance. This is more likely to be visible in situations where managers hold substantial amount of share capital of firms. This means that managers become risk averse when they invest larger amounts of personal wealth in business and are reluctant to adopt high debt policies because of the risk of bankruptcy (Fosberg, 2004). As managerial ownership increases, firm control passes from external shareholders to managers, and thus after certain degree of managerial ownership, managerial entrenchment leads to debt avoidance (Brailsforset al., 2002). This argument leads to the development of the third hypothesis.

Hypothesis 03 (H₃): Firm debt ratio is influenced negatively by the managerial ownership.

Moreover, stakeholder theory asserts that it is important to consider the interests of groups affected by the firm (Christopher, 2010; Gibson, 2000). Following the notion of stakeholder theory, institutional ownership can be identified as an important corporate governance variable in publicly held companies (Crespi and Renneboog, 2010). For example, institutional investors have substantial ownership stakes, which provide them with an incentive to collect information and monitor management, thereby enhancing shareholder value. Institutional ownership is dominant in emerging markets as domestic investors are reluctant to invest in those markets due to their under developed nature and weak investor protection.
The literature suggests that a higher degree of institutional ownership leads to a lower level of debt ratio. As high leveraged firms provide a signal that such firms could face future financial difficulties institutional investors prefer to maintain low debt ratio (Tong and Ning, 2004). Better monitoring, intervention and disciplinary influence of institutional ownership are likely to increase internal fund generation and thus reduce external borrowings (Claessens et al. (2002). These arguments lead to develop the forth hypothesis of the study as follows:

**Hypothesis 04 (H₄):** Firm debt ratio is influenced negatively by the institutional ownership.

Capital structure is one of the focused areas of financial decision making because of its interrelationship with firm value. Such financial decisions are associated closely with identifying the optimal mix of debt and equity in the capital structure of firms. For example, O’Connell and Cramer (2010) reveal that high level of debt improves the market performance of firms and it leads to a higher firm value. Also, increasing the leverage would signal out to the market that firms are confident on paying interest charges and debt commitments, and thus, they are positive on future prospects of the firm (Ross, 1977). Based on these arguments, a final testable hypothesis can be developed as follows:

**Hypothesis 05 (H₅):** Firm value is influenced positively by debt ratio.

In sum, this study argues that while the role and the structure of BOD promote a high debt ratio, the degree of managerial and institutional ownerships lead to a lower level of debt ratio, and a firm’s value is determined based on the chosen capital structure. The conceptual framework that has been developed based on these arguments is depicted in Figure 1. It demonstrates the relationships between various corporate governance mechanisms, identified using the notions developed from the theories of agency, stewardship and stakeholder, and capital structure of firms, and the effect of those relationships on firm value leading to the development of hypotheses.
3. The Model

Two models for testing the hypotheses are developed as follows.

\[ TDE = \beta_0 + \beta_1 BI + \beta_2 NMDY - \beta_3 MO - \beta_4 IO + u \]  \hspace{1cm} (1)

\[ \text{Tobin's } Q = \alpha_0 + \alpha_1 \text{ TDE } + \varepsilon \]  \hspace{1cm} (2)
where;

<table>
<thead>
<tr>
<th>Variable</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDE</td>
<td>Total debt-to-equity ratio (Total debt / Total equity)</td>
</tr>
<tr>
<td>BI</td>
<td>Board independence (Number of non-executive directors on the BOD/ Total number of directors)</td>
</tr>
<tr>
<td>NMDY</td>
<td>Number of meetings during year (Total number of BOD meetings held during one year)</td>
</tr>
<tr>
<td>MO</td>
<td>Managerial ownership (Number of equity shares held by CEO, directors and their families/ Total number of equity shares)</td>
</tr>
<tr>
<td>IO</td>
<td>Institutional ownership (Equity shares held by institutions/ Total number of equity shares)</td>
</tr>
<tr>
<td>Tobin’s Q</td>
<td>Tobin’s Q (Market capitalization + Total assets - Total equity) / (Total assets)</td>
</tr>
</tbody>
</table>

u and ε: are the two random error terms in the regression model.

Model (1) is built to test the extent to which corporate governance variables influence capital structure decisions. For this purpose, total debt-to-equity ratio has been used to measure capital structure. Model (2) is built to examine the degree to which market value of the firm is influenced by the capital structure of the firm. Here, market value is measured using Tobin’s Q.

Secondary data were gathered from the Colombo Stock Exchange (CSE) to test the hypotheses using regression analyses. 30 out of total 40 manufacturing companies listed on the CSE have been selected into the sample on the basis of availability of secondary data. Data were gathered from the CSE website and annual reports of the sample companies for five years period from 2008 to 2012.

---

1 Data were not available for the full period considered in the study for rest of the companies.
4. Results and Discussion

The relationship between corporate governance variables and capital structure was examined in the first stage, and the impact of capital structure on firm value was examined subsequently. The descriptive statistics, as summarized on Table 1, shows that total debt-to-equity ratio (TDE) equals to 37.4 per cent. This indicates that on average 37.4 per cent of assets of the Sri Lankan manufacturing companies are financed by debt.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>TDE</td>
<td>.18</td>
<td>.46</td>
<td>.3740</td>
<td>.11315</td>
</tr>
<tr>
<td>BI</td>
<td>.20</td>
<td>.72</td>
<td>.5953</td>
<td>.22454</td>
</tr>
<tr>
<td>NMDY</td>
<td>1.96</td>
<td>7.53</td>
<td>6.1320</td>
<td>2.34497</td>
</tr>
<tr>
<td>MO</td>
<td>.04</td>
<td>.13</td>
<td>.0697</td>
<td>.02340</td>
</tr>
<tr>
<td>IO</td>
<td>.21</td>
<td>.72</td>
<td>.6129</td>
<td>.22491</td>
</tr>
<tr>
<td>Tobin’s Q</td>
<td>.89</td>
<td>2.21</td>
<td>1.2744</td>
<td>.38553</td>
</tr>
</tbody>
</table>

Further, non-executive to total directors (BI) takes mean value of 0.5953. This indicates that 59.53 per cent of directors in Manufacturing Companies in Sri Lanka are non-executive directors. Furthermore, the results show that on average six board meetings (NMDY) were held during a year in manufacturing companies in Sri Lanka. Also, descriptive statistics indicate that institutions hold a significant ownership (IO) of 61.29 per cent of shares in manufacturing companies. However, this per cent is low (6.97) for shares held by inside managers (MO). Finally, the mean value for Tobin’s Q\(^2\) takes 1.27 which indicates higher market performance of the manufacturing companies in Sri Lanka over the years.

\(^2\) Tobin’s Q measures market performance. When its value is greater than one it represents a positive investment opportunity.

Modern Sri Lanka Studies - Vol. VI, No. 01, 2015
Table 2 provides the summary of the hypotheses testing on each corporate governance variable and total debt-to-equity. The results of each hypothesis are discussed as follows.

<table>
<thead>
<tr>
<th>Corporate Governance Variables</th>
<th>Coefficients</th>
<th>Std. Error</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>.635</td>
<td>.237</td>
<td>2.685</td>
<td>.008</td>
</tr>
<tr>
<td>Board independence</td>
<td>.059</td>
<td>.029</td>
<td>2.021</td>
<td>.045</td>
</tr>
<tr>
<td>Number of meetings held</td>
<td>.133</td>
<td>.156</td>
<td>.854</td>
<td>.039</td>
</tr>
<tr>
<td>Managerial Ownership</td>
<td>-.243</td>
<td>.145</td>
<td>-1.673</td>
<td>.021</td>
</tr>
<tr>
<td>Institutional ownership</td>
<td>-.014</td>
<td>.134</td>
<td>-.105</td>
<td>.048</td>
</tr>
</tbody>
</table>

**Hypothesis 01:** Following the notions of agency theory, hypothesis 01 proposed that total debt-to-equity ratio is positively influenced by the number of BOD meetings held during year. As indicated by the proposition, Model 1 (under number of meetings held) demonstrates a positive correlation, where there is a significant relationship between the NMDY and total debt-to-equity (coefficient = .133, p < .05), which supports the hypothesis 01. Rajendran (2012) was also arrived at a similar conclusion. It is likely that a higher number of board meetings in a year facilitate managing a high level of debt in the capital structure effectively.

**Hypothesis 02:** The second argument, also based on the agency view, derived on the relationship between board independence and capital structure, suggesting that board independence has a positive significant influence on total debt-to-equity ratio. As hypothesized, findings under evaluation variables portray a positive relationship. Moreover, supporting the hypothesis 02, variable
BI (coefficient= .059, p< .05) shows a significant positive association. This finding, which is in consistent with Abor (2007) and Berger et al. (1997), suggests that non-executive directors ensure management’s accountability to shareholders, reducing the agency conflict between shareholders and management, and allowing the companies to operate at a high level of leverage.

Hypothesis 03: Following the notions of stewardship theory, hypothesis 03 investigated the association between the managerial ownership and capital structure. Results of the regression analysis reveal a negative correlation for measurement criteria, more specifically a negative significant impact for MO (coefficient= -.243, p< .05). These findings supported the hypothesis 03, and are consistent with the findings of Brailsfors et al. (2002) and Fosberg (2004). It appears that when managers invest large amounts of personal wealth in business they become risk averse and reluctant to adopt high debt policies.

Hypothesis 04: The forth hypothesis examined the relationship between institutional ownership and capital structure. Considering the arguments of the stakeholder theory, this study proposed that companies, having a higher degree of institutional ownership, prefer to operate at a lower leverage. Validating this proposition, the result, as shown in Table 2, showed a negative significant association (coefficient= -.014, p< .05). This is in consistent with the findings of Short et al. (2002), who claim that due to better monitoring, intervention and disciplinary influence of institutional ownership, companies rely on internal fund generation and thus reduce external borrowings.

As explained in Section 1, this study finally examines how the capital structure influences performance in the manufacturing companies in Sri Lanka. For this purpose, hypothesis five has been developed, which proposed that firm value, measured in Tobin’s Q, is positively influenced by total debt-to-equity ratio. The relationship between total debt-to-equity ratio and Tobin’s Q was given in model (2).
Table 3 provides the results of hypothesis testing of total debt-to-equity and Tobin’s Q. It shows that total debt-to-equity is significantly related to Tobin’s Q, and suggests that the market values of manufacturing firms in Sri Lanka are strongly influenced by their capital structures. This indicates the importance of leverage as an important mechanism that investors consider in their investment decisions in Sri Lanka. Apparently, growing firms require outside financing for expansion of their businesses in emerging markets such as Sri Lanka. The results of hypothesis 05 are summarized below.

**Table 3**

Hypothesis testing of total debt-to-equity and Tobin’s Q – Model 2

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficients</th>
<th>Std. Error</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-4.531</td>
<td>1.970</td>
<td>-2.300</td>
<td>.083</td>
</tr>
<tr>
<td>Total debt to equity</td>
<td>13.039</td>
<td>3.945</td>
<td>3.305</td>
<td>.030</td>
</tr>
</tbody>
</table>

Hypothesis 05: Hypothesis five investigated the association between the capital structure and firm value. Results of the regression analysis reveal a positive relationship for measurement criteria, disclosing a positive significant impact for total debt-to-equity (coefficient = 13.039, p < .05) (see Table 3). These findings are in consistent with O’Connell and Cramer (2010). It suggests that inclusion of debt in the capital structure leads to a higher firm value.

**Conclusions and Implications**

Following the notions of agency, stewardship and stakeholder theories, this study identified four corporate governance variables, namely structure of the BOD and its role, and managerial and institutional ownerships, which can influence capital structure decisions of firms listed on the CSE in Sri Lanka. These four corporate governance variables were the bases for the development of the first four hypotheses. The study revealed that board independence and number...
of meetings held during year are influenced positively and significantly on capital structure decisions while managerial and institutional ownerships are affected vice-versa. In other words, higher number of board meetings and outside directors are likely to increase the debt in the capital structure, and managerial and institutional ownerships tend to reduce the debt in the capital structure.

This study also investigates how capital structure influences on the firm value by developing the fifth hypothesis. The results revealed that there is a positive significant relationship between total debt-to-equity and Tobin's Q. This finding suggests that capital structure decisions can have an influence on improving market performance.

This study find evidence to support all the hypotheses developed following the notions of three theories mentioned above. Further, most existing studies used data from mature markets in developed countries, but scant attention has been given for similar studies in emerging markets such as Sri Lanka. This study was able to fill this research gap. Findings of this study also provided practical contribution benefiting managers, investors and other decision makers as it revealed empirically that how corporate governance variables influence capital structure decisions and firm value in manufacturing companies in Sri Lanka.

References


Liu, H.X., & Fong, M.W.L., 2010, Board characteristics of medium and large Chinese companies, Corporate Governance, 10(2).


Modern Sri Lanka Studies - Vol. VI, No. 01, 2015

