The Effect of Corporate Governance Attributes on Capital Structure: An Empirical Evidence from Listed Manufacturing Companies in Colombo Stock Exchange

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ABSTRACT

Capital structure is one the most significant disciplines of company's operations. Capital structure decision is a vital decision with great implication for the firm's sustainability. The determination of a capital structure of a firm is a difficult task to achieve. Corporate governance isan emerging disciplinary area in Sri Lankan economy.The study explores the effect of corporate governance attributes on capital structure of listed manufacturing companies in Colombo Stock Exchange (CSE) during the period of 2011-2013. The research employs 31 listed manufacturing companies for the study. Measures of corporate governance attributesemployed in this study are leadership style (CEO duality), board size, board composition and board committees. Also this study employed debt equity ratio as the measurement of the capital structure, and firm size, profitability and liquidity were employed as control variables. The data were analyzed and hypotheses were tested through descriptive statistics, correlation analysis and regression analysis. The findings revealed that, there is no significant effect of corporate governance attributes except board composition on capital structure. The board composition has a significant positive effect on capital structure and also among control variables liquidity has significant negative impact on capital structure

KEYWORDS: *Corporate Governance, Capital Structure, Colombo Stock Exchange.*

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1. Introduction

Firms are independent and separate from their owners. However, firm can be regarded as a set of contracts between different parties. One of the most important of these contracts is that of mangers and shareholders that occurs as the result of the separation of ownership from management and is formed on the basis of 'Agency Theory'. In such a contract, shareholders give the controlling of firm's affairs to agents (managers) and in return keeps the right of receiving of responses with respect to the performance of managers for themselves.However, in these contracts, it is always probable that managers prefer their own interests to those of shareholders, thus causing of conflict of interests take place in the agency relations. On the other hand, for shareholders to make sure that managers are working to their interests or not, they have to undergo some costs called 'Agency Costs'. To decrease the agency problems, different mechanisms are proposed in the finance literature. One of the most fundamental of these mechanisms is Corporate Governance which is indicative of the process of supervision and control on firm's management in order to make sure if the performance of managers is in accordance with the interests of shareholders.Key mechanisms that protect the interests of the shareholders are known as Corporate Governance .The need for strong governance is evidenced by the various reforms and standards developed by both national and international level (e.g. Code of Best Practice on Corporate Governance (CBP), the Organization for Economic Development Code [OEDC] etc). In general, corporate governance is considered as having significant implications for the growth prospects of an economy, because proper corporate governance practices reduced risk for investors, attract capital for investments and improve performance of companies. In Sri Lanka, it is now mandatory for companies to comply with the corporate governance rules that formed part of the listing rules of the Colombo Stock Exchange (CSE), which took effect from the April 2008. Prior research on the relationship between corporate governance and capital structure has been done in the developed countries, but few studies have been carried out to examine this relationship in emerging countries such as Sri Lanka.

2. Statement Of Problem

The issue of corporate governance has been a growing area especially among large and listed firms in CSE. Companies need financial resources to perform their activities and to accomplish their objectives. Therefore, factors affect to capital structure should be considered carefully.

During recent years there has been an increasing awareness of corporate governance in Sri Lanka. As a result of that, it is now mandatory for companies to comply with the corporate governance rules that formed part of the listing rules of the CSE.

Therefore, the present study mainly focuses on the issue “Does Corporate Governance effect on Capital Structure?”

3. Objectives

The aim of this study is to examine whether there is any significant relationship between corporate governance attributes and capital structure of firms.

Specific Objectives:

1. To identify whether there is any significant relationship between board leadership and capital structure.
2. To identify whether there is any significant relationship between presence of board committees and capital structure.
3. To identify whether there is any significant relationship between board size and capital structure.
4. To identify whether there is any significant relationship between board composition and capital structure.

4. Litereture Review

4.1 Leadership Style (CEO duality) and Capital Structure

According to Marand *et al* (2014), the proper financing of the companies must be carefully done and the capital structure appropriate with the company's goals should be determined and they have documented a negative relationship between duality of CEO task and the capital structure. The above mentioned argument is empirically supported by Nazir *et al* (2012). Through the study conducted using 269 non-financial firms for the period of 2004 to 2009. It was found the significant positive relationship of firm’s leverage with CEO duality. Ranti (2013) observed that, there was a significant positive relationship between CEO duality and the capital structure of the selected listed firms in Nigeria. Emamgholipour*et al*

(2013) found that there is a significant and positive relationship between CEO duality and capital structure of companies. Based on the above review of literature following hypotheses can be formulated.

H1: There is a Significant Relationship between Leadership Style (CEO Duality) and Firms' Capital Structure.

4.2 Board Committees and Capital Structure

Fauziand Locke (2012) Board Structure, Ownership structure and firm performance: A Study of 79 New Zealand Listed firms, revealed that board of directors, board committees has significant positive impact on firm's performance. Kajananthan (2012) found that there is a significant positive relationship between board committees and capital structure of Sri Lankan listed manufacturing firms during the period of 2009 to 2011. The above mentioned argument is empirically supported by Achchuthan (2013) by finding there is a significant positive relationship between board committees and capital structure. Based on the above review of literature following hypothesis can be formulated.

H2: There is a Significant Relationship between Board Committee and Firms' Capital Structure.

4.3 Board Size and Capital Structure

Muiahid*et al* (2014) found that board size have a positive impact on the total debt ratio. It was confirmed by Ali et al (2014) focusing on Saudi Arabian Banking Sector commercial banks for the years 2010 and 2011. They found that that board size is positively correlated with capital structure decisions. Rehman*et al* (2010) have investigated the relationship between corporate governance and capital structure of randomly selected 19 banks of Pakistan. They also found that board size positively related with capital structure. In addition to the above findings Ahmadpour *et al* (2012), and Gill *et al* (2012) have found same relationship as there is a positive relationship between board size and capital structure. The significant positive relationship between board size and capital structure was further confirmed by Agyei*et al* (2014) focusing on eight randomly selected Ghanaian listed manufacturing companies from Ghana Stock Exchange .Based on above review of literature following hypothesis can be formulated.

H3: There is a Significant Relationship between Board Size and Firms' Capital Structure.

4.4 Board Composition and Capital Structure

Furthermore, board independence (the fraction of independent and non-executive directors serving on the board) has also received greater attention by researchers and regulators. Referring to the issue of capital structure, Wen *et al* (2002) have argued that the presence of independent directors on the board leads to lower leverage due to the superior monitoring control and the reduction of agency conflicts between managers and stake holders.Awan*et al* (2011) have found a significant relationship between Board Composition and capital structure based on a sample of 100 manufacturing companies listed at Karachi Stock Exchange (KSE) and Lahore Stock Exchange (LSE) from Textile sector.Ajanthan (2013) and Rehman*et al* (2010) have found that there is a positive relationship between board composition and capital structure. By supporting these Agyei (2014) found that there is a significant positive relationship between board composition and capital structure focused on eight randomly selected manufacturing listed companies from Ghana Stock Exchange. Based on the above review of literature following hypothesis can be formulated.

H4: There is a Significant Relationship between Board Composition and Firms' Capital Structure.

5. Methodology

5.1 Study Period and Data Coverage

This study analyses the listed firms in the CSE in Sri Lanka for three year period from 2011 to 2013. The 31 listed companies in the manufacturing industry were selected as the sample.

5.2 Variables and Measures of Variables

Based on proper literature and the governance attributes specific to Sri Lankan firms this study identified four corporate governance attributes that influence the capital structure. They are: board leadership (if the positions of chairman and the CEO were held by single person or two separate persons), composition of the board (number of independent non executive directors), board committees (number of board appointed committees), and board size (number of directors in the board). Leverage ratio (Debt ratio) used to measure the capital structure in the study, and indicate the efficiency of financing decisions. Control variables are measured through profitability (profit after tax/total assets), firm size (natural logarithm of total assets) and liquidity (current assets/ current liabilities).

5.3 Conceptual Model

It is evident that there are several variables that influence the relationship between corporate governance and capital structure. Therefore, the relationship between corporate governance attributes and capital structure may be analyzed better in simultaneous system than separately in line with this view, This study develops the following conceptual framework model for identifying the four corporate governance attributes which are considered important in affecting firm's capital structure.

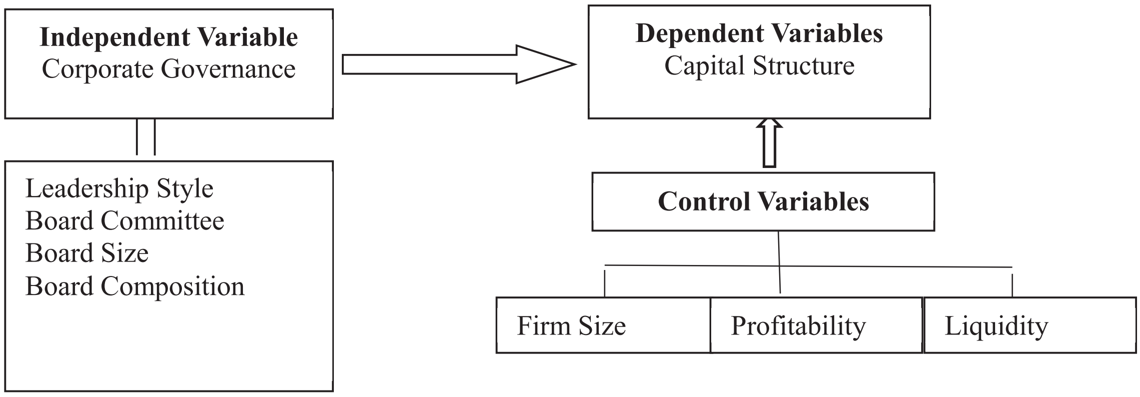

Figure 5.1 Conceptual Model of the Study

5.4 Techniques of Data Analysis

The quantitative research approach is arrived at the findings of the research study. Under which, descriptive statistics, correlation analysis, regression analysis were used to analyze the data for the year 2011,2012 and 2013, for the sample of 31 firms, the total 93 firm years observations.

5.5 Research Model

In addition to the relationship tests, the study focuses on regression analysis to examine the effect of corporate governance attributes on capital structure. The study regressed debt ratio as the measurement of capital structure against independent variables and control variables. The following model developed by McConnell and Servaes (1990).

$DR=\beta_0+\beta_1 LSS+\beta_2 BC+\beta_3 BS+\beta_4 PINED+\beta_5 PROF+\beta_6 SIZE+\beta_7 LIQ+\varepsilon_i$

Where,

β0 =Intercept
β1 =Population Slope
DR = Debt Ratio
LSS =Leadership Style
BC =Board Committee
BS =Board Size
PINED =Proportion of Independent Non-Executive Directors
PROF = Profitability
SIZE =Firm Size
LIQ =Liquidity

6. Data Analysis & Results

6.1 Descriptive Statistics Analysis

The descriptive statistics to describe the basic features of the variables of the sample. The descriptive statistics of the corporate governance attributes provide evidence on the extent of compliance by the firms with the Code of Best Practice on Corporate Governance (CBP) in Sri Lanka. In addition the characteristics of variables used to measure capital structure and other control variables can be understood by looking at those at these descriptive statistics.

Table 1.1 Descriptive Statistics

	N	Mean	Maximum	Minimum	Std. Deviation
DR	93	.4300	1.81	.06	.22
LSS	93	.16	1	0	.37
BC	93	2.00	4	0	.53
BS	93	7.26	12	3	2.08
PINED	93	.35	.67	.00	.14
PROF	93	.06	.46	-.28	.11
SIZE	93	21.04	22.98	17.91	1.02
LIQ	93	2.15	19.13	.13	2.31

Source: Data Analysis

According to the table 1.1 mean value of DR for the sample is 43 percent ranging from 6 percent to 181 percent. The mean value of DR implies that nearly 43 percent of total assets are financed by debt capital. According to Achchuthan *et al*(2013) indicates that Sri lankan manufacturing firms use less debt capital in their capital structure. The above table shows that 16 percent of the companies combined the CEO role with the chairmanship in Sri Lankan manufacturing firms. On average two committees were present in sample firms. The average board size of the sample firms was 7.2 and it seems to be conformity with minimum requirement of CBP on corporate governance in Sri Lanka. The mean percentage of Non-executive independent directors of the sample firms were reported as 35 percent and it also complied with the minimum requirements recommended by the CBP on corporate governance in Sri Lanka.

6.2 Correlation Analysis

Correlation analysis shows the relationship between variables. In this study the correlation co-efficient analysis was under taken to find out the relationship between corporate governance attributes and capital structure.The significance of the correlation was tested at the different levels of significance and detailed results of correlation analysis were reported in Table 1.2.

Table 1.2: Correlation Matrix

	DR	LSS	BC	BS	PINED	PROF	SIZE	LIQ
DR	1							
LSS	.120	1						
BC	-.176	.166	1					
BS	-.005	-.154	.315**	1				
PINED	.100	-.202	-.179	-.123	1			
PROF	-.113	-.105	.041	.160	.046	1		
SIZE	-.045	.010	.380**	.326**	.038	.481**	1	
LIQ	-.436**	-.098	-.081	-.228*	.229*	-.103	-.303**	1

** Correlation is significant at the 0.01 level (2 – tailed)
* Correlation is significant at the 0.05 level (2 – tailed)
Source: Data Analysis.

According to table 1.2, in this study leadership structure (LSS) and proportion of independent non executive directors (PINED) have insignificant slight positive relation to debt to equity ratio (DR) as 0.120 and 0.100 respectively. It was compatible with the findings of Ajanthan (2013), Rehman (2010) and Gill (2012). Other variables have insignificant negative relation with DRexcept LIQ. The LIQ has a significant negative relationship with DR. This is in accordance with the findings of Kajananthan&Achchuthan (2013).Profitability (PROF) is having insignificant negative correlation with debt to equity ratio (DR) and compatible with findings of Sushbita (2012) and Samarakoon (1999).

6.3 Multi–collinearity and Multiple Regression Analysis

6.3.1 Multi–collinearity and Autocorrelation Test

Prior to conduct the multiple regression analysis test of multicollinearityand test of auto correlation were carried out for the purpose of generating reliable results and generalizing the model. The table 1.3 reveals that the absence of multicollinearity indicating the VIF values which are not exceeding the threshold of 5 which may be cause for potential problem of multicollinearity. Also table 1.3 reported the value of Derbin-Eatson and it confirms that there is no autocorrelation.

Table 1.3: Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		Collinearity Statistics	
		B	Std. Error	Beta	Sig.	Tolerance	VIF
1	(Constant)	1.007	.509		.051		
	LSS	.080	.057	.134	.167	.874	1.144
	BC	-.068	.044	-.163	.127	.722	1.384
	BS	.003	.011	.028	.787	.778	1.286
	PINED	.369	.155	.231	.019	.859	1.164
	PROF	-.229	.217	-.110	.295	.736	1.359
	SIZE	-.023	.026	-.106	.383	.556	1.799
	LIQ	-.050	.010	-.526	.000	.815	1.227
	R Square		.314				
	Durbin Watson		2.390				
	F		5.562				
	Sig		.000[a]				

a. Dependent Variable : DR, Note :Sig at 0.05 level

b. Predictors: (Constant), LIQ, PROF, LSS, BC, PINED, BS, SIZE

Having R^2 value of 0.314 indicates that independent variables of the model have ability to explain 31.4 percent variation of the dependent variable. The remaining 68.6 percent is influenced by other factors which are not considered for this study.Therefore, it can be concluded that this regression model is reasonably fit to the data. Since F value of 5.562 and model significant is 0.000(p=0.000) at 0.05 level, the assumption that linear relationship between the independent and dependent variables is not violated.The result of the regression analysis shows that Proportion of independent non executive directors or board composition (PINED) has significant and positive effect on capital structure. Because, significant values of PINED is 0.019 which is less than 0.05 significant level. None of the variables including leadership style (CEO Duality), board committee (BC), and board size (BS). Though control variables profitability (PROF) and firm size (SIZE) except leverage not contribute significantly, the liquidity (LIQ) contribute significantly on capital structure decisions. There is a significant negative relationship between Liquidity and Capital Structure under 0.05 significant levels.

6.4 Hypotheses Testing

According to the above results it can be summarized the results of the hypothesis testing in table 1.4

Table 1.4: Summary of Testing Hypotheses

No	Hypotheses	Results	Tools
H1	There is a significant relationship between Leadership style(CEO Duality) and firms' Capital structure	Rejected	Regression

H2	There is a significant relationship between Board committee and firms' Capital structure	Rejected	Regression
H3	There is a significant relationship between Board Size and firms' Capital structure	Rejected	Regression
H4	There is a significant relationship between Board Composition and firms' Capital structure	Accepted	Regression

7. Conclusion and Recommendations

The main objective of this study is to empirically examine whether the various corporate governance attributes influence the capital structure of firms. In order to determine the relationship between corporate governance attributes and the capital structure. Thestudy develops a set of hypotheses and multiple regression analysis was carried out to test them. The results of the test confirmed the hypothesis developed as there is a significant relationship between board composition and firm's capital structure and rejected all other hypothesizes. Hence, it can be concluded that board composition (having more independent non executive directors on the board) as the only corporate governance out of all attributes considered in this study has a significant positive effect on capital structure of the sample companies taken from the manufacturing sector in Sri Lanka. This study also revealed that liquidity has significant impact on capital structure. The relationship between liquidity and capital structure is a significant negative relationship.

Therefore, we can conclude that corporate governance attributes have some implications on financing decisions in Sri Lankan manufacturing firms.The study has been considered only the manufacturing industry out of 24 industries in the Colombo Stock Exchange (CSE). So, the sample size of this study is small. On the other hand the analysis is based on secondary data which were gathered from the published financial statements. Also, this study is only based on four corporate governance variables. The issue of corporate governance and capital structure decisions of firms need further research in order to further develop some of the insights delivered by this study, especially looking at other firms in other sectors in Sri Lanka. It is better to consider other corporate governance variables for future research purposes.

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