The Impact of Firm Size on Capital Structure Decisions, with Corporate Governance as a Moderator

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Abstract. The capital structure of any company is crucial in determining its financial decisions. Furthermore, the size of the company influences capital structure decisions, and the scope of capital structure should be governed by corporate governance. As a result, the purpose of this research was to investigate the effect of firm size on capital structure decisions in Sri Lanka and the moderating effect of corporate governance. This study covered the years 2013 to 2017 and used manufacturing companies listed on the Colombo Stock Exchange (CSE). There were 28 companies and 140 observations. Furthermore, firm size is the study's independent variable, capital structure choices are the dependent variable, and corporate governance is the moderating variable. Liquidity, asset tangibility, profitability, and earnings per share are the other four control variables (EPS). To examine the association between firm size and capital structure choices, descriptive statistics, correlation analysis, OLS, and panel regression analysis were used for data analysis, and it was discovered that there is a significant *(P<0.01)* positive association. Additionally, there is no moderating effect of corporate governance on the relationship between the firm size and capital structure choices of manufacturing companies in Sri Lanka, according to the second goal. These findings are expected to have a significant impact on politics.

Key Words: Firm Size, Capital Structure Choice, Corporate Governance

Introduction

This investigation focuses on how is firm size impact on capital structure choices with the moderating variable of Corporate Governance of listed companies in Manufacturing Sector in Sri Lanka. The capital structure choices of a firm can be consist of debt or equity instruments, because they are the key funding source to the company. Debt is capital that has been loaned by other parties and must be repaid. In contrast, equity represents the investment made by owners or shareholders and is a permanent source of capital. This study uses Firm Size as the key determiner of the Capital Structure Choices because, if the Firm Size of Firms are high they have more financing opportunities than small size firms. Rajan and Zingales (1995) also indicate that larger firms have more information than small firms and they can disclose those information to lenders or outside investors and they can easily access to debt financing.

To handle this type of relationship firms should have a controlling. The maintaining a better corporate governance frameworks are helpful for organizations to easy access for financing, lower cost of capital, better performance and more benefit to all stakeholders (Claessens et al., 2002). Corporate governance rules and regulation are huge impact on firm performance. Velnampy and Pratheepkanth (2012) express good corporate governance practices are important for organization because of reducing the risk for investors, attracting the investors and improve the firm performance. In Sri Lankan point of view manufacturing firms make up a substantial portion of the domestic economy and have a direct influence for GDP (Central Bank, 2017). Hence this study considers the impact of above variables on manufacturing sector.

Research Problem

Capital structure choices is an important element for any business and Capital structure is the collection of short term and long term debt and equity (Saurabh & Anil, 2015). A clear path to firm financiers are given by the capital structure to achieve organizational operation and growth by using numerous resources. Bokpin and Arko (2009) explain that if an organization has financial decisions, such decisions denote the power of organization to compete with the business environment.

There are dearth of studies related to Manufacturing sector in Sri Lankan context. Although there are many articles related to the corporate governance and firm performance, there are few about the Firm Size on Capital Structure Choices with the moderating impact of Corporate Governance.

The findings of Firm Size on Capital Structure Choices are inconclusive. According to Vijayakumaran and Vijayakumaran (2011) indicate that Firm Size is positively significantly related to leverage. But Rajan and Zingales (1995) has identified a negative relationship between size and leverage of the firms. Previous researches have done before more than five years and this topic also a dearth of study in Sri Lankan context. There is no clear idea about the effect of firm size on capital structure choices due to different research findings regarding the same topic. So the findings are complicated. According to the above statement researcher has derived research problem as follows:

"Does the Firm Size impact on the Capital Structure with the moderating impact of Corporate Governance?

Literature Review

Concepts

Capital Structure

Capital Structure can be consist of debt or equity. It is a main financing decision of an organization. It effects to the firm performance also. Modiglian and Miller (1958) show that there is no relationship with firm value and capital structure decisions. Further that explains a firm will select a mixed of debt and equity which maximize firm value and minimize the WACC. They presented an acceptable theory related to capital structure originally with two irrelevant propositions. Modiglian and Miller (1958) one of irrelevance proposition indicates the authorized investors keep the value of firm independent of the leverage and other explain the share price and return of shareholders does not influence by the investment policy or dividend payout in a perfect market. Moreover they imply that financial instruments trade on market and all relevant information are available for decisions makers in outside and inside.

Firm Size

Even there are more firm's characteristics affect to the capital structure choices, in this study consider the firm size as the independent variable and how is firm size impact to the capital structure choices with the moderating effect of corporate governance in listed companies of CSE in Sri Lanka. Firm size is an important factor all large, medium and small types of organization to decide their financing ability.

Corporate Governance

Corporate Governance of Sri Lanka was originated in 1997 with the introduction of a voluntary code of best practice code of best practice on matters relevant to the financial components of corporate governance. In 2003, voluntary codes of best practices on corporate governance were issued and after that according to Sri Lanka code of best practice on corporate governance (2008), standards were made mandatory for all listed companies.

Today governance has become a major consideration for organizations. Corporate governance is a broad and complex concepts because different dimensions has included it. The corporate governance of a country differ from the economic environment of the country; Today corporate governance has become as international problem because of the globalization; during the previous years there is an incremental of awareness of corporate governance in Sri Lankan context (Bulathsinhalage & Pathirawasam, 2017).

Theoretical View

Capital Structure

Trade off theory denotes that where the marginal cost is equal to marginal benefits that represent the optimum level of the debt and says a firm can achieve an optimum capital structure by adjusting tax shield and financial breakdown cost to debt and equity level; moreover he implies Capital structure decisions examine how debt and equity mix of the firm influence its market value (Abeywardhana, 2017). Optimum capital structure help to enhance the shareholders wealth also. The highest possible tax shield of a company is denoted by the optimum debt to equity ratio (Miller, 1988).

Firm Size

According to the trade-off theory of capital structure, larger size of firms are usually get more loan than the small size of companies. Trade off theory and pecking order theory indicate there is positive relations with between firm size and capital structure choices. Further Agency theory denotes a positive relation with firm size and leverage.

Corporate Governance

There are some theories related to Corporate Governance such as Agency theory, Stakeholder theory, Stewardship Theory and Resource Dependency Theory.

Agency Theory

In agency theory Jensen and Meckling (1976) indicate that the apart of managers from shareholders cause to managers will maximizing their own benefits from their expertise and will not maximize the shareholders wealth. Therefore it is essential to establish a control system for firms; and they define agency cost is the collection of supervision cost of agent for their dispensable activities; and also they describe there is contractual relationship which objective individual are bring into equilibrium, not only employees but also suppliers, customers and creditors; further, agency theory also is a controlled based theory. Mallin (2004) considers the corporate governance.

Stakeholder Theory

Stakeholder theory mainly consider how is develop a strong combination within stakeholders (Freeman, 1984). This theory is based on the issues which relevant to stakeholders in an organization. Now a days, organization focus to maximize the wealth of stakeholders. Many researchers have identified stakeholder theory is more important because of they have identified activities of a firm is effect on wider group than its shareholders. This research considers the CEO Duality, Board Committee, Board Size, Board Composition and Committees as the corporate governance variables.

Empirical Review

According to Samarakoon (1999), investigated determinants of leverage in a croos – section of quoted companies in Sri Lanka using sample of firms listed in Colombo Stock Exchange. He has studied four variables profitability, firm size, tangibility and growth opportunities on capital structure between 1993 to 1999 period. This study found that Firm Size reliably positively associate with leverage. Firm Size is measured by sales, market capitalization or total assets.

Kajananthan (2012) has investigated that the effect of Corporate Governance on Capital Structure in Sri Lankan Manufacturing companies. To the analysis of data has selected those which is listed in Colombo stock exchange during the period of 2009 until 2011. Board size, Board structure, Board meeting and the proportion of independent non-executive directors are the selected Corporate Governance variables in this study and dependent variable has decided on debt ratio. This study represents there is a positive relationship between leverage and board meeting, board size, proportion of non-executive directors and leadership style.

According to Rajni and Sukhdev (2016) and Dissanayake and Fernando (2015) of determinants of Capital Structure an empirical study of manufacturing firms in India has explore the most significant determinants on Capital Structure decisions using manufacturing firms listed in BSE. This study has found the debt equity ratio has a negative relationship with firm size. They have indicated Firm Size, Asset composition, Tangibility, Profitability and business risk as the variables of this study. Moreover this study has identified Firm Size and Debt Service capacity are negatively related to debt ratio.

The previous researchers denote various outcomes of corporate governance on capital structure. Abor (2007) and Dissanayake and Fernando (2015) show there is a positive association between corporate governance and leverage moreover he explain if a firm has a good corporate governance it is easy to get debt financing and capital structure positively associate with board size moreover he has identified that capital structure positively correlates with Board composition among Ghanaian listed firms, And also CEOs employ lower debt in order to reduce the performance pressures associated with high-debt capital. Therefore this thesis identifies which kind of association between Firm Size on capital Structure with moderating impact of Corporate Governance.

Research Methodology

This study follows the positivism approach with quantitative research methodology to investigate the Firm Size on Capital Structure Choices with the moderating impact of Corporate Governance. Further this approach have used by Nishani and Athula (2015) in their study. This study uses the Secondary data to conduct the research. Annual reports, Code of Best Practice 2017 are used for the data collection of this study. According to this study the researcher collect data from listed companies of manufacturing sector in Colombo Stock Exchange. Further this study takes 5 year period data from 2012 to 2017 for this investigation.

The sample size is selected as 28 of listed manufacturing companies in CSE. The sample selected using simple random sampling method because it develops an accurate sampling frame. Initial sample excluded which firms with unavailable data and firm's financial period year ended 31st December.

Hypothesis

This study built two hypotheses as following:

- There is a significant association between Firm Size and Capital Structure Choices.
- There is a significant moderating impact of Corporate Governance on association between Firm Size and Capital Structure Choice

Conceptual Diagram

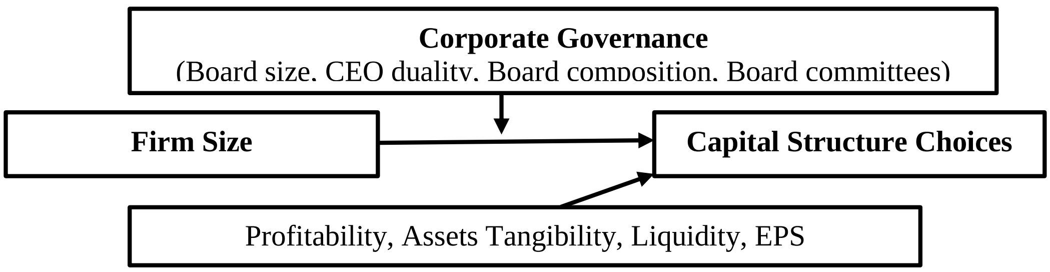

Figure 1. Conceptual Diagram

Source: Author Constructed

According to this research the regression model can applied by using following formula.
$CSC_{i\,t} = \alpha + \beta_1 FSZ_{i\,t} + \beta_2 CG_{i\,t} + \beta_3 (FSZ * CGI)_{i\,t} + \beta_4 PRO_{i\,t} + \beta_5 LIQ_{i\,t} + \beta_6 ATB_{i\,t} + \beta_7 EPS_{i\,t} + \varepsilon$

(α = Intercept coefficient; β = Coefficient for each of the independent variable ; ε = Error Term; $CSC_{i\,t}$ *= Capital Structure Choices;* $FSZ_{i\,t}$ *= Firm Size;* $CGI_{i\,t}$ *= Corporate Governance Index;* $PRO_{i\,t}$ *= Profitability;* $LIQ_{i\,t}$ *= Liquidity;* $ATB_{i\,t}$ *= Assets Tangibility;* $EPS_{i\,t}$ *= Earnings Per Share)*

Findings and Discussion

Descriptive Analysis

Under the results of the descriptive statistics which it is indicating minimum value, maximum value, mean and standard deviation of study used of dependent and independent variables.

Table 1. Descriptive statistics

Variables	Mean	Std. Dev	Min	Max
CSC *i,t*	-0.539	0.619	-1.458	0.376
FSZ *i,t*	21.226	1.055	19.57	22.685
PRO *i,t*	0.105	0.102	-0.031	0.307
EPS *i,t*	5.189	5.766	-0.21	16.07
LIQ *i,t*	0.372	0.149	0.169	0.616
ATB *i,t*	0.472	0.174	0.162	0.717
CGI *i,t*	0.749	0.104	0.625	0.875

Source: Author Constructed

According to above Table 1, the independent variable is Firm Size, the dependent variable is Capital Structure Choices, the moderate variable of corporate Governance others Profitability, EPS, Liquidity and Assets Tangibility are control variables. Moreover higher mean and maximum value present by firm size respectively, 21.226 and 22.6848. Higher SD and minimum value present by EPS respectively -0.21 and 5.766 in during the five year periods. The mean value of Capital Structure choices is -0.539. It implies that the manufacturing sector companies financing more using the debt than the equity because of the mean value of CSC is high than other variables considering last five years.

Correlation Analysis

Table 2. Correlation analysis

Variables	CSC	FSZ	PRO	EPS	LQD	ATB	CGI
CSC *i,t*	1.000						
FSZ *i,t*	0.330*	1.000					
PRO *i,t*	-0.330*	0.219*	1.000				
EPS *i,t*	0.099	0.245*	0.241*	1.000			
LQD *i,t*	0.882*	0.198*	-0.277*	0.128	1.000		
ATB *i,t*	0.164	0.085	-0.271*	-0.059	0.248*	1.000	
CGI *i,t*	-0.013	0.408*	0.030	0.028	-0.013	0.072	1.000

Source: Author Constructed

Table 2 indicates the relationship between independent, control and moderate variable with the dependent variable. Here FSZ is independent, CGI is moderating and PRO, EPS, LQD and ATB are controlling variables. Here presents correlation matrix for all the variables in the model. According to the correlation results independent variable is significant with dependent variable. According to this Table the association between FSZ and CSC have significant positive correlation at 0.330.

Regression Analysis

Association between Firm Size and Capital Structure Choices

The hausman test was carried out to choose between fixed effect model and random effect model. According to the hausman test, the significant value was 0.000. Therefore this study concerned fixed effect model. According fixed effect model panel regression performed as follows.

Table 3. Without moderating impact of Corporate Governance

CSC	Coef.	St.Err.	t-value	p-value
Constant	-8.657	1.415	-6.12	0.000
FSZ *i,t*	0.350	0.063	5.51	0.000
PRO *i,t*	-0.445	0.353	-1.26	0.210
EPS *i,t*	-0.010	0.007	-1.32	0.190
LIQ *i,t*	3.018	0.253	11.91	0.000
ATB *i,t*	-0.698	0.224	-3.12	0.002
R Square - Overall	0.689	F Value	34.02	
Sig	0.000			

Source: Author Constructed

In Table 3, panel data analysis on CSC shows that the independent variable of firm size is significant at 1% level and others control variables of liquidity, Assets tangibility statistically significant at 1% level with CSC of Sri Lankan manufacturing sector.

This panel regression model also fitted one because of the overall R value is 0.689. There is 68.9% of CSC represent by firm size. Remaining 31.1% are present by control variables. However, PRO and LIQ are not significant with CSC in panel regression.

The Moderating Impact of Corporate Governance on Association between Firm Size and Capital Structure Choices

Table 4. With moderating impact of Corporate Governance

CSC	Coef.	St.Err.	t-value	p-value
Constant	-7.437	1.756	3.72	0.000
FSZ *i,t*	0.299	0.081	5.51	0.000
FSZ *i t* * CGI *i,t*	0.129	0.213	-1.31	0.195
CGI *i,t*	-1.879	1.536	-1.22	0.224
PRO *i,t*	-0.461	0.354	-1.30	0.195
EPS *i,t*	-0.009	0.007	-1.23	0.221
LIQ *i,t*	2.997	0.254	11.77	0.000
ATB *i,t*	-0.655	0.230	-2.84	0.005
R Square - Overall	0.695	F Value	28.10	
Sig	0.000			

Source: Author Constructed

In Table 4, the panel data analysis on CSC shows that the independent variable of firm size is significant at 1% level and others control variables of liquidity, Assets tangibility are also statistically significant at 1% level on CSC of Sri Lankan manufacturing sector. However as an additional analysis of panel regression shows that there is no moderating impact of Corporate Governance on two association between FZS and CSC. According to above panel data analysis, the model is fitted one. Because of overall R value is 0.695. It means CSC is represent by 69.5% and remaining 30.5% represent by other control variables.

Conclusion

The major objectives of this research is to identify the association between Firm Size and Capital Structure and to study the firm size on capital structure choices with the moderating impact of Corporate Governance. The researcher mainly hypothesized two hypotheses based on above objectives. Those two hypothesis were significant relation with dependent, independent and moderate variables. Firm Size considered as Independent Variables in this research, Capital Structure Choices was the dependent Variable, Corporate Governance was the moderate variable and profitability, Liquidity, Assets Tangibility and EPS were considered as control variables for this study.

According to the finding of this thesis, manufacturing companies of Sri Lanka have used more debt than equity because of the association between FSZ and CSC was positive. It implies if the FSZ is high debt usage also high and if the FSZ is small debt usage also decrease. On the other hand when increased total assets of the firms, it implicates that debts are more effective for financing of the firms. According to the finding of regression analysis there is not moderating impact of Corporate Governance between FSZ and CSC.

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