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Corporate Governance and Financial Reporting in Sri Lanka

Corporate board diversity and performance: evidence from listed manufacturing and diversified companies in Sri Lanka

*Palipana S D S, Weerasinghe V W M D K B, Pathum M A A, Madhawa W K C,
Perera G N C, Prabodha N W K R*

The impact of selected corporate governance characteristics on accessibility to debt capital: a study on listed manufacturing companies in Sri Lanka

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Industries significantly affected through the convergence of International Financial Reporting Standards: a study with special reference to listed public companies in the Colombo Stock Exchange – Sri Lanka

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Department of Accounting
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Department of Accounting

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Dedicated to
Professor M. W. Wickramarachchi
for his visionary leadership

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Preface

This Issue of the Journal of Accounting Panorama presents four research articles. It is with a deep sense of gratitude that the Department of Accounting remembers the visionary leadership initiated by its founder, Emeritus Prof. M.W. Wickramarachchi. Even after his retirement, he continued to render an invaluable service to the Department of Accounting through the Ernst and Young Endowed Professor Post. Towards the end of his tenure in the Department of Accounting, he introduced 'Knowledge Seeking and Learning to Learn' (KSELL) for the third and fourth year accounting undergraduates under the 'Skill Development Programme of Intern Accountants'. The objective was to inculcate within these undergraduates the urge to seek new knowledge and to keep up with the new developments taking place in the sphere of accounting and other related areas. This was to keep in line with the requirements of the International Federation of Accountants (IFAC) with regard to the role of the University in grooming academic accounting professionals.

Due to the high workload especially due to internship during the third and fourth academic years, the accounting undergraduates refrain from selecting 'research' as an elective course unit. However, through this KSELL, gradually a research culture was inculcated in these accounting undergraduates assimilating them to a research culture; downloading research articles, reading research articles and to engaging in mini-research studies under the supervision of an academic staff member of the Department of Accounting. This initiative taken by the founder of the Department of Accounting; Emeritus Prof. M.W. Wickramarachchi has presently borne fruit. In this Issue of the Journal of Accounting Panorama, there are four research articles, three on Corporate Governance and one on the Impact of the Implementation of International Financial Reporting Standards (IFRSs) which are student research under KSELL. Dr. Roshan Ajward who is a Co-editor of this Journal has supervised the research studies on Corporate Governance and Mr. Rangajeewa Hearth has supervised the study on the Impact of IFRS Implementation. It is worthy of note that these four student research studies are based on the Sri Lankan context and carried out based on the positivistic approach to research.

Compiling the student research carried out under KSELL to a Journal of Accounting Panorama was the brainchild of Prof. Samanthi Senarathne. However, this endeavor would not have been a success if not for the support extended by the Head of the Department of Accounting Dr. WGS Kelum. We as editors fervently hope that the research studies incorporated in this Second Issue of the Journal of Accounting Panorama would be a contribution to the body of knowledge.

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Corporate board diversity and performance: evidence from listed manufacturing and diversified companies in Sri Lanka

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Abstract

In this research how board diversity affects the financial performance of the company is examined. 54 listed companies in the Colombo Stock Exchange (CSE) were selected for the research and financial report figures of those companies of three years were selected to measure the effect of Board diversity on financial performance. Gender, Expertise, Experience, Share ownership of directors, Executive–non-executive mix, Independent non independent mix, and duality were considered as independent variables. Return on assets (ROA), Return on equity (ROE), Gross profit ratio were used as alternative dependent variables. Sales growth, net assets and gearing were used as control variables. The research hypothesis formulated and tested was whether corporate board diversity is positively related to the company performance. A literature review was carried out to identify factors of corporate diversity. Descriptive statistics were used to examine the importance of identifying diversifying factors, and correlation and regression analyses were performed to identify mutual relationships between independent variables and the alternative dependent variables. Finally, it is concluded that diversity factors: experience, expertise in marketing and economics, and presence of non-executive directors (i.e., executive non-executive mix) have a significant impact on the alternative financial performance indicators of the company.

Keywords: Board diversity, Corporate governance, Financial performance

1. Introduction

The lack of board diversity in listed companies of Sri Lanka has been a debatable topic in the recent past. When considering the global context, there are two conflicting arguments. One argument being that, the diversified boards are more effective on financial performance than non-diversified boards (Wahid 2012). On the contrary some researchers argue that, there is no relationship between board diversification and the corporate performance of the company (Ekadah & Josphat 2011).

In various countries such as India, China, United States, Australia and Italy a number of researchers have studied about the board diversity. The reasons being that, there is a belief that a more diversified board will have the positive effect on the financial performance of a company. A

debate has emerged in corporate governance literature on the impact of board diversity on firm performance, which has mixed evidence. These studies have used different measures of board diversity such as gender, nationality, colour and age, among others. These studies have used data from developed economies like the United States of America and United Kingdom. Most of the data on the relationship between firm performance and board diversity has emanated from theories and empirical analyses from developed economies.

Studies on corporate governance are influenced by the agency theory. According to the agency theory, managers including board of directors of many companies are not the owners but the agents of the owner who manages the entity on behalf of the owners. Since managers are not owning a significant portion of the ownership it may lead to undertake a higher risk that the Company cannot bear or not act with a personal interest. On the other hand, this may lead to dishonest and fraudulent activities that are harmful to the company as well as owners.

In order to minimize the conflict between owners and directors the owners have taken several steps by incurring costs (agency costs). Agency costs can usually be incurred on providing appropriate financial incentives (such as performance bonuses and stock options) and moral incentives for agents to when executing their duties, thereby aligning the interests of principals (owners) and agents. However, a well-diversified board will help to minimize the agency cost and improve the financial performance of the company.

Research Questions and Research Objectives

There are several research studies conducted on board diversity of a corporate in developed economies. However, there is less empirical attention to diversity of less developed countries. Most of the research consist of a narrow scope that only focus on the gender diversity of the boards. The effects of board diversity in developed counties may be different to that of less developed counties which have different economic, religious, social and cultural characteristics. Specially, in Asian countries such as Sri Lanka and India that have religious based cultures, may have different impacts due to factors such as gender diversity.

Motivated by both lack of research on the impact on board diversity in emerging markets and the context specific characteristics prevalent in Sri Lanka, this study addresses the research question; what are the corporate governance related diversification factors and their influence on financial performance of manufacturing and diversified companies listed in the CSE.

Based on the research question this study addresses the following research objectives.

1. Identify of factors that lead to board diversity in manufacturing and diversified companies listed in the CSE.
2. Examine the level of diversification in the director board in manufacturing and diversified companies listed in the CSE.
3. Identify the extent to which the above identified factors make an impact on financial performance of the well diversified companies.

Significance of the Study

The board is the central hub of the firm, where strategic decisions are made, governance is applied and risk is managed. Therefore, it is essential to have a well diversified director board with competent individuals who have a range of skills, and experiences.

Unfortunately, there has been less empirical attention to this aspect of corporate governance research in Sri Lanka. Most of the studies have been primarily focused on gender diversity. However, when considering the statistics such as literacy rate between women and men and higher education of women, there is enough evidence to prove that women have the same level of capacity to hold director positions. (Literacy rates- Average 91.1%, Male- 92.6%, Female- 89.7%).

This research study is focused on the diversity of the members of the board of directors in the listed companies in Sri Lanka. The study examines how diversified boards affect the financial performance of a company. The quantitative research approach based on the positivistic paradigm will be followed in this study.

The CSE has 293 companies representing 20 business sectors as at 30th April 2014. For the research, 2 sectors were selected, Manufacturing Sector that comprise 36 companies and Diversified Holding Sector that comprise 18 companies.

This study differs from previous studies based on the number of firms and time frame that is covered. The consideration of more diversity factors is novel, since there has not been any study along this line in Sri Lanka.

Having discussed the research problem and objectives the theories relevant to corporate governance and next the literature review with the findings of prior studies on board diversity factors influencing the financial performance of the entities are discussed. This will be followed by a discussion on the research design used to investigate the relationship between board diversity and corporate performance. Next the methodology will be discussed. Thereafter, the findings will be discussed. Finally the conclusions, limitations and areas for future research will be discussed.

2. Literature Review

Under the literature corporate governance of Sri Lanka, theories relevant to corporate governance and the findings of prior studies on board diversity factors influencing the financial performance of the entities are discussed.

Corporate Governance in Sri Lanka

Corporate Governance which is commonly understood to be the system by which companies are directed and controlled, has received a high degree of research attention. There are several elements that could be identified relating to the corporate governance in Sri Lanka. First element is Companies Act No. 7 of 2007 issued by the government of Sri Lanka, which describes the appointment, removal and qualification etc. of the directors. Second element is corporate governance principles issued by the Institute of Chartered Accountants of Sri Lanka (ICASL) and the Securities and Exchange Commission (SEC) of Sri Lanka. The ICASL was a pioneer in

introducing good corporate governance principles to the nation with the introduction of the code of best practices on matters related to financial aspects of corporate governance in 1997, which was subsequently updated in 2003 and 2008. In these corporate governance principles the directors, director's remuneration, relations with shareholders, accountability and auditing, institutional investors, other investors and sustainability reporting have been included.

Corporate Governance is a dynamic force that keeps evolving. Therefore, taking into account the changes taking place in other parts of the world a committee was appointed by the ICASL and the SEC in 2011 to review and revise code of best practices on corporate governance. It is often stated that, corporate governance is a journey and corporate governance in Sri Lanka has come a long way from a voluntary code of compliance to the present minimum rules of corporate governance for mandatory compliance of listed companies. Since the introduction of the mandatory code, listed companies have been able to enhance board effectiveness, strengthen the relationship between the company and its stakeholders and strengthen the business integrity.

Agency Theory

Corporate governance research is influenced principally by agency theory. Agency theory is traced to the landmark work of Adam Smith (1776), *The Wealth of Nations*, where he suggested that a manager with no direct ownership of a company would not make the same decisions, nor exercise the same care as would, an owner of that company. This view is consistent with the agency theory popularized by Berle and Means (1932) and Jensen and Meckling (1976).

Agency theory argues that where there is separation of management and ownership, the manager seeks to act in self-interest which is not always in the best interests of the owner and departs from those required to maximize the shareholder's returns. Such under-performance by an agent, even if acting in the best interest of the principal, will lead to a residual cost to the principal (Jensen & Meckling 1976). These costs, resulting from sub-optimal performance by agents, are termed agency costs.

In order to mitigate the agency cost, a principal is expected to establish controls and reporting processes to regularly monitor agent's behavior and performance outcomes (Fama 1980, Jensen & Meckling 1976). However, the degree of information asymmetry between principal and agent decides the effectiveness of the monitoring mechanism. This theory has stimulated several governance researchers and the adoption of various corporate governance principles and codes in several countries. The common denominator of all these codes and principles is their emphasis on the importance of an independent board as a strategy for resolving this conflict of interest between the principal and agents.

Empirical findings

Theoretically, there are a number of arguments in favor of diversity of the board. For example, Carter *et al.* (2003) identify five positive arguments for board diversity in a principal agent framework. They are of the opinion that a more diverse board is able to make decisions based on the evaluation of more alternatives compared to a more homogenous board. A diverse board is seen to have a better understanding of the market place of the firm, which increases innovation and creativity. Board diversity may also improve the image of the firm if the positive image has positive effects on customer's behavior. Explicitly, advocates of board diversity argue that,

a diverse board will result in improved financial and organizational performance, increased capacity to link with the global and domestic markets, expanded access to global and domestic talent pools, enhanced creativity and innovation, and strengthened social capital and cohesion (Becker *et al.* 2008).

However, there are arguments against board diversity. For example, if a diverse board produces more opinions and more critical evaluations, this may be time consuming and ineffective, especially if the firm is operating in a highly competitive environment where the ability to react quickly to market shocks is very important (Smith, Smith & Verner 2005). Board diversity may also corrode group cohesion and lead to a board whose members are less cooperative and experience more emotional conflicts.

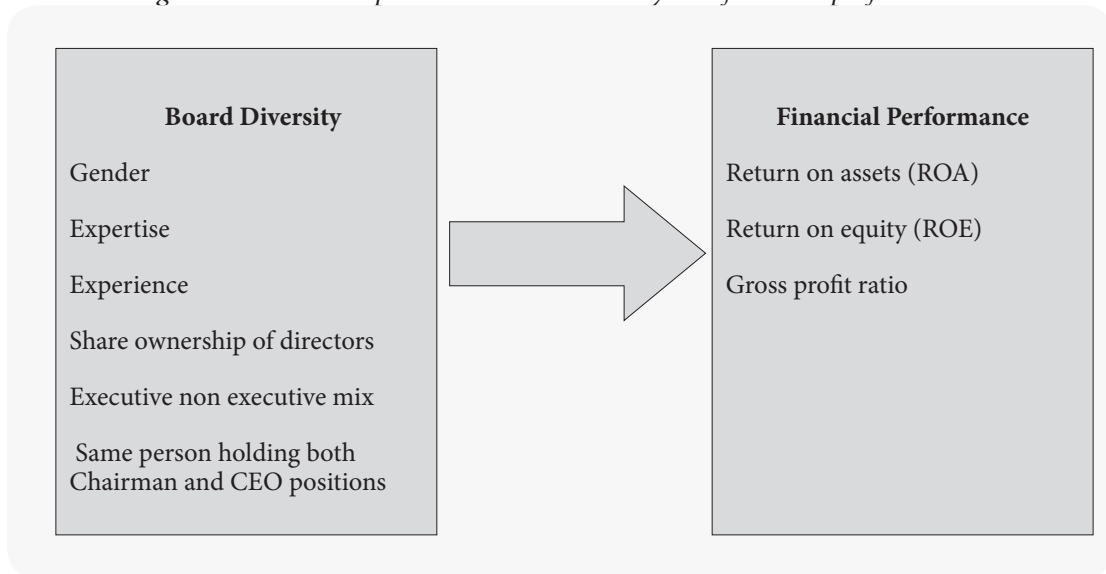
There are findings available relating to the board diversity individual factors like independence, Chief Executive Officer (CEO) Chair duality etc. Dahya and McConnel (2007) is one of the few studies to robustly investigate if UK firms' performance was enhanced by appointing outside (non-executive) directors. They report a significant improvement in operating performance, both in absolute and relative terms, for firms appointing three outside directors to their boards as recommended by the Cadbury Report. For emerging economies few studies have examined the impact of outside director appointments on corporate performance, most likely because outside directors are relatively a new phenomenon for Asian firms. Choi, Park and Yoo (2007) is one of the few studies which empirically investigate if firms' performance from an Asian economy (Korea) was affected by their decision to appoint independent board members in response to a country specific governance debate and subsequent governance recommendations. They report a significant positive relationship between independent director appointments and firm performance, after control for endogeneity, for a sample of Korean listed firms. This suggest that adding more outside directors to an insider-dominant board can increase firm value when there is a controlling minority ownership structure.

There are favorable findings on the board diversity (Carter *et al.* 2003). And also there are unfavorable findings on the board diversity (Smith, Smith & Verner, 2005). Furthermore, number of research findings conclude that gender diversity has positive impact on performance of the company (Smith & Verner, 2005); independence of the board has positive impact on performance of the company (Dahya & McConnel 2007). Duality has mixed results that some of the findings concludes duality has positive impact on the firm performance (Pi & Timme 1993) and some of the findings conclude that duality has no impact on firm performance (Brickley, Coles, & Jarrell 1997). All the studies are conducted in foreign countries and there is a dearth of studies in Sri Lanka relating to the relationship between board diversity and firms performance. Therefore, in this study how much gender diversity, experience, expertise, duality, executive non executive mix and share ownership affect the financial performance of the firms is examined.

Conceptual Model

Based on the literature survey carried out the following conceptual model that distinguishes the relationship between board diversity and financial performance of the entities could be developed.

Figure 1 : Relationship between board diversity and financial performances



Source: Author constructed

The conceptual model hypothesizes that Gender, Expertise, Experience, Share ownership of directors, Executive - non-executive mix, Independent - non-independent mix, Same person holding both Chairman and CEO positions positively affect Financial Performance; Return on assets (ROA), Return on equity (ROE), Gross profit ratio used as alternative dependent variables

Hypotheses

Based on the conceptual framework developed above the following hypotheses were derived.

- Board of director's average experience: This is the average experience in terms of the number of years in the board.

H 1: High average experience of the board of directors is positively linked to the performance of the firms.

- Expertise: This is the expertise level of the board relevant to the accounting, finance, law, banking, tax, audit, economics, management, engineering, bio science, and marketing.

H 2: High expertise of the board of directors is positively linked to the performance of the firms.

- Duality: This is the concept that one person holds positions of Chief Executive Officer and Chairman.

H 3: Duality is positively linked to the performance of the firms.

- Executive and non-executive mix: This is the mix between how much directors of the board are executive and how much directors of the board are non-executive. This mix is defined in the corporate governance guidance issued by the ICASL.

H 4: Executive and non-executive mix of the board of directors is positively linked to the performance of the firms.

- Share ownership: This is defined as how much shares are owned by the directors of the board.

H 5: Share ownership of the board of directors is positively linked to the performance of the firms.

- Gender diversity: The number of women directors to the total board size is used as a measure of board gender diversity. Boards are traditionally composed of only male members. The presence of women on the board leads to gender diversity.

H 6: Gender diversity of the board of directors is positively linked to the performance of the firms.

Based on developed hypotheses, next the methodology is discussed.

3. Methodology

Research Approach

In this research the Positivistic Paradigm is used.

Population and Sample

The target population for this study is manufacturing and diversified companies listed in the CSE as at 31st March 2013.

Table 1: Sectors and number of companies

Sector	Listed	Percentage
Banks, Finance & Insurance	61	22%
Beverage, Food & Tobacco	20	7%
Construction & Engineering	4	1%
Chemicals & Pharmaceuticals	10	4%
Footwear & Textiles	4	1%
Hotels & Travels	36	13%
Investment Trusts	9	3%
Land & Property	18	6%
Manufacturing	36	13%
Motors	6	2%
Oil Palms	5	2%
Stores & Supplies	4	1%
Services	8	3%
Trading	8	3%
Plantation	18	6%
Diversified	18	6%
Power & Energy	8	3%
Healthcare	6	2%
Information Technology	2	1%
Telecommunication	2	1%

Source: Colombo Stock Exchange, 2013

The CSE website shows that there are 283 companies listed in the CSE under 20 sectors as at 31st March 2013. Table 1 shows number of companies listed under each sector and contribution of each sector as a percentage of total listed companies. Even though bank, finance and insurance sector comprises of the highest number of companies in the CSE, it was decided not to select that sector due to specific nature of the business activities which may be a barrier to empirical generalization. Accordingly, 54 companies representing the diversified holding and manufacturing sectors were selected. Companies listed in default board are excluded due to the non availability of annual reports as at 31st March 2013.

Data Collection

The primary source of data collection is annual reports published by the quoted public companies. Both financial statements and non-financial data such as corporate governance information are used in the research. All required annual reports were downloaded from the CSE website.

This research considers data from 2010/2011, 2011/12 & 2012/2013 years. These three years were selected due to following reasons:

- At the time of data collection for this study, 2010/2011, 2011/12 & 2012/2013 annual reports were the most recent annual reports that were available from the CSE.
- Since three years are considered it was possible to avoid unusual results which can occur as a result of unusual situations.

Table2 : Variables and measurement

Variable	Measurement
Gender	Females to Male Ratio
Average Experience	Total number of years in a particular field divided by the board size
Expertise (Qualifications)	
Accounting	No. of directors who qualified in Accounting field
Finance	No. of directors who qualified in Finance field
Law	No. of directors who qualified in Law field
Banking	No. of directors who qualified in Banking field
Tax	No. of directors who qualified in Tax field
Audit	No. of directors who qualified in Auditing field
Economics	No. of directors who qualified in Econ field
Management	No. of directors who qualified in Management field (HR, Administration)
Engineer	No. of directors who qualified in Engineering field
Bio Science	No. of directors who qualified in Bio Science field
Marketing	No. of directors who qualified in Marketing field
Other	No. of directors who qualified in Other fields
Share Ownership Percentage	Total share percentage held by the Directors
Executive - Non-executive Mix	No. of Executive Directors
Chairman and CEO	Whether same person hold both positions
Return on Assets	Percentage of Return on Total Assets
Return on Equity	Percentage of Return on Equity
Gross Profit Ratio	Percentage of Gross Profit on Revenue
Gearing	Total debts divided by total assets

Source: Author constructed

Operationalization

In operationalization the measure of variable is considered. In Table 2 the measurement of variables used in this research are indicated.

Testing strategy

First objective of the research is to identify the extent to which companies listed in the CSE have diversified their director board. This research comprised various measures that can be used to determine the diversity of the companies. To reduce various factors to a single index a scoring system was built based on the nature of the dependent variable. In this scoring system the board diversity is measured based on the findings obtained and a score of 1 is given to a diversified board and a 0 score is given to a less diversified board.

First factor is the gender diversity. To measure the diversity in terms of gender a dummy variable is used, and if the board consists of at least one female director, the value of the dummy variable is set to 1 and if not 0.

The next variable is the average experience of the directors. If average experience of total directors is more than the average experience of the sample, the score is set as 1 and if not the score is set as 0.

Next 12 variables relate to the expertise fields of directors. If a board consist directors expertise in more than six fieldset is considered as a diversified board in terms of expertise and is given a score of 1, or else it is set to 0.

Next variable is the executive and non-executive mix. According to listing rules and the ICASL, guidelines on corporate governance, listed companies should comprise of at least two non-executive directors or non-executive directors should be one third of the total board size. Therefore, using this as the benchmark boards that have non-executive directors more than one third of total board size is categorized as a diversified board.

Final variable is whether same person hold both Chairman and CEO positions. If it is the case it is scored as 1 and if it is not the case it is scored as 0.

Company's total score for the diversification is estimated as follows.

$$Score = \sum_{i=1}^n S$$

Where,

S = Score given to the each factor, n = Number of factors

Second objective is to examine board diversity factors that influence on financial performance of the CSE listed companies and the third objective is to identify extent of above identified factors which create an impact on financial performance. A multiple regression analysis is used to determine this relationship.

Drawing from previous studies on corporate governance on this area, this study applies a Generalized Least Square (GLS) Fixed-Effect and Random-Effect models to test the various hypotheses. Based on the Hausman test it is decided whether to use fixed or random effect models. The Fixed-Effect and Random-Effect models allow the researcher to examine variations among cross-sectional units simultaneously with variations within individual units over time (Gaur & Gaur 2006). Financial performance (ROA, ROE, Gross profit margin and Gearing) of the companies use as the dependent variable of the regression and diversifying factors (Average experience of the board, expertise, duality, executive non-executive mix, share ownership and gender diversity of board) use as the independent variables of the regression while control variables are total assets and sales. Following is the functions from the econometric model.

$ROA = f \{ \text{Average experience of the board, expertise, duality, executive non-executive mix, share ownership and gender diversity of board} \}$

$ROE = f \{ \text{Average experience of the board, expertise, duality, executive non-executive mix, share ownership and gender diversity of board} \}$

$\text{Gross Profit Margin} = f \{ \text{Average experience of the board, expertise, duality, executive non-executive mix, share ownership and gender diversity of board} \}$

$\text{Gearing} = f \{ \text{Average experience of the board, expertise, duality, executive non-executive mix, share ownership and gender diversity of board} \}$

The regression equation tested in panel regression analysis is specified as:

$$ROA = \beta_0 + \beta_1 AvgEp + \beta_2 Expertise + \beta_3 Duality + \beta_4 Execu + \beta_5 Share + \beta_6 Gender + \beta_7 \log TA + \beta_8 \log Gearing + \beta_9 \log Sales + \varepsilon$$

$$ROE = \beta_0 + \beta_1 AvgEp + \beta_2 Expertise + \beta_3 Duality + \beta_4 Execu + \beta_5 Share + \beta_6 Gender + \beta_7 \log TA + \beta_8 \log Gearing + \beta_9 \log Sales + \varepsilon$$

$$GP \text{ Margin} = \beta_0 + \beta_1 AvgEp + \beta_2 Expertise + \beta_3 Duality + \beta_4 Execu + \beta_5 Share + \beta_6 Gender + \beta_7 \log TA + \beta_8 \log Gearing + \beta_9 \log Sales + \varepsilon$$

Where,

ROA = Return on Assets, ROE = Return on Equity, GP Margin = Gross Profit Margin
 AvgEp = Average Experience, Expertise = Qualification in Accounting, Finance, Law, Banking, Tax, Audit, Economics, Management, Engineer, Bio Science, Marketing and other fields, Duality = Whether same person hold the both chairman and CEO positions, Execu = Executive and non-executive mix, Share = Share ownership of directors, Gender = Gender mix of the board, TA= Total Assets, Gearing=Owners funds versus Creditors' funds, Sales=Sales Growth

4. Analysis and Discussion

Descriptive Statistics

Descriptive statistics is the discipline of quantitatively describing the main features of a collection of information, or the quantitative description itself.

Table 3: Descriptive statistics for scoring index

Panel A : Descriptive statistics								
	N	Min.	Max.	Mean	Std. Deviation	Variance	Skewness	Kurtosis
Scoring Index	144	1	14	7.08	2.606	6.790	.237	.721
Panel B : Frequency distribution								
Range	No. of Companies		Percentage		Cumulative Percentage			
0 – 25	17		11.81%		11.18%			
25 – 50	93		64.58%		76.39%			
50 – 75	28		19.44%		95.83%			
75 – 100	06		4.17%		100%			
Total	144		100%					

Source: Author constructed

Descriptive statistics are distinguished from inferential statistics, in that descriptive statistics focus to summarize a sample, rather than use the data to learn about the population that the sample of data is to represent. In descriptive statistics, measures that are commonly used to describe a dataset are measures of central tendency and measures of variability or dispersion. Descriptive statistics provides simple summary details about the sample and about the observations that have been made.

Table 4: Descriptive statistics for individual variables

	Mean Statistic	Std. Deviation Statistic	Variance Statistic
Expertise (Qualifications)			
Accounting	.81	.397	.158
Finance	.26	.442	.196
Law	.52	.501	.251
Banking	.15	.361	.130
Tax	.10	.297	.088
Audit	.13	.332	.110
Economics	.31	.462	.214
Management	.61	.489	.239
Engineering	.60	.491	.241
Bio Science	.31	.465	.216
Marketing	.33	.471	.221
Other	.39	.489	.239
Executive - Non-executive Mix	.79	.408	.166
Chairman and CEO Duality	.78	.412	.170
Gender mix	.28	.453	.205
Share Ownership Percentage	.24	.426	.182

Source: Author constructed

To explore the extent of board diversity scores were obtained from the self-constructed index. Out of the maximum score of 17, the highest score obtained by a company is 14 and the minimum score obtained is 1. The mean score is 7.08 with a standard deviation of 2.606. These statistics indicate that the board diversity of CSE listed companies are relatively low. When the individual variables are considered accounting qualifications has the highest mean which is 0.81 and tax qualification has the lowest mean with 0.1. According to the selected sample, average experience of the directors in the board is 16.4 years. 6.57 Standard deviation (SD) of the experience denoted that the mean can vary either upward or downward. Average experience is within the range of 10 to 22.2. Number of Directors qualified in Accounting (QU_A) mean 2.86 represents the number of Directors who are qualified in Accounting while SD at 2.37. On average, a board has directors qualified in Finance (QU_F) with a mean of 0.39 while the SD is at 0.71. Directors with the marketing qualification can be identified as another significant independent variable which has a mean 0.42 with SD of 0.626.

Table 5 : Descriptive statistics based on original values

	Min.	Max.	Mean	Std. Deviation	Variance	Skewness		Kurtosis	
						Stat.	Std. Error	Stat.	Std. Error
Average Experience	0	28	16.4	6.57	43.186	-.397	.212	-.382	.420
Expertise (Qualifications)									
Accounting	0	10	2.86	2.379	5.662	1.019	.208	.757	.413
Finance	0	3	.39	.710	.504	1.912	.207	3.195	.411
Law	0	4	.93	1.079	1.165	1.058	.207	.386	.411
Banking	0	3	.26	.630	.397	2.420	.207	4.821	.411
Tax	0	3	.14	.473	.223	4.244	.207	20.389	.411
Audit	0	3	.18	.545	.297	3.683	.207	14.869	.411
Economics	0	5	.51	.956	.913	2.712	.207	9.122	.411
Management	0	6	1.39	1.497	2.241	1.235	.207	1.218	.411
Engineer	0	8	1.29	1.563	2.444	2.070	.207	5.864	.411
Bio Science	0	4	.59	1.040	1.082	2.001	.207	3.606	.411
Marketing	0	2	.42	.626	.392	1.236	.207	.434	.411
Other	0	6	.99	1.532	2.346	1.720	.207	2.524	.411
Executive -									
Non-executive	0	7	2.72	1.509	2.277	.750	.208	.237	.413
Mix									
Chairman and									
CEO	0	1	.22	.418	.175	1.345	.206	-.193	.408
Share									
ownership	0	.653	.133	.213	.045	1.554	.209	.877	.416
Gender	0	1	.29	.458	.209	.909	.206	-1.191	.408

*Refer Table 2 for description of above variables

Source: Author constructed

Share ownership of the directors represents mean of 13.3% with the SD of 21%. There is a significant shareholding of directors when it is compared with the minority shareholders. Therefore, agency problem may arise due to that management ownership. Executive and Non-Executive mix also hold the significant influence over the corporate performance of the company. A board has on averagely 3 executive directors which may vary 2 to 5. Another significant variable is the CEO duality of the company. The possibility of the same person holding both positions simultaneously is having a mean of 0.22 with a SD of 0.418.

According to Table 6, which shows Pearson's correlations, there are statistically significant positive correlations between Gender & Finance qualification, Gender & Accounting qualification, Gender & Banking qualification, Gender & Management qualification, Gender & Marketing qualification, Gender & Other qualification, Gender & Share percentage; Gender & Executive mix and Gender & total assets. Further, Table 6 shows that there are statistically significant negative correlations between Gender & Average Experience, Gender & Law qualification, Gender & Tax qualification, Gender & Audit qualification, Gender & Economics qualification, Gender & Engineering qualification, Gender & Bio Science qualification, Gender & Growth, Gender & Duality, and Gender & Debt ratio.

Based on Table 6, there are statistically significant positive correlations between Gender and the Qualification in Banking, Average Experience and Share Ownership, Qualification in Accounting and Qualification in Management, Marketing and Other areas, Qualification in Accounting and Executive- Non Executive Mix, Qualification in Finance and Qualification in Tax, Audit and Total Assets, Qualification in Law and Qualification in Economics and Share Ownership. And also Qualification in Economics and Qualification in Marketing, Share Ownership and Executive- Non Executive Mix, Total Assets, Executive- Non Executive Mix and CEO and Chairman Duality, Winsorized Gross Profit Ratio, Winsorized Return on Assets and Winsorized Return on Equity and Winsorized Gross Profit Ratio. On the other hand there are statistically significant negative correlations between Average Experience and Qualification in Accounting, Average Experience and Qualification in Marketing, Qualification in Finance and Qualification in Law, Qualification in Finance and Qualification in Engineering, Qualification in Tax and Winsorized Return on Assets, Qualification in Management and Qualification in Engineering.

Since correlation analysis considers only two variables at a time and not considering the control variables it is not possible to conclude based on this analysis due to the affect of other variables that are not considered in the analysis. Due to this limitation of the correlation analysis a multiple regression analysis was used. Multiple regression analysis method allows using more independent variables and controlling variables at a time, and therefore, is superior than the correlation analysis.

Table 6 : Correlation analysis

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
1	-																						
2	-0.105	-																					
3	-0.071	-.226*	-																				
4	0.012	-0.081	-0.042	-																			
5	0.114	-0.093	-.175*	-.197*	-																		
6	.301**	-0.089	.187*	.172*	-0.062	-																	
7	-0.053	-0.118	-0.009	.255**	-0.011	0.053	-																
8	-0.157	0.101	-0.151	.538**	-0.017	-0.094	0.044	-															
9	-0.092	0.126	0.155	-0.131	.297**	0.062	-0.077	-0.081	-														
10	-0.019	0.007	.498**	0.056	0.062	.360**	0.036	0.046	0.038	-													
11	-0.151	-0.091	-0.011	-.209*	0.164	-0.143	-0.135	-0.089	-0.046	-0.219*	-												
12	-0.01	0.028	-0.092	0.017	.186*	-0.075	-0.048	-0.062	-0.062	.219*	.169*	-											
13	0.086	-.191*	.417**	-0.017	0.095	-0.085	0.027	-0.095	.257**	0.067	-0.005	.241**	-										
14	-0.007	-0.16	.327**	-0.085	-0.107	.268**	-0.1	-0.166	0.028	.197*	0.121	-0.034	-0.112	-									
15	0.148	.267**	-0.043	-0.024	.246**	-0.156	-0.038	-0.088	.267**	-0.017	-0.089	0.084	0.135	-0.121	0.128	-							
16	-0.015	0.042	.232**	-0.014	0.118	-0.036	.178*	0.073	-0.119	.181*	0.139	0.046	0.058	.304**	0.013	.322**	-						
17	-0.119	-0.131	0.106	-0.049	0.082	0.141	-0.085	-0.15	-0.07	-0.038	.212*	.230**	0.031	0.128	0.085	.229**	.180*	-					
18	0.11	0.065	0.086	.241**	-0.027	0.121	-.187*	0.071	-0.01	-0.154	.189*	-0.048	-0.104	.279**	.214*	0.085	0.1	-.198*	-				
19	-0.108	0.161	0.011	-0.034	-0.016	0.014	-0.092	0.039	-0.075	0.122	-0.129	-0.034	-0.083	0.038	0.049	-0.02	0.1	0.145	0.07	0.1	-		
20	-0.028	0.036	-0.021	-0.019	0.032	0.078	-0.013	0.021	0.133	0.077	0.128	0.097	0.096	-0.01	0.072	0.06	0.033	0.078	-0.015	-0.079	-		
21	0.013	.264**	-0.007	-0.137	-0.027	-0.013	-.177*	-0.024	-0.123	-0.114	0.119	-0.056	-0.067	0.055	-0.06	0.033	-0.004	0.086	-0.081	0.111	.731**	-	
22	0.034	0.012	0.049	-0.092	-0.031	0.054	-0.163	-0.048	-0.126	-0.082	0.136	-0.041	0.015	0.142	-0.077	0.018	0.026	0.086	-0.005	0.109	-		
23	-0.116	0.091	.207*	0.059	.289**	0.076	0.136	.194*	0.036	.313**	0.033	0.11	0.051	-0.011	0.146	.327**	-0.042	-0.136	-0.01	-0.005	.179*	0.109	-

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Source: Author constructed

Where, 1=Gender; 2=Average Experience; 3=Qualifications in Accounting; 4=Qualifications in Finance; 5=Qualifications in Law; 6=Qualifications in Banking; 7=Qualifications in Tax; 8=Qualifications in Audit; 9=Qualifications in Economics; 10=Qualifications in Management; 11=Qualifications in Engineering 12=Qualifications in Bio Science; 13=Qualifications in Marketing; 14=Qualifications in Other areas; 15=Share ownership; 16=Executive - Non-executive Mix; 17=Chairman and CEO; 18=Total Assets; 19=Growth; 20=Debt Ratio; 21=ROA; 22=ROE; 23=GPR

*Refer Table 2 for descriptions of above variables

Panel Regression Analysis

To investigate the effects of board diversity on financial performance of companies, this study uses panel data regression analysis. This model specifies the financial performance of companies as a function of board diversity factors mentioned above. The model specification is as follows (financial performance indicated by the ROA, ROE and GPR of the company).

$$\text{Fin. Perform} = \beta_0 + \beta_1 \text{AvgEp} + \beta_2 \text{Expetise} + \beta_3 \text{Duality} + \beta_4 \text{Execu} + \beta_5 \text{Share} + \beta_6 \text{Gender} + \beta_7 \log \text{TA} + \beta_8 \log \text{Sales} + \beta_9 \text{Gearing} + \varepsilon$$

The selected sample of the research contains data collected across companies and over three years' time. Therefore, a multiple regression analysis was carried out with panel data to understand the relationship between independent and dependent variables. The research consist of three dependent variables. Table 7 illustrates the results from the regression analysis.

Table 7: Multiple regression analyses

Variables*	MODEL 1 GPR		MODEL 2 ROA		MODEL 3 ROE	
	Coef.	z	Coef.	z	Coef.	z
Gender	0.011	0.25	-0.020	-0.27	-0.032	0.61
Avg Experience	0.006*	2.8	0.004	0.94	0.005	1.32
Qualification Accounting	0.009	1.09	0.019	1.34	0.002	0.12
Qualification Finance	0.025	0.89	-0.034	-0.73	-0.035	-0.87
Qualification Law	-0.008	-0.36	0.034	0.79	0.038	1.36
Qualification Banking	0.021	0.45	-0.033	-0.34	0.057	1.38
Qualification Tax	0.048	1.12	0.034	0.47	-0.025	-0.5
Qualification Audit	-0.002	-0.04	-0.063	-0.92	-0.006	-0.12
Qualification Econ	0.010	0.49	-0.054	-1.55	-0.076*	-2.65
Qualification Management	0.001	0.06	-0.019	-0.78	-0.026	-1.44
Qualification Engineer	-0.011	-0.83	0.016	0.64	0.002	0.13
Qualification Bio Science	-0.011	-0.61	-0.040	-1.19	-0.006	-0.25
Qualification Marketing	0.008	0.33	0.093*	2.32	0.085*	2.04
Qualification Other	0.007	0.6	0.024	1.24	0.017	1.05
Share %	-0.274	-1.45	-0.133	-0.32	0.0516	0.37
Executive Mix	0.035*	3.06	0.046*	2.42	-0.012	-0.71
Duality	0.003	0.07	0.072	0.87	-0.044	-0.79
Total Assets (w)	-0.016	-0.85	-0.124	-3.63	0.013	0.72
Growth (w)	-0.015	-1.52	-0.010	-0.64	-0.019	-0.59
Debt Ratio	0.000	0.66	-0.000	-0.55	0.000	0.45
Constant	0.410	1.01	2.511	3.43	-0.179	-0.48
R ²	0.314		0.3637		0.0425	
Wald Chi-squared/ F	31.57		1.63		16.25	
N	119		119		119	

* $p < .05$

Source: Author constructed

*Refer Table 2 for descriptions of above variables

In line with the above analysis, 31% effect over the gross profit ratio is described by the selected independent variables. Also, it shows that the unobserved variables have significant influence on the dependent variable. Table 7 presents the random-effect model results for Model 1 based on the Hausman test. The average experience of the directors and executive and non-executive mix of the board has p -values which are below 5%. Therefore, it is concluded that these two variables have a significant influence over the performance of the gross profit ratio.

Table 8: Supportiveness of hypothesis

Hypothesis	Alternative Dependent Variable	Supported or not
H_1 : High average experience of the board of directors is positively linked to the performance of the firms (i.e., Higher experience will positively impact on GPR, ROA and ROE)	GPR	Supported
	ROA	Not Supported
	ROE	Not Supported
H_2 : High expertise of the board of directors is positively linked to the performance of the firms. (i.e., Higher expertise will positively impact on GPR, ROA and ROE)	GPR	Not Supported
	ROA	Supported only for the Marketing Expertise
	ROE	Supported only for the Marketing and Economics Experties
H_3 : Duality is positively linked to the performance of the firms (i.e., Duality will positively impact on GPR, ROA and ROE)	GPR	Not Supported
	ROA	Not Supported
	ROE	Not Supported
H_4 : Executive and non-executive mix of the board of directors is positively linked to the performance of the firms. (i.e., When no: of Executive directors are increased, it will positively impact on GPR, ROA and ROE)	GPR	Supported
	ROA	Supported
	ROE	Not Supported
H_5 : Share ownership of the board of directors is positively linked to the performance of the firms (i.e., Higher share ownership of the directors will positively impact on GPR, ROA and ROE)	GPR	Not Supported
	ROA	Not Supported
	ROE	Not Supported

Source: Author constructed

Model two explains relationship with ROA. According to that 36% effect over the return on asset ratio which is measured by R-square is described by the selected independent variables. This result also, shows that the unobserved variables have significant influence on the dependent variable. Fixed-effects results are presented for Model 2, which is decided based on the Hausman test. It is observed that the qualification in Marketing and executive and non-executive mix of the board has p values below 5%. Therefore, it is concluded that these two variables have a significant influence over the performance of the return on assets ratio.

As per the third dependent variable, ROE, only 4% effect over the return on equity ratio which is measured by the R square value. Also, shows that the unobserved variables have a significant influence on the dependent variable. Model 3 uses the random-effects specification based on the Hausman test. The qualification in Marketing and qualification in Economics of the board has p values below 5%. Therefore, it is concluded that these two variables have a significant influence over the performance of the return on equity ratio. Finally, Table 8 summerises whether the hypotheses are supported or not based on the regression analyses.

5. Conclusion Limitations and Future Directions

This study addressed the following objectives. Firstly, identifying factors that lead to board diversity in manufacturing and diversified companies listed in the CSE. Secondly, examine the level of diversification in the director board in manufacturing and diversified companies listed in the CSE. Thirdly, identify the extent to which the above-identified factors create an impact on the financial performance of the selected companies.

Data was obtained through annual reports published in the CSE website and financial and non-financial information related to three years, 2011, 2012 and 2013. Since this research comprised various measures that can be used to determine the diversity of the companies, a scoring index was developed based on the nature of the dependent variable to evaluate the first hypothesis.

To evaluate hypotheses panel data regression analyses were performed. Financial performance (ROA, ROE and Gross profit margin) of the companies were used as the dependent variable of the regression and diversifying factors (Average experience of the board, expertise, duality, executive non-executive mix, share ownership and gender diversity of board) used as the independent variables of the regression while control variables are total assets, sales and gearing.

To explore the extent of board diversity scores obtained from the self-constructed index was used. Out of 17 total marks maximum score obtained by a company was 14 and minimum score was 1. Mean score was 7.08 with 2.66 standard deviation. These statistics express that board diversity of the selected CSE listed companies are relatively low. When the individual variables were considered the accounting qualifications has the highest mean which is 0.81 and tax qualification has the lowest mean with 0.1. Gender diversity has 0.28 mean indicating gender inequality.

In panel regression analysis, 31% effect over the gross profit ratio, 36% of return on asset ratio and 4% of return on equity ratio are explained by the selected independent and

control variables. Also, shows that the unobserved variables have a significant influence on the alternative dependent variables. When the individual variables are considered the average experience of the directors, executive and non-executive mix (i.e., presence of non-executive directors), qualifications in Marketing and Economics of the board has p values that are below 5%, and thus statistically significant positive relationship with selected alternative dependent variables.

Limitations and Future Research directions

As with any research, limitations are inevitable and the limitations of this research are as follows. Firstly, the study was carried out based on the quantitative research approach. The qualitative aspects of the research question were not addressed. Secondly, although this study investigates companies listed in the CSE, due to time and resource limitations only two sectors; manufacturing and diversified holdings were selected. Thirdly, only data from annual reports of three years were used. Finally, since the ICASL introduced a set of new accounting standards, which are in line with the International Financial Reporting Standards (IFRSs) that are applicable to financial years beginning on and after 1st January 2012, the first two years financial data have been presented in accordance with Sri Lanka Accounting Standards (SLASs), and the financial data of the last year have been presented in accordance with IFRSs and it was concluded that there is no impact on financial performance due to these changes.

This research is based on the quantitative research approach. Future researchers can use the qualitative research approach and conduct the same research using qualitative methods of data collection such as interviews.

On the other hand as companies belonging to two sectors which are manufacturing and diversified holdings were considered, in future research, companies of other sectors of the CSE could be considered.

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The impact of selected corporate governance characteristics on accessibility to debt capital: a study on listed manufacturing companies in Sri Lanka

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Abstract

This study focuses on corporate governance as a method of collecting funds to support the debt capital of the companies. The aim of the study is to find out the relationship between the corporate governance measures and the easy access to debt capital. Thus, the study is significant on the grounds that this is the first time in Sri Lanka a study of this nature has been conducted. Moreover, the literature available in this area is scarce. The positivistic research approach is used in this study. The data has been collected by using the relevant annual reports from 2011 to 2013 of 35 companies in the manufacturing sector listed under the Colombo Stock Exchange. This study uses correlation and panel multivariate regression analysis as the modes of analyzing the data. Correlation analysis indicates that there is a positive relationship between certain governance variables (Board size, Outside directors, Ownership concentration, Managerial ownership, Chief Executive Officer (CEO) duality and Audit committee members) with alternative dependent variables (Total debt ratio, Long term debt ratio and Gearing ratio). However, the findings of panel regression analysis show that there is no statistically significant relationship between the corporate governance characteristics and the easy access to debt capital. It was corroborated by the interview held with a senior manager of a bank in Sri Lanka. Finally, as a direction for future research, an in-depth study based on the post-positivistic approach that examines other important governance variables with regard to the topic could be recommended.

Keywords: Corporate governance, Debt capital, Sri Lanka

1. Introduction

Corporate governance is concerned with the ways by which suppliers of capital to firms assure themselves of getting returns on their investment (Shleifer & Vishny 1997). Corporate governance is the system by which companies are directed and controlled (Cadbury 1992).

Though corporate governance is not a new concept globally, it has become an important part of companies' affairs during the last two decades (Senaratne & Gunaratne 2008). The unexpected collapse of famous companies has had an impact on shareholders about good corporate governance. Some examples of the bankruptcy of Pramuka Bank in the late 1990s and the downfall of Vanik Incorporation have made corporate governance more significant than ever in the Sri Lankan context.

The Board of Directors plays an important role in the corporate framework due to the responsibility of monitoring managerial performance and achieving an adequate return for shareholders. In this sense, corporate governance plays a big role in finding capital via shareholders. Investors are often risk-averse so that there is a presumption that good corporate governance attracts the investors and potential investors. Hence, this study considers Corporate Governance and the Capital Structure of the companies.

Problem and Research Questions

In this study, the focus is on corporate governance as a means of collecting funds to support the capital structure of the companies. At the inception of this study, it was considered that good corporate governance was a key factor of determining companies' capital structure. This could be attributed to less conflict among management, due to efficient practice in the administration of business entities etc. Thus, the argument that emerged was that better the corporate governance, better the access to the debt capital. Accordingly, the research questions are as follows; Is there a relationship between corporate governance and the debt capital of the company? To what extent does corporate governance influence the debt capital of the company?

Objective of the study

This study is relevant to the Sri Lankan context. The debt capital structures and the corporate governance characteristics of 35 listed Sri Lankan companies have been examined to find out whether there is a relationship between the debt capital and the corporate governance characteristics.

Significance of the study

Global financial crisis points out the importance of a strong corporate governance and financial management for a company that has to deal with effects of unexpected crises and uncertainties. As a result investors are very much sensitive towards the corporate governance practices that companies follow. The ability of expanding the capital structure will depend on the degree to which the corporate governance practices are applied in a company.

In reviewing the literature it was evident that this issue was not addressed previously in the Sri Lankan context. Thus, this study adds new knowledge to the corporate governance research agenda.

Scope and Limitations of the study

This study addresses only the listed companies in Sri Lanka. Due to non-availability of data of private companies and public non listed companies the study was limited to listed companies and this could be considered as a limitation of this study.

On the other hand, only a few selected corporate governance variables were analyzed which is also a limitation of this study.

Further, quantitative approach itself has a limitation by not capturing the qualitative data such as the views and opinions of the managers and capital holders which ultimately became another limitation of the research.

The next section reviews the literature.

2. Literature Review

Background of Corporate Governance- Sri Lanka

In the Sri Lankan context, the corporate governance best practices were introduced by the Institute of Chartered Accountants of Sri Lanka (ICASL) together with the Securities and Exchange Commission (SEC) of Sri Lanka, through “Code of best practice on Corporate Governance 2013”. In Sri Lanka, only the listed companies are bound to apply corporate governance principles and practices according to the provisions of Companies Act No. 07 of 2007.

The first Sri Lankan corporate governance code was introduced in 1997 by the ICASL to deal with financial aspects of corporate governance. This was a blueprint of the Cadbury Code (1992). The Cadbury Code was designed to achieve the necessary high standards of corporate behavior through strengthening the unitary board system and increasing its effectiveness. The same objective was embraced in Sri Lanka through the corporate governance code introduced in 1997. The ICASL Code (1997) was replaced by the ICASL Code of Best Practice on Corporate Governance (2003) and it was largely based on the Hampel Report (1998). The ICASL Code (2003) was subsequently replaced by the Revised ICASL Code of Best Practice on Corporate Governance (2008), which had been prepared jointly with the SEC for voluntary compliance by of listed companies in conjunction with the mandatory rules on corporate governance that have been incorporated into the CSE Listing Rules from 2007. Code of Best Practice on Corporate Governance (2008) jointly developed by ICASL – SEC was subsequently replaced by Code of Best Practice on Corporate Governance (2013). This is also a joint initiative of ICASL and SEC and this is the current Corporate Governance best practice in use in Sri Lanka. This new code has been developed by taking into consideration relevant developments in best practices worldwide, and matters emerging specifically to Sri Lanka.

The mandatory codes on corporate governance best practices have been introduced in Sri Lanka from 2008. On the one hand, corporate governance rules which were incorporated into the CSE Listing Rules in 2007 have been made mandatory for listed companies from the financial year commencing on or after 01st April 2008. These rules have been developed through a joint initiative of ICASL and SEC in consultation with the CSE. On the other hand, the Central Bank of Sri Lanka (CBSL) issued two mandatory codes of corporate governance for licensed commercial banks and finance companies to comply from 2008. The mandatory code for licensed commercial banks have been enacted through the Banking Act Direction No. 11 of 2007 on Corporate Governance for Licensed Commercial Banks in Sri Lanka and the Banking Act Direction No. 01 of 2008 on Corporate Governance for Licensed Commercial Banks in Sri Lanka.

The existing set of rules on corporate governance in Sri Lanka is a combination of both mandatory (Companies Act, Listing Rules, Central Bank Directions) and voluntary (ICASL-SEC Code of Best Practice) rules on corporate governance. The introduction of mandatory listing rules on corporate governance is a significant move towards the development of governance practices of Sri Lankan listed companies (Senaratne & Gunaratne 2007). This marks a transformation of corporate governance practices in Sri Lanka from functional convergence to legal convergence (Coffee 1999).

As codes of best practices in Sri Lanka have been developed largely in line with the codes of corporate governance of UK, they show the characteristics of Anglo-Saxon model of corporate governance. However, this close allegiance towards the Anglo-Saxon model is linked up with both historical and economic reasons. The historical reasons refer to strong historical ties of Sri Lankan corporate entities with this model as a legacy of the British colonial rule. The economic reasons include the adoption of liberalized economic policies in Sri Lanka (of which Anglo-Saxon model is the logical counter-part) and the influence of the international funding agencies such as the World Bank and the International Monetary Fund (IMF) (these agencies usually advocate the use of a market based model). However, the desirability of this model in the Sri Lankan context is questionable as the conditions necessary for its successful implementation are lacking in Sri Lanka (Senaratne & Gunaratne 2007, 2008) in the same manner as they present in the Anglo-American countries, which embrace this model.

Accordingly, Sri Lanka has progressed steadily during the period 1997 to 2013 in terms of introducing best practices on corporate governance for listed public companies in particular and also to companies in economically significant areas such as banking and finance. Further, in the Sri Lankan context the successful implementation of a code of best practices on corporate governance developed primarily in line with the Anglo-Saxon model. This code of best practices needs to be aligned with the political, social and institutional framework within which companies operate.

Analysis of Theories

There are various theories that have been developed to explain the characteristics of corporate governance. Under this section, important theories on corporate governance are explained.

Agency Theory

Whenever a Principal appoints an agent to manage his/her affairs the agency problem occurs. The agency theory is based on this agency dilemma. As per this theory, it is assumed that there is contractual link between shareholders and the management who operate the company. The agency issue occurs in a company when the ownership and control differs. Shareholders appoint managers as agents for managing their resources. To be in line with neo-classical economics, the root assumption related to this theory is that the agent is generally self-interested and opportunistic. Accordingly, managers try to maximize their own interest rather than that of shareholders. Asymmetrical access to information can be identified as a further agency related issue. Directors and Management know more about corporate information than the shareholders; therefore shareholders have to depend on the directors to have minimum required information. In order to avoid such problems the shareholders/principal have to incur 'agency costs'; costs that arise from the requirement of creating incentives that match the interests of the management with those of the shareholder, and costs incurred to prevent the abuse of owner interests.

Agency theory assumptions have been highly influential in shaping the reform of corporate governance systems. Hence, agency theorists recommend that good corporate governance mechanisms are required to reduce agency related conflicts and to match the interests of the agent with those of the principal. These mechanisms include incentive schemes for managers, which reward them financially for maximizing shareholder interests

Stewardship Theory

In contrast to the agency theory, stewardship theory introduce 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 behavior of managers. This theory reflects the original legal concept of the corporation. Directors have fiduciary duty to act as stewards of the shareholder's interest and there is belief that directors can be trusted.

Resource Dependency Theory

Strategic view of corporate governance is considered under resource dependency theory. This theory can be applied to suggest that firm's governing body can lead to generation of resources. Particularly, boards of directors contribute to a firm through their expertise and their linkages to other firms and institutions. Directors can also contribute to the positive valuation of a firm, through their reputation.

Stakeholder theory and Shareholder theory

Stakeholder theory states that a company owes a responsibility to a wider group of stakeholders, other than just shareholders. A stakeholder is defined as any person/group which can affect/be affected by the actions of a business. It includes employees, customers, suppliers, creditors and even the wider community and competitors.

Shareholders theory states that the sole responsibility of business is to increase profits. It is based on the assumption that management is hired as the agent of the shareholders to manage the company for their benefit, and therefore they are legally and morally obligated to serve their interests.

Enlightened shareholder theory states that, "corporations should pursue shareholder wealth with a long-run orientation that seeks sustainable growth and profits based on responsible attention to the full range of relevant stakeholder interests". Essentially, it focuses on generating shareholder value, whilst having regard to the long-term external impact of the wealth generation process.

Over the last two decades, corporate governance has become a significant area for researchers. However, the focus was more towards the impact of corporate governance on performance of firms. Less focus was given towards the impact of corporate governance on capital structure.

Jensen and Meckling (1976) argue that, managerial shareholding reduces managerial incentives to consume perquisites and expropriate shareholders' wealth and results in alignment of the interests of management and shareholders. It also reduces the propensity to involve in non-maximizing behavior.

Godfred and Arco (2009) stated that, managerial share ownership, significantly and positively influences the choice of long-term debt over equity whilst foreign share ownership is insignificant in predicting corporate financing decisions. Board size is also significantly positively related to leverage implying that, directors in general will substitute equity for long-term debt in their capital structure choices whilst they report insignificant relationships with

the other measures of capital structure. Board independence and CEO duality are however, not important factors in the choice of financing mix of firms. In this study CEO duality and independence of the board were regarded as factors with less importance. These factors will significantly influence the level of corporate governance of a firm. In this study it has been considered that, both these factors will contribute towards determining the degree of corporate governance and capital structure.

However, there are contradicting views regarding the relationship between managerial ownership and capital structure. Sheikh and Wang (2011) stated that, managerial ownership is negatively related to the long-term debt ratio. Director remuneration is negatively related with measures of capital structure. CEO duality is also negatively related with both measures of capital structure; however, the relationship is statistically insignificant. Although it states that there is a negative relationship between director remuneration and capital structure, the existence of a remuneration committee and its independence is not analyzed through the research. The negative relationship between managerial ownership and capital structure indicates that increased managerial ownership aligns the interests of managers with the interests of outside shareholders and reduces the role of debt as a tool to mitigate the agency problems.

Independent directors are a foundation of modern corporate governance. The relationship between presence of independent directors and capital structure has been explored by few researchers but evidence in this regard is mixed.

Pfeffer and Salancick (1978) emphasize that non-executive directors play a pivotal role in enhancing the capability of a company to get recognition from external stakeholders. This leads to reduction in uncertainty about company and enhance ability of the company to raise funds. They find that higher level of representation of non-executive directors on board leads to higher gearing levels. Jensen (1986) and Berger (1997) find that companies with higher gearing levels rather have relatively more non-executive directors whereas companies with lower representation of non executive directors experience lower leverage.

Abor and Biekpe (2007) provide evidence about the presence of positive relationship among gearing levels and CEO duality, board skills and board composition. Ghanaian Small and Medium Enterprises (SMEs) that have more outside directors and a diversified set of skills at board generally have higher level of gearing.

On the other hand, researchers like Wen (2002) provides evidence of a significantly negative relationship between gearing level and representation of non-executive directors on the board. The possible reason is that non-executive directors monitor the managers more efficiently and effectively so that managers are forced to seek lower gearing levels for achieving superior results. Similarly, companies with higher representation of non-executive directors are bound to follow low financial leverage with a high market value of equity.

Fama and Jensen (1983) argue that, in a firm, decision management and decision control functions should be separate. Decision management function encompasses the right to initiate and execute new proposals for the disbursement of the firm's resources while decision control function comprises of the right to approve and monitor those proposals. This separation is ensured through a set of internal checks and internal controls. This system facilitates the

judicious utilization of a firm’s resources. Therefore, the same system should be implemented at the premier level. Therefore, the role of the chief decision management authority (CEO) should also be separated from the role of the chief decision control authority (chairman). Board of directors is the seat of premier level of decision control mechanism in the corporate structure so it must not be controlled by the CEO. Presence of CEO/Chair duality signals the absence of separation of decision management and decision control and it ultimately leads to agency problems.

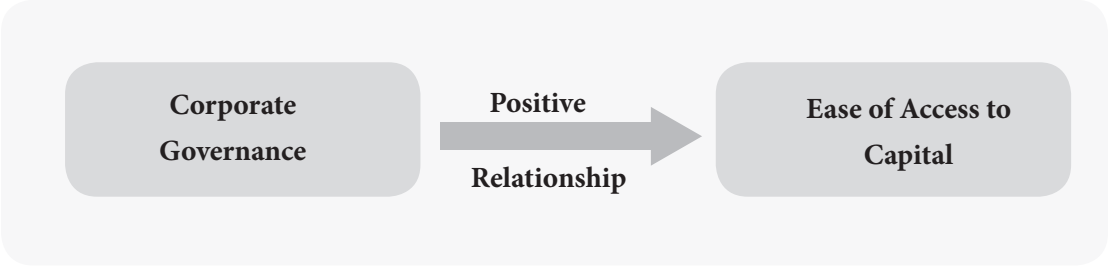
Hasan and Butt (2009) reviewed that, firms with a separate Chairman and CEO employ the optimal amount of debt in their capital structures. They discovered that, firms with a separate Chairman and CEO generally have higher financial leverage. However, it is worth mentioning that this relationship is statistically insignificant. Abor and Biekpe (2007) also provide evidence about the presence of positive relationship between gearing levels and CEO duality. Results of Hasan and Butt, (2009) reveal that board size and managerial shareholding is significantly negatively correlated with debt to equity ratio. However, corporate’s financing behavior is not found significantly influenced by CEO/Chair duality and the presence of non-executive directors on the board.

Although, in the literature review though empirical evidence state a contradictory relationship between corporate governance practices and the ease to access capital, in this study it is presumed that, there is a positive relationship between corporate governance practices and ease to access capital in the Sri Lankan Context.

Theoretical Framework

After analyzing other empirical studies, the following model is developed for the study. This model includes Independent variables and dependent variables as mentioned bellow.

Figure 1 Theoretical Framework



Source: Author constructed

Hypotheses

According to the theoretical model and the identified independent, dependent and control variables in the previous section, the hypotheses are developed to support ‘Better Corporate Governance Practices increase the probability of ease of access to debt of firms’. Table 1 provides the definitions of the selected variables.

Table 1: Definition of variables

	Variable name	Variable description	Denotation*
Independent variables (Governance variables)			
1	Board size	Number of directors in the board	$BOSIZE_{it}$
2	Outside directors	Number of Independent directors in board	$OUTDIR_{it}$
3	Ownership concentration	Ratio of shares owned by major 5 shareholders	$OWNCONC_{it}$
4	Managerial ownership	Ratio of shares owned by CEO and directors from the total no of shares.	$MANGOWN_{it}$
5	Director remuneration	Directors' total remuneration.	$DIRREMU_{it}$
6	CEO duality	0 if same person held the role of CEO and Chairman, otherwise 1 (Dummy variable)	$CEODUAL_{it}$
7	Audit committee	Percentage of the independent directors from the total member of the committee	$INDDIRAUD_{it}$
Alternative Dependent variables (Ease of access to capital)			
1	Total debt ratio	Total Liabilities/Total Assets	$TOTDEBT_{it}$
2	Long term debt ratio	Total long Term Liabilities/Total Assets	$LTDEBT_{it}$
3	Gearing ratio	Total Liabilities/Total Equity	$DEBTEQU_{it}$
Control variables			
1	Size	Natural log (LN) of the Total Assets	$LNSIZE_{it}$
2	Liquidity	Current Assets / Current Liabilities	$LIQUD_{it}$
3	Growth	(This Year Sales-Previous Year Sales)/ Previous Year Sales)	$GROWT_{it}$
4	Return on assets (ROA)	Profit after tax (PAT) / Total Assets	ROA_{it}

*The subscript in each variable, i denote the respective firm and t denotes the time period.

Source: Author constructed

The related hypotheses are:

H_1 : There is a positive relationship between the board size of a company and access to debt

(i.e., Higher gearing ratio, Total debt ratio, Long term debt ratio represent the ease of access to debt)

H_2 : There is a positive relationship between the outside directors of a company and access to debt

(i.e., Higher gearing ratio, Total debt ratio, Long term debt ratio represent the ease of access to debt)

H_3 : There is a positive relationship between the ownership concentration and access to debt

(i.e., Higher gearing ratio, Total debt ratio, Long term debt ratio represent the ease of access to debt)

H_4 : There is a positive relationship between the managerial ownership and access to debt

(i.e., Higher gearing ratio, Total debt ratio, Long term debt ratio represent the ease of access to debt)

H_5 : There is a negative relationship between the director remuneration and access to debt

(i.e., Lower gearing ratio, Total debt ratio, Long term debt ratio represent the ease of access to debt)

H_6 : There is a positive relationship between the CEO duality and access to debt

(i.e., Higher gearing ratio, Total debt ratio, Long term debt ratio represent the ease of access to debt)

H_7 : There is a positive relationship between the audit committee of a company and access to debt

(i.e., Higher gearing ratio, Total debt ratio, Long term debt ratio represent the ease of access to debt)

3. Methodology

This research study investigates whether there is a relationship between corporate governance characteristics and access to capital in Sri Lanka. For that purpose published annual reports of 3 years (2011, 2012 and 2013) of 35 listed companies in the CSE categorized under the manufacturing sector were selected.

Financial and non-financial data was collected from these annual reports in relation to the research problem and analyzed them by using various statistical techniques in order to reach the conclusion.

Research Approach

In this study quantitative data was used in order to test the relationship between the corporate governance and capital structure of firms. Based on the deductive approach, first hypotheses will be developed from the existing theories, next data will be collected and analyzed and finally the hypotheses will be accepted or rejected based on the statistical data obtained.

Population and sample

The population of the research study represented all the companies listed in the CSE. The sample selected comprised the companies categorized under the manufacturing sector in the CSE. Accordingly, data for the study was obtained from the Annual Reports of the selected 35 public companies listed in the CSE. This was obtained from the CSE website during the period 2012 and 2014.

Data-collection

This data collection was based on these documentary reviews (secondary data) of Annual Reports which ultimately best suited for the quantitative approach of methodology. The data was collected from the annual reports downloaded from the CSE website and thereafter was entered into a spreadsheet coded sequentially. Next, for the purpose of analysis the data was entered into SPSS and STATA software.

Strategy for Analysis

In order to arrive at a conclusion descriptive analysis was adopted by means of frequency analysis, correlation analysis, t-test and panel regression analysis.

Multiple regressions on panel basis was adopted as the sample contained data collected from several companies over a three year time period. Multiple regression analysis was used to estimate the relationship between corporate governance measures and access to debt capital.

Data cleansing was carried out through the winsorization technique and the winsorized dataset was used to perform panel regression analysis on STATA.

Two techniques; fixed effect and random effect were available to analyse the panel datasets. Hausman test was used to decide on the technique to be used. The random effect technique was used for the analysis. The use of random effect technique is justifiable, because the variations of companies over time is random and uncorrelated with the independent variables included in the model and differences across entities have had influence on dependent variables.

Moreover, Panel data sets are able to identify and estimate effects that simply are not detectable in pure cross- sections or pure time series data (Sheikh & Wang 2010). The basic regression model used in random effect is as follows:

$$\text{Access to Capital}_{it} = \alpha + \beta_1 \text{Governance Char}_{it} + \beta_2 \text{Control Vars}_{it} + \mu_{it}$$

Here i denotes the firm and t indicates the time dimension, **Access to Capital_{it}** is the firm i 's dependent variable at a time t , β represent the coefficient of variables, **Governance Char_{it}** represents the independent variables (i.e., Board size, Outside directors, Ownership concentration, Managerial Ownership, Director remuneration, CEO duality, Audit committee) for the i^{th} firm in the t^{th} period, **Control Vars_{it}** is the control variables (i.e., Size, Liquidity, Growth, Return on assets), μ_{it} is a disturbance term due to unobservable individual effects.

Based on the estimation of the random effects model employing *xtreg* and the option *re* on *Stata*, it was statistically significant that there was a positive relationship between good corporate governance practices and access to debt capital.

4. Analysis and Discussion

As per the explanation given in section 3, the techniques used for analysis will be descriptive statistics, frequency analysis, correlation analysis, t-test, and panel regression analysis. These methods will be used to explore whether corporate governance practices of firms affect their ability to access capital. Descriptive statistics and frequency analysis will be used to summarize the collected data. Correlation analysis, t-test and panel regression analysis will be used to identify the relationship between governance variables and access to capital. Detailed explanation of strategies used for analysis and the findings are presented below.

Descriptive Statistics

Descriptive statistics is the discipline of quantitatively describing the main features of a collection of information, or the quantitative description itself (Dodge 2003).

Table 2: Descriptive Statistics

Variables*	n	Range		Mean	SD	Skewness	Kurtosis
		Min	Max				
<i>BOSIZE_{it}</i>	100	3.0000	13.0000	7.3600	2.1630	0.2070	-0.2720
<i>OUTDIR_{it}</i>	98	0.0000	5.0000	2.2100	1.2370	-0.0190	0.2500
<i>OWNCONC_{it}</i>	100	0.1460	0.9269	0.7325	0.1598	-2.0570	5.3890
<i>MANGOWN_{it}</i>	100	0.0000	0.9098	0.0956	0.1868	2.3850	5.2960
<i>DIRREMU_{it}</i>	94	0.0000	18.2413	15.0067	3.5335	-3.3000	11.9390
<i>CEODUAL_{it}</i>	100	0.0000	1.0000	0.8700	0.3380	-2.2340	3.0520
<i>INDDIRAUD_{it}</i>	93	0.0000	1.0000	0.8342	0.2148	-1.0640	0.8920
<i>TOTDEBT_{it}</i>	102	0.1604	0.7294	0.4366	0.1637	0.1100	-0.7980
<i>LTDEBT_{it}</i>	102	0.0153	0.2701	0.0911	0.0703	1.2740	0.7700
<i>DEBTEQU_{it}</i>	102	0.1761	2.4858	0.8874	0.6218	1.2330	0.9470
<i>LIQUD_{it}</i>	102	0.7408	5.3784	1.8730	1.1505	1.8470	3.1380
<i>GROWT_{it}</i>	101	0.1653	1.0369	0.2184	0.2770	1.5940	2.9030
<i>LNSIZE_{it}</i>	101	0.0820	0.1818	0.0532	0.0643	0.0220	0.0840
<i>ROA_{it}</i>	102	15.3696	23.3216	20.9549	1.8406	-1.5300	2.8780

*Refer Table 1 for definitions of above variables

Source: Author constructed

As the positivistic paradigm was used to analyze the data, at the first step descriptive statistics were used to summarize the collected data. In descriptive statistics, central tendency and dispersion measures were used to describe the dataset. Central tendency includes mean, median and mode, while the measures for dispersion includes standard deviation, variance, and distribution measures which includes skewness and kurtosis. Table 2 represents the descriptive statistics for the sample. In the Sri Lankan context the board size of manufacturing sector companies' stood at an average of 7 members including 2 outside directors. 2.16 standard deviation (SD) of the board size represent that board mean(M) can be increased or decreased by 2 members, while outside directors could change by 1 member. While main five shareholders (*OWNCONC_{it}*) have contributed more than 70% of the shares in their basket, management share ownership (*MANGOWN_{it}*) stood below 10%. In general, based on the above two observations, it could be concluded that the major shareholders are not participating in the day-to-day decision making, and this will lead to the agency problem. SD of the ownership shows that major five shareholders are more concentrate on their ownership, at a certain point their holding percentage goes up to 89% though its decreased to 58%, and yet maintain a major share ownership. Director's remunerations are within the range of zero (0) to 83.58Mn (LN Size 18.24). CEO duality mean (M) value of 0.87 represents the percentage of the companies, which maintain the CEO duality while SD is at 0.33. As average 83% of the members in audit committee is independent (*INDDIRAUD_{it}*) but it can vary within 61% to 100% due to 0.21 SD.

Total debt ratio and the long-term debt ratio indicate the 0.44 and 0.09 mean values and 0.16 and 0.07 SD. They represent that in general manufacturing sector companies in Sri Lanka

mainly finance their assets through the equity capital rather debt capital. On the other hand, the companies prefer to the short-term debt than the long-term debt. 0.88 mean in the debt to equity ratio again prove that most of the companies still depend on their own money rather than others money. But 0.62 SD represent that there mean value of the debt to equity ratio spread within the range of 26% to 150% therefore, it is evident that, there are some companies highly supporting to the above statement and some companies not supporting the above statement.

Average of the liquidity ratio represents the better working capital management within the manufacturing sector companies in Sri Lanka. While average of the liquidity is at 1.8times and it varies within the range between 0.7 times and 3.0 times. Industry average growth rate is 22% and its SD at 28%. High SD on growth rate indicates negative growth in certain companies. Industry average ROA at 5% and its SD at 6%.

Correlations

Correlation measures the relationship between two variables. The results obtained from statistical analysis are presented in the following table.

Table 3: Correlations

Measures	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. $BOSIZE_{it}$	-													
2. $OUTDIR_{it}$	.31**	-												
3. $OWNCONC_{it}$	-0.11	0.12	-											
4. $MANGOWN_{it}$	-0.11	-0.19	0.10	-										
5. $DIRREMU_{it}$	.21*	0.15	0.15	0.11	-									
6. $CEODUAL_{it}$	0.02	0.09	-0.05	0.19	-0.04	-								
7. $INDDIRAUD_{it}$	.29**	-0.05	-.29**	-0.17	0.04	0.16	-							
8. $TOTDEBT_{it}$	-0.05	0.10	.25*	.36**	.27**	0.00	-.29**	-						
9. $LTDEBT_{it}$	-0.06	-0.07	0.05	.30**	0.15	0.12	-.23*	.41**	-					
10. $DEBTEQU_{it}$	0.04	0.18	.20*	0.17	.22*	0.02	-.29**	.84**	.22*	-				
11. $LNSIZE_{it}$	-0.03	0.17	-0.05	0.11	.32**	-0.14	-0.17	.26**	.20*	.23*	-			
12. $LIQUD_{it}$	-0.05	-0.17	-.27**	-.2*	-.21*	-0.06	0.18	-.53**	-0.19	-.33**	-0.15	-		
13. $GROWT_{it}$	-0.13	-0.14	-0.10	0.18	-0.07	0.07	0.07	0.02	0.09	-0.11	-.36**	0.09	-	
14. ROA_{it}	0.17	0.06	-0.03	-0.09	.40**	0.12	0.14	-0.17	-0.03	-0.10	0.04	0.06	0.03	-

Note: Refer Table 1 for descriptions of above variables

*p<.05, **p<.01

Source: Author constructed

According to the above table showing correlations, there are statistically significant positive correlations between Board size and Outside directors, Board size and Director remuneration, Board size and Independent directors in audit committee, Ownership concentration and Total debt ratio, Ownership concentration and Debt Equity ratio, Managerial ownership and Total debt ratio, Managerial ownership and Long term debt ratio, Director remuneration and Total debt ratio, Director remuneration and Debt to equity ratio, Director remuneration and Company size, Director remuneration and Return on Assets, Total debt ratio and Long term debt ratio, Total debt ratio and Debt equity ratio, Total debt ratio and Company size and Debt equity ratio and Company size were observed. Meanwhile there are statistically

significant negative correlations between Ownership concentration and Independent directors in audit committee, Ownership concentration and Liquidity, Director remuneration and Liquidity, Independent directors in audit committee and Total debt ratio, Independent directors in audit committee and Long term debt ratio ,Independent directors in audit committee and Debt to equity ratio, Total debt ratio and Liquidity, Debt to equity ratio and Liquidity and Company size and Growth were observed.

When the relation between alternative dependent variables and corporate governance measures are considered, it could be observed that Total debt ratio is positively correlated with Ownership concentration ($p<.05$), Managerial ownership ($p<.01$) and Director remuneration ($p<.01$) while it is negatively correlated with the Independent directors in audit committee ($p<.01$). Long term debt ratio also positively correlated with managerial ownership ($p<.01$) and it is negatively correlated with independent directors in the audit committee ($p<.01$). Further, Debt to equity ratio shows positive relationship with Ownership concentration ($p<.05$) and Director remuneration ($p<.05$). In this case for all dependent variables measures access to debt capital shows statistically significant negative relationship with Independent directors in the audit committee. There was no significant relationship between access to debt capital and board size and outside directors in the board. The CEO duality was also not affecting to access to debt capital.

As correlation analysis was performed considering only two variables at a time and not considering the effect of the control variables it is not possible to arrive at a conclusion on a multivariate basis. Because the results of this test not conclusive and may be affected by other variables, a panel regression analysis on a multivariate basis was carried out as further analysis. Panel regression analysis allows using more independent variables and controlling variables at a time, and therefore it is superior to the correlation analysis.

t -test

t-test compares the sample means of two continuous variables in order to determine whether or not the difference between the two expected means of the population exceed the difference that would be expected by chance.

Table 4: t-test (Board Size)

		N	Mean	SD	t-value	p-value
Board Size Comparison						
TOTDEBT _{it} *	G1	50	0.406	0.171	-1.641	0.104
	G2	50	0.458	0.149		
LTDEBT _{it} *	G1	50	0.081	0.065	-1.636	0.105
	G2	50	0.104	0.075		
DEBTEQU _{it} *	G1	50	0.760	0.597	-1.756	0.082
	G2	50	0.970	0.598		

G1 represent the small size board which comprises with seven or less members, G2 represent the large size board which comprise with eight or more members.

*Refer Table 1 for descriptions of above variables

Source: Author constructed

For that, task two independent variables (*BOSIZE* and *CEODUAL*) were selected separately and checked whether there are any significant differences in each independent variable according to their group characteristics.

Table 5: *t*-test (CEO Duality)

		<i>N</i>	<i>Mean</i>	<i>SD</i>	<i>t-value</i>	<i>p-value</i>
<i>CEO Duality Comparison</i>						
<i>TOTDEBT_{it}*</i>	<i>G1</i>	87	0.432	0.164	-0.023	0.982
	<i>G2</i>	13	0.433	0.150		
<i>LTDEBT_{it}*</i>	<i>G1</i>	87	0.095	0.072	1.476	0.156
	<i>G2</i>	13	0.070	0.054		
<i>DEBTEQU_{it}*</i>	<i>G1</i>	87	0.869	0.625	0.184	0.856
	<i>G2</i>	13	0.843	0.452		

G1 represents the companies which maintained the CEO duality,
G2 represents the companies which did not maintain the CEO duality.

*Refer Table 1 for descriptions of above variables

Source: Author constructed

When dividing board size as large and small the mean value (7.3) of the board size was considered as a middle point. If board comprised with seven or more members those boards were considered as a large board and members are below seven in board it was considered as a small board.

The *p*-values of the *t*-tests related to both board size comparison and CEO duality comparison are greater than 5%, which shows that there is no statistically significant difference between small boards and large boards of the company in order to access the debt capital, and also CEO duality and the non-duality companies shows no difference.

Regression Analysis

The multiple regression analysis discussed in the previous section on panel basis the sample contained data collected across companies and over three years' time. Therefore, multiple regression analysis is used to estimate the relationship between corporate governance measures and access to debt capital in order to arrive at conclusions.

There are two techniques namely fixed effect and random effect used to analyze panel data sets. To decide which method was to be employed, Hausman test was used and it was worked for all three scenarios and Hausman test results indicated that the random effect technique should be used. Therefore, the random effect technique was used. The following table represents the results obtained through the multiple regression analysis.

Table 6: Multiple regression analyses

Variables*	MODEL 1 (Total debt ratio)		MODEL 2 (Long term debt ratio)		MODEL 3 (Debt to equity ratio)	
	Coef.	z	Coef.	z	Coef.	z
<i>BOSIZE_{it}</i>	-0.0003	0.9770	0.0081	0.2220	0.0008	0.9840
<i>OUTDIR_{it}</i>	0.0009	0.9480	-0.0014	0.8640	0.0621	0.2340
<i>OWNCONC_{it}</i>	0.0753	0.5970	0.0713	0.4680	0.3975	0.5120
<i>MANGOWN_{it}</i>	0.1615	0.4710	0.0674	0.6870	1.4025	0.1700
<i>DIRREMU_{it}</i>	0.0059	0.1840	0.0004	0.8830	0.0045	0.7810
<i>CEODUAL_{it}</i>	-0.0047	0.9040	-0.0032	0.8850	0.0139	0.9190
<i>INDDIRAUD_{it}</i>	-0.1246	0.0650	0.0072	0.8510	-0.4508	0.0590
<i>LNSIZE_{it}</i>	0.0173	0.2420	0.0154	0.1560	0.0463	0.4870
<i>LIQUD_{it}</i>	-0.0371*	0.0160	0.0184*	0.0400	-0.0388	0.4880
<i>GROWT_{it}</i>	0.0472	0.1410	-0.0086	0.6210	0.2625*	0.0160
<i>ROA_{it}</i>	-0.2039	0.3200	-0.0611	0.5970	-0.5981	0.4090
<i>Constant</i>	0.0912	0.7960	-0.3782	0.1310	-0.2505	0.8710
<i>R²</i>	0.4193		0.0625		0.2405	
<i>Wald Chi-squared</i>	26.10**		8.83		15.41	
<i>n</i>	88		88		88	

*Refer Table 1 for descriptions of above variables

*p<.05, **p<.01

Source: Author constructed

As per the results obtained above, can see that the model *p*-values of the two models (Long term debt ratio and Debt to equity ratio) are higher than 5%, whilst *p*-value of one model (Total debt ratio) is lower than 5% (0.0063). However, when considering the *p*-values of individual variables in each of the above three models, the following can be seen.

Model 1: *Total debt ratio model* - Only the *p* value of “liquidity” (*LIQUD*) is lower than 5% and therefore it can be considered as a significant variable with a negative relationship.

Model 2: *Long term debt ratio model* - Only the *p* value of “liquidity” (*LIQUD*) is lower than 5% and therefore it can be considered as a significant variable with a positive relationship.

Model 3: *Debt to equity ratio model* - Only the *p* value of “growth” (*GROWT*) is lower than 5% and therefore it can be considered as a significant variable with a positive relationship.

Hence, the alternative hypotheses are rejected claiming that, there are positive/negative relationships among access to debt and corporate governance characteristics as the *p* values of these characteristics are more than 5%. It means there is no relationship between corporate governance measures and access to debt.

Table 7: Supportiveness of hypotheses

Hypothesis	Alternative Dependent Variable	Supported or not
H_1 : There is a positive relationship between the board size of a company and access to debt (i.e., Higher gearing ratio, Total debt ratio, Long term debt ratio represent the ease of access to debt)	Total debt ratio	Unsupported
	Long term debt ratio	Unsupported
	Debt to equity ratio	Unsupported
H_2 : There is a positive relationship between the outside directors of a company and access to debt (i.e., Higher gearing ratio, Total debt ratio, Long term debt ratio represent the ease of access to debt)	Total debt ratio	Unsupported
	Long term debt ratio	Unsupported
	Debt to equity ratio	Unsupported
H_3 : There is a positive relationship between the ownership concentration and access to debt (i.e., Higher gearing ratio, Total debt ratio, Long term debt ratio represent the ease of access to debt)	Total debt ratio	Unsupported
	Long term debt ratio	Unsupported
	Debt to equity ratio	Unsupported
H_4 : There is a positive relationship between the managerial ownership and access to debt (i.e., Higher gearing ratio, Total debt ratio, Long term debt ratio represent the ease of access to debt)	Total debt ratio	Unsupported
	Long term debt ratio	Unsupported
	Debt to equity ratio	Unsupported
H_5 : There is a negative relationship between the director remuneration and access to debt (i.e., Lower gearing ratio, Total debt ratio, Long term debt ratio represent the ease of access to debt)	Total debt ratio	Unsupported
	Long term debt ratio	Unsupported
	Debt to equity ratio	Unsupported
H_6 : There is a positive relationship between the CEO duality and access to debt (i.e., Higher gearing ratio, Total debt ratio, Long term debt ratio represent the ease of access to debt)	Total debt ratio	Unsupported
	Long term debt ratio	Unsupported
	Debt to equity ratio	Unsupported
H_7 : There is a positive relationship between the audit committee of a company and access to debt (i.e., Higher gearing ratio, Total debt ratio, Long term debt ratio represent the ease of access to debt)	Total debt ratio	Unsupported
	Long term debt ratio	Unsupported
	Debt to equity ratio	Unsupported

Source: Author constructed

Discussion

According to Jensen (1976) managerial shareholding reduces managerial incentives to consume perquisites and expropriate shareholders' wealth and results in alignment of the interests of management and shareholders. It also reduces the propensity to involve in non-maximizing behavior. However, the findings of this research indicate that there is no relationship between the managerial ownership and access to debt.

The findings of this research are observed to be different from the findings of Golfred and Arko (2007) which is related to Ghana. They stated that, managerial share ownership significantly and positively influences the choice of long-term debt over equity. Board size is also significantly and positively related to leverage implying that directors in general will substitute equity for long-term debt in their capital structure choices whilst they report insignificant relationships with the other measures of capital structure. But from this study it is evident that, there is no relationship between managerial share ownership and choice of long-term debt over equity in Sri Lanka. However, this research supports the finding of Godfred and Arko's that Board independence and CEO duality are not significant factors in the choice of financing mix of firms.

The hypotheses for this study were developed based on the literature review. However, it is evident from the data that, there is no impact of corporate governance characteristics to access the debt market in Sri Lanka. Even though in other countries it is highly dependent on the governance structure of the firms when facilitating with debt, in the Sri Lankan context the financing of companies and other sources of debt facilitators do not consider this. Further, an interview was conducted to confirm the results obtained from this study.

Accordingly, a senior manager of a commercial bank in Sri Lanka, revealed that, when they grant loan facilities to companies, that they consider governance attributes only for big companies whilst when granting loans to smaller companies that they do not consider governance aspects but other aspects such as collaterals, popularity of directors etc.

In this study through descriptive statistics it was observed that all the dependent variables and control variables have a positive skewness behavior. A correlation analysis was carried out and identified very important relationships between the variables. It was identified that most of the variables have a positive correlation with debt related ratios. This study also underlined the results obtained from t test analysis by selecting two independent variables (*BOSIZE* and *CEODUAL*). It was observed that there was no significant difference between small boards and large boards of the company in order to access the debt capital and also CEO duality and the non-duality company showed no difference

5. Conclusion, Limitations and Future Directions

This study empirically evaluates the results of 'the effects of corporate governance measures on access to debt capital'. In the initial stages, there was a presumption that good corporate governance practices make it easier for the companies to find their debt capital. In order to analyze this presumption the research questions developed were as follows; Are corporate governance and the debt capital of the company related to each other? What is the magnitude that the corporate governance influences on the debt capital of the company?

The *t*-test showed that there is no statistically significant difference between the small board and the large board for the access of debt capital. And also the *t*-test done for the CEO duality companies and the CEO unity companies shows no statistically significant difference with related to the access of debt capital.

Multivariate panel regression analysis was used to analyze the data as the final analysis tool. This analysis shows that there is no statistically significant relationship between corporate governance measures (Board size, Outside directors, Ownership concentration, Managerial ownership, Director remuneration, CEO duality and Audit committee members) and the access to debt capital. Therefore, it could be concluded that, there is no relationship between the selected corporate governance characteristics and the access to debt capital in Sri Lanka.

This conclusion was corroborated by the interview held with a senior manager of a bank in Sri Lanka and it was ascertained that banks do not check for governance characteristics when granting loans to clients except for big companies.

However, there were a few limitations with regard to the study. The limitations being; Collection of data was limited to the manufacturing sector companies in Sri Lanka so that this may not be generalizable for any other sector and/or any other context other than the Sri Lankan context. Quantitative approach has been used for the study which in fact depends on the numerical measures so that feelings and attitudes of the personnel in companies who have any consideration on this topic may not be captured. On the other hand, the analysis was based on a limited number of corporate governance variables. It would be more meaningful if all the characteristics were considered. Due to the limitations stated above, it is recommended that an in-depth study using the case study method be carried out.

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Determinants of level of corporate governance in listed hotels and travel companies in Sri Lanka

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Abstract

This study was carried out to recognize the firm characteristics that determine the Corporate Governance (CG) practices in the Hotels and Travel (HT) sector companies in Sri Lanka using the 36 HT companies listed in the Colombo Stock Exchange (CSE) for the period of 2011-2013. Through this study, it was found that when determining the CG practices in the HT companies in Sri Lanka, investment opportunities and directors' and officers' ownership are significant firm characteristics, and external financing needs are significant in determining the quality of the board of the HT sector.

Keywords: Audit committee, Board of directors, Corporate governance, Hotels and travel sector

1. Introduction

With the regained expansion of the economy after a 30-year war in Sri Lanka, corporate citizens are growing rapidly with more financial strength and structural complexities. Favourable macroeconomic variables, including increased exchange rates and decreased interest rates, are providing opportunities for corporate citizens to diversify their business locally and globally, increasing investor base and becoming large conglomerates through acquisitions and mergers. When corporate citizens become complex with their expansion, the gap between ownership and management increases. Role of CG plays a major role in filling this gap with linkages between ownership and management. Modern CG codes extend these linkages to all stakeholders of corporate citizens, so that they can fulfil expectations of the people, without being biased.

Since the CG in Sri Lanka consist of principle based as well as rule based practices, companies have to comply with regulatory requirements and are able to adopt best practices of CG, at their discretion. However, as per free market perspective of CG, companies are compelled to comply with best practice on CG due to both private economic based incentives and market based incentives. Recent corporate collapses in Sri Lanka, such as Golden Key, aroused concern of the public regarding governance aspects of organizations. Therefore, the increasing demand for CG information is requiring companies in Sri Lanka to disclose their CG practices to the public.

The Institute of Chartered Accountants of Sri Lanka and the Securities and Exchange Commission [CA Sri Lanka and SEC] (2013) provide guidance for best practices of CG in Sri Lanka, in their “Code of Best Practice on Corporate Governance” and they encourage companies to adopt the code “in discharging their corporate governance responsibilities”. In addition, the Companies Act No 07 of 2007, Directions of Central Bank of Sri Lanka and the CSE listing rules provide mandatory CG requirements in Sri Lanka. However, the level of such adoption varies across companies and industries due to various factors. Theories of CG present rational for CG and identify such factors that could affect the level of CG. Khanchel (2007) identified; directors and officers ownership, institutional ownership, investment opportunities, external financing needs, firm size, growth and Tobin’s Q; as firm characteristics having possible impact on determination of level of CG and theories of CG also justify those characteristics in the rationale for CG.

Significance of the above-mentioned factors, in the determination of a firm’s level of CG, could depend upon cultural and contextual factors. Therefore, this study was limited to evaluate the level of CG of Sri Lankan HT, in which those cultural and contextual factors are assumed to be homogeneous. HT is a major industry in Sri Lanka contributing to the country’s economy with a large amount of foreign currency inflows and employment opportunities. Natural and cultural resources in Sri Lanka provide competitive advantages for this industry. This industry is also benefitting with recent infrastructural developments and increasing global recognition of Sri Lanka. However, HT requires extensive capital expenditure for commencement and for continuous renovation. Hotels have to make large investments in order to gain and retain their “Star” ratings.

To fulfil those capital requirements, companies have to have a large investor base and good relationships with external debt providers, where the CG should be effective for the effective coordination between managers, investors, external debt providers and customers. Not only those parties, but also government authorities and general public are concerned about HT, due to associated environmental and cultural issues. Since the switch over cost for customers is low in this industry, a profitable company could start making losses in a very short period if any adverse information goes to the public; the potential customers. Therefore, there is a significant amount of market-based incentives for best practices in every aspect, including CG, and information disclosure.

As for every company or industry, level of CG in HT also could be determined by firm characteristics. This study aims to generalise whether there is a significant contribution by firm characteristics in the determination of level of CG in HT and which firm characteristics are significant in determination of level of CG in HT. This study was carried out based on the CG index developed by Gillan, Hartzell, Starks (2003) and subsequently moderated by Khanchel (2007).

Research Problem

To conduct the above mentioned evaluation, the research problem of this study was identified as; “are firm characteristics significant in determining level of CG of HT listed companies in Sri Lanka?”

Research Objectives

To address the above problem, this study aims to achieve the following objectives;

- (i) Identifying significant firm characteristics, which determine the level of CG of HT companies in Sri Lanka.
- (ii) Evaluating the significance of firm characteristics in determining level of CG of HT companies in Sri Lanka

Significance of the Study

According to the observations in the Sri Lankan context, there were a limited number of studies carried out on determinant analysis of CG. Dissabandara (n.d.) has carried out a determinant analysis on CG, where most of the factors were macro economic factors. However, in other countries such as United States of America (USA), Japan, Kenya, etc, this kind of research has been conducted by various researchers. Therefore, as this is a novel research for Sri Lanka, it is expected that the result of this research will guide policy makers and various regulatory authorities to place concern on various aspects, which determine the CG best practices in the organizations. Also, according to the observations, in Sri Lanka there is no established mechanism to measure CG. The proposed model in this research will guide to establish an index to measure CG, which will be influence the monitoring and control of CG practices in Sri Lanka. Also, this study will provide a milestone to other researchers in the field of CG to address this issue, as well as other issues, in different ways to develop the knowledgebase in the Sri Lankan context.

In the future, enhancement of the CG structure in Sri Lanka will make significant changes in the decision making process of an organization. It will generate benefits for all stakeholders of the organization, while it will lead to achieve the ultimate objective, maximizing the value of the firm, in the Financial Management perspective. The next section reviews the relevant literature.

2. Literature Survey

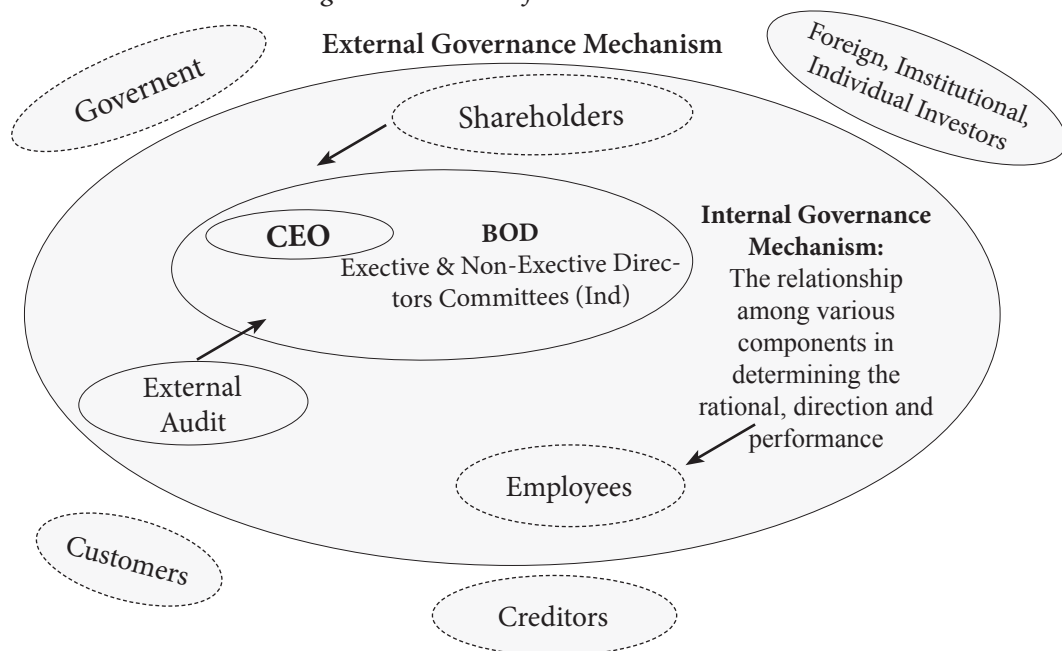
Corporate Governance Research in Sri Lanka

When literature of CG in Sri Lanka was reviewed, it was observed that there were limited amount of research carried out in this area. Senaratne and Liyanagedare (2009) state that, there is a gap between sustainability information expectations of stakeholders and information disclosed in annual reports, in the Sri Lankan context. They have derived this conclusion based on a research carried out from the secondary data of the 34 companies selected on the seven sectors of the CSE which was focusing on the level of compliance by Sri Lankan companies on Global Reporting Initiative's (GRI) guidelines on Sustainability Reporting.

Senaratne and Guneratne (2007) state that, ownership of the listed companies in Sri Lanka are mainly held by a controlling shareholder and widely held entities are rare in the Sri Lankan context as in the other Asian Countries. The above finding represents the fact that, ownership and control of the Sri Lankan listed companies are being held by a controlling shareholder and minority shareholders.

Dissabandara (2010) has identified the structure of CG in the Sri Lankan context, as depicted in Figure 1. According to him, CG mechanism in Sri Lanka comprises of government, foreign, institutional and individual investors, customers, creditors, shareholders and external auditors. He has carried out this research using 59 companies listed in the CSE during the period of 2006-2010. According to him, on average 56% of companies are complying with CG practices. There is also empirical evidence that Finance, Banking and Insurance (FBI) companies reflect a higher level of compliance with CG practices. This may be due to the regulatory framework in which FBI companies operate which is mainly enforced by the Central Bank of Sri Lanka. It is obvious that government has a greater influence on CG in Sri Lanka.

Figure1: Structure of CG in Sri Lanka



Source: Dissabandara 2010, p. 11

Theoretical Background

Jensen and Meckling (1976) developing the theory of ownership structure for a firm, took account of the trade-offs available to the entrepreneur-manager between inside and outside equity and debt. Different levels of directors and officers ownership, institutional ownership and external financing needs are possible trade-offs between inside and outside ownership, and it possibly would affect entrepreneur-manager relationship or agency relationship. In the presence of agency issues, objectives of owners and managers could become different, so that owners respond to market value of the firm, while managers respond to market value of their fringe benefits. In this issue, CG is expected to manage conflicting objectives.

According to transaction cost economics theory, size and growth of the firm affect CG strategy of a firm. Williamson (1999) citing Coase (1937) states that, firm and market are alternative modes of governance, the choice between which was principally decided by transaction cost differences. When a company finds that transaction cost associated with firm is lower than that of the market, the company has to make some capital investments to cater to the resource requirements of doing transactions within the company itself. Therefore, investment

opportunities also affect a firm's choice between two modes of governance mentioned by Williamson.

Empirical Studies

Khanchel (2007) in his study identified characteristics which determine the CG in USA using the data taken from a sample of 624 USA listed and non-financial companies for the period of 1994-2003. According to his findings he states that, there is a significant and positive relationship between the CG of an organization and firm size, investment opportunities, intangible assets and directors and officers ownership where as there is no relationship between the growth opportunities and performance of an organization with determining the CG of an organization. According to him though institutional ownership and external financing needs are positively affecting the CG of an organization it is not significant.

Durnev and Kim (2005) argued that, investment opportunities, external financing and ownership structure have a significant effect on CG of an organization. This research had been carried out using firm level governance data from 27 countries. They also state that, firms having better CG have higher stock prices in the stock markets. When an organization has an investment opportunity it requires more funds for exploiting that investment opportunity. Due to the cost of capital of equity being greater than debt to increase the value of the organization, companies tend to obtain debt financing. The willingness of debt providers to provide debt to an organization increases when the organization has better directions to create the trust within the debt providers.

Gillan, Hartzell, and Starks (2003) argued that, an industry's investment opportunities, product uniqueness, competitive environment, information environment and leverage help explain its CG. Shleifer and Vishny (1986) argued that, large shareholders play a major role in the management and initiate takeovers or invite third parties to do so.

Jenson (1986) in 'Agency cost of free cash flows, Corporate Finance , and Takeovers', argue that managers expect to increase their firm size beyond its optimal size. This is because managers' compensation will increase when size of the firm increases. In theory when the size of the firms becomes large, the agency cost of firm increases. The primary objective of an organization; wealth maximization, will be ignored if managers were induced to exploit investment opportunities with a higher cost of capital. Competition in product and factor markets lead to drive prices to the average minimum cost, which ensures the survival of an organization. With the expansion of a firm an efficient internal control system is required to have better coordination throughout the organization which requires a better CG in the organization.

According to the above literature, it is obvious that various philosophers have identified different factors which determine the CG. That is because of, the differences of context in which such findings were found and factors on which such research were focused. This study focuses on factors, such as directors and officers ownership, institutional ownership, investment opportunities, external financing needs, growth and Tobin's Q, which may affect the CG in the Sri Lankan context. Some factors have been established by literature and others have been decided on judgmental basis considering the Sri Lankan context.

Research Model

According to theories of CG, as mentioned above, level of CG is dependent upon firm characteristics (Figure 2).

Figure 2: Relationship between firm characteristics and level of CG



Source: Author constructed

External financing needs, growth opportunities, intangible assets, investment opportunities, firm size, firm performance, institutional ownership and managerial ownership have been tested by Khanchel (2007) as firm attributes and this study adopts that framework identifying variables in Table 1 as firm characteristics. However, intangible assets have been ignored in this study due to non-availability of any expense for research and development in HT in Sri Lanka during the period considered.

Table 1: List of firm characteristics variables

Variable Name	Variable	Operationalization
D&O_own	Directors and officers ownership	Percentage of capital owned by the directors and officers
INVES	Investment opportunities	Capital expenditures/total assets
FINAN	External financing needs	Total debt/total assets
SIZE	Firm size	Natural logarithm of total assets
GROW	Growth	Growth of sales
ROA	Return on Assets	Return on assets
Q	Tobin’s Q	Market value of assets/book value of assets

Source: Adopted from Khanchel 2007, p. 750

Khanchel constructed four governance indices to assess the level of CG. Those indices include variables mentioned in Table 2 (see next page) and the fourth index; Total governance index, is a composite of other three indices; Board index, Board committees index and Audit index. The same variables were used in this study to assess the level of CG.

Research Hypotheses

To achieve the above mentioned two research objectives, the following alternative hypothesis (H₁) is tested in this study;

H₁: There is a significant impact by firm characteristics in determination of level of CG in HT sector companies in Sri Lanka.

Firm characteristics expected to have a significant impact are; given in Table 1.

Table 2: List of governance variables

Variables	Retained measure
<i>Board index</i>	
Board size	Total number of directors
Outside directors	Ratio of Non-executive directors to total members of board members
Board meetings	Number of board meetings
Separate chair dummy	Indicator variable with value of 1 if separate persons hold the roles of chair and Chief Executive Officer (CEO)
<i>Board committees index</i>	
Existence of a compensation committee	Indicator variable with value of 1 if the compensation committee exist
Existence of a nominating committee	Indicator variable with value of 1 if the nominating committee exist
Meetings of the nominating committee	Number of the nominating committee's meetings
CEO not on the nominating committee	Indicator variable with value of 1 if the CEO is not a member of the nominating committee
Meetings of the compensation committee	Number of the compensation committee's meetings
CEO not on the compensation committee	Indicator variable with value of 1 if the CEO is not a member of the compensation committee
<i>Audit index</i>	
Existence of an audit committee	Indicator variable with value of 1 if the audit committee exist
Audit committee size	Size of the audit committee
Audit committee meetings	Meetings of the audit committee
Auditor is a Big 4	Indicator variable with value of 1 if the auditor is a Big 4
Members' financial expertise	Indicator variable with value of 1 if at least one audit member has financial expertise
<i>Total governance index</i>	

Source: Adopted from Khanchel 2007, p. 750

3. Methodology

Research Paradigm and Approach

This research followed the quantitative approach to research in the positivistic paradigm.

Population and Sample

In the present context of Sri Lanka, majority of firms follow CG structures for better direction and control systems, especially in the listed companies in the CSE. There are 20 sectors in the CSE and among those sectors HT sector was selected for this study because at present HT is one of the most emerging sectors in the Sri Lankan context in the post-war environment. There are 41 companies listed under HT sectors (i.e., population of the study) in the CSE and 5 companies of them were ignored due to the non availability of data relevant to the study. For this study, a sample of 36 companies listed under HT in CSE for the period from 2011 to 2013, were selected.

Data Collection

Only secondary data sources were used in this study, due to the accessibility, availability of required data in secondary sources and ability to cover entire HT in a cost effective manner. Annual reports of selected companies for selected period, which were published in the CSE website, were referred to when collecting data as it was freely available. Having decided on the data to be collected, a structured format was used to enter the data on a standardized and compatible basis to ensure the consistency and accuracy.

Testing Strategy

The collected dataset contained 97 observations, which belongs to 36 companies and from three financial years; 2011, 2012 and 2013. This classification made the dataset a panel dataset. Thus in order to test the alternative hypothesis of the study, that there is a significant contribution by firm characteristics in determination of level of CG in HT sector companies in Sri Lanka, a panel data regression analysis was proposed and performed. Firm characteristics of the dataset were proposed to be winsorized at 5th and 95th percentiles for removing the effect of outliers.

Prior to the regression analysis, descriptive statistics was performed. Governance indices were calculated using the simple average of percentile rankings of CG variables grouped under each governance index (details of governance variables grouped under each governance index are given in Table 2). Total governance index is the simple average of other three indexes.

A correlation analysis was conducted to identify correlations among governance indices. Also a t-test is proposed to be conducted by splitting the dataset in to two groups; small and large, based on natural logarithm of assets, for testing whether the firms in the sample have or have not been drawn from the same population in terms of level of CG.

Under panel regression analysis, there are two specifications as random effects and fixed effects. The Hausman test was used to decide between fixed effects and random effects specifications.

4. Data Presentation and Analysis

Introduction

Before conducting the regression analysis, which is the analysis performed for meeting Objective 2 of this study, several other statistical analyses were conducted to identify the nature of the collected dataset and ensure the validity of the sample. Results of descriptive statistics, correlation analysis, t-test and regression analysis and related discussions on the results are presented below.

Descriptive Statistics

Descriptive statistics of firm characteristics and CG variables are given in Table 3 and Table 4.

Table 3: Descriptive Statistics of Firm Characteristics

	Mean	Median	Std. Deviation	Min	Max	Percentiles	
						25 th	75 th
D&O_own (%)	6.3	0.4	11.5	0.0	41.8	0.0	7.4
INVES (%)	5.3	3.1	6.2	0.0	24.3	0.9	7.1
FINAN (%)	23.2	18.7	20.3	0.3	78.7	5.4	35.1
SIZE	12.1	9.5	5.0	8.5	21.9	9.2	10.4
GROW (%)	24.3	24.1	29.5	-64.2	81.6	17.3	38.0
ROA (%)	5.4	5.3	7.0	-11.9	18.7	1.2	9.0
Q	1.6	1.6	0.7	0.3	3.1	1.1	2.1

Note: Refer Table 1 and 2 for descriptions of above variables

Source: Author constructed

Table 4: Descriptive Statistics of CG Variables

	Mean	Median	Std. Deviation	Min	Max	Percentiles	
						25 th	75 th
Panel A: Board of Directors							
Total number of directors	8.4	8.0	2.3	4.0	14.0	6.0	10.0
Ratio of Non-executive directors to total members of board members	0.7	0.7	0.2	0.2	1.0	0.5	1.0
Number of the board meetings	5.5	4.0	3.5	2.0	20.0	4.0	5.0
Chair / CEO Duality	0.9	1.0	0.2	0.0	1.0	1.0	1.0
Board Index	49.2	51.8	15.0	10.5	86.7	40.4	61.4
Panel B: Compensation and Nominating Committees							
Existence of Compensation Committee	1.0	1.0	0.0	1.0	1.0	1.0	1.0
Existence of Nomination Committee	0.5	1.0	0.5	0.0	1.0	0.0	1.0
Number of the nominating committee's meetings	1.0	1.0	0.0	1.0	1.0	1.0	1.0
Whether CEO is a member of Nomination Committee	0.2	0.0	0.4	0.0	1.0	0.0	0.0
Number of the compensation committee's meetings	1.3	1.0	1.1	0.0	5.0	1.0	2.0
Whether CEO is a member of Compensation Committee	0.9	1.0	0.4	0.0	1.0	1.0	1.0
Board Committee Index	49.5	49.7	10.0	28.7	69.5	43.3	54.5
Panel C: Internal Control and Auditing System							
Existence of Audit Committee	1.0	1.0	0.0	1.0	1.0	1.0	1.0
Number of members in the audit committee	3.1	3.0	0.6	2.0	6.0	3.0	3.0
Number of meetings of the audit committee	3.8	4.0	1.3	0.0	7.0	3.0	4.0
Whether auditor is a big four	0.8	1.0	0.4	0.0	1.0	1.0	1.0
Whether at least one audit committee member has financial expertise	1.0	1.0	0.1	0.0	1.0	1.0	1.0
Audit Index	50.0	50.8	7.6	29.5	68.6	43.8	51.3
Panel D: Total Governance Index	49.6	49.5	6.3	38.3	62.8	45.0	54.3

Source: Author constructed

Descriptive statistics of firm characteristics of the dataset suggest that the directors' ownership in HT companies of Sri Lanka on average is 6.3 per cent. Average capital investment per annum in HT sector 5.3 per cent of total assets and average external debt is 23.2 per cent of total assets. Average sales growth and ROA are 24.3 per cent and 5.4 per cent, respectively.

However, directors' ownership, external debt to total assets and sales growth vary across HT companies as indicated by high standard deviations of 11.5 per cent, 20.3 per cent and 29.5 per cent respectively. Descriptive statistics of CG variables of the dataset suggest that average board size of HT companies is 8.4, which is a good indication of adequate number of board members. 70 per cent of board members are non-executive directors. On average annually 5.5 board meetings are held in a HT company. Roles of Chairman and CEO are separated in 93 per cent of HT companies.

It was found that all HT companies have an audit committee and each audit committee has at least one financial expert, which is also a very good indication about quality of auditing and internal control systems of HT companies. On average there are 3.1 members in those audit committees and 3.8 meetings are conducted annually. 84 per cent of HT companies' financial statements are audited by one of big four audit firms

Correlation Analysis

Correlations between each CG index and firm characteristic have been measured and presented in Table 5 below;

Table 5: Results of Correlation Analysis

Measures	1	2	3	4	5	6	7	8	9	10	11
1. Board Index	-										
2. Board Committee Index	-.214*	-									
3. Audit Index	-.072	.306**	-								
4. Total Governance Index	.684**	.484**	.484**	-							
5 D&O_own	-.286**	-.009	-.289**	-.350**	-						
6 INVES	.185	.175	-.039	.218*	.070	-					
7 FINAN	.343**	-.219*	-.202*	.106	-.191	.254*	-				
8 SIZE	-.118	-.021	.107	-.050	-.004	-.209*	-.154	-			
9 GROW	-.025	.011	-.127	-.063	.122	-.052	-.209*	-.126	-		
10 ROA	-.204*	.280**	.133	.013	.151	-.062	-.351**	-.236*	.344**	-	
11 Q	-.067	.207*	.239*	.140	.146	-.055	-.159	-.036	.138	.333**	-

Note: Refer Table 1 and 2 for descriptions of above variables

* $p < .05$, ** $p < .01$

Source: Author constructed

Generally it is assumed that when there is a better board, sub board committees and a better internal control system such a company has good CG practices. According to the results of correlation analysis given in Table 5 above, it is obvious that there is a strong and highly significant ($p < 0.01$) positive relationship between overall governance (total governance index) and board of directors (board index). There is a moderate ($r = .484$) but highly significant

($p < 0.01$) positive relationship between the overall governance and the board committees (board committee index), as well as with the internal control systems (audit index). But there is a significant ($p < 0.05$) weak negative relationship between sub board committees and board which means that effectiveness of compensation and nomination committee will reduce the functionality of the board of directors in the HT sector. That result is an unexpected result when compared with the general observations. As well as according to the above result it is also obvious that there is no relationship between the board and internal control systems in the companies in the HT sector. It means that internal control systems in the HT sector companies are independent from the board effectiveness where internal control systems are decided merely on the general practices.

Out of firm characteristics ownership by directors and officers (D&O_own) of HT companies has a highly significant ($p < 0.01$) negative but weak correlation with all CG indices, except board committee index. This suggests that D&O_own is a prominent factor in determining level of CG in HT companies. Capital expenditure has a significant ($p < 0.05$) positive but weak correlation with total governance index. External financing has a highly significant ($p < 0.01$) positive but weak correlation with board index, while having significant ($p < 0.05$) negative and weak correlations with board committee index and audit index and no relationship with total governance index. Return on assets has a significant ($p < 0.05$) negative and weak correlation with board index, while having a highly significant ($p < 0.01$) positive but weak correlation with board committee index. Tobin's Q has significant ($p < 0.05$) positive but weak correlations with board committee index and audit index.

t-test

An independent sample *t*-test was conducted to compare mean scores of large and small firms, which was classified according to firm size measured by natural logarithm. Mean of the firm size for selected dataset is 12.1396 and firms with sizes below average and above average were classified as Small and Large. *t*-test was conducted on all four board indices. Two categories, small firms and large firms, are independent to each other in this study.

Table 6: Statistics for Groups by Size

Index	Classification by size	N	Mean	Sig. (2-tailed)	Mean Difference
Board Index	Small	75	50.251	.213	4.547
	Large	22	45.704		
Board Committee Index	Small	71	49.818	.564	1.437
	Large	21	48.382		
Audit Index	Small	75	49.775	.593	-.998
	Large	22	50.773		
Total Governance Index	Small	75	49.986	.332	1.485
	Large	22	48.502		

Source: Author constructed

The t-test tests if the population means estimated by independent 2 samples differ significantly. Thus two hypothesis of the t-test can be stated as;

H_0 : the firms have been drawn from the same population

H_1 : the firms have not been drawn from the same population

Results of the t-test are presented in Table 6.

Results of the independent sample t-test show that null hypothesis is not rejected for all governance indices. Thus, it can be concluded that firms of both groups are drawn from the same population, and no statistically significant difference between them.

Regression Analysis

To identify firm characteristics, which are significant in determining the level of CG, multivariate panel regression analyses for each governance index have been conducted, using the random effects specification, which was determined based on the results of the Hausman test. Results of those regression analyses are given in Table 7.

Table 7: Results of Regression Analysis for Board Index

Variables*	MODEL 1 Board Index		MODEL 2 Board Committee Index		MODEL 3 Audit Index		MODEL 4 Total Governance Index	
	Coef.	z	Coef.	z	Coef.	z	Coef.	z
D&O_own	6.429	0.24	-18.093	-1.51	-24.912	-3.18***	-23.529	-3.55***
INVES	17.581	0.82	47.290	2.92***	6.875	0.70	20.312	2.30**
FINAN	-35.000	-2.60**	-15.247	-1.93*	-4.877	-1.01	-0.602	-0.14
SIZE	-0.617	1.09	-0.053	-0.18	0.137	0.73	0.022	0.14
GROW	-2.947	-0.74	-5.648	-1.78	-3.100	-1.55	-2.964	-1.64
ROA	-20.996	-0.70	23.788	1.18	18.694	1.44	1.948	0.17
Q	-0.738	-0.37	1.417	0.95	1.511	1.63	1.056	1.27
\bar{R}^2	0.1844		0.2377		0.0845		0.2241	
Wald Chi-squared	1.52		18.23**		18.11**		22.47***	
N	87		83		87		87	

Note: Refer Table 1 and 2 for descriptions of above variables

* $p < .10$, ** $p < .05$, *** $p < .01$

Source: Author constructed

Test results show that external financing needs (FINAN) is the only significant ($p < 0.05$) firm characteristic in determining quality of board of directors of HT companies in Sri Lanka. However, as reflected by negative coefficient, increase in reliance on external financing decreases quality of board of directors.

According to the above results it is obvious that there is a significant ($p < 0.05$) negative impact of external financing needs (FINAN) on determining the governance characteristics of the board committees, especially nomination committee and remuneration committee, in the HT sector.

Decrease in directors' and officers' ownership (D&O_own) is highly significant ($p < 0.01$) in determining quality of internal control and auditing system. Thus, when ownership by directors and officers go up, quality of internal control and auditing system would come down.

Impact of decrease in directors' and officers' ownership (D&O_own) is applicable to overall corporate governance of HT companies as well, with a high level of significance. Investment opportunities (INVES) also have a significant ($p < 0.05$) positive impact on determining the overall level of CG in HT companies in Sri Lanka. As well investment opportunities (INVES) have a positive and high level of significance ($p < 0.01$) for determining the quality of board committees, especially nomination committee and remuneration committee, in the HT sector.

5. Discussion

Based on the results derived from the above tests some significant determinants which determine the level of CG in the HT sector in Sri Lanka were observed.

Accordingly, external financing (FINAN) needs are significant in determining the quality of the board of HT sector where it was observed that when external financing dependency increases the quality of the board (Board Index) decreases. Most of the time directors are the major shareholders of the company and they contest to protect their invested money in the company through active participation in the decision making process. When external financing reliance increases it simply means that the invested funds in the company by shareholders are relatively less compared to the total funds invested in the company. Durnev and Kim (2005) argue that when there is more concern on external financing, boards tend to maintain better CG practices to get the priority of the external finance providers. But Sri Lankan evidence shows an opposite relationship to the argument made by Durnev and Kim. This is because companies tend to rely on the external financing sources when they are unable to get financial support through either a fresh or right share issue from their existing shareholders or potential shareholders. That is because shareholders hesitate either to invest newly or expand the existing investment in a company where such company which is not performing well in the market.

In this study, it was also observed that; when investment opportunities (INVES) increase it imposes a greater influence on determining the quality of the nomination committee and compensation committee. Today in Sri Lanka most of the organizations are highly diversified which imply the necessity of the competent persons in that particular sector to which the company has been diversified, if the organization seeks the success in that particular sector. In Sri Lanka, it is observed that HT sector is the most emerging sector which emphasises the necessity of competent persons for attending in the decision making process to defeat the competition in the market for achieving the competitive advantage in the HT industry. Due to this reason, companies in the HT sector have given more consideration to attract most suitable persons to their companies and design better remuneration packages for them to attract such persons and retain them. Negative impact by external financing (FINAN) on the quality of the nomination committee and compensation committee may be due to not investing own money in the company by the owners. Therefore, they can attract persons to whom they favour for the board and can pay whatever amount they wish than the appropriate level regardless their contribution to the organization. If the Company loses, there is less risk for their money and external financing sources will have to suffer the loss if that particular company declares their bankruptcy.

Although, directors and officers ownership (D&O_own) do not have an impact on determining the quality of the board of directors and sub committees such as nomination committee and compensation committee, it has a significant negative impact on the internal control and auditing system which simply indicates that when directors and officers ownership increases in a particular company in the HT sector it reduces the quality of the internal and audit consideration of the company.

Table 8: Summary of Findings

Hypotheses	Alternative Dependent Index	Supported or not
H_1 : There is a positive relationship between the directors and officers ownership in HT sector companies and CG of those companies	Board Index	Unsupported
	Board Committee Index	Unsupported
	Audit Index	Unexpectedly Supported
	Total Governance Index	Unexpectedly Supported
H_2 : There is a positive relationship between the investment opportunities and CG of HT Sector companies in Sri Lanka	Board Index	Unsupported
	Board Committee Index	Supported
	Audit Index	Unsupported
	Total Governance Index	Supported
H_3 : There is a positive relationship between the external financing needs and CG of HT Sector companies in Sri Lanka	Board Index	Unexpectedly Supported
	Board Committee Index	Unexpectedly Supported
	Audit Index	Unsupported
	Total Governance Index	Unsupported
H_4 : There is a positive relationship between the firm size and CG of HT Sector companies in Sri Lanka	Board Index	Unsupported
	Board Committee Index	Unsupported
	Audit Index	Unsupported
	Total Governance Index	Unsupported
H_5 : There is a positive relationship between the growth and CG of HT Sector companies in Sri Lanka	Board Index	Unsupported
	Board Committee Index	Unsupported
	Audit Index	Unsupported
	Total Governance Index	Unsupported
H_6 : There is a positive relationship between the return on the assets and CG of HT Sector companies in Sri Lanka	Board Index	Unsupported
	Board Committee Index	Unsupported
	Audit Index	Unsupported
	Total Governance Index	Unsupported
H_7 : There is a positive relationship between the Tobin's Q and CG of HT Sector companies in Sri Lanka	Board Index	Unsupported
	Board Committee Index	Unsupported
	Audit Index	Unsupported
	Total Governance Index	Unsupported

Source: Author constructed

This may be because increase in directors and officers ownership means that company is a closely controlled company where there is less controversy between management. Khanchel

(2007) in his study identified companies in which directors and officers have high ownership have stronger audit and board committee structures which show contradictory evidence to the findings of this study.

When the total CG index is considered it is evident that, when determining the CG practices in the HT sector in Sri Lanka, firm characteristics such as directors and officers ownership has a negative impact and investment opportunities has a positive impact on total governance index. It means that when there are investment opportunities in the external environment it require higher level of CG practices to exploit such opportunities effectively and efficiently and those requirements can be ignored when directors and officers are having significant ownership in the company. Khanchel (2007) also had found that, investment opportunities and directors' and officers' ownership have a greater impact on the CG practices in the USA which is consistent with the findings of this study. These results are summarised in Table 8 above.

6. Conclusion

When considering the CG studies conducted in the Sri Lankan context, there were limited number of research studies conducted and there were no studies conducted to address the relationship between the CG characteristics (i.e. Board size, board composition, board meetings, CEO duality, reputation of auditors, audit committee meetings) and the firm characteristics (i.e. ROA, Total Debt to Total Assets, Firm Size). This study was conducted in this context to address the following problem "whether the firm characteristics are significant in determining the level of CG of HT companies in Sri Lanka", using a sample of 36 companies from 41 HT sector companies listed in the CSE. Under the positivistic paradigm using quantitative approach to research, published annual reports for the period of 2011 to 2013 were used to identify significant firm characteristics that determine the level of CG of HT companies in Sri Lanka and to evaluate the significance of firm characteristics in determining the level of CG of HT companies in Sri Lanka

In this study, four indices were constructed which explain the governance characteristics of the firm; Board index, Board Committee index, Audit index and Total Governance index. For achieving the objective of the study a descriptive statistic analysis, correlation analysis, t-test and regression analysis were used. The correlation analysis revealed that there is a positive highly significant ($p < 0.01$) strong relationship between the board of directors and overall CG of the HT sector and there is a moderate ($r = .484$) but highly significant ($p < 0.01$) positive relationship between overall governance and board committees as well as internal control systems. There is a significant ($p < 0.05$) weak negative relationship between board committees and the board quality. According to the results of the independent sample t-test it can be concluded that firms of both small and large size of companies are drawn from the same population, and no statistically significant difference is observed between them in terms of the selected CG dimensions. Further, according to the panel regression analysis it was observed that external financing needs are significant ($p < 0.05$) in determining the quality of the board of HT sector where it reflected a negative influence, in the Sri Lankan context. Investment opportunities have a positive significance at high level ($p < 0.01$) on determining the quality of board committees. It was observed that there is a negative and highly significant ($p < 0.01$) influence of directors and officers ownership on the internal control systems in the HT sector. External financing needs also appeared to have a significant ($p < 0.05$) negative influence on quality of board

committees. Overall it was observed that when determining the total level of CG in the HT sector investment opportunities have a significant ($p < 0.05$) positive influence, and directors' and officers' ownership has a highly significant ($p < 0.01$) negative influence on the CG practices.

There are some limitations in this study. Governance rating method developed by Khanchel (2007) was used in this study to examine governance structures of selected companies, which doesn't cover every aspect of CG, especially main aspects like shareholder rights and level of disclosure. Contextual variables such as societal, political and economic structures and the legal and financial systems also may have an impact on the strength of CG which are not considered. Only thirty Six (36) companies in HT have been selected and observed in the study due to the non availability of published annual reports. In the selected sample there were companies where some data required was not available in the annual reports.

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Industries significantly affected through the convergence of International Financial Reporting Standards: a study with special reference to listed public companies in the Colombo Stock Exchange – Sri Lanka

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Abstract

The main purpose of this study was to identify three industries which were mainly affected thorough the convergence of International Financial Reporting Standards (IFRS) in the Sri Lankan context in terms of financial position and financial performance. This study was conducted based on the positivistic approach to achieve the above purpose. Data was collected from public listed companies registered in the Colombo Stock Exchange (CSE). The sample selected was 229 public companies listed in CSE as at the date of transition to IFRSs i.e. 1st January 2011 which represented twenty industries (Business sectors). Data was collected through annual reports published by each and every company and only these secondary data was used to derive conclusions. Summary statistics; Mean, Mode and Percentage have been applied to analyze the data gathered during the study. Based on these statistics the industries were ranked considering the impact of IFRSs on the financial position and performance. The findings reveal that with regard to the total impact (absolute measure) the top five industries significantly affected through the convergence were Manufacturing, Land and Property, Motors, Power and Energy and Plantations. With regard to the percentage impact (relative measure) the top five industries significantly affected through the convergence were Oil Palms, Investment Trusts, Motors, Beverage Food and Tobacco *and* Services. Finally, it is highlighted that Manufacturing, Plantations and Motor industries are the top three significantly affected industries in terms of both financial position and financial performance. It is considered that, these findings will help the students, lecturers, practicing accountants and companies' management to identify which industries are highly affected due to a convergence of IFRSs and to what extent.

Key Words: IFRS convergence, IFRS impact, Industry impact

1. Introduction

The spread of IFRSs across the world has been the biggest single development in accounting over the past decade. More than 100 countries have now adopted IFRS and more are due to follow. There is an ongoing discussion on adaptation of IFRSs in the corporate world. The International Accounting Standards Board (IASB) has taken all the steps to ensure IFRSs are adopted all over the world. According to Bolt-Lee and Murphy (2009), company's adoption

of IFRS creates strong economic benefits in countries with rigid regulations over financial reporting. These benefits include an increase in the stock's market value, an increase in market liquidity, and a lower cost of capital. Companies with major differences between Generally Accepted Accounting Practices (GAAP) and IFRS reap the greatest benefits when supported by a strong regulatory environment. Moreover, expected benefits of adoption include reporting consistency, enhanced global competition and improved financial reporting transparency. While many countries worldwide have already adopted IFRS, many other countries are closely examining its effects before adoption, not only from an economic perspective but also from a reporting quality position.

When it comes to Sri Lanka Convergence to IFRS can be seen as a paradigm shift of Sri Lankan financial reporting grounds and most professionals have recognized this as a vital step in harmonizing accounting practices. Conversion to IFRS will lead financial statements to better reflect reality. The disclosures and other relevant IFRS adjustments required under IFRS may provide further insight for investors, influencing how they value stocks. According to Leuz (2011), sectors such as power, banks, insurance, telecom and infrastructure will be significantly influenced due to this convergence. Further, Leuz has highlighted that International investors are likely to attach more credibility to the local financial statements after the convergence to IFRS and it will significantly improve disclosure in annual reports. But in general most companies complain that, preparation of accounts based on IFRS is too costly and that there are many issues involved.

It is becoming important to be aware of the differences resulting from the two sets of standards. Due to the change to IFRS, management manipulation of earnings is not possible and the set of financial statements show economic reality.

In 2012, one of the articles published by Ernst and Young revealed that Oil and gas companies, especially those that operate on a global basis, could be particularly affected because many of their global competitors are already reporting under IFRS.

Since January 2012, Sri Lanka has aligned its national accounting standards (Sri Lanka Accounting Standards – SLAS) to that of the IFRSs, which have been adopted by many other countries at that time. This convergence had an impact on all companies in Sri Lanka at different levels.

Leuz (2011) explains that sectors such as power, banks, insurance, telecom and infrastructure will be greatly influenced. So convergence seems challenging to some industries based on their industry related practices.

The CSE is a company limited by guarantee, established under the Companies Act No. 17 of 1982 and is licensed by the Securities and Exchange Commission (SEC) of Sri Lanka and currently CSE is mainly supporting secondary dealings of securities of listed companies. Every listed company should send the annual reports to the CSE annually as per the rules and regulations imposed by the SEC. By 10th June 2014 there were 294 listed companies representing 20 business sectors in the CSE. For the study, data was collected from the CSE. Due to convergence to IFRS all these companies listed in the CSE were affected.

IFRS have introduced drastic changes in accounting for corporate reporting. The main difference was the introduction of a more energetic accounting approach with the implication of the fair value approach.

Earlier general valuation models were used based on the historical cost approach. Hence, when a company changes its financial position and financial performance from a historical cost approach to a fair value approach there is a significant impact. Based on the industry in which a company operates, this impact will vary since accounting principles are dependent upon the industry related attributes. For example the agricultural industry was significantly affected due to the fair value adjustments relating to biological assets. Further industries with more financial investments were significantly affected due to the change in treatment relating to financial instruments. After all it is evident that studying the impact of IFRS on different industries is important since there is a vast research gap on the selected topic. This research study is focused on identifying industries significantly affected by convergence to IFRS with the intention of elicit whether the previous findings remain valid.

Research problem

Immediately after the convergence to the IFRSs in Sri Lanka, there was an ongoing discussion as to what industries were significantly affected and to what extent. There are many comprehensive research studies done in both foreign and local context on IFRS convergence. However, there is no comprehensive research which measures the impact of IFRS based on the industry. Accounting professionals have mainly expressed their opinion on industries on which IFRS has had a significant impact. But no comprehensive study has been carried out in this aspect. There is a vast research gap in Sri Lanka as well as in the other countries that have adopted IFRS even though this has become a serious contemporary theme. Hence, the research problem of this study is; “what are the top five Sri Lankan industries significantly affected through IFRS convergence?”

Objectives of the study

The main objective of this study is to recognize the top five industries significantly affected through IFRS convergence in Sri Lanka. Further, two specific objectives were established in order to accomplish the main objective as:

1. To identify top five industries significantly affected through IFRS convergence in terms of financial position.
2. To identify top five industries significantly affected through IFRS convergence in terms of financial performance.

It is considered that the findings of this study would be useful to identify significantly affected industries from IFRS convergence in the Sri Lankan context. Further, this will facilitate practicing accountants and standard formulation bodies to make initial analysis before adoption of new versions of IFRS. Further, they will be able to identify how financial position and financial performance of respective industries will be affected through such convergence.

2. Literature Review

Literature relating to this study was scarce. Very few local studies have analyzed impact of IFRS on financial position and the performance of the companies. The IFRS changes range from some minor modifications to significant amendments of fundamental principles. These changes will affect many different areas of reporting financial information including the introduction of extensive disclosure requirements, the presentation of financial statements, and how particular elements are recognized and measured, such as financial instruments and employee benefits. In a study of Australian companies, Goodwin and Ahmed (2006) found that convergence to IFRS from Australian GAAP had a bigger impact on larger companies. Over half a million smaller companies reported no change in their net income, the smaller companies reported a change, it was generally an increase in net income and volatility that was due to International Accounting Standards (IAS) 12 income taxes because of the deferred tax adjustments. Most of the larger companies expected a negative impact of IFRS in earnings because of the tax effect of asset written down such as debtors and investments in financial instruments. As per this research, it has been revealed that IFRS 2 Share based payments, IAS 36 Impairment of assets, IAS 38 Intangible assets, IAS 39 Financial instruments, IAS 19 Employee benefits, IAS 18 Revenue had small negative impacts on earnings. In the balance sheet, there was a small change in net assets. Overall convergence had a small positive impact on both financial position and performance of larger companies.

Aisbitt (2006) found that in the UK context, there was a slight impact due to IFRS convergence on 100 companies. In this research it is also revealed that there was a negative impact of IFRS for some industries such as healthcare. But had a positive impact on industries such as consumer goods and technological companies. In 2012 July Sujeewa Rajapakse, President, the Institute of Chartered Accountants (CA) Sri Lanka expressed his opinion to *Mawbima* newspaper and said: "Sri Lanka is poised at a critical juncture in its economic growth, when the nation needs to leverage onto the global platform, enhance ease of doing business and stimulate financial and economic activity in the market. The adoption of the IFRS is a vital step in this direction, as it empowers Sri Lankan firms and showcases the country's superior financial systems and accounting standards. CA Sri Lanka has left no stone unturned in ensuring that the changeover in accounting standards are as smooth as possible."

The main difference in IFRS accounting with respect to SLAS was the implications of the fair value approach. Earlier general valuation model based on the historical cost were used. This fair value approach was introduced since the financial statements have to present a true and fair view. Hence, the historical value is not in use any more, but preparing financial statements the fair value should be applied. The fair value defined according to IFRS is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction. Suren Rajakarier, Head of Audit at KPMG Ford Rhodes Thornton & Co. in 2012 mentioned that "Conversion to IFRS will lead to financial statements better reflecting reality. The additional disclosures required under IFRS may provide further insight for investors, influencing how they value stocks. Further he emphasized that Sectors such as power, banks, insurance, telecom and infrastructure will have a greater impact due to the fair value accounting approach. Moreover, he elaborates that international investors are likely to attach more credibility to Sri Lankan financial statements after IFRS convergence and it will significantly improve disclosure in annual reports.

In 2014 Deloitte one of the Big Four Audit Firms has identified some significant sectors which have a significant impact from IFRS and based on it have published IFRS industry insights for each and every sector. Those sectors highlighted were Banking and securities, Power, Chemicals, Consumer products, Industrial products and Investment management. Based on the review of literature, none of the studies has ranked sectors based on the impact of IFRS.

3. Methodology

The study can be regarded as a systematic investigation for the purpose of discovering the top five significantly affected industries through the convergence to IFRS. Further this research has aimed to identify top five significantly affected industries through the convergence to IFRS in terms of Financial Position and Financial Performance.

The unit of analysis is a listed company in the CSE. There are two hundred and ninety listed companies in the CSE as at 10th June 2014. These companies represent 20 industries. The population for the study comprised all companies in Sri Lanka. Among them for this study public listed companies where IFRS based financial statements are readily available from the date of transition to IFRS i.e. 1st January 2011 was selected. As such 229 companies have been selected and the sample composition is given below.

Table 1: Sample companies by industry sectors in the CSE

Sector	Number of companies
Banks Finance and Insurance	49
Beverage Food and Tobacco	17
Construction and Engineering	3
Chemicals and Pharmaceuticals	7
Diversified Holdings	16
Footwear and Textiles	4
Hotels and Travels	29
Health Care	4
Investment Trusts	7
Information Technology	2
Land and Property	13
Manufacturing	28
Motors	4
Oil Palms	5
Power and Energy	5
Plantations	18
Stores and Supplies	4
Services	6
Telecommunications	1
Trading	7
Total	229

Source: Author constructed

Table 1 shows the sample of the study. In the sample 21% of the companies were represented by banking finance and Insurance sector. Hotel and Travel industry represent 13% where manufacturing industries represent 12% from the total listed companies. Plantation industry is recorded 8% of the sample. Beverage food and tobacco, Diversified holdings and Land and property sectors representing around 7% each from total listed companies.

This study was mainly based on secondary data, collected through annual reports published by each and every company. The data was collected during a period of one month. Published annual reports for financial year ended 31st December 2012 and 31st March 2013 were analyzed and the impact of IFRS was identified and the effect of convergence on the financial position and financial performance was elicited. Summary statistics Mean, and Percentage have been applied to analyze the data gathered during the study. Based on these statistics the industries were ranked considering their respective level of impact on financial position and performance. Under the data analysis, percentage IFRS Impact on financial position and performance have been calculated as follows.

Table 2: Percentage IFRS impact

Financial Position	Financial Performance
Total IFRS Impact on Financial Position in the Industry	Total IFRS Impact on Financial Performance in the Industry
Total Assets of the Industry as per SLAS	Total Profits of the Industry as per SLAS

4. Data Analysis and Discussion

Section 1: Total IFRS impact on financial position of industries

The industries showing the highest total impact have been identified as the top five industries out of twenty industries described in the research sample (Table 3).

However, when analyzing the total impact towards the financial position of the industries (Table 4), Manufacturing, Land and Property, Motors, Power and Energy and Plantations are the top five industries significantly affected through the convergence. Beside Plantation industry other industries have positive impact due to the convergence. It implies that financial position of Manufacturing, Land and Property, Motors, Power and Energy industries have improved due to the convergence while financial position of Plantation industry has declined. Further, Banking Finance and Insurance, Trading, Services, Oil Palms, Beverage Food and Tobacco industries are also in the top ten industries which were significantly affected in terms of total impact.

Table 3: Total IFRS impact on financial position

Industry	Total IFRS Impact (Rs.)	Rank	Industry	Total IFRS Impact (Rs.)	Rank
Manufacturing	1,634,223,678	1	Diversified Holdings	6,053,490	11
Land and Property	1,631,672,851	2	Investment Trusts	5,471,314	12
Motors	1,085,902,741	3	Footwear and Textiles	760,753	13
Power and Energy	789,242,736	4	Stores and Supplies	692,936	14
Plantations	(560,867,811)	5	Information Technology	458,564	15
Banks Finance and Insurance	126,824,558	6	Hotels and Travels	285,020	16
Trading	(89,798,553)	7	Construction and Engineering	134,956	17
Services	(69,059,645)	8	Health Care	69,655	18
Oil Palms	28,754,201	9	Chemicals and Pharmaceuticals	(11,044)	19
Beverage Food and Tobacco	9,839,820	10	Telecommunications	(1,508)	20

Source: Author constructed

Table 4: Percentage IFRS impact on financial position

Industry	Percentage IFRS Impact (%)	Rank
Oil Palms	25.8%	1
Investment Trusts	17.9%	2
Motors	11.3%	3
Beverage Food and Tobacco	7.2%	4
Services	-6.7%	5
Land and Property	4.7%	6
Diversified Holdings	4.2%	7
Manufacturing	3.5%	8
Power and Energy	2.6%	9
Plantations	-2.3%	10
Footwear and Textiles	1.7%	11
Banks Finance and Insurance	0.9%	12
Trading	-0.6%	13
Health Care	0.5%	14
Construction and Engineering	0.5%	15
Hotels and Travels	0.3%	16
Chemicals and Pharmaceuticals	-0.1%	17
Stores and Supplies	0.0%	18
Information Technology	0.0%	19
Telecommunications	0.0%	20

Source: Author constructed

When analyzing the percentage impact towards the financial position of the industries Oil Palms, Investment Trusts, Motors, Beverage Food and Tobacco, Services are the top five industries significantly affected through the convergence. Other than Services industry other industries have positive impact due to the convergence. As per this table it is revealed that the financial position of the industries Oil Palms, Investment Trusts, Motors, Beverage Food and Tobacco industries have had a positive impact while the financial position of the Services sector has had a negative percentage impact. Moreover, Land and Property, Diversified Holdings, Manufacturing, Power and Energy, Plantations industries are also in the top ten industries which were significantly affected in terms of percentage impact.

Section 2: Total IFRS impact on financial performance of industries

Industries which showed higher total impact on financial performance have been identified as the top five industries out of twenty industries described in the research sample.

Table 5: Total IFRS impact on financial performance

Industry	Total IFRS Impact (Rs.)	Rank
Manufacturing	(645,430,894)	1
Motors	(600,100,133)	2
Plantations	411,798,592	3
Power and Energy	(112,380,117)	4
Information Technology	21,421,450	5
Banks Finance and Insurance	(12,732,651)	6
Land and Property	5,258,467	7
Oil Palms	2,930,209	8
Stores and Supplies	(1,535,831)	9
Services	(733,620)	10
Trading	(558,152)	11
Diversified Holdings	440,337	12
Investment Trusts	(351,109)	13
Telecommunications	(339,174)	14
Construction and Engineering	(267,042)	15
Chemicals and Pharmaceuticals	(217,049)	16
Footwear and Textiles	57,243	17
Beverage Food and Tobacco	(56,256)	18
Health Care	42,760	19
Hotels and Travels	8,397	20

Source: Author constructed

When analyzing with respect to the financial performance of the industries Manufacturing, Motors, Plantations, Power and Energy, and Information Technology are the top five industries significantly affected through the convergence. Beside Plantation and Informational Technology industries other industries have negative impact due to the convergence. It implies that financial performance of Manufacturing, Motors, Power and

Energy industries have had an adverse impact due to the convergence while Plantations and Information Technology have had a favourable impact.

Table 6: Total IFRS impact on financial performance

Industry	Percentage IFRS Impact (%)	Rank
Plantations	-55.77%	1
Oil Palms	25.70%	2
Motors	-23.54%	3
Investment Trusts	-15.32%	4
Manufacturing	-14.26%	5
Information Technology	13.27%	6
Chemicals and Pharmaceuticals	-10.89%	7
Construction and Engineering	-9.29%	8
Telecommunications	-5.50%	9
Power and Energy	-4.65%	10
Diversified Holdings	3.34%	11
Banks Finance and Insurance	-2.49%	12
Services	-1.40%	13
Health Care	1.08%	14
Footwear and Textiles	-0.75%	15
Beverage Food and Tobacco	-0.28%	16
Land and Property	0.14%	17
Stores and Supplies	-0.13%	18
Hotels and Travels	0.10%	19
Trading	-0.03%	20

Source: Author constructed

When analyzing the percentage impact on the financial performance of the industries, Plantation, Oil Palms, Motors, Investment Trusts and Manufacturing are the top five industries significantly affected by the convergence. Other than the Oil Palms industry, other industries have had a negative impact due to the convergence. As per this table it is revealed that the financial performance of the Plantation, Motors, and Investment Trusts and Manufacturing industries have had a positive impact while the financial performance of the Oil Palms sector has had a negative percentage impact. Further, Information Technology, Chemicals and Pharmaceuticals, Construction and Engineering, Telecommunications, and Power are also in the top ten industries, which were significantly affected in terms of percentage impact.

Table 7: Summary of findings

Rank	In terms of Total IFRS Impact on Financial Position	In terms of Percentage IFRS Impact on Financial Position	In terms of Total IFRS Impact on Financial Performance	In terms of Percentage IFRS Impact on Financial Performance
1	Manufacturing	Oil Palms	Manufacturing	Plantations
2	Land and Property	Investment Trusts	Motors	Oil Palms
3	Motors	Motors	Plantations	Motors
4	Power and Energy	Beverage Food and Tobacco	Power and Energy	Investment Trusts
5	Plantations	Services	Information Technology	Manufacturing

Source: Author constucted

When analyzing above findings using a summary statistic the Mode, it is evident that, Manufacturing, Plantations and Motors are the three significantly affected industries in terms of both financial position and financial performance.

5. Conclusions and Recommendations

A systematic investigation for the purpose of identifying the top five industries which were significantly affected by the convergence of IFRSs in the Sri Lankan context in terms of financial position and financial performance was carried out. Sample was 229 public companies representing 20 industries (business sectors) listed in the CSE in 2012. Data collection was carried out via secondary data available in annual reports published by companies mentioned in above sample. Mean, Percentage and Mode were used to identify significantly affected industries.

Finally, this study reveals that Manufacturing, Plantations and Motors are the top three significantly affected industries in terms of both financial position and financial performance. It is considered that these findings will enable students, lecturers, practicing accountants and companies’ management to identify which industries are highly affected due to a convergence of IFRSs.

It is suggested that future research must be focused on the industry related attributes as well. The study was based on secondary data gathered only from listed public companies in Sri Lanka and results may not be valid for other companies which are not listed. Further, these findings may not be relevant to foreign countries. Not all factors affecting the impact of IFRS on different industries were considered and the focus was only on the financial position and performance of the respective companies. Industry to industry and company to company accounting policies are different. These differences in accounting policies were not considered since as the impact of IFRS has been brought to a common platform for the purpose of comparison.

However, within its limitations the research study has achieved the objectives and opened avenues and directions for future research. Hence, as a concluding remark it can be stated that, conducting more studies relating to this contemporary issue will provide further insights to this area of research.

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