



The Effect of Corporate Governance on Corporate Sustainability Disclosures: Empirical Evidence from Sri Lanka

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Abstract

The relationship between corporate governance and corporate sustainability of Sri Lankan listed companies with the highest market capitalization is investigated in this report. The sample of this research is 50 listed companies in Colombo Stock Exchange. The information was gathered from annual reports released between 2015 and 2018. Corporate governance was evaluated in this study in terms of Board Size, CEO Duality, Board Meetings, Board Committees, and Concentration of Shareholdings. The Corporate Sustainability was assessed in terms of GRI G4 Guidelines as sub-sections of Economic, Environmental, and Social Sustainability. The relationship between corporate governance and corporate sustainability was investigated using regression analysis in this thesis. According to the analyzed data the findings can be summarized as follows. The concentration of Shareholdings, Board Meetings & Board Committees show a negative relationship with environmental sustainability while others show a positive impact. Meantime, board committees showed an insignificant relationship with social sustainability while others showed a negative impact. Board size, CEO duality and Concentration of Shareholdings are showed a positive relationship and Board meetings are showed a negative relationship while Board Committees is insignificant with overall sustainability. Corporate governance processes have a positive effect on the corporate sustainability of listed companies in Sri Lanka, according to the findings of this report. It is supportive of the stakeholder theory and contributes to the decision-making of policymakers in organizations to have a big picture on the impact of each of their corporate governance characteristic, help in government to make rules and regulations with regards to the social, economic, and environmental aspects.

Keywords: *Corporate Governance, Corporate Sustainability, Economic Sustainability, Social Sustainability, Environmental Sustainability*

1. INTRODUCTION

The argument on corporate humiliations advises that the need for attention of social areas besides profit enlargement (Margolis & Walsh 2003). We have perceived a comprehensive variability of concerns with corporate behavior lately. Every stage society faces a different problem or intimidation then-new statutory practice of some nature is presented which attempts to protect that society from a forthcoming reoccurrence (Romano, 2004). So, corporate sustainability is a notable topic in the present days within global businesses and such debate increases the issues of how successfully and efficiently corporates are administrated and how diverse internal and external governance structures regulate the social output of corporations. The majority of the research on sustainability has taken place in political, activist, academic, and corporate settings. There is some agreement that recent business management methodologies must be aware of their social and environmental controls and tasks (Hoffman & Bansal, 2012).

This has been empirically researched by various scholars in the world. Some of them are Gompers, Ishii, and Metrick 2003, Schalteger 2006, Spitzbeck 2009, Garcia-Sanchez 2010, Mallin et al. 2013, Amran et al. 2014. Sustainability reporting may be a management instrument. CSR can be a tactical administration instrument that can lead organizations through the existing economic depression and support them to come out the further side healthier and more strong productions, where many outdated business tools will fail (Radcliffe, 2009). Sustainability reporting can be affected by several influences which corporate governance is one.

Corporate governance is coming to the world because of the collapse of organizations. Most of the companies are collapsed in the world because of problems arising from the companies resulting from the agency problems. In past, there were relatively small and simple limited liability companies in the world, and shareholders were from wealthy classes, and also, they could attend the meetings. So, in those days there was no requirement in the separation of management.

By developing companies step by step, there were more shareholders with different needs of investing in it and they were geographically spread. So, companies become more complex in managing and controlling the company. So, all corporate entities need a separate governing body. Therefore, For the intention of proper guidance of the company objectives, ownership and management is separated (Tricker, 2015). There are many collapses in the world such as Lehman

Brothers, AIG Insurance in the US, Northern Rock Bank, HBOS, Royal Bank of Scotland in the UK, all three banks and stock market are collapsed in Iceland (Tricker, 2015)

Therefore, as the solution to these problems, corporate governance came into the world. It was essential to move on to good corporate governance codes. Therefore, corporate governance codes are introduced many times with the development and changes of the companies. As the first corporate governance code, the Cadbury Code was introduced to the world in 1992. Corporate governance codes were changed year by year with the changes of the corporate entities (Greenbury, 1995), (Hampal, 1998), (Turnbull, 1999), (Myners, 2001), (Higgs, 2003), etc. Today the UK uses 2017 codes (Tricker, 2015). Because of the globalization of economies, corporate governance has become a worldwide issue. As a result, corporate governance is crucial to the management of organizations in both developed and developing countries (Tricker, 2015).

When considering Sri Lanka, as the same in the world, there were failures in companies such as Golden Key, Okanda Finance. Corporate governance came as the result of agency problems arising from the development of limited liability companies in Sri Lanka. And also, company act was introduced with the development of limited liability companies (Tricker, 2015). In the late 1990s, Sri Lanka started developing corporate governance best practices based on UK codes.

As a result, in 1997, the ICASL issued the first corporate governance code in Sri Lanka, which addressed the financial aspects of corporate governance in Sri Lankan listed companies. It was a model for the Cadbury Code of 1992. And corporate governance codes were introduced year by year in Sri Lanka as the world. OCED Code (1999), ICASL (2003), Corporate governance regulations were merged into CSE listing rules in 2007 and made mandatory for publicly traded firms in 2008. Today Sri Lanka use corporate governance codes of best practice in 2017 (Tricker, 2015). Accordingly, corporate governance becomes the most important part of all kinds of corporate entities. It helps to enhance the efficiency and effectiveness of proper supervision and control to reduce agency conflicts. So, this is the time for all companies to put their attention to practice good corporate governance.

Corporate sustainability is the most important business issue among corporations. Because society is suffering from the trouble that occurred from various unnecessary activities done by corporations. So, government and other regulatory authorities have to developed and introduced rules and regulations to protect

society from those unnecessary outcomes. Nowadays, we can see most corporations are willing to absorb their operations with attention to social responsibilities. So, this is a critical topic that should be researched.

Many forms of research on corporate governance and firm success, corporate governance and financial performance, and corporate governance and CSR have been conducted around the world. However, there are few studies on corporate governance and sustainability. In addition, there is a scarcity of research on corporate governance and sustainability in Sri Lanka.

As a result, the aim of this study is to fill four research gaps: limited time periods, limited scope of corporate governance and corporate sustainability, and limited number of company sectors. So, this research is examined whether the impact of corporate governance on corporate sustainability reference from all sectors of registered companies in Sri Lanka which has the highest market capitalization. Corporate sustainability is measured using the triple bottom line method, which includes economic, environmental, and social sustainability.

The main goal of this research is to investigate the relationship between corporate governance and corporate sustainability of the companies with the highest market capitalization on the CSE, taking into account Economic, Environmental, and Social Sustainability, in order to fill the research gap of limited scope and lack of studies on the effect of corporate governance on corporate sustainability in Sri Lanka. It may be the benefits for government to introduce new conditions as studying about corporate governance's effect on the long-term viability of a company may support to get immense of understanding about country's economic conditions and give new knowledge and enhance the empirical knowledge of researcher's world and for the companies as well the stakeholders to get right decisions.

2. LITERATURE REVIEW

The literature review outlined important and related past empirical studies on the topic of "Effect of corporate governance on corporate sustainability of Sri Lankan registered companies."

2.1 Definitions of Corporate Governance

These days, corporate governance has become the most important aspect of companies in developed and developing countries for a smooth future. There are numerous definitions of corporate governance that are presented by different researchers in different periods.

Cadbury (1992) gave the earliest concept of corporate governance: "Corporate Governance" means "the system by which corporations are engaged and regulated." Agreeing to Demb & Neubaue (1992) Corporate Governance, they clarified, is a process by which businesses respond to stakeholders' rights and demands. Corporate governance, according to the OECD (1999), is the organism that directs and controls business operations.

The corporate governance system establishes the distribution of rights and responsibilities among the corporation's various contributors, including the board of directors, managers, shareholders, and other stakeholders, as well as the rules and procedures for making corporate decisions. It accomplishes this by establishing the framework by which the company's goals and methods for achieving them are defined, as well as overseeing their implementation.

Furthermore, Klirova (2001) has described corporate governance as a critical component in the effort to improve economic efficiency and growth while reducing investor reliance. It encompasses a wide range of issues arising from the interactions among corporate management, organizational establishments, shareholders, and other stakeholders.

2.2 Definitions of Sustainability Reporting

Despite the fact that the literature on corporate sustainability has been built in the past, it shows that sustainability reporting and performance are still in their early stages, with the majority of evidence pointing to a modest increase in corporate sustainability. There are many definitions of corporate sustainability. So, different people defined corporate sustainability in different ways of explanation. The researcher could find several definitions relating to corporate sustainability.

According to Brundtland (1987), the advancement of sustainability reporting illuminates' current needs without jeopardizing future generations' ability to satisfy their desires. According to Robbins (2005), CSR means that a company should behave and be kept accountable for more than just its legal responsibilities to shareholders, staff, suppliers, and consumers.

Furthermore, according to Pramanik, Shil, and Das (2008), corporate environmental reporting is the process by which a company communicates knowledge about its environmental activities to a variety of stakeholders such as staff, local communities, shareholders, consumers, the government, and environmental organizations. Corporate sustainability, according to Kocmanova, Hrebicek, and Docekalova (2011), is a tactical approach that focuses on company

productivity, as well as the development of value for the owners, as measured by environmental, economic, and social factors.

2.3 Theoretical Background on Corporate Governance and Corporate Sustainability

There is no one theory in corporate governance. There are many theories. One theory explains one part of the corporate governance another theory explains another part. So, all those theories are very important.

The relationship between corporate governance and corporate sustainability is explained from two perspectives. Those are agency theory (Jensen and Meckling 1976) and stakeholder theory (Freeman 1984). Agency theory identifies the conflicting relationship between managers and stakeholders. Because of organization issues like knowledge asymmetry, agent opportunism, and principal-agent conflict of interest. Relationships between shareholders and directors of publicly traded corporations are not the only source of agency issues.

Private corporations, joint partnerships, not-for-profit charities, health and education bodies, educational institutions, and government bodies are all susceptible to agency dilemmas. The agency problem will occur wherever there is a separation between the member and the governing body. So, it is required to monitor the agent to achieve the principal and agent goals, diminish struggles and maximize the stockholders' wealth Halme and Huse (1997).

By promoting the association of stockholder, stakeholder, and management goals, agency and stakeholder theories complement each other (Hussain et al 2016). Walls et al (2012) stated that no single principle can justify why or how social roles can be incorporated into strategic goals without the other. And also, Gul and Leung 2004, Fodio and Oba 2012, Mallin et al 2013, Amran et al 2014, Sharif and Rashid 2014, Arena et al 2014, Post et al 2014. Many researchers used more than one theory to explain the relationship between corporate governance and corporate sustainability aspects, as shown by our literature review. It explains the reasoning behind both theories in order to understand the relationship between corporate governance and corporate sustainability. This research, like Hussain et al (2016), considers the governing board to be a stakeholder community and investigates the relationship between corporate governance and corporate sustainability using both agency and stakeholder theories.

2.5 Empirical Evidence Related to Corporate Governance and Corporate Sustainability

Halme and Huse (1997), Said et al. (2009), Cheng and Courtenay (2006), Akhtaruddin et al. (2009), and Htay et al. (2012) found a positive association between board sizes on Environmental Disclosure when looking at empirical evidence with corporate governance on corporate sustainability. Babi'ó Arcay and Muin'ó Va'zquez (2005), Said et al. (2009) and Barako et al (2006), Giannarakis (2014a) found that no relationship between CEO duality on Voluntary corporate disclosures. But, Allegrini and Greco (2013), Giannarakis et al (2014), According to Arussi et al. (2009), CEO Duality has a negative impact on sustainability reporting. Jizi et al. (2014), on the other hand, discovered a positive relationship between CEO Duality and sustainability reporting.

Garcia-Sanchez et al (2014), Giannarakis (2014a) found an insignificant relationship between board meetings on sustainability reporting. While Jizi et al (2014), Allegrini and Greco (2013) initiate a positive relationship. As a result, empirical evidence supports the conclusion that there is no definitive connection between corporate governance variables and corporate sustainability.

2.6 Empirical Evidence related to the relationship between Corporate Governance and Corporate Sustainability Reporting.

According to Khan (2010), Bangladeshi banks devote their CSR efforts to a variety of sectors, including education, health, and others. Their CSR efforts in these areas are more indicative of a bank's long-term viability in society. However, the investigation was limited to a review of the company's annual reports for the fiscal year 2007/2008. As a result, it was only counted as one year. Furthermore, the banks under investigation may have a separate report on CSR-related products such as press releases, brochures, and newsletters, among other things.

Corporate Governance Performs and Environmental Reporting: A Review of Selected Listed Companies in Sri Lanka was the subject of research by Sarivudeen and Sheham (2013). Only the board size is positively linked to environmental reporting, according to their findings. Board independence, CEO duality, female directors on the board, and Board Meetings, on the other hand, do not foster positive relationships. They've also discovered positive and important links between environmental reporting and firm size and environmental sympathy. The study's main flaw is that it only looked at one year's worth of results.

Hashima, Mahadia, and Amrana (2015) investigated the impact of Islamic Financial Institutions' Corporate Governance and Sustainability Practices. When

there are more SSB academics and people on the Board of Directors, they discovered that the corporate governance machinery spirit encourages the company to engage in more sustainability activities. Only Islamic Financial Institutions, however, were taken into account. They looked at how corporate governance profiles CSR reporting practices: evidence from Sri Lankan listed companies in Madhusanka LTP et al (2018). Furthermore, their numerical findings show that there is no significant connection between corporate governance and CSR disclosure levels. Future research should take into account the changing nature of CSR reporting, they said. Furthermore, experiments with a different set of corporate governance variables may be carried out.

The effect of corporate governance on the level of sustainability reporting of Sri Lankan listed companies was investigated by Bandara et al. (2018). They came to the conclusion that a constructive partnership exists between the voluntary practiced sustainability reporting disclosures and the balance of independent directors, separation of chairman and CEO roles, and obtainability of CSR committee. However, there is a connection between female board representation and cross-directorship holding directors and sustainability discoveries. They said that concentrating solely on registered corporations would make it impossible to predict the relationship between corporate governance and sustainability reporting in all industries. And the data contained in annual reports of companies listed on the Colombo Stock Exchange is the foundation of their study. Annual reports contain data that can change over time. Such are the research's limitations.

This analysis will be evaluated five independent variables based on the research gaps identified in the empirical study.

Board Size; the board size is the total number of directors on the board and it is a fundamental internal mechanism of corporate governance and shows a major role in a firm's management

CEO Duality; CEO/Chair duality designates the *corporate management* where the CEO also assists as chairman of the board. This situation has a direct impact on the financing decision of the company.

Board Meetings; It is a number of the meeting held in a year. The number of times meeting held can affect the kind of decisions by the firm,

The concentration of Shareholding; is the internal governance mechanism in which possessors can control and influence the management of the firm to protect their interest.

Existence of Board Committees; it is the proportion of major 3 operating committees of a company's board of directors that 3 major operating committees are audit committee, remuneration committee, and nomination committee.

3. METHODOLOGY

The aim of this research is to look into the connection between corporate governance and long-term corporate viability. Since statistical data was gathered using secondary data from corporations' annual reports listed on the CSE, this analysis takes a quantitative research approach.

3.1. Population

The population refers to the whole community of individuals, activities, or items of interest that the researcher is interested in learning more about (Sekaran and Roger 2010). The study's target population consists of 291 companies with the highest market capitalization listed on the Colombo Stock Exchange, covering 20 industry sectors as of June 30, 2019.

3.2. Sample Size

The sample size for this analysis is 50 companies with the largest market capitalization on the Sri Lankan stock exchange. Previous studies (Hussain et al 2016) used 100 high-performing US companies from the Global Fortune 2013 list. As a result, this study selected 50 companies listed in Sri Lanka with the highest market capitalization based on Hussain et al 2016 analysis.

This sample is under the 95% confidence level and 9.49% margin of error. That means in this case, 95% chance that the real value is within +/- 9.94% of the measured/surveyed value.

As of January 20, 2020, the Colombo Stock Exchange (CSE) had 290 companies listed, representing 20 GICS industry sectors, with a market capitalization of Rs. 2,748.10 billion.

Table 1: Sample Contribution with Sector Categorizations

Sector	Population	Sample Sector Contribution
1. Energy.	3	
2. Materials.	23	1
3. Capital Goods.	30	5
4. Commercial & Professional Services.	5	
5. Transportation.	2	
6. Automobiles & Components.	1	
7. Consumer Durables & Apparel.	13	1
8. Consumer Services.	38	5
9. Retailing.	13	
10. Food & Staples Retailing.	5	
11. Food, Beverage & Tobacco.	50	11
12. Household & Personal Products.	2	
13. Health Care Equipment & Services.	10	1
14. Pharmaceuticals & Biotechnology & Life Sciences.	2	
15. Banks.	16	8
16. Diversified Financials.	54	15
17. Insurance.	11	1
18. Technology Hardware & Equipment.	0	
19. Telecommunication Services.	2	2
20. Utilities.	8	
Total Companies	288	50

Source: By Author

3.3 Conceptual Framework

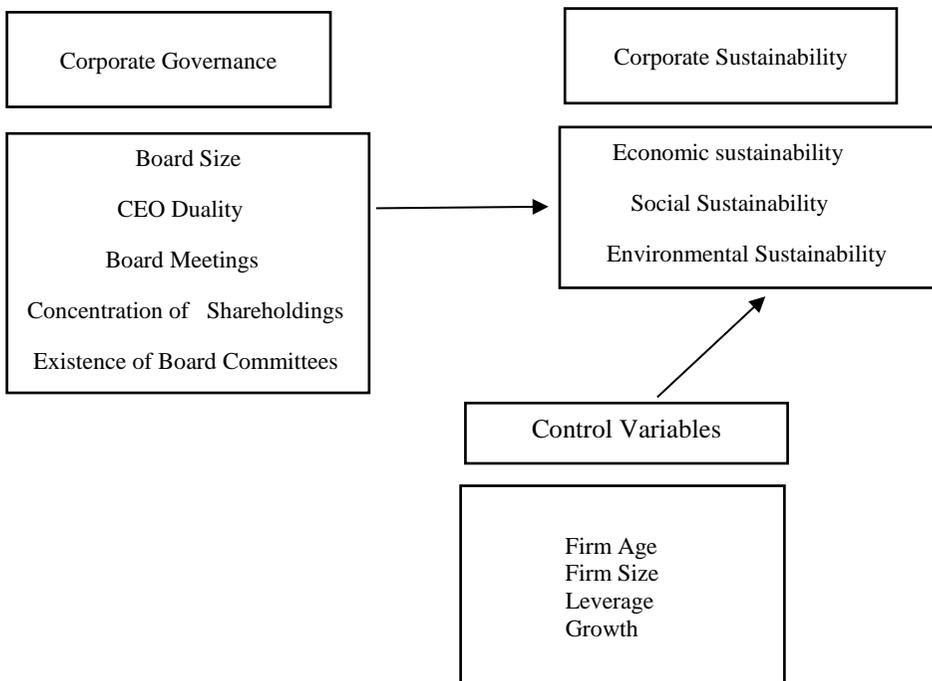


Figure 01: Conceptual Framework

There are five independent variables and one dependent variable in this analysis. As a result, the dependent variable of corporate sustainability is compared to the five independent variables of board size, CEO duality, board meetings, shareholding concentration, and board committee presence. The study chose Corporate Sustainability as the dependent variable by incorporating the triple bottom line principle of sustainability as economic, social, and environmental sustainability.

Table 02: Operationalization Table

Variables	Measurements	Author
Independent Variables		
Board Size	The number of directors on the board of directors as a whole.	Madhusanka et al (2018)
CEO Duality	A dummy variable is a variable that has no value. 1 if the Chairman is the CEO. Otherwise, 0.	Sarivudeen and Sheham (2013)
Board Meetings	The total number of meetings held by the board in the financial year.	Sarivudeen and Sheham (2013)
Concentration of Shareholdings	Top ten shareholders' shareholdings/total number of shares released	Madhusanka et al (2018)
Existence of Board Committees	A proportion of 3 major operating committees of the Audit Committee, Remuneration Committee, and Nomination Committee.	
Dependent Variable		
Corporate Sustainability	1. Economic Sustainability Performance = Product of economic Disclosure Index and Economic Sustainability Index 2. Environmental Sustainability Performance = Product of Environmental Disclosure Index and Environmental Sustainability Index 3. Social Sustainability Performance = The result of combining the Social Disclosure Index with the Social Sustainability Index.	Hussain et al (2016)
Control Variables		
Firm Age	Listing Age = Number of listed years.	Bandara et al (2018)
Firm Size	Firm size = measured as the logarithm of total assets.	Mahmood et al (2018)
Leverage	Leverage (LEV) Total debt/shareholders' equity	Michelon & Parbonetti (2010)
Growth	Sales Growth = Shift in net revenue as a percentage of the previous year.	Hussain et al (2016)

Source: By Author Constructed Based on the literature

According to the above operationalization table, it was analyzed previous researches that how they measured their variables to conduct their research. And this research has measured all variables according to the operationalization table.

3.4 Hypothesis of Study

This study has been used the following alternative hypothesis to support the objectives of the study.

H1: The size of a company's board of directors has a strong correlation with its long-term viability.

H2: The CEO Duality has a strong correlation with its long-term viability.

H3: The size of a company's Board Meetings has a strong correlation with its long-term viability.

H4: The Concentration of Shareholdings has a strong correlation with its long-term viability.

H5: The size of a company's Board Committees has a strong correlation with its long-term viability.

The main hypothesis of this study is there is a positive relationship between corporate governance and corporate sustainability. According to Sarivudeen & Sheham (2013) and Hashima et al (2015), there is a positive relationship between corporate governance and sustainability reporting, while Janggu et al (2015) say the opposite (2014).

This study uses four dimensions of sustainability; economic, social, environmental, and overall sustainability as dependent variables. Thus 04 models have been generated for this study numbered below as equations 1, 2, 3, and 4 respectively.

$$EC_{it} = \beta_0 + \beta_1 BM_{it} + \beta_2 BS_{it} + \beta_3 CD_{it} + \beta_4 CS_{it} + \beta_5 GW_{it} + \beta_6 LFA_{it} + \beta_7 LFS_{it} + \beta_8 LV_{it} + \beta_9 DBC_t + \varepsilon_{it} \dots \dots \dots (1)$$

$$EN_{it} = \beta_0 + \beta_1 BM_{it} + \beta_2 BS_{it} + \beta_3 CD_{it} + \beta_4 CS_{it} + \beta_5 GW_{it} + \beta_6 LFA_{it} + \beta_7 LFS_{it} + \beta_8 LV_{it} + \beta_9 DBC_t + \varepsilon_{it} \dots \dots \dots (2)$$

$$SO_{it} = \beta_0 + \beta_1 BM_{it} + \beta_2 BS_{it} + \beta_3 CD_{it} + \beta_4 CS_{it} + \beta_5 GW_{it} + \beta_6 LFA_{it} + \beta_7 LFS_{it} + \beta_8 LV_{it} + \beta_9 DBC_t + \varepsilon_{it} \dots \dots \dots (3)$$

$$OS_{it} = \beta_0 + \beta_1 BM_{it} + \beta_2 BS_{it} + \beta_3 CD_{it} + \beta_4 CS_{it} + \beta_5 GW_{it} + \beta_6 LFA_{it} + \beta_7 LFS_{it} + \beta_8 LV_{it} + \beta_9 DBC_t + \varepsilon_{it} \dots \dots \dots (4)$$

EC	=	Economic Sustainability
SO	=	Social Sustainability
EN	=	Environmental Sus:
OS	=	Overall Sustainability
BS	=	Board Size
CD	=	CEO Duality
BM	=	Board Meetings
CS	=	Concentration of Shareholdings
BC	=	Board Committees
LFA	=	Log of Firm Age
LFS	=	Log of Firm Size
LV	=	Leverage
GW	=	Growth
β	=	Coefficient
ϵ_{it}	=	Standard Error of the Sample firm i-time t

Data Analysis

Data were analyzed through Descriptive Analysis, Correlation, and Regression with the help of E-views software. Data Cleaning was done through Stationarity, Multicollinearity, Linearity, and Autocorrelation

4. FINDINGS AND DISCUSSION

4.1 Descriptive Statistics

Table 03 shows a list of descriptive data for both independent and dependent variables.

Table.03 Descriptive analysis of Independent Variables & Dependent Variables

	BC	BM	BS	CD	CS	EC	EN	OS	SO
Mean	2.660	7.705	8.470	0.400	0.828	0.537	0.241	0.390	0.392
Median	3.000	5.000	8.000	0.000	0.881	0.451	0.147	0.371	0.313
Maximum	3.000	19.00	14.00	1.000	0.999	0.999	1.000	0.955	1.000
Minimum	2.000	1.000	3.000	0.000	0.075	0.111	0.000	0.081	0.021
Std. Dev.	0.474	4.579	2.391	0.491	0.157	0.271	0.246	0.187	0.276
Skewness	-0.675	0.726	0.039	0.408	-1.427	0.363	1.763	0.951	0.670

Source: E views Data Output

It shows the average indicators of variables computed from the data collected. The board committees refer to the number of committees on the board of directors held considering the main 4 board committees in a company. The mean number of board committees held per year by a firm is 2.6600 or approximately 3. And the

highest the number of board meetings that were held per year by a firm is 3.000 and the minimum is 2.000. Similarly, the next corporate governance variable is the number of annual board meetings held by the company. The mean number of board meetings held per year by a firm is 7.7050 or approximately 8. And the highest number of board meetings held per year by a firm is 19.0000 and the minimum is 1.00 during this study period.

Further, the mean board size of the sample high capital listed firms in the study period is 8.4700. This means the mean the quantity of directors on the board of directors of listed high capital listed firms in Sri Lanka, under the period of study is around 8. The highest number of directors on the board of a firm in a particular year was 14.00 and in the same way, the minimum number of directors on the board for an industrial firm in a year was 3.00. The other independent variable, CEO duality means holding both the CEO position and chairman position of a company by one single person. The dummy variable, which is indicated as '1' if there is a separation of CEO and Chairperson. The final independent variable, Concentration of Shareholdings where it takes, as a number of the proportion of shares held by the top ten shareholders in relation to the total number of shares issued. In there, as the mean value is 0.8279, we can conclude that an average of 82% of shares in a company is held by major shareholders.

The Economic Sustainability variable has arrived as the number of economic rules complied by the firm to 9 economic rules of the GRI Index. The mean percentage of Economic Sustainability of a firm is 53.69%, meaning that from the 9 economic rules of the GRI Index an average of 53% has been followed by high capital listed firms in Sri Lanka. Furthermore, the Environmental Sustainability variable has arrived as the number of environmental rules complied by the firm to 34 environmental rules of the GRI Index. The mean percentage of environmental Sustainability of a firm is 24.13%, meaning that from the 34 environmental rules of the GRI Index an average of 24.13% has been followed by listed high capital firms in Sri Lanka. Similarly, the Social Sustainability variable has arrived as the number of Social rules complied by the firm to 48 Social rules of the GRI Index. The mean percentage of Social Sustainability of a firm is 39.18%, meaning that from the 48 Social rules of the GRI Index an average of 39.18% has been followed by high capital Sri Lankan companies that are publicly traded. And the highest percentage of Social rules of the GRI Index by a firm is 100% and the minimum is 2% during this study period.

The Overall Sustainability variable, has arrived as the mean of three Sustainability variables economic, social and environmental rules of the GRI Index. The mean percentage of Overall Sustainability of a firm is 39%. And the highest percentage of overall rules of the GRI Index by a firm is 95% and the minimum is 8% during this study period.

4.2 Correlation Analysis

Table 04: Correlation Analysis

	BM	BS	CD	CS	GW	LFA	LFS	LV	DBC
BM	1.0000	-0.0337	-0.0259	-0.4772	0.1584	-0.1740	0.6858	0.7235	0.0715
BS	-0.0337	1.0000	-0.3046	0.1181	-0.1027	0.1144	-0.0080	0.0752	0.1174
CD	-0.0259	-0.3046	1.0000	0.0205	0.0327	-0.0928	-0.1121	0.0835	0.0831
CS	-0.4772	0.1181	0.0205	1.0000	-0.0476	-0.0646	-0.2917	-0.3704	0.0097
GW	0.1584	-0.1027	0.0327	-0.0476	1.0000	-0.1239	0.1322	0.2034	0.0102
LFA	-0.1740	0.1144	-0.0928	-0.0646	-0.1239	1.0000	-0.2871	-0.1833	0.0404
LFS	0.6858	-0.0080	-0.1121	-0.2917	0.1322	-0.2871	1.0000	0.5966	0.0418
LV	0.7235	0.0752	0.0835	-0.3704	0.2034	-0.1833	0.5966	1.0000	0.0582
DBC	0.0715	0.1174	0.0831	0.0097	0.0102	0.0404	0.0418	0.0582	1.0000

Source: E views Data Output

Multicollinearity was assessed using a VIF value of 10 and a tolerance value of 0.1 in addition to the correlation matrix of independent variables. These tests revealed that the independent variables in the regression model did not have a multicollinearity singularity.

The correlation coefficients matrix of all the variables can be observed in table 4.3 above. It presents the correlation coefficient results of the variables. As observed, Board meetings and the board size were negatively associated ($r = -0.0336$). And there is a very weak correlation between CEO Duality and the board size because the r-value is between 0.00 and 0.30. CEO Duality and Board meetings were also very weak and negatively associated ($r = -0.0258$). Furthermore, we can see that the Concentration of Shareholdings is also negatively associated with Board meetings but a weak relationship can be observed as the r value lies between 0.30 – 0.60, ($r = -0.4772$). The r-value of 0.0715 suggests a very weak relationship between a number of board meetings and a number of board committees. Moreover, Board size shows a very weak and negative weak relationship with CEO duality and a positive relationship with Concentration of Shareholdings and number of board committees. Moreover, CEO duality shows a positive very weak

relationship with board meetings and board size while a positive weak relationship with board committees.

4.3 Regression Analysis

The panel regression results of the 04 models are shown in table 05.

According to table 05, every four models implied that all considered independent variables are explaining more than 60% of the dependent variables. Since Durbin Watson's measure is around 2.3 of each model, it is depicted that there is no autocorrelation among variables.

Table 05: Regression Model

	Model 01	Model 02	Model 03	Model 04
Variable	Coeff:	Coeff:	Coeff:	Coeff:
C	-3.951	0.403	1.749	-1.105
BM	0.044**	-0.011**	-0.049**	-0.001**
BS	0.023**	0.036**	-0.018**	0.015**
CD	0.124**	0.164**	-0.106**	0.074**
CS	3.245**	-0.544	0.253	0.970**
GW	-0.029	-0.002	-0.002	0.000
LFA	0.653**	-0.055	0.372**	0.344**
LFS	0.048	0.011	-0.143	0.010
LV	0.003	-0.009	-0.001	0.002
DBC	0.112	-0.157**	-0.064	-0.054
R-squared	0.6331	0.7617	0.6151	0.7120
Adjusted R-squared	0.4787	0.5966	0.3483	0.5124
F-statistic	2.4890	4.6124	4.6124	3.5672
Prob(F-statistic)	0.0000	0.0000	0.0002	0.0000
Durbin-Watson stat	2.3940	2.3488	2.3414	2.3736

Source: E views Data Output

** indicates 5% level of significance

Based on results the regression equations for each model can be derived as follows,

$$EC_{it} = -3.951367 + 0.043996 BM_{it} + 0.02334BS_{it} + 0.124498CD_{it} + 3.245071CS_{it} - 0.02873GW + 0.65253LFA_{it} + 0.048123LFS_{it} + 0.003095LV_{it} + 0.112171DBC_{it} \dots \dots \dots (1)$$

$$EN_{it} = 0.402994 - 0.011168 BM_{it} + 0.035949BS_{it} + 0.163857CD_{it} - 0.543565CS_{it} - 0.001775GW - 0.054694LFA_{it} + 0.011486LFS_{it} - 0.009004LV_{it} - 0.156861DBC_{it} \dots \dots \dots (2)$$

$$SO_{it} = 1.748839 - 0.049491 BM_{it} - 0.01774BS_{it} - 0.105655CD_{it} + 0.253101CS_{it} - 0.002434GW - 0.371888LFA_{it} - 0.142728LFS_{it} - 0.000797LV_{it} - 0.064146DBC_{it} \dots \dots \dots (3)$$

$$OS_{it} = -1.104967 - 0.001491 BM_{it} + 0.015331BS_{it} + 0.074259CD_{it} + 0.969621CS_{it} - 0.000122GW + 0.344324LFA_{it} + 0.009557LFS_{it} + 0.001888LV_{it} - 0.054378DBC_{it} \dots \dots \dots (4)$$

As per model 01, the Table represents the OLS panel regression results. R squared depicts the fitness of the model in explaining the economic sustainability of high capital firms listed in CSE. It is 63% as per the OLS panel regression results, implying that all considered independent variables; are explaining 63% of the dependent variable of the model.

The modified R-squared is an openness to experience of R-squared that links the explanatory capacity of regression models with various numbers of judges. The modified R2 shows the percentage of variance described by only the explanatory variables that influence the dependent variable. Adjusted will decrease as more impractical variables are added to a model, while adjusted R2 r-squared will increase as more useful variables are added. As a result, Adjusted R2 will never be greater than or equal to R2. The changed R2 in this model is 47 percent, which is lower than R2, which is 63 percent.

They will reject the null hypothesis and agree that the model provides a better fit than the intercept-only model if the Probability of the model (F Statistic) of the overall significance test is less than the level of significance of 95 percent confidence level. The overall model's likelihood (F Statistic) is 0.00046, indicating that it is important in assessing the economic sustainability of high-capital firms listed on the CSE.

Durbin - Watson Statistics is a tool for determining autocorrelation, which is defined as the correlation of a time series data with its previous and future values.

The values of the Durbin - Watson Statistics are always between 0 and 4. The value of 2 indicates that the sample does not contain any autocorrelation. Positive autocorrelation is indicated by values near 0, while negative autocorrelation is indicated by values near 4. Durbin Watson measure is 2.5 which detects the autocorrelation problem of the model since this measure is 2.3939 and in between 1.5 and 2.5, it is depicted that there is no autocorrelation among variables.

The board size was calculated using the number of directors on the board, according to the coefficient table is positively significant at a 5% significant level as the $p = 0.0146 < 0.05$ and $t = 2.463443 > 2.0000$. This result is consistent with some previous findings and contradicts some other studies that show a negative and insignificant association with board size. Halme and Huse (1997) have come across the same relationship as this study explains and have concluded that the size of a company's board of directors has a constructive and important association with its long-term viability. He is supported by the finding of Cheng and Courtenay (2006), who have studied the relationship of sustainability on Board size, Board independence, Board composition, and CEO duality. Since he also reveals that the size of the board of directors has a positive impact on corporate sustainability. However, the findings of Jo and Harjoto (2011), who clarify that there is no association between sustainability and board size, provide a conflicting argument point.

The number of board meetings is also is significant in the positive at 5% significant level as the $p = 0.0132 < 0.05$ and $t = 2.517615 > 2.0000$. This finding is the same as Jizi et al. (2014) explain but make contradictory points with some other literature like Giannarakis (2014b) and Giannakakos (2014a) who explains There is no connection between the number of board meetings and sustainability.

CEO duality was a dummy variable that was set to '1' if the CEO and Chairperson were separated. It was found to be positively important at the 5% significant stage, with $p=0.0190 < 0.05$ and $t = 2.3201 > 2.0000$. This is backed by a previous study by Jo and Harjoto (2011), who found a positive significant relationship between CEO duality and sustainability. However, previous literature by Cheng and Courtenay (2006), Al-Shammari and Al-Sultan (2010), Babo Arcay and Muino Vazquez (2005), and others has concluded that there is no connection between sustainability and CEO duality. However, Arussi et al. (2009) discovered a new element and concluded that they have a negative significant relationship.

Concentration of Shareholdings is positively significant at 5% significant level as the $p = 0.0007 < 0.05$ and $t = 3.5070 > 2.0000$. This finding makes an arguable point comparison to the previous findings that state The concentration of shareholdings has a negligible association with long-term sustainability. And finally, number of board committees is insignificant at 5% significant level as the $p = 0.4443 > 0.05$ and $t = 0.7684 < 2.0000$. Here the previous findings have discussed focusing on specific committees' relationships rather than all the committees as one. And discusses that the audit committee does not have a relationship and this was supported by Said et al. (2009) while Al -Shammari and they are supportive of this study findings. But Al-Sultan (2010) finds a positive relationship.

Although there is no need for a significant level of control variables used in study one of them, a number of listing years have a healthy, long-term relationship with the dependent variable, economic sustainability.

4.4 Hypothesis Testing

Table 06 Hypothesis Testing for Model 01

Hypothesis	Test	Result	Remarks
H1: There is a significant impact of board size on economic sustainability in high capital listed firms in Sri Lanka	Regression	Significant	Rejected
H2: There is a significant impact of CEO Duality on economic sustainability in high capital listed firms in Sri Lanka	Regression	Significant	Rejected
H3: There is a significant impact of Board Committees on economic sustainability in high capital listed firms in Sri Lanka	Regression	Insignificant	Accepted
H4: There is a significant impact of Board Meetings on economic sustainability in high capital listed firms in Sri Lanka	Regression	Significant	Rejected
H5: There is a significant impact of Concentration of Shareholdings on economic sustainability in high capital listed firms in Sri Lanka	Regression	Significant	Rejected

Source: Statistical Analysis Data (2020)

Table 07: Hypothesis Testing for Model 02

Hypothesis	Test	Result	Remarks
H₁ : There is a significant impact of board size on environmental sustainability in high capital listed firms in Sri Lanka	Regression	Significant	Rejected
H₂ : There is a significant impact of CEO Duality on environmental sustainability in high capital listed firms in Sri Lanka	Regression	Significant	Rejected
H₃ : There is a significant impact of Board Committees on environmental sustainability in high capital listed firms in Sri Lanka	Regression	Significant	Rejected
H₄ : There is a significant impact of Board Meetings on environmental sustainability in high capital listed firms in Sri Lanka	Regression	Significant	Rejected
H₅ : There is a significant impact of Concentration of Shareholdings on environmental sustainability in high capital listed firms in Sri Lanka	Regression	Significant	Rejected

Source: Statistical Analysis Data (2020)

Table 08: Hypothesis Testing for Model 03

Hypothesis	Test	Result	Remarks
H₁ : There is a significant impact of board size on social sustainability in high capital listed firms in Sri Lanka	Regression	Significant	Rejected
H₂ : There is a significant impact of CEO Duality on social sustainability in high capital listed firms in Sri Lanka	Regression	Significant	Rejected
H₃ : There is a significant impact of Board Committees on social sustainability in high capital listed firms in Sri Lanka	Regression	Insignificant	Accepted
H₄ : There is a significant impact of Board Meetings on social sustainability in high capital listed firms in Sri Lanka	Regression	Significant	Rejected
H₅ : There is a significant impact of Concentration of Shareholdings on social sustainability in high capital listed firms in Sri Lanka	Regression	Significant	Rejected

Source: Statistical Analysis Data (2020)

Table 09: Hypothesis Testing for Model 04

Hypothesis	Test	Result	Remarks
H1: There is a significant impact of board size on Overall sustainability in high capital listed firms in Sri Lanka	Regression	Significant	Rejected
H2: There is a significant impact of CEO Duality on Overall sustainability in high capital listed firms in Sri Lanka	Regression	Significant	Rejected
H3: There is a significant impact of Board Committees on Overall sustainability in high capital listed firms in Sri Lanka	Regression	Insignificant	Accepted
H4: There is a significant impact of Board Meetings on Overall sustainability in high capital listed firms in Sri Lanka	Regression	Significant	Rejected
H5: There is a significant impact of Concentration of Shareholdings on Overall sustainability in high capital listed firms in Sri Lanka	Regression	Significant	Rejected

Source: Statistical Analysis Data (2020)

Table 10: Summary of Findings

Objectives	Hypothesis	Findings
To investigate the connection between the size of a company's board of directors and the company's long-term viability.	H1 – Overall Sustainability	(+) Positive Relationship
	H11 – Economic Sustainability	(+) Positive Relationship
	H12 – Environmental Sustainability	(-) Negative Relationship
	H13 – Social Sustainability	(+) Positive Relationship
To investigate the connection between CEO Duality and a company's long-term viability.	H2 – Overall Sustainability	(+) Positive Relationship
	H21 – Economic Sustainability	(+) Positive Relationship
	H22 – Environmental Sustainability	(-) Negative Relationship
	H23 – Social Sustainability	(+) Positive Relationship
To investigate the connection between board meetings and a company's long-term viability.	H3 – Overall Sustainability	(+) Positive Relationship
	H31 – Economic Sustainability	(+) Positive Relationship
	H32 – Environmental Sustainability	(-) Negative Relationship
	H33 – Social Sustainability	(-) Negative Relationship
To investigate the connection between the concentration of shareholdings and the companies' long-term viability.	H4 – Overall Sustainability	(+) Positive Relationship
	H41 – Economic Sustainability	(-) Negative Relationship
	H42 – Environmental Sustainability	(+) Positive Relationship
	H43 – Social Sustainability	(+) Positive Relationship
To investigate the connection between the existence of board committees and the companies' long-term viability.	H5 – Overall Sustainability	(+) Positive Relationship
	H51 – Economic Sustainability	(-) Negative Relationship
	H52 – Environmental Sustainability	(-) Negative Relationship
	H53 – Social Sustainability	(-) Negative Relationship

Source: Constructed by Author

5. CONCLUSION

It has been determined that corporate governance and economic growth have a beneficial relationship. The concentration of Shareholdings, Board Meetings & Board Committees show a negative relationship with environmental sustainability while others show a positive impact. Meantime, board committees showed an insignificant relationship with social sustainability while others showed a negative impact. Board size, CEO duality and Concentration of Shareholdings are showed a positive relationship and Board meetings are showed a negative relationship while Board Committees is insignificant with overall sustainability.

The positive relationships existing with the independent variables; Board size, Concentration of Shareholdings, CEO duality, and board meetings are supportive to the stakeholder theory. Moreover, this research will help policymakers in organizations make better decisions. to have a big picture on the impact of each of their corporate governance characteristic with each of the sustainability dimensions of their organizations and to identify the corporate governance policies that they want to adhere with. At the same time this study finding help in government to make rules and regulations with regards to the social, economic, and environmental aspects. Finally, it can be concluded that to improve the corporate sustainability of an organization, adherence to corporate governance will be a great solution.

As this study has used only a sample of 50 listed companies the future researchers can include more companies in the sample to make the results more representative of the population. The study limited to use only the listed companies with high capital and future researches can address this limitation by including non-listed companies additionally. The study has covered only four years of period and future researches can include more years and extend the period.

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