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# DO BOARD CHARACTERISTICS INFLUENCE PERFORMANCES OF ORGANIZATIONS? EMPIRICAL EVIDENCE FROM NON FINANCIAL LISTED FIRMS IN SRI LANKA

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## ABSTRACT

This study designed to investigates the association between selected board characteristics and firm performances of organisations registered under non-financial firms in Colombo Stock Exchange. Accordingly, 174 companies have been used as sample over four years (2015 - 2018) with the main objectives of measure the levels of corporate governance and board characteristics of selected companies and examine its association. ROA and ROE used as the dependent variables of the study and Board characteristics index used as independent variables of the study and Board characteristics index used as independent variables while controlling for three variables (i.e., firm size, age and leverage). Results obtained via correlation analysis, OLS regression and, panel regression and which identified that there is a significant (p<0.1) association between the board characteristics and return on assets of the firms. Firm size and Leverage are the only control variables that become significant (p<0.01) in explaining the variation of firm performances. The study suggests vital managerial implications to policymakers in reforming and strengthen corporate governance guidelines in achieving higher firm performances.

Key Words: Firm performance, corporate governance, board characteristics

### 1. Introduction

In the face of scandals and financial crisis, corporate governance place a greater emphasis on many countries. Due to its significant importance, it has become a mandatory requirement in many economies in their corporate reporting which ensures protection of investors (Beiner, Drobetz, Schmid & Zimmerman 2004). Corporate governance ensures the trustworthy environment while keeping up a long term relationship between the organisation and all the stakeholders (Aras & Crowther, 2008). With the increasing frauds and misbehaviours of the management, investors demand for corporate governance becomes severe and then it turned out to be one of the main factors based on which investor decisions are vary (Aras & Crowther, 2008). Execution of corporate governance is a main responsibility of "agents" appointed by principals (i.e., shareholders or the owners of corporations). Board of directors are the main operators of corporate governance (Jensen & Meckling, 1976). It is believed that board of directors could have direct influence on corporate reporting of the organisation as well as the operational success (Jensen & Meckling, 1976). Accordingly there is a problem arisen whether corporate governance in terms of board characteristics have an influence on performance of organisations. It is noteworthy to research on the mentioned area since there is a dearth of studies prevails in this area in the context of Sri Lankan economy. Based on this background, this study conducted with two objectives in hand. First objective is to measures

### 2. Literature Review

This section presents the concepts used in the research, theories which build the relationship between concepts and empirical evidences of selected research area.

### 2.1 Review on theories of Corporate Governance

Good governance is vital for every aspect of the society and it supports to improve the faith and confidence of general public. At the face of limited resources, good governance help to promote the welfare of the society (Aras & Crowther, 2008). Under the wings of governance, corporate governance become prominent in most economies. Corporate governance is defined as "system by which companies are directed and controlled" by Cadbury (1992). The organization for Economic Co-Operation and Development (OECD, 1999) defines corporate governance as, "a group of relations, which organizes the framework among executive management, board of directors, stockholders and other related individuals".

After the first adaptation from Anglo - Saxon model, Sri Lankan corporate governance code has been undergone many reforms for the improvement of integrity, accountability, transparency and efficiency of the code (Senaratne & Gunaratne, 2009). Being in line with Cadbury (1992) of UK, Institute of Chartered Accountants of Sri Lanka developed its first code of best practice on corporate governance on 1997 covering only the financial aspects bearing the title of "Code of Best Practice on matters related to financial aspects of Corporate Governance". Later, new code was introduced by ICASL and SEC (Securities Exchange Commission) together and this code was incorporated in Colombo Stock Exchange listing rules.

Cadbury (1992) mentioned that, "board of directors are responsible for the governance of their companies" which implies that board of directors are the pilots of corporate governance mechanism. Moreover, "the responsibilities of the board include setting the company's strategic aims, providing the leadership to put them into effect, supervising the management of the business and reporting to shareholders on their stewardship" (Cadbury 1992). With above facts, it is evident that board of directors are the execution agents of corporate governances.

### 2.2 Theories Link between Corporate Governance and Financial Performances

According to Jensen and Meckling (1976) agency relationship is a contract between owners and managers. Under this contract, owners delegate their power of decision making to managers and hence creates the separation of ownership and management (Al-Shammari & Al-Sultan, 2010). Within this separation, conflict of interest can be arises since both parties urge to maximize their benefits. This conflict of interest cause to the "agency problem" which results in agency cost ultimately (Jensen & Meckling, 1976). One of the best ways to reduce the agency cost is the behavior of board of directors. Effective corporate governance reduces "control rights" of shareholders on managers by increasing the probability that managers invest in positive NPV projects (Shleifer and Vishny, 1997) which ultimately leads to enhance performances of the organisation. As per Gregory and Simms (1999), corporate governance increases the firm's responsiveness to the need of society and finally improves the long term performances. Black, Jang and Kim (2006) found a positive significant relationship between corporate governance and firm practices in various countries. Board size is an important element in making a difference in corporate performances, though extant literature was not consensus on this regard. Coles, Daniel and Naveen (2008) mentioned that higher the board size higher the firm performances. Contrary to this, Lipton and Lorsch (1992) argue that large board are less effective and it became difficult to coordinate, tackle and process strategic decisions of the organization. Mak and Yuanto (2003) who has used firms in Malaysia and Singapore as his sample, concluded that board size of 5 directors is the optimal size for an organisation to maximise it performances. Similar results found by Palaniappan (2017) who states that board size is an important determinant of financial performances of manufacturing sector firms of India, but this association deemed to be a negative one. This finding is confirmed by Gosh (2006) who spelled out that board size exerts a negative influence on performances. Rosensetein and Wyatt (1990) suggested that higher proportion of independent directors are leaded to excess return of the organisation. However, Bhagat and Black (2002) found no significant relationship between independent directors and financial performances. Agency theory favours in separation between roles of chairperson and CEO to reduce conflicts of interest. Klein (2002) stated that CEO duality supports to increase firm performances meanwhile Rechner and Dalton (1991) mentioned that it is healthy for a firm to have one person to hold both positions of CEO and board chair to increase its performances. Vafaei, Ahmed and Mather (2015) supported the argument on board diversity has considerable impact on firm performances. Furthermore, Hoque, Islam and Azam (2009) stated out that audit committee meetings and remuneration committee meetings has positive relationship with firms' ROE and ROA. Another interesting finding stated by Senanayake & Ajward 2017. As per their findings, existence of nomination committee has positively significant relationship with firm performances of firms in hospitality sector in Sri Lanka.

Evident from extant literature, it is noticeable that, board size, board independence, board meetings, CEO duality, women representation in the board, existence of nomination committee are commonly used hence those characteristics have been selected to use in the study. ROA and ROE are selected as proxies for firm performances since these measures have been widely used by many empirical research locally and internationally (Palaniappan 2017; Senanayake & Ajward 2017; Ghosh 2006)

The extant literature on board composition and firm performances are inconclusive. Results provided by various studies are mixed. Therefore, examination on the problem of board characteristics on firm performances is important with special reference to the non-financial listed firms in Sri Lanka. Moreover, it was noted that there is a dearth on the association exists between board characteristics on firm performances in non-financial listed firms in Sri Lanka. Therefore, the study is expected to contribute to the prevailing gap observed.

### 3. Methodology

This section provides information on research approach, population and sample, conceptual diagram, hypothesis and operationalization.

# 3.1 Research Approach

Similar to extant literature, the study used the quantitative research approach to investigate the hypothesized association (Dissanayake & Dissanayake 2019, Palaniappan 2017; Senanayake & Ajward 2017; Klein 2002).

# 3.2 Population, Study Sample and Data Collection Method

The population for this research consists of all non-financial companies listed on the Colombo Stock Exchange. As of 31st March 2018, 174 companies have been selected as the final sample for the period from 2015 to 2018. Thereby, 696 observation considered as the research sample covering the period based on information availability, the financial period ending 31st March and being listed throughout the selected period; and no biases were observed based on the omitted firms. All the information are collected from annual reports of selected companies under the content analysis.

## **3.3 Conceptual Framework**

Based on the comprehensive literature survey following conceptual framework has been developed.



Figure 1: Conceptual Framework

### 3.3 Operationalization

The following table elaborates the operationalization of each variable used in the study.

Variable	Variable Name	Measurement	Related Studies
Туре			
Independent	CG Index - Board	Use CG Disclosure Index	Thu, Khanh and Quyen
	Characteristics and its	(Section 3.3.1)	(2014);
	committees $(CG_{i,t})$		Cho and Chun (2015);
			Haldar and Rao (2013)
Dependent	Return on Equity	Net Income	Vafaei, Ahmed and
	$(ROE_{i,t})$	Shareholders 'Equity	Mather (2015)
Control	Firm size $(SZ_{i,t})$	Natural logarithm of total	Kuzey and Uyar (2017
Variables		assets for the firm i and	
		the end of period t.	
	Firm age	Number of years from	Bhatia and Tuli (2017, p.
	$(AG_{i,t})$	incorporation for the firm	330)
		i and until the end of the	

Table 1: Operationalization

	period t	
Leverage $(LEV_{i,,t})$	Total debt / Total equity	O'connel and Cramer
		(2010)

## Section 3.3.1

This section discusses the construction of CG index for firms listed in Colombo stock exchange except banks, finance and insurance sectors in Sri Lanka using information on board characteristics and its committees based on the survey mapping of preceding section. After identified these board characteristics, the below Table 2: Measurement of Corporate Governance Index summarized how to measure each characteristic to derive the composite value for each company as independent variable in this study. After that, each characteristic converted into binary figures (1 or 0) compared to the median value of each sector separately using dichotomous process (Each company's value is compared with the median value of the relevant sector and if the value is higher than the median, '1' assigned and otherwise '0'). (Haldar & Rao 2015).

Corporate	Measurement	Extant Literature	Dichotomous
Governance			Process
Characteristics			
Board size	Number of board	Mahmood et al. (2018);	"1" if the value >
$(BSIZE_{i,t})$	members in firm i for	Senanayake and Ajward	median and
	the period of t	(2017);	otherwise "0"
		Sakura De Silva et al.	
		(2017)	
Board	Number of independent	Mahmood et al. (2018);	"1" if the value >
Independence	directors in firm i for the	Senanayake and Ajward	median and
$(INDBD_{i,t})$	period of t	(2017);	otherwise "0"
		Sakura De Silva et al.	
		(2017)	
CEO Duality	"1" if CEO and	Senanayake and Ajward	"1" if CEO and
$(\text{CEOD}_{i,t})$	Chairman is the same	(2017); Sakura De Silva	Chairman is same
	person and otherwise	et al. (2017); Fuente et al.	person and
	"0" in firm i for the	(2017)	otherwise "0" in
	period of t		firm i for the
			period of t
Total Skill Base	"1" Number of directors	Senanayake and Ajward	"1" if the value >
of Directors	with MBA or higher	(2017); Sakura De Silva	median and
$(SKILLS_{i,t})$	qualifications and	et al. (2017); Janggu et al.	otherwise "0"
	professional	(2014)	
	qualifications related to		
	Business, Accounting		
	and Finance as		
	a proportion of the total		
	number of members on		
	the Board and otherwise		
	"0" for the firm i and		
	period t.		
CEO Tenure	"1" if the CEO has one	Ali and Zhang (2015);	"1" if the CEO has
$(\text{CEOTEN}_{i,t})$	year or less to end his	Isidro and Goncalves	one year or less to

Table 2: Measurement of Corporate Governance Index

	mandate and otherwise	(2011)	end his mandate
	"0" in firm i for the		and otherwise "0"
	period of t		in firm i for the
			period of t
Women on	Number of Women on	Mahmood et al. (2018);	"1" if the value >
Board	Board in firm i for the	Senanayake and Ajward	median and
$(WOBD_{i,t})$	period of t	(2017);	otherwise "0"
		Sakura De Silva et al.	
		(2017)	
Number of	Number of Board	Senanayake and Ajward	"1" if the value >
Board Meetings	meetings in from I for	(2017); Sakura De Silva	median and
$(BDMEE_{i,t})$	the period of t	et al. (2017); Fuente et al.	otherwise "0"
		(2017)	
Independence of	Number of Independent	Sakura De Silva et al.	"1" if the value >
Audit	directors in firm i for the	(2017); Abbadi et al.	median and
Committee	period of t	(2016)	otherwise "0"
$(\text{ACIND}_{i,t})$			
Audit	Number of Audit	Sakura De Silva et al.	"1" if the value >
Committee Size	Committee Members in	(2017); Almasarwah	median and
$(ACSIZE_{i,t})$	firm i for the period of t	(2015)	otherwise "0"
Audit	Number of Audit	Sakura De Silva et al.	"1" if the value >
Committee	committee meetings in	(2017); Abbadi et al.	median and
Meetings	firm i for the period of t	(2016)	otherwise "0"
$(\text{ACMEET}_{i,t})$			
Nomination	"1" if existence of	Senanayake and Ajward	"1" if existence of
Committee	Nomination committee	(2017); Abbadi et al.	Nomination
(NCOMM <sub><i>i</i>,<i>t</i></sub> )	and otherwise "0"	(2016)	committee and
			otherwise "0"

### **3.4 Hypotheses**

From the extant literature, following hypotheses were developed.

H1: There is a significant association between Board Characteristics on Firm Performance (ROE / ROA)

H0: There is no significant association between Board Characteristics on Firm Performance (ROE / ROA)

### **3.5 Analytical Strategies**

Descriptive statistics of variables will be calculated in order to achieve the first objective of the research; measure the level of corporate governance in terms of board characteristics and firm's performances. Central tendencies and dispersion in relation to above mentioned variables will be presented under this analytical strategy. Correlation and multivariate regression analysis will be performed to achieve the second objective, i.e., assessing the relationship between board characteristics and firm's performances. Since the study uses panel data, panel regression will be used to achieve the same objective by controlling fixed and random effects. Statistical analysis package of Stata 12.0 used in the study to execute aforesaid strategies. Model 1 for ROA and Model 2 for ROE are developed as follows:

 $ROA_{i,t} / ROE_{i,t} = \propto + \beta_1 CG + \beta_2 SZ_{i,t} + \beta_3 AG_{i,t} + \beta_4 LEV_{i,t} + \varepsilon_{i,t}$ 

### 4. Findings

This section includes the findings of aforesaid analytical strategies followed by a relevant discussion. Missing data analysis has performed and no major missing values identified which leads to biasness. All the outliers have been treated through winsorization at 0.1 level. Diagnostic tests included normality, multi -collinearity, heteroscedasticity and linearity were performed and no significant anomalies observed.

### **4.1 Descriptive Statistics**

As shown in Table 3, average of ROA is 0.0557 and ROE 0.0481 which possess a considerable standard deviation. This represents the differences prevails in ROA and ROE among companies in the listed non-financial firms. The corporate governance is an independent variable of this study and is computed based on corporate governance index including eleven (11) board characteristics (Table 1). In terms of board characteristics index (CGi.t), the average value found to be 0.508 of the 174 all non-financial companies for the period 2014 to 2017 and it varies between 25% to 75%. Thus, there is enough evidence to prove that on average, 50.5% listed firms are complied to corporate governance practices in Sri Lanka.

According to statistics, the average number of board members (BSIZEi,t) in the board is approximately 8 in Sri Lanka and the maximum recorded as 15. The least number of board of directors in this regard is 03. Independence of board (INDBDi,t) reported to be 66.8% which can be noticed as a good average. Number of board meetings (BDMEEi,t) as the proxy of board activity, is 5 which held annually by board of directors. As per the code of best practice on corporate governance in Sri Lanka, there should be at least one meeting per quarter hence four meetings need to be held per annum as minimum requirement. In that context, average of 5 is above the minimum requirement and considerably good sign on board activities. In the selected sample for the period of 2014 to 2017, separation of CEO duality (CEODi,t) is 45.5% This indicates that more than 55% of companies in the sample have a chairman who acts as CEO of the company too.

Statistics reveals that there is only 6.9% Women representation (WOBD i,t) among non-financial firms in Sri Lanka and it seems to be very less compared to some developed countries. Apart from that, there are companies that do not have any female representation in the board as well. According to the code of best practise on Corporate Governance, composition of audit committee (ACSIZEi,t) should be three non-executive directors and the results of this study shows it is approximately around 3.

Number of meetings of audit committee (ACMEETi,t) on average is 4 and this is par with the minimum requirement spelled out in the code. 81.4% directors in the audit committee are independent and it is good sign of independence (ACINDi,t). Statistics of CEO tenure (CEOTENi,t) (average = 0) suggests that majority of the CEOs are not new to their position and held the position for more than three years. Expertise of board (SKILLSi,t) is impressive since it is near to 4 members and this suggests that Sri Lanka tends to recruit board members who possess MBA or higher qualification and professional qualification in business, accounting and finance related fields. In the selected sample which consists of 16 sectors, only 57.7% companies have nomination committee (NCOMMi,t).However all most all the companies in the sample has remuneration committee (RCOMM i,t).

	Ν	Minimum	Maximum	Mean	Std. Deviation
$ROA_{i,t}$	696	-2.99	1.07	.055	.191
$ROE_{i,t}$	696	-30.60	1.14	.048	1.210
CG Index <sub>i,t</sub>	696	.25	0.75	.508	.113
$BSIZE_{i,t}$	696	3	14	8.194	2.17
$INDBD_{i,t}$	696	.222	1	.669	.19
$BDMEE_{i,t}$	696	2	14	5.102	2.57
$CEOD_{i,t}$	696	0	1	.443	.49
WOBD $_{i,t}$	696	0	.556	.069	.10
EACOM <sub>i,t</sub>	696	1	1	1	0
$ACSIZE_{i,t}$	696	1	5	3.138	.75
ACMEE <sub>i,t</sub>	696	1	12	4.105	1.49
$ACIND_{i,t}$	696	.333	1	.815	.17
CEOTEN <sub>i,t</sub>	696	0	1	.023	.15
SKILLS i,t	696	0	10	4.04	2.40
NCOMM <sub>i,t</sub>	696	0	1	.572	.495
RCOMM <sub>i,t</sub>	696	0	1	.98	.14
$SZ_{i,t}$	696	15.90	25.48	21.65	1.47
$AG_{i,t}$	696	3.00	173.00	47.71	36.13
$LEV_{i,t}$	696	-4.25	1.66	.32	.29

Table 3: Descriptive Statistics

\* Sample of 174 companies

### 4.2 Correlation Analysis

The Table 4 shows the results of correlation analysis. As shown in table, there is a significant (p<0.1) positive association between board characteristics (*CG Index*<sub>,t</sub>) and (ROA<sub>i,t</sub>) as well as (*ROE*<sub>i,t</sub>) of the listed non-financial companies in Sri Lanka. Further, there is a significant (p<0.01) positive association between *ROA*<sub>i,t</sub> and *ROE*<sub>i,t</sub> of the firms. In terms of the control variables firm size (*SZ*<sub>i,t</sub>) and leverage (*LEV*<sub>i,t</sub>) have a significant (p<0.01) association in between return on assets (*ROA*<sub>i,t</sub>).

Table 4: Correlation Analysis						
	ROA	ROE	CG	SZ	AG	LEV
$ROA_{i,t}$	1					
$ROE_{i,t}$	$.778^{***}$	1				
CG Index <sub>i,t</sub>	$.048^{*}$	$.010^{*}$	1			
$SZ_{i,t}$	.103***	011	.255***	1		
$AG_{i,t}$	.007	049	.153***	.204***	1	
$LEV_{i,t}$	149***	064	074	013	119***	1

For the sample of 174 firms

\**p*<0.1; \*\**p*<0.05; \*\*\* *p*<0.01

#### 4.2 Regression Analysis

The following Tables (Table 5 and 6) show the OLS linear regression and panel regression analysis of the two dependent variables as Model 1 and Model 2.

Models	ROA (Model 1)			ROE (Model 2)		
-	Coeff.	Std. Error	VIF	Coeff.	Std. Error	VIF
CG Index <sub>i,t</sub>	$0.026^{*}$	0.066	1.84	0.152	0.420	1.06
$SZ_{i,t}$	$0.014^{***}$	0.005	1.62	-0.003	0.420	1.09
$AG_{it}$	0.001	0.002	1.63	-0.002	0.001	1.08
$LEV_{i,t}$	-0.097***	0.024	1.51	-0.285	0.155	1.05
F Value		6.023**** 1.30				1.309
Adjusted R <sup>2</sup>	0.184 0.08				0.087	
N	696 696				696	

Table 5: Regression Analysis

For the sample of 174 firms

\**p*<0.1; \*\**p*<0.05; \*\*\* *p*<0.01

According to the multivariate analysis in Model 1, board characteristics has a significant influence (p<0.1) over (*CG Index*<sub>*i*,*t*</sub>) and return on assets (*ROA*<sub>*i*,*t*</sub>) of the firms. Moreover, similar to the correlation analysis, firm size (*SZ*<sub>*i*,*t*</sub>) and leverage (*LEV*<sub>*i*,*t*</sub>) has a considerable impact (p<0.01) over return on assets (*ROA*<sub>*i*,*t*</sub>) However, leverage negatively influence firm performances. Further, according to Model 2 of OLS regression analysis, board governance characteristics does not showcase any systematic relationship with ROE and so as the control variables.

As an additional analysis, the panel regression was carried out on the two dependent variables and results show in Table 6.

Table 6: Panel Regression Analysis						
Models	ROA (Moo	ROA (Model 1)		lel 2)		
	Coeff.	Std. Error	Coeff.	Std. Error		
CG Index <sub>i,t</sub>	0.114*	0.067	0.206	0.124		
$SZ_{i,t}$	0.013	0.010	0.243	0.019		
$AG_{i,t}$	0.001	0.001	0.002	0.002		
$LEV_{i,t}$	-0.114***	0.020	-0.079	0.037		
F Value		9.04***		2.77***		
Prob>chi2		0.0009		0.0001		
Ν		696		696		

For the sample of 174 firms

\**p*<0.1; \*\**p*<0.05; \*\*\* *p*<0.01

Panel regression showcases similar results to OLS regression analysis. The Model 1 of panel regression which used return on assets as a dependent variable shows that there is a significant (p<0.1) association between board characteristics (*CG Index*<sub>*i*,*t*</sub>) and return on assets (*ROA*<sub>*i*,*t*</sub>) of the firms. Further, firm leverage (*LEV*<sub>*i*,*t*</sub>) identified to have a significant (p<0.01) negative impact on return on assets (*ROA*<sub>*i*,*t*</sub>) of the firms. Even though the overall Model 2 is significant in explaining the association between ROE and board governance characteristics, no systematic relationship can be seen among those variables.

### 5. Discussion

Level of financial performances in terms of ROA is 0.055 and ROE is 0.048 on average. These levels are slightly less than the levels stated by Senanayake and Ajward (2017) who found 0.0687 and 0.0757 for ROA and ROE respectively. The main reason for the difference

is that they have used only the hotel sector in Sri Lanka where the study presented the level of performances for all the non-financial corporations.

The board size (*BSIZE i,t*) is 8 on average and its ranges from 3 to 14. Similarly, the recent study of De Silva, Manawaduge and Ajward (2017) identified that board consist of eight board members in Sri Lankan listed firms However, this finding observed to be low compared to extant literature which suggest eleven members on board (Fuente et al., 2017). Further, the board independence (*INDBD i,t*) is 66.9% while extant literature suggests 51% among US firms by Al-Shaer and Zaman (2016) and averagely 6 members from 8 are independent among hotel sector in Sri Lanka (Senanayke & Ajward, 2017). However, this level complies with governance code of Sri Lanka which recommend holding one third of independent directors in the board.

There are five board meetings (*BDMEE i*, t) conducted by the selected listed firms, which is in compliance with the baseline requirements of the code of best practices and it shows the consistent result with De Silva, Manawaduge and Ajward (2017) who reported 6 meetings per annum. Further, 44.3% of firms are observed to have CEO Duality (CEOD i,t). However, this result inconsistent with De Silva, Manawaduge and Ajward (2017) since they identified 85% of CEO duality based on the sample of manufacturing companies. Chau and Gray (2010) reported 54% of CEO duality for a sample size of 298 in Hong Kong and according to Allegrini and Greco (2013), CEO duality among US company is comparatively high. On the other hand, there is a 6.9% female representation in the board (WOBD i,t) and it is quite low compared to other South Asian Countries such as Bangladesh where it is 17.38% among nonfinance listed companies (Muttakin, Khan & Subramaniam, 2015). The level of of female directors in Sri Lanka is quite low compared to Canadian listed companies where women hold 16% of seats in the board. It is evident that Sri Lanka reported a low level of female representation on board and this is quite low compared to other developed contexts. Further, on average most of the companies have the audit committee (EACOM i,t) as a compliance of the code of corporate governance in Sri Lanka. Thus, this results consistent with Senanayake and Ajward (2017) since they recorded mean value is 1 for the existence of audit committee. There are three audit committee members (ACSIZE i, t) in selected firms and its ranges from 1 to 5. According to code of best practise on Corporate Governance, composition of audit committee (ACSIZE*i*,*t*) should be at least three non-executive directors and the finding is par with the governance best practice as well. This result is almost similar to (De Silva, Manawaduge & Ajward, 2017). And According to Appuhami and Tashakor (2016), average audit committee size is 3 and on average 84% of companies have three directors in audit committees among Australian listed entities. Madi, Ishak and Manaf (2014), reported that frequency of audit committee meetings among selected 146 companies in Malaysia is 5 times per annum which is slightly higher than number of board meetings in the Sri Lankan context which found as 4. Among listed companies in Bahrain, there are 3 independent directors in audit committee while 75.6% of listed Australian companies have audit committees consisting of directors where majority are independent directors (Appuhami and Tashakor 2016). 81.5% audit committee independence (ACIND i,t) ensured in selected companies in the study and this results is proved by De Silva, Manawaduge and Ajward (2017) as they identified four members in the audit committee and among them on average, three members are independent.

Mean value for CEO Tenure in the study is 0.023 representing most of CEOs in Sri Lankan listed companies are not new to their position whereas according to Lewis, Walls and Dowell (2014), it is 0.48 for 589 companies and 2157 firm year observations. Thereby it is discernible that majority of Sri Lankan CEOs have long tenure in their position. Approximately, 4 directors in the board are equipped with expertise knowledge on areas of business, accounting

or finance. According to Senanayake and Ajward (2017), 57% of directors have expertise in the fields of accounting, finance and business in hospitality sector of Sri Lanka and this finding is consistent with the level recorded by the research. Code of best practice on corporate governance of Sri Lanka also encourages to have expertise directors on board and company should disclose it in annual report (Institute of Chartered Accountants of Sri Lanka 2017, p. 12). As per the study results, the level of skill base of directors is at moderate level and it need to be improved more. Average percentage for nomination committee is 57.7% and it is quite a higher value considered to the findings of Senanayake and Ajward (2017) where they found it is only 24% among hospitality sector. However, the research finding is contrary to the code of best practice of corporate governance where it encourages to have nomination committees could not find in almost all the corporations, 98% of companies in the sample possesses a remuneration committee and these results consistent with (Senanayake & Ajward, 2017) who stated that almost all the corporations in hotel sector in Sri Lanka has remuneration committee.

The study used a composite measurement for board governance characteristics rather taking them individually to seek out the association with firm performances. Even though extant literature is limited for a composite measurement of board characteristic index due to the dearth of using indexes in similar scope of study, literature for individual characteristics provide sufficient evidences for the research findings. Positive relationship between board size, board composition and CEO duality with ROA and ROE is found out by Ajanthan (2013) while Muchemwa, Padia and Callaghan (2016) reported a positive relationship between non-executive directors and ROE of firms. Same results obtained by Oconnel and Cramer (2010) as well. Studies of Vafaei, Ahmed and Mather (2015) and Talijaard, Ward and Muller (2015) presented that board diversity positively influences firm performances. Ujunwa (2012) also argued that gender diversity in board positively associated with firm performances. Further, Palaniappan (2017), Rosensetein and Wyatt (1990), Rechner and Dalton (1991) stated that there is a positive association lies between board size, board independence, CEO duality and firm performances. Senanayake and Ajward (2017) who investigated the relationship with board characteristics and firm's performances in hospitality sector, Sri Lanka also presented important findings in their study. According to them, CEO duality, women representation in board, total skill base of directors and existence of nomination committee showcase positive association with firm performances. Gaur, Bathula and Singh (2015) who used listed firms in New Zealand concluded that presence of independent directors, CEO duality, board size and presence of professional directors on board always lead to higher performances of companies. However, the findings of the study are contradictory to Rodríguez-Fernández (2015) who stated a negative association between board size and firm performances meanwhile Tsogtbaatar (2014) reported tha outside directors showcase a negative relationship with hotel performances in non-family hotels. Similarly, Jeramias and Gani (2014) concluded that there is a negative impact of CEO duality and firm performances. In contrast to findings of the research, Borlea, Achim and Mare (2016) stated out that proportionate between executive and non-executive directors, board independence, nomination committee and remuneration committee do not any show any association with form performances measured by ROA and Tobin's Q.

The study finding regarding to leverage which recorded a significant negative impact on firm's performances is contrary to the findings of Palaniappan (2017) who concluded his study with no significant relationship between leverage and firm's performances. However,

the findings of the study is consistent with Opler and Titman (1994) who investigated on high leverage companies and revealed that, those companies are more likely to be financially distressed and lose in terms of operations and sales in situations of economic downturns. Similarly, Lang et al. (1996), Aivazian et al. (2005), Ahn et al. (2006), and Cai and Zhang (2011) also found negative relationships between leverage and firm performances. In Sri Lankan context, it is evident that firm size matters to firm performances in a positive way. This finding is consistent with Hong, Oxley, McCann and Le (2016) who found out a systematic positive association between firm size in new Zeland and performances of the company. However, this result does not agree with Hall (1987), who stated that that firm size is not a determinant of firm growth among the manufacturing companies in USA. Similarly, insignificant association between firm age and firm performances is consistent with the finding of Senanayake and Ajward (2017) since no systematic association was evident among aforesaid variable in the hotel sector in Sri Lanka.

#### 6. Conclusion and Implications

This study aimed to investigate the influence of corporate governance in terms of board characteristics on firm's performances relevant to the context of all non-finance firms registered in Colombo Stock Exchange in Sri Lanka. A sample of 174 companies listed have been analysed for four years using correlation, OLS and panel regression. With the findings, it was evident that corporate governance possesses a significant association with ROA (under the OLS regression and panel regression analysis). Moreover, firm size (under the OLS regression) and leverage (under the OLS regression and panel regression analysis) significantly influence the board characteristics of the non-financial firms in Sri Lanka. Thereby, alternative hypothesis is supported under the Model 1 which used return on assets as a dependent variable of the study.

There are several implications arisen from study and contribute to development of corporate governance practices in Sri Lanka. Specially, policy makers could take necessary actions to enhance policies for promote corporate governance mechanism to enhance the firm performance in ethical manner. These findings may stimulate policy makers to seek possible causes for this relationship and use them to strengthen the corporate governance guidelines which eventually pave path to enhance firm's performances. This study has certain limitations as the study limited to listed corporations in Sri Lanka upon the fact of convenient access to reliable information. However, majority of firms in the country are private limited corporations.

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