# The Relationship between Board Characteristics and Firm Performance of Sri Lankan Listed Companies

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#### **Abstract**

Many studies carried out to investigate the link between board characteristics and firm performance in developed countries. The empirical evidence on this area is very thin in Sri Lanka being a developing country. Hence this study was undertaken with the intension of fulfilling the gap. The study examines the impact of board characteristics on firm performance of Sri Lankan listed companies. This study employs a cross sectional analysis of 116 firms as sample of listed companies in Colombo Stock Exchange for the financial year ending 2013 and multivariate analyses are used to test the proposed hypotheses. The board characteristics variables being the independent variables and firm performance variable being the dependent variable are tested under regression model. The results of the study show that board size and CEO duality are significantly negatively associated with ROA. The study also documents that board independence is negatively related with ROA and director ownership is positively related with ROA but both are not significant. Furthermore, control variables of firm size and dividend yield are significantly positively linked with ROA and leverage is negatively related with ROA though not significant. The findings of the study indicate mixed results which are in consistent with empirical evidence of developed nation.

Keywords: corporate governance, board of directors, board characteristics, firm performance, ROA,

## Introduction

Corporate governance has been an important subject of academic research and policy disclosure in countries around the world. The increasing importance of corporate governance mechanism comes from a large body of empirical and theoretical research which highlights the corporate governance systems matter in the profitability and growth of corporation. Governance system influences output and investment decisions of firms through several channels which include ownership and control structure, development of financial intermediaries and capital markets, corporate financing, investment pattern, investment protection and creditor rights.

A board of directors is a body chosen or appointed members who jointly supervise the activities of a company. The board of directors acts as one of the most important governance mechanisms in aligning the interest of managers and shareholders. The board is charged with the task of monitoring the performance and activities of top management to confirm that the latter acts in the best interests of the owners (Jensen and Meckling, 1976). Based on this view, boards have a potential critical role to play in mitigating agency problems arising from the universal separation of firm ownership from control (Fama, 1980; Jensen, 1993; Shleifer and Vishny, 1997). Furthermore, Ruigrok et al, (2006) state that boards also have important roles to play with respect to activities such as designing and implementing strategies and fostering links between the firms and its external environment. Given their comprehensive tasks therefore, it seems believable that board may positively or negatively impact firm performance.

The board is a key element in corporate governance system that monitors and instructs management in carrying responsibility to protect and increase shareholders' wealth (Fama and Jensen, 1983). In the recent past, the board has been largely criticized for the decline in shareholders' wealth and corporate failure. They have been in the spotlight for the fraud cases that has resulted in the failure of major corporations, for example, Enron, WorldCom and Global Crossing. Some of the reasons stated for those corporate failures are the lack of vigilant mistake functions by the board of directors, the board surrendering control to corporate managers who pursue their own self-interests and the board being negligent in its accountability to stakeholders. As a result, various corporate governance reforms have specially emphasized on appropriate changes to be made to the board of directors in terms of its composition, structure and ownership configuration. In Sri Lanka, the newly amended

code of best practice on corporate governance 2013 was issued by the Institute of Chartered Accountants of Sri Lanka and Securities and Exchange Commission. The code proposes that the board to have a balance of executive and Non-executive directors such that no individual or small group of individuals can dominate the board's decision-taking. And also, recommends that the role of the chairman and the CEO should not hold by the same person to ensure the balance of power and authority.

Many studies on corporate governance and firm performance were carried out in the developed countries such as USA, UK, Japan, Germany and France (Yermack, 1996; Hampel, 1998; Higgs, 2003: Dahya and Mc Connell, 2003). In addition, some other studies have been done in South East Asian countries, for example, Malaysia, Indonesia and Singapore (Abdullah, 2004; Zubaidah et al., 2009; Gazzaly, 2010). Studies relating to the effect between board characteristics and firm performances are not conclusive in nature. For example, Dalton et al., (1998), Weir and laing (1999), Weir et al., (2002) found slight evidence to recommend that board characteristics affect firm performance. Conversely, some studies have found a positive association between certain board characteristics and firm performance (Bhagat and Black, 1999; Keil & Nicholson, 2003; Bonn, 2004). Despite magnitude of corporate governance around the world, there have been very limited studies pertaining to the effect of corporate governance variables such as board characteristics and on firm performance in Sri Lanka except the study carried out by Fernando in 2007. In similar perspective, some other researchers have done

The objective of this study is to examine the impact of the characteristics of board of directors and firm performance in listed companies in Sri Lanka.

study in relation to the corporate governance practices, ownership structure and firm performances for selected sectors in Sri Lanka (Senarathne and Gunaratne, 2007; Kajananthan, 2012). To boom the search light on this

## Literature review and hypotheses development

### Non-Executive director and firm performance

gap has primarily necessitated this study.

Existing work in the analytical agency tradition (e.g., Stiles and Taylor, 2001) suggests that a higher proportion of outside directors should be associated with stronger financial performance. Zubaidah et al (2009) found that independent non-executive directors contribute significantly in the long term performance of the company. In addition, Dehaenc et al (2001) concluded that there was a significant positive relationship between the independent directors' percentage in a firm and return on equity (ROE) among Belgian companies. O'Connell and Creamer (2010) found that there was a positive and significant association between the percentage of non-executive directors on the board and firm performance. Furthermore, Dahya and McConnell (2005) found the same results in the UK firms. The appointment of financial outside directors to a public corporation is associated with positive abnormal return among medium size companies (Lee et al, 1999).

On the other hand, Agrawal and Knoeber (1996) found a significant negative relationship between outside board members and firm performance. This result is also supported by Bhagat and Black (1999) with the findings of firms having more outside directors performs poorer than other firms. Empirically, research on non-executive director in relation to firm performance is inconsistent. Therefore, the hypothesis can be formulated as follows:

H<sub>1</sub>: There is positive relationship between the percentage of independent non-executive director and firm performance.

## Board size and firm performance

Agency theory suggests that a larger number of directors in the board are more likely to be vigilant for agency problems because of greater number of people will be involving in management activities in an organization. However, one of the agency theorists, Jensen (1993) suggested that board members limit at around eight directors. Hermalin and Weisbach (1991) concluded that board size is negatively related to firm performance. Similarly, in a research conducted among small and medium size companies in Finland by Eisenberg, Sundgren and Wells (1998), it was found out that there was a significant negative correlation between board size and profitability. Furthermore, Mak and Kusnadi (2005) also supported the above results through their studies. Yermack (1996) found a strong negative relationship between size of board and firm performance as measured by Tobins" Q. He also exhibited those companies having small boards have more favorable financial ratios. In similar perspective, Conyon and Peck (1998) cited that there was a weak inverse relationship between board size and market based firm performance. In contrast, Zubaidah et al

(2009) found that board size has a positive impact on firm performance with a sample of 75 listed companies in Bursa Malaysia. Therefore, the hypothesis can be formulated as follows:

H<sub>2</sub>: There is a negative relationship between board size and firm performance.

## CEO duality and firm performance

One of the important monitoring systems supported by the agency perspective is the separation of the roles of CEO from that of a chairman in a firm. When the chairman of a board also plays the role of the CEO, there is every likely hood that this may result in what is called role conflict in that particular firm. In contrast, an independent chairman is believed to effectively and efficiently monitor and control CEO and other management activities to maximize the shareholders' wealth. Agency theorists argue that chairman and CEO should be separated, as this has the potential to increase the effectiveness of board monitoring (Finkelstein and D' Aveni, 1994). Yermack (1996) highlighted that firm performance was higher when the CEO's and the chairman's positions are held by two different people. In addition, Fosberg and Nelson (1999) found that the firm with separated roles between the CEO and the chairman yield a significant development in firm performance. In similar view, Fooladi (2012) concluded that CEO duality has inverse association with firm performance (ROE and ROA). On the other hand, Dehaene et al. (2001) found that when both roles were combined, there was a positive relationship between duality and firm performance. In addition, some other studies concluded that there was no significant association between CEO duality and firm performance (Zubaidah et al, 2009; Shukeri et al, 2012). Therefore, the hypothesis can be formulated as follows:

H<sub>3</sub>: There is negative relationship between CEO duality and firm performance.

#### Director ownership and firm performance

Management ownership is also an important factor, because it has the tendency to reduce conflict between manager and shareholder. If the directors hold the stock in the same company they become owners themselves and can direct and control the company management (Jensen and Mackling, 1976). When the board of directors holds part of the firm's share, their interests affiliates the interests of other shareholders and they are less likely to involve in opportunistic behavior (Zubaidah et al., 2009). Therefore, it can be concluded that directors' ownership has negative association with agency conflict and as a result, a positive association with firm performance. Han and Suk (1998) documented that increase in director ownership led to improved corporate performance, however, extreme insider ownership caused in poorer corporate performance, suggesting a managerial entrenchment outcome. Furthermore, some other studies found that there was no significant linked between ownership structure and firm performance (Fooladi, 2012; Zubaidah et al, 2009). Therefore, the hypothesis can be formulated as follows:

H<sub>4</sub>: There is a positive relationship between directors' ownership and firm performance.

## **Data and Research Method**

## Data and Sample

The data use in the form of secondary data. The data and information for this study collected from the Colombo Stock Exchange (CSE) websites, annual reports, journals and CSE publications.

The total listed companies in the CSE contained 293 companies in 2013 have been categories under 20 different sectors. The sample consists of 116 non-financial public listed companies in Sri Lanka whose annual reports are available in 2013.

### Research Model

A cross - sectional ordinary least square regression model used test the developed hypotheses for this study. The regression model utilized to test the relationship between the board characteristics and firm performance are as follows:

Firm Performance =  $\alpha + \beta_1$  Board Independence +  $\beta_2$  Board Size +  $\beta_3$  CEO Duality +  $\beta_4$  Director Ownership +  $\beta_5$  Firm Size +  $\beta_6$  Leverage +  $\beta_7$  Dividend Yield + ei

#### Variables and Descriptions

The variables for the study were chosen based on data availability and computational purposes.

Firm performance variables

Return on Asset = Net Income / Total Assets

Board characteristics variables

Board Size = Number of directors on the board

Board Independence = No. of outside directors / Total No. of directors

CEO Duality = 1= Yes, 0= No

Director Ownership = No. of ordinary shares owned by directors / Total No. of ordinary shares

#### Control variables

Firm size = Natural log of total assets reported on annual report

Leverage = Total debt / Total equity

Dividend Yield = Cash dividend paid / Shareholders equity

## Data analysis and discussion

Descriptive statistics were carried out to obtain sample characteristics. Table 1 provides descriptive statistics for the variable of board characteristics used in the study.

## Descriptive statistics

Table 1 : Descriptive statistics								
	ROA	BIND	BOARD SIZ	CEO DUAL	DR OWNE	FIRM SIZE	LEVE RAGE	DIVID YIE
Mean	0.062	0.715	7.940	0.138	0.099	9.665	0.367	0.057
Median	0.057	0.714	8.000	0.000	0.002	9.694	0.140	0.016
Maximum	0.544	1.000	12.000	1.000	3.000	11.202	7.371	2.429
Minimum	-0.793	0.250	3.000	0.000	0.000	8.056	0.000	0.000
Std. Dev.	0.120	0.204	1.966	0.346	0.320	0.618	0.777	0.235
Skewness	-2.260	-0.245	0.271	2.100	6.837	-0.118	6.678	9.177
Kurtosis	26.678	2.246	2.493	5.410	60.069	2.931	58.418	91.815
Jarque-Bera	2808.536	3.906	2.657	113.333	16645.050	0.292	15706.160	39753.610
Probability	0.000	0.142	0.265	0.000	0.000	0.864	0.000	0.000
Sum	7.165	82.897	921.000	16.000	11.526	1121.136	42.593	6.567
Sum Sq. Dev.	1.650	4.777	444.578	13.793	11.745	43.877	69.514	6.340
Observations	116	116	116	116	116	116	116	116

The number of directors on Sri Lankan board is between 3 and 12 with an average board size in the selected firms is about 8 persons. This result is reliable with the study by Fooladi (2012) and Zubaidah et al (2009), Lipton and Lorsch(1992) and Brown and Caylor (2004). Seventy one percent (71%) of overall board members are non-executive directors. In addition, of all the firms studied, 87% of them adapt the 2 –tier board structure implying that about 13% of the firms have their CEOs and Board chairman positions combined in one personality. This suggests that way for agency problems originating from conflict of interest are minimized. The mean percentage of directors' shareholding is about 10 percent (10%).

#### Correlation results

Table 2 : Correlation matrix								
	ROA	BIND	BOARD SIZ	CEO DUAL	DR OWNE	FIRM SIZE	LEVE RAGE	DIVID YIE
ROA	1							
BIND	-0.141	1						
BOARDSIZ	-0.116	-0.177**	1					

CEODUAL	-0.168*	-0.105	-0.039	1				
DROWNE	0.032	-0.017	0.021	-0.006	1			
FIRMSIZE	0.229***	-0.277***	0.307***	-0.009	0.081	1		
LEVERAGE	-0.102	0.084	0.040	-0.024	-0.071	0.184**	1	
DIVIDYIE	0.500***	-0.084	-0.068	-0.030	-0.041	0.105	-0.054	1

<sup>\*</sup> Correlation is significant at the 0.1 level (2-tailed)

Table 2 shows the correlation results between board characteristics and firm performances. Board independence and board size are negatively correlated with ROA but not significant. In addition, CEO duality is significantly negatively correlated with ROA at the 10% level. Director ownership is positively correlated with ROA. Furthermore, Firm size and dividend yield are significantly positively correlated with ROA. But, leverage is negatively linked with ROA.

## Regression results

Table 3 : Regression results							
Dependent Variable: ROA							
Included observations: 116							
Variable	Coefficient	Std. Error	t-Statistic	Prob.			
С	-0.252609	0.169308	-1.492013	0.1386			
BIND	-0.045822	0.048667	-0.941527	0.3485			
BOARDSIZ	-0.010536	0.005038	-2.091384	0.0388			
CEODUAL	-0.058673	0.027098	-2.165181	0.0326			
DROWNE	0.009712	0.029382	0.33055	0.7416			
FIRMSIZE	0.044606	0.016883	2.642047	0.0095			
LEVERAGE	-0.016773	0.012387	-1.354105	0.1785			
DIVIDYIE	0.228637	0.04037	5.663551	0			
R-squared	0.348373	M ean dep	M ean dependent var 0.				
Adjusted R-squa	0.306138	S.D. dependent var 0.1198					
S.E. of regressio	0.099791	Akaike info criterion -1.705004					
Sum squared res	1.075492	Schwarz criterion -1.515101					
Log likelihood	106.8902	Hannan-Quinn criter1.62791					
F-statistic	8.248437	Durbin-Watson stat 1.55263					
Prob(F-statistic	0						

Table 3 shows the regression results of the relationship between board characteristics and ROA. The relationship between the number of the independent directors from the board and firm performance is not statistically significant; the board composition has a negative relationship with ROA. This is consistent with the findings of Agrawal and Knoeber (1996) and Bhagat and black (1999). Therefore, Hypothesis 1 which stated a positive relationship between the percentage of independent non-executive directors and firm performance is rejected. The size of the board of directors is significantly negatively associated with ROA. Hence, in line with international research in the field (e.g., Yermack, 1996; Eisenberg et al, 1998) current study offers some support for the view that a negative relation between board size and firm performance is also obvious in the Sri Lankan setting. Hence, Hypothesis 2 which established a negative relationship between board size and firm performance is accepted. Relating to CEO duality the results of the study shows that there is a strong negative relationship between CEO duality and firm performance, measured by the ROA. This findings are supported with Yermack (1996) and Fosberg and Nelson (1999). Yermack (1996) argues that, firms are more valuable when the CEO and board chair positions are separate. Hence, Hypothesis 3 is supported with the regression results in relation to ROA and therefore accepted. Based on the regression results, there is a positive relationship between director ownership and ROA though not significant. H4 is not support to the findings thus the director ownership does not give any effect to the firm performance. This result contradicts with Morck et al, (1988) and Han and Suk (1998). Morck et al find evidence that firm performance increases when the director shareholder increases.

<sup>\*\*</sup> Correlation is significant at the 0.05 level (2-tailed)

<sup>\*\*\*</sup> Correlation is significant at the 0.01 level (2-tailed)

In keeping with the literature, the study includes control variables in the regression analysis. Table 3 indicates that leverage has negative impact on firm performance (ROA). On the other hand, both firm size and dividend yield are significantly positively interrelated with ROA.

#### **Conclusions**

This study explores the relationship between board characteristics and firm performance for 116 firms as sample of listed companies in Colombo Stock Exchange. This research used the ROA as proxy measurer for firm performance and four board characteristics such as board independence, board size, CEO duality and directors' ownership. The results of the study provide that both board size and CEO duality are significantly negatively associated with ROA. As regarding the relationship between the numbers of independent directors and firm performance, there resulted no significant association. In addition, there is a positive relationship between director ownership and ROA though not significant. In the case of control variables, firm size and dividend yield are significantly positively related with ROA and leverage is negatively associated with ROA. The results of the study are mostly consistent with the previous studies and it shows the importance of board characteristics should be highlighted in order to improve the firm performance.

The major limitations of this study are as follows: First, the study based on the cross sectional study which is concern about one year period may not provide more generalized result. Second, this study used only ROA as a performance measure can include ROE, ROCE and Tobin Q in order to get generalized results. It is highly recommended that future research should be analyzed more than one year because the effect of independent variables may be during subsequent periods. And also could be considered on non-financial aspects of performance such as customer satisfaction, employee satisfaction, and managerial satisfaction. It would also be more meaningful to perform a comparative analysis between Sri Lanka and other countries.

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Proceedings, 04 <sup>th</sup> International Symposium, SEUSL	
Page 348	

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Proceedings, 04 <sup>th</sup> International Symposium, SEUSL	
Page 349	
rage 349	

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