

EXTENDED ABSTRACT

CORPORATE GOVERNANCE AND CARBON TRANSPARENCY: A SRI LANKAN STUDY

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Abstract

Corporate governance is now becoming hot topic due to globalization of businesses which has received considerable attention especially after corporate scandals and financial crises. It is acknowledged to play a major role in management of organizations in both developed and developing countries. At the same time, Carbon transparency is increasingly becoming popular nowadays due to the increased environmental concerns of the corporates. It implies that corporate social performance along with Carbon transparency defines the success of organizations which can be controlled by corporate governance. This study examined the impact of corporate governance on Carbon transparency in the case of selected listed companies in Sri Lanka. For the purpose of the study, data is collected from 287 listed companies based on the availability of annual reports for the period from 2018/19. To investigate the impact of corporate governance on carbon transparency, regression analysis is used and correlation analysis is carried out to find out the relationship between corporate governance and carbon transparency. The results show that board diversity and board independence have the significant impact on carbon transparency. Further, board diversity and board independence significantly correlated with carbon transparency. Rather than that board size, board meeting, managerial ownership and environmental committee shows an insignificant impact on carbon transparency.

Keywords: Carbon transparency, corporate governance, environmental committee

1. Introduction

Climate change is a very serious challenge (Saka & Oshika, 2014) and thus carbon information has become increasingly important to stakeholders (Luo & Tang, 2014). However, there is criticism that companies tend to disclose some unreliable information (Kolk, 2008). Corporate Governance (CG) is assumed to improve managers' accountability to stakeholders for a firm's operation and its disclosures. Therefore, an understanding of the role of CG in corporate social responsibility (CSR) should help enhance firms' carbon transparency (CT) and minimize carbon emissions. Based on the agency theory corporate governance is a mechanism to reduce the agency cost and managers should focus on the wealth minimizations of the owners. In contrast to that stakeholder theory suggest that corporate governance should maximize all major shareholders' wealth including society. Therefore, these theoretical contradictions create a puzzle whether corporate governance impact on carbon disclosure or not. Further the impact of CG on voluntary corporate carbon disclosure remains unresolved since le and Liao (2015) found a significant positive association while Rupley (2012) did not observe a significant impact of the existence of a corporate governance on voluntary

carbon disclosures. There theoretical and empirical contradictors motive the researcher to examine how Corporate governance influence on carbon transparency.

The Primary objectives of the study is to investigate the impact of corporate governance on carbon transparency at the same time the secondary objective is to identify relationship between corporate governance and carbon transparency.

2. Research Methodology

In this research, the data are collected from the annual report of all the companies listed in Colombo Stock Exchange (CSE) which relies over the period of 2018/2019. Sampling includes 100 firms. The correlation analysis is used to find out the relationship between the variable namely corporate governance and carbon transparency. The regression analysis used to measure the impact of independent variable namely corporate governance, on dependent variable namely carbon transparency. Here multiple regression analysis used to find out how the multiple independent variables impact on dependent variable.

2.1 Model Specification

The following regression model has been formulated for this study to interpret the direction of relationship and impact of the multiple independent variables on dependent variable.

$$CDS = \alpha + \beta_1 BSIZE + \beta_2 BIND + \beta_3 BMEE + \beta_4 BDIV + \beta_5 MOWS + \beta_6 ECOM + \varepsilon \quad (1)$$

(BSIZE: Board size, BIND: Board independence, BMEE: Board Meetings, BDIV: Board diversity, MOWS: Managerial Ownership, ECOM: Environmental committee, CDS: Carbon Disclosure Score, ε : Error)

3. Results and Discussion

3.1 Correlation Analysis

Table 1 shows the relationship between the variables. Accordingly, board size is correlated positively with Carbon disclosure index with the r value of 0.0133 which is not significant at the level of 0.05. So, there is no significant relationship between board size and carbon disclosure index ($p > 0.05$). Accordingly, board meeting is correlated negatively with Carbon disclosure index with the r value of 0.1441 which is not significant at the level of 0.05. It implies that number of directors doesn't affect the carbon disclosure index level ($p > 0.05$). Further, board independence is positively correlated with Carbon disclosure index with 0.8590 percent which is significant at the level of 0.05. This scenario indicates that carbon disclosure index level is little high where the companies retain more independent directors in the board ($p < 0.05$). Further, board diversity has the positive correlation with Carbon disclosure index with the r value of 0.8161 which is significant at 0.05 level. This clearly shows that female directors in board have the influence on Carbon disclosure index level ($p < 0.05$). Recruiting more women on corporate boards may bring a diversity of opinions to board discussions and they have unique experiences, working styles and perspectives as compared to males (Barako & Brown, 2008).

Nevertheless, managerial ownership has the negatively correlation with Carbon disclosure index with r value of -0.0218 which shows the very weak correlation with insignificant probability value at 0.05 level. It implies that holding shares by top management doesn't affect the Carbon disclosure index ($p > 0.05$). Correlation coefficient between environmental committee and carbon disclosure index is 0.018 which is not significant at the level of 0.05. so that is not significant relationship between environmental committee and carbon disclosure index ($p > 0.05$).

Table 1. Correlation Analysis

PROBABILITY	BSIZE	BMEE	BIND	BDIV	ECOM	MOWS	CDI
BSIZE	1.0000						
	-						
BMEE	0.0887	1.0000					
	0.3901	-					
BIND	-0.0093	-0.0214	1.0000				
	0.9282	0.8359	-				
BDIV	0.0320	-0.1798	0.6872	1.0000			
	0.7568	0.0796	0.0000	-			
ECOM	0.0690	0.1081	0.0118	-0.0340	1.0000		
	0.5040	0.2945	0.9090	0.7426	-		
MOWS	-0.0016	-0.1381	-0.0878	-0.0751	0.0773	1.0000	
	0.9878	0.1798	0.3949	0.4671	0.4539	-	
CDI	0.0133	-0.1441	0.8590	0.8162	0.0184	-0.0218	1.0000
	0.8975	0.1614	0.0000	0.0000	0.8589	0.8327	-

Source: Results of pairwise correlation matrix

(BSIZE: Board size, BIND: Board independence, BMEE: Board Meetings, BDIV: Board diversity, MOWS: Managerial Ownership, ECOM: Environmental committee, CDS: Carbon Disclosure Score)

3.2 Regression Analysis

Table 2. Regression Analysis

Variable	Coefficient	Std. Error	t-Statistic	Probability
C	-0.139853	0.05638	-2.480551	0.015
BSIZE	0.000981	0.00495	0.198239	0.8433
BMEE	-0.006195	0.005094	-1.216239	0.2271
BIND	0.954697	0.097358	9.806032	0
BDIV	0.966792	0.140081	6.901682	0
MOWS	0.039927	0.034086	1.171383	0.2446
ECOM	0.013556	0.021507	0.630313	0.5301
R-squared	0.841313	F-statistic		78.64226
Adjusted R-squared	0.830615			
Observations	100			

Source: Result from panel data analysis

The Table 2 exhibits the furnished results for 100 observations from linear regression analysis. Accordingly, co-efficient of independent variables indicates the direction of relationship on dependent variable namely carbon disclosure index. Here board size has the positive co-efficient on carbon disclosure index which expresses the positive impact on carbon disclosure index which is not significant

at 0.05 level. This reveals that number of board of directors significantly not impacts on carbon disclosure index. Board meeting has the negative co-efficient value of -0.006195 , which indicates the negative impact on carbon disclosure index with the standard error value of 0.005094 and significant t-value of -1.216239 . This shows that number of board meetings not significantly impact on carbon disclosure index. Board independence significantly impacts on carbon disclosure index with positive co-efficient where p-value is less than 0.05 significant level. Board diversity has the positive co-efficient value of 0.966792 , which indicates the positive impact on carbon disclosure index with the standard error value of 0.140081 and which is higher value means greater deviation in prediction with the insignificant t-value of 6.901682 . This shows that female directors in board significantly impact on carbon disclosure index. Managerial ownership has the positive co-efficient which implies the positive impact on carbon disclosure index that is not significant at 0.05 significant level. Environmental committee has the positive co-efficient value of 0.013556 , which indicates the positive impact on carbon disclosure index.

Most of the variables such as board size, board meeting, board diversity, board independence managerial ownership and environmental committee among five independent variables, are significant to explain dependent variable that is carbon disclosure index, implies good regression model.

As shown in the Table 2, R-squared is 84 percent which indicates that the carbon disclosure index can be explained by selected independent variables such as board size, board meeting, board diversity, board independence managerial ownership and environmental committee. That means 84% fluctuations in carbon disclosure index can be explained by these independent variables. Remaining 16 percent can be attributed by other factors which are not studied, because they are outside the scope of the study. Similarly, R2value for overall model is 84% which shows the impact of independent variables on dependent variable. Additionally, f-statistics and corresponding probability model explain whether the above-mentioned independent variables can significantly and jointly influence on carbon disclosure index. On the basis of probability value which is significant at 0.05 level, board size, board meeting, board diversity, board independence managerial ownership and environmental committee jointly impact on carbon disclosure index.

4. Conclusion

This study to examine the impact of corporate governance on carbon transparency of the all listed companies in Sri Lanka over the period of 2018/19. A sample of 100 firms out of 287 all listed on the Colombo Stock Exchange was studied. The study made use of secondary data generated from annual reports of the sampled firm in CSE. The data was analysed by means of descriptive statistics, correlation and regression analysis using E-Views. Carbon disclosure index measured by an 11-items based on global reporting initiative. Corporate governance measured by board size, board meetings, board independence, board diversity managerial ownership and environmental committee. The study found that independent directors and board diversity positively affected the carbon transparency. Rather than that board size, board meeting managerial ownership and environmental committee shows an insignificant impact on Carbon transparency. It has concluded that corporate governance impact on carbon transparency in selected listed companies in Sri Lanka.

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