The level of environmental disclosures in annual reports and firm-specific attributes of Sri Lankan listed companies

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Abstract

Since this is an era of environmental degradation in the wake of continually depleting the ozone layer, climate change & global warming, environmental consciousness in entities' activities has risen in recent years, promoting environmental communication. Thus, environmental disclosures entail informing the public on how successful a firm is in minimizing its negative impacts on the environment. This study aims to examine the association between firm-specific attributes & environmental disclosures of Sri Lankan listed companies. These objectives are addressed through investigating the compliance with environmental aspects of GRI G.4.0 guidelines employing content analysis in the annual reports of 254 companies covering 20 sectors for the year 2018. Moreover, the association between firm-specific attributes and environmental disclosure level are analyzed through the Ordinary Least Square regression model. The study found that the overall level of environmental disclosures is lower in Sri Lankan listed firms. Also, of the 20 sectors analysed, the plantation sector depicts the highest level (19%), while the Investment trust sector depicts the lowest environmental disclosure level (1%). Further, regression results imply that size & ISO 14001 were found to be as significant in determining the level of environmental disclosures. At the same time, there was no significant association between shareholder power, creditor power, financial performance, firm age and environmental disclosure level. The study will add value to the existing body of literature on environmental disclosures, regulators, policymakers & stakeholders highly involved in, interested in and affected by the environmental disclosures.
Keywords: environment disclosure, firm-specific attribute and listed companies

Introduction

Sri Lanka is an emerging country that progresses to build up a "Blue-Green Era" by streamlining the communication network and empowering the public on the importance of conserving and protecting the environment. This was initiated to develop the Sri Lankan economy in making a clean and green environment. Transparency and disclosure represent one of the pillars of corporate governance. Disclosures are considered a strategic tool for a firm

due to financial scandals that happened due to the lack of improper corporate disclosures. As suggested by Owusu-Ansah (1998), disclosures are the communication of information, whether financial or non-financial quantitative, otherwise concerning a company's financial position and performance. Hence, with the increasing demand of stakeholders and various environmental catastrophes, financial reporting expanded its limited scope into incorporating environmental information on a voluntary and mandatory basis.

This study typically attempts to bridge the existing gap between stakeholder interestin the information and the extent of disclosures in annual reports in Colombo Stock Exchange (CSE) listed companies in Sri Lanka as the majority of the studies of the recent Sri Lankan studies focused on the Manufacturing sector in Sri Lanka. This study attempts to investigate the extent and determinants of environmental disclosures concerning all the sectors in CSE to give a much broader view for the decision-makers considering the relative significance of capital markets in national economies and the active role of individual investors in those markets. Moreover, international studies (e.g., Kent & Chan, 2003; Pervan & Visic, 2012) have focused on the theories that drive the environmental disclosures, but few Sri Lankan studies (e.g., Jariya, 2015; Rajapakse, 2003) have given their priority in their studies to explain the environmental disclosure practices incorporating theoretical perspectives. In vein, this study concentrates explicitly on legitimacy theory and stakeholder theory as the need for a body of literature with proper theoretical foundation remains vacant to some extent. Accordingly, to address the theoretical and methodological gap in the existing body of environmental disclosure literature in the Sri Lankan context, this study investigates the level of environmental disclosures and the association between firm-specific attributes and the level of environmental disclosures in annual reports of Sri Lankan listed companies.

Research Question
- Is there any significant association between the extent of environmental disclosure and firm-specific attributes in CSE listed companies?

Research Objective
- to investigate whether there is any significant association between the extent of environmental disclosure and firm-specific attributes in CSE listed companies.
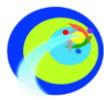
Literature Review

Manager's perceptions regarding stakeholders' value and purpose of response related to companies' environmental disclosure have been investigated by Rajeshwaran and Ranjani (2014) using 99 companies for 2013.The questionnaire has been addressed to the executives responsible for environmental management and reporting and 84% of responses from these managers were then being contrasted with the quality of environment disclosures, measured by GRI guidelines. Descriptive statistics, correlation and regression analysis were employed to analyze the data. Results show a moderate association between manager's perception of various stakeholders and the purpose of responses. Further results indicate that the core purpose of disclosing environmental information by companies is maintaining legitimacy.

Jariya (2015) investigated the level and determinants of environmental disclosures in annual reports of 30 listed manufacturing companies for 2012/13. The level of disclosure is measured by a checklist of 18 items of information. Content analysis and statistical analysis, correlation analysis, multiple regression, and descriptive statistics analysis were used to analyze the study's data. Results indicated that 50.63% of the companies provided corporate environmental information in their annual reports. Of the determinants, the selected firm size is positively associated with the level of environmental disclosure and profitability and listing age has not significantly influenced environmental disclosure factors.

Another study by Jariya (2015) has been conducted in order to examine the extent and content of environmental information disclosure provided in the annual reports of companies listed on the Colombo Stock Exchange (CSE) in Sri Lanka to test whether the size of the company determines the level of disclosure of environmental information with a sample of 60 listed companies in 17 different sectors for the year 2011/12 employing the content analysis. The study's findings reveal that 41 companies (68.33%) provided environmental information in their annual reports and the level of disclosure varies across the industries. It is identified that the highest level of environmental disclosure items is reported under sustainability reporting. Also, findings show that maximum disclosures across all the industries can be seen for the theme "Green product" while the lowest disclosed theme is "Spills." Further it is indicated from the study findings that the relationship between the amount of environmental disclosure and the size of the firms is significantly negative.

Extent and determinants of Sri Lankan listed companies' social and environmental disclosures are examined by Rajeshwaran and Sujenthini (2016) by selecting 100 companies representing 20 different sectors. A checklist based on the Global Reporting Initiative (GRI) guideline (version 3) has been developed to score data into the study. Data were analyzed using descriptive statistics and bi-variant test. Results indicate that there exists a low social and environmental disclosure practice in Sri Lankan listed companies. Moreover, further correlation results indicate that the firm's age is negatively correlated with social and environmental disclosure. Firm size, profitability and leverage are being positively related to social and environmental disclosures. The studies in the Sri Lankan context have also provided mixed results regarding the factors affecting the environmental disclosures in annual reports.

Methodology

The population under consideration of this study is all quoted companies representing 20 business sectors in the CSE. Currently, 296 companies are listed on the CSE. All companies CSE were selected for this research due to the lack of attention on all sectors regarding the environmental disclosures of annual reports in Sri Lanka and the majority of the studies were confined only on examining the environmental disclosure on of manufacturing sector companies in Sri Lanka. Hence it emphasized the need for a broader view on environmental disclosure, which can generalize the findings to all companies to assist decision-makers. The sample of this study consists of 254 firms representing every 20 sectors for 2017/2018.

The sample represents about 85.81% of the population under consideration. The overall study is based on 254 observations. The sample is determined based on the convenient sampling technique that relies on collecting data from the population that is conveniently, readily available for the researcher to reach. Prior researchers have also adopted this sampling technique for the purpose of selecting a sample in their study. Data were collected mainly through the secondary data sources. The researcher widely utilized the company annual reports in collecting data on the disclosures of environmental aspects by companies for the year 2017/2018, representing the latest annual report data to make the study more contemporary and up to date. Annual reports have been widely used to analyze corporate social reporting analysis by various authors for their credibility (Jariya, 2015). Further details were obtained from company websites and the Colombo Stock Exchange website.
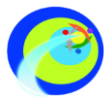
Results and Discussions

Table 1. Model Summary

R	R Square	Adj. R Square	SE of the Estimate	Durbin-Watson
.426[a]	.182	.162	.16823	1.778

As per table 1, the R Square value of 18.2% implies that 18.2% variation in the environmental disclosure level is jointly explained by the explanatory variables employed in the study. The remaining 81.8% of variation is explained by other factors were excluded from the model. Also, the model goodness of fit was 18.2% as indicated by R Square value. As suggested by the adjusted R Square value of 0.162 near zero, the goodness of the model is further justified, indicating a lower level of errors. The Durbin Watson value of 1.77, which is lower than 2.5, signifies that variables used for the model matched for the study and there no autocorrelation between the variables.

Table 2. ANOVA Test

Variable	Sum of Squares	df	Mean Square	F	Sig.
Regression	1.552	6	.259	9.138	.000[b]
Residual	6.990	247	.028		
Total	8.542	253			

The above ANOVA table tests the acceptability of the model from a statistical perspective. The ANOVA test F ratio results are 9.138 with the p-value of 0.000 indicates that the model is accepted statistically.

Table 3. Regression Coefficients

Variables	Unstandardized Coefficients		t	Sig.
	Beta	Std. Error		
Constant	-.314	.116	-2.701	.007
SP	.000	.001	-.563	.574
CP	.000	.000	.736	.462
ROA	.000	.000	-.146	.884
AGE	.000	.000	-.792	.429
SIZE	.028	.007	4.002	.000
ISO	.133	.033	3.987	.000

According to the regression results above, the regression model of the study can be redefined as follows. Accordingly, size & ISO 14001 certification is considered as the significant variables of the study.

$$Y = -0.314 + 0.028 \text{ SIZE} + 0.133 \text{ ISO} + e$$

Since the B value is 0.000 and the p-value is lower than 0.05, there was no relationship between shareholder power and environmental disclosures and is

insignificant. The coefficient between creditor power and environmental disclosures is 0.000. The p p-value is greater than 0.05. It implies that there is no relationship between environmental disclosures and creditor power is not a significant factor in determining firms' environmental disclosure level. Results show a negative and insignificant relationship between environmental disclosures and firm financial performance (B=-0.00, P<0.05). The coefficient value of 0.000 and p-value of 0.429 suggests that firm age is not significant in determining the environmental disclosure level and there is no relationship between firm age and environmental disclosure level.

Further results indicate a significant positive relationship (B=0.028, P<0.05) between environmental disclosures and firm size. Moreover, firm size is considered to be an attribute in determining the environmental disclosure level. ISO 14001 certification is considered significant in determining the level of environmental disclosures since p value is 0.000 and B value of 0.133 shows a positive relationship between ISO 14001 and environmental disclosure level.

Table 5. Summary of results of hypothesis

Hypothesis	Statistical Tool	P-Value	Validation
Ha$_1$: There is a significant association between shareholders' power and the extent of environmental disclosures.	Regression analysis	.574	Not Supported
Ha2: There is a significant association between creditors' power and the extent of environmental disclosures.	Regression analysis	.462	Not Supported
Ha$_3$: There is a significant association between firm financial performance and the extent of environmental disclosures.	Regression analysis	.884	Not Supported
Ha$_4$: There is a significant association between firm age and extent of environmental disclosures.	Regression analysis	.429	Not Supported
Ha$_5$: There is a significant association between firm size and the extent of environmental disclosures.	Regression analysis	.000	Supported
Ha$_6$: There is a significant association between ISO 14001certification and the extent of environmental disclosures.	Regression analysis	.000	Supported
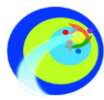
Conclusions and Recommendations

In an area where environmental concerns are highly debated, this study investigates the association between firm-specific attributes & environmental disclosure of 254 sample companies across 20 sectors listed in the CSE for the year 2018. Firm-specific attributes considered in this study are shareholder power, creditor power, financial performance, firm age, and firm size & ISO 14001 certification. The researcher found that shareholder power, creditor power, financial performance, firm age is not significantly associated with environmental disclosure level where Ha_1, Ha_2, Ha_3, Ha_4 are rejected accordingly. However, firm size & ISO 14001 certification were found as significant firm-specific attributes in determining the level of environmental disclosures of listed firms & they are positively associated with environmental disclosure level. Hence Ha_5 & Ha_6 are accepted accordingly. Furthermore, researcher found that the Plantation sector companies have recorded highest level of compliance with environmental aspects of GRI guidelines. In contrast, Investment Trust companies recorded the lowest level of compliance with GRI guidelines. Overall, the researcher concludes that the level of environmental disclosure of firms in Sri Lanka according to environmental aspects of GRI guidelines is at a very lower level in year 2018.

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