Indonesian Journal of Sustainability Accounting and Management
ISSN 2597–6214 | e–ISSN 2597–6222
DOI: 10.28992/ijsam.v7i1.219

Environmental Disclosure Practices in Publicly Traded Companies of Bangladesh

Shakhawat Hossain Sarkar[1] * | Razu Ahmed[2] | Md. Ashraful Alam[3]

[1]*Jatiya Kabi Kazi Nazrul Islam University, Department of Accounting and Information Systems, Mymensingh, 2224, Bangladesh*
[2]*Jatiya Kabi Kazi Nazrul Islam University, Department of Accounting and Information Systems, Mymensingh, 2224, Bangladesh*
[3]*Jatiya Kabi Kazi Nazrul Islam University, Department Of Human Resource Management, Mymensingh, 2224, Bangladesh*

*Correspondence to: Shakhawat Hossain Sarkar, Jatiya Kabi Kazi Nazrul Islam University, Department of Accounting and Information Systems, Mymensingh, 2224, Bangladesh
E-mail: sarkar_knu@jkkniu.edu.bd

Abstract: This study strives to identify the level of corporate environmental disclosures and their relationship with various corporate attributes using secondary data sources. The data for this study were collected under the dichotomous procedure through content analysis of the annual reports of 190 companies. The statistical results depict that the practice of the Environmental Disclosure Index (EDI) is poor, with the banking sector securing the highest and the IT sector unveils the lowest EDI observed under the study. The regression model implies that company category, company nature, profit after tax, dividend nature, ISO 14001 certification, company age, capital employed, and total revenue are statistically significant. However, net assets value per share and multi-nationality are statistically insignificant. The research will provide valuable guidance to policymakers in formulating appropriate policies for safeguarding society through the protection and reduction of environmental degradation. It will improve the livability of the Earth for future generations. Additionally, it will aid the corporate sector in implementing measures to reduce environmental pollution resulting from their activities. This research investigates the intensity of environmental consciousness among corporations in Bangladesh and reveals the link between corporate attributes and environmental disclosure.

Keywords: DSE listed companies, environmental disclosure, environmental disclosure score, environmental disclosure index, environmental reporting.

Article info: Received 22 May 2022 | revised 15 May 2023 | accepted 28 May 2023

Recommended citation: Sarkar, S. H., Ahmed, R., & Alam, M. A. (2023). Environmental Disclosure Practices in Publicly Traded Companies of Bangladesh. *Indonesian Journal of Sustainability Accounting and Management, 7*(1), 133–153. https://doi.org/10.28992/ijsam.v7i1.219

INTRODUCTION

Global warming and weather change have been the most challenging environmental problem the world facing (Nor et al., 2016) because the environment has become a vital concern in contemporary ecological, social, and economic set-up (Uwalomwa & Uadiale, 2011). The issue of climate change has gained significant attention from the public, leading to both promising possibilities and apprehensions for businesses (Saha et al., 2019). Environmental pollution has become a very crucial issue for individual and business lifecycles at present due to the problem will disrupt the future of the planet (Nor et al., 2016). The retention and improvement of the

quality of the environment have become a big issue for the business world (Uwalomwa & Uadiale, 2011). A cleaner and greener atmosphere is essential for all corporate to survive in the business world, saving the globe (Menike, 2020). Society and stakeholders are forcing companies to deliver additional info regarding their events associated with environmental substances (Kalash, 2020). It should mention here that the ecological obligation in the corporate sector has risen largely in the last decades (Portella & Borba, 2020). Environmental matters have gained great consideration worldwide because of the terrible effects of non-clean production (Kalash, 2020). In response to these pressures, companies worldwide have begun to seek ways of reducing their negative impacts on the environment and started voluntarily reporting on their environmental performance (Akbas, 2014). Environmental reporting of the organisations has become a vital issue in the development proces, because many development activities, especially manufacturing activities increase environmental hazards gradually such as global warming, biodiversity degradation, and pollution of air, water, soil, and marine, etc. (Khan & Jui, 2016). Environmental reporting is a strategy aimed at rebuilding the confidence and trust of stakeholders, with the goal of ensuring the long-term sustainability and growth of companies (Yusoff et al., 2018). Environmental reporting is disclosing environmental performance-related information to companies' stakeholders (Khan & Jui, 2016), whose primary purpose is to provide specific audiences with useful information (Das, 2017). Disclosure of ecological information is also published through environmental accounting (Abbasabadi et al., 2022). It is a procedure of recording environmental costs arising from corporate events and providing this info to the stakeholders to decrease environmental effects by making consciousness (Sarkar & Ahmed, 2020). The environmental movement and reporting practices by different organisations worldwide have gathered significant momentum in recent years (Mehedy et al., 2018). Corporate environmental reporting has become a central issue in today's corporate reporting because it is for the stockholders, and every stakeholder shows a keen interest in such disclosure (Pramanik et al., 2008). Companies, particularly those activities that have consequences on the environment, such as the creation of pollution and other environmental hazard, should unveil their financial obligations to ecological development (Joyce, 2020). Environmental info disclosure is substantial in encouraging the green advancement of industrial structures and achieving green transformation of enterprises (Ding et al., 2022). The corporate business environment is surrounded by intense public scrutiny from different stakeholder groups calling on businesses to accept accountability for their financial actions and the non-financial implications of their activities (Das, 2017). In the 1990s, corporate social and environmental responsibility was first introduced by multinational companies (Juhmani, 2014). In most developed countries, environmental reporting has been established voluntarily, e.g., through global reporting initiatives (Uwalomwa & Uadiale, 2011). Some nations worldwide have specific legal obligations for organisations to disclose voluntary issues in their annual reports, though environmental disclosure is still voluntary (Rafique et al., 2017). At present, Bangladesh faces several ecological problems, including water pollution, air pollution, land degradation, loss of biodiversity, poor waste management, coastal erosion, and reduced chemical waste processing (Masud et al., 2017). Environmental reporting is relatively new in Bangladesh, but the country faces the most unsafe condition because of environmental changes throughout the world (Ullah et al., 2013). In this context, it is an important issue to investigate; what is the present scenario of environmental disclosure practices in the corporate sector of Bangladesh? We expect that the research will enrich the knowledge of corporate environmental disclosure. It will also guide the policymakers in taking suitable policy measures regarding environmental protection and help the corporate sector to make initiatives to control environmental pollution through their operations. Future researchers may also get guidelines to conduct in-depth and extensive research in the field.

METHODS

This is an empirical research based on a secondary source of data. There were 584 companies listed in the Dhaka Stock Exchange (DSE) of Bangladesh in 2018. It includes 268 companies of different natures, such as corporate bonds, debenture, mutual funds, and treasury bonds. These 268 companies were excluded from the study to generalise. So the population includes 316 companies listed in DSE.

The sample was determined based on Krejcie and Morgan's table (KENPRO, 2012). The table suggested a sample size of about 175 for the finite population of 316 (175 samples for a population of 320). The study considered 190 companies as a sample to make it more representative. The sample includes different categories of companies considering easy accessibility and availability of annual reports 2017 on the internet. The annual reports are chosen as a basis for data collection mainly due to it is compulsory by legislation, and they are regularly produced, especially by all listed companies, and for these reasons making comparisons relatively easy (Akbas, 2014). Companies in the sample were classified into 18 categories based on DSE classification (Table 1).

Table 1 Population and Sample

Categories	Population	Sample	Per cent
Bank	30	18	60
Financial Institutions	23	16	70
Insurance	47	28	60
Pharmaceuticals and Chemicals	31	16	52
Jute	3	1	33
Textile	55	36	65
Cement	7	6	86
Services and Real Estate	4	4	100
Foods & Allied	17	10	59
Tannery Industries	6	4	67
Engineering	38	13	34
Ceramic Sector	5	5	100
Fuel and Power	19	13	68
Telecommunication	2	2	100
IT Sector	9	7	78
Paper and Printing	3	2	67
Travel & Leisure	4	0	0
Miscellaneous	13	9	69
Total	**316**	**190**	**60**

Source: DSE Website

Earlier researchers used different types of measurement to assess the level of environmental disclosure practices. Jerry et al. (2015); Nimanthi & Priyadarshanie (2021); Sarkar (2022); Ullah et al. (2014); Uwalomwa & Uadiale (2011); Yusoff et al. (2013) used content analysis to collect data. Content analysis is a method in which qualitative data are converted to quantitative data systematically to aid study (Sani, 2018). Bani-Khalid et al. (2017); Burgwal & Vieira (2014); Carreira et al. (2014); Dutta & Bose (2008); Dyduch (2017); Ganapathy & Kabra (2017); Habbash (2015); Hossain et al. (2006); Islam & Hossain (2022); and Odoemelam & Okafor (2018) used disclosure index approach. Bhuiyan et al. (2017); Emmanuel et al. (2018); Faisal & Achmad (2014); Hewaidy (2016); Khan & Jui (2016); Mehedy et al. (2018); Menike (2020); Sarkar & Ahmed (2020); Sarkar (2021); Ullah et al. (2014); and Ullah et al. (2013) used un-weighted disclosure index. The central theme of the un-weighted disclosure index is that all items of the disclosed information are considered equally important to the average users (Ullah et al., 2013). Djajadikerta & Trireksani (2012) and Yusoff et al. (2013) used a modified disclosure index of Wiseman's (1982) coding scheme to facilitate analysis of the content of disclosures. The environmental disclosure extent index (EDEI) was developed by Trireksani & Djajadikerta (2016). The scoring system is described based on three dimensions, such as evidence, time frame, and specificity. The total score is from zero to six for each company, representing a measure of environmental disclosure.

Abubakar (2017); Sarkar et al. (2020); and Ufere et al. (2017) used sentences as the unit of content analysis to collect data on environmental disclosures from the one-year annual report. Akbas (2014); Suttipun & Stanton (2012); and Welbeck et al. (2017) used content analysis of the annual reports considering the number of words as the unit of measurement. Cunningham & Gadenne (2003); and Juhmani (2014) used content analysis by word count on websites; Sani (2018) used word count content analysis to develop a disclosure index. Jose & Lee (2007) used the content analysis method under the prior coding method, which requires a strong theoretical foundation for the coding categories to code the data. Masud et al. (2017) emphasize the number of disclosure related to social and environmental reporting in 12 major categories with specific coding, whether presented in the annual report or not. In the study, the content analysis was used to collect data through the dichotomous procedure using an un-weighted disclosure index approach where a score of one (1) is awarded if an item is reported; otherwise, a score of zero (0).

Fifty-two items were selected through reviewing related literature (Appendix Table 1) to develop a suitable compliance index on environmental disclosure practices. The dependent variable is indomitable as the environmental disclosure score (EDS) of each company as follows:

$$EDS = \sum_{i=1}^{n}$$

Where:

d = '1' if the company disclosed the item d_i

d = 'o' if the company does not disclose the item d_i

n = number of items

EDI of each company is computed by using the following formula:

$$EDI = \frac{\text{EDS of Individual Company}}{\text{Maximum Possible Score Obtainable}} \times 100$$

Data for the study was collected from the secondary source through a review of the 2017 annual report and the company website of each company using a structured checklist. The checklist is a combination of both

quantitative and qualitative variables. Considering the suggestions of Bani-Khalid et al., 2017), statistical techniques are selected based on the nature of the research. Two key methods of data analysis were used in the study, namely; (i) descriptive analysis like frequency, mean, SD, and percentile to identify the level of environmental disclosure; and (ii) statistical analysis to investigate the relationships between corporate characteristics and the level of environmental disclosure.

To figure out the relationship between company characteristics and the volume of environmental disclosure, the following ordinary least square (OLS) regression model with cross-sectional data was estimated:

$$EDI = \alpha_o - \beta_1 ComCat_i + \beta_2 ComNat_i + \beta_3 NAVPS_i + \beta_4 ProATax_i + \beta_5 NatDiv_i + \beta_6 ISO_i + \beta_7 MulNat_i + \beta_8 Age_i + \beta_9 CapEmp_i + \beta_{10} TotRev_I + \varepsilon_i$$

Where:

EDI = the extent of environmental disclosure of company i in 2017 (environmental disclosure index)

α_o = ntercept

ε = random error term

ComCat = Company Category (such as a bank, financial institutions, insurance, cement, etc.)

ComNat = Company Nature (manufacturing and non-manufacturing)

NAVPS = Net Assets Value Per Share ($NAVPS = \frac{Assets - Liabilities}{Total\ number\ of\ outstanding\ shares}$)

ProATax = Profit after Tax

NatDiv = Nature of Dividend (cash, stock, and cash and stock both)

ISO = ISO 14001 certification

MulNat = Multi-nationality

Age = Age of establishment of the company i as of 2017

CapEmp = Capital Employed (equity capital plus debt capital employed)

TotRev = Total Revenue (operating plus non-operating revenues)

RESULTS AND DISCUSSION

The section is divided into three parts. In the first part, the essential characteristics of the companies are presented in tables with a brief interpretation. In the second part, environmental reporting compliance practices are presented through descriptive statistics. In the third part, a model was developed for the study problem.

Basic Characteristics of the Companies

In this section, the essential characteristics of the selected companies are shown using descriptive analysis with a brief discussion.

Table 2 indicates that the highest (18.9 per cent) sample of the study is from textiles, second from insurance (14.74 per cent), third from the bank (9.47 per cent), fourth from financial institutions and, Pharmaceuticals & Chemicals (8.40 per cent), and lowest (0.5 per cent) from the Jute.

The study sample includes more manufacturing (52.6 per cent) than non-manufacturing (47.4 per cent) companies (Table 3).

Table 2 Company Categories

Categories	Frequency	Percent
Bank	18	9.5
Financial Institutions	16	8.4
Insurance	28	14.7
Pharmaceuticals and Chemicals	16	8.4
Jute	1	0.5
Textile	36	18.9
Cement	6	3.2
Services and Real Estate	4	2.1
Foods and Allied	10	5.3
Tannery	4	2.1
Engineering	13	6.8
Ceramic	5	2.6
Fuel and Power	13	6.8
Telecommunication	2	1.1
IT Sector	7	3.7
Paper and Printing	2	1.1
Miscellaneous	9	4.7
Total	**190**	**100.0**

Source: Analysis of Data

Table 3 Company Nature

Categories	Frequency	Per cent
Manufacturing	100	52.6
Non-manufacturing	90	47.4
Total	**190**	**100.0**

Source: Analysis of Data

From the Table 4, it is apparent that the age of most companies (57.3 per cent) under the study is 11 to 25 years. Only 1.1 per cent of companies aged less than five years, whereas 7.4 per cent of companies aged more than 50 years in the sample under the study. The study sample includes companies aged from <= 5 years to 65 years. Company age was determined by subtracting the establishment year of the company from 2017 because the annual report 2017 was the latest published report at the time of the research.

Table 4 Age Distribution of the Companies

Age (in the group)	Frequency	Per cent
<= 5	2	1.1
6 - 10	10	5.3
11 - 15	27	14.2
16 - 20	43	22.6
21 - 25	39	20.5
26 - 30	13	6.8
31 - 35	25	13.2
36 - 40	12	6.3
41 - 45	3	1.6
46 - 50	2	1.1
51 - 55	8	4.2
56 - 60	3	1.6
61 - 65	3	1.6
Total	**190**	**100.0**

Source: Analysis of Data

Maximum companies' (94.2 per cent) net profit after tax fall under the group of -500 million to 3500 million in BDT (Table 5).

Table 5 Distribution of Net Profit after Tax (in Million BDT) of the Companies

Profit after Tax	Frequency	Per cent
-500 - 3500	178	93.7
3500 - 7500	8	4.2
7500 - 11500	2	1.1
11500 - 15500	0	0
15500 - 19500	0	0
19500 - 23500	0	0
23500 - 27500	1	.5
Missing	1	.5
Total	**190**	**100.0**

Source: Analysis of Data

Maximum companies (88.4 per cent) amount of capital fall under the group <= 1,00,000 million in BDT (Table 6).

Table 6 Capital Employed (in Million BDT) of the Companies

Capital Employed	Frequency	Per cent
<= 100000	168	88.4
100000 - 200000	5	2.6
200000 - 300000	7	3.7
300000 - 400000	9	4.7
400000 - 500000	0	0
500000 - 600000	0	0
600000 - 700000	0	0
700000 – 800000	0	0
800000 - 900000	1	.5
Total	**190**	**100.0**

Source: Analysis of Data

The maximum (91.1 per cent) net assets value per share of the companies falls from 1 to 100 in BDT under the study (Table 7).

Table 7 NAVP (in BDT) of the Companies

NAVPS	Frequency	Per cent
<= 0	3	1.6
0 - 100	173	91.1
100 - 200	4	2.1
200 - 300	4	2.1
300 - 400	2	1.1
400 - 500	0	0
500 - 600	2	1.1
600 – 700	1	.5
Missing	1	.5
Total	**190**	**100.0**

Source: Analysis of Data

The maximum (88.4 per cent) total revenue of companies falls under the group of -1000 to 24,000 million BDT in the study (Table 8).

Table 8 Total Revenue (in Million BDT) of the Companies

Total Revenue	Frequency	Per cent
-1000 - 24000	182	95.8
24000 - 49000	4	2.1
49000 - 74000	1	.5
74000 - 99000	0	0
99000 - 124000	0	0
124000 - 149000	2	1.1
149000 - 174000	0	0
174000 – 199000	0	0
199000 - 224000	1	.5
Total	**190**	**100.0**

Source: Analysis of Data

More than two-fifths (42.1 per cent) of companies under the study had declared a cash dividend, about one-fourth (24.7 per cent) of the company had declared a stock dividend, and less than one-fourth (23.2 per cent) of the company had declared both cash and stock dividend (Table 9). It should mention here that one-tenth of the company had not declared any dividend in 2017 under the study.

Table 9 Nature of Dividend of the Companies

Nature of Dividend	Frequency	Per cent
Cash	80	42.1
Stock	47	24.7
Cash and Stock	44	23.2
No Dividend	19	10
Total	**190**	**100.0**

Source: Analysis of Data

A maximum (93.2 per cent) of the companies under the study have no ISO 14001 certificate. Only 6.8 per cent of companies under the study are ISO 14001 certified (Table 10). Dutta & Bose (2008) found out that only 1 of the 17 (5.88 per cent) companies in Bangladesh obtained ISO 14001 certificate. ISO 14001 is an internationally settled standard that sets out the requirements for an environmental management system and helps organizations to improve their environmental performance through efficient use of resources and reduction of waste (ISO, 2015).

Table 10 ISO 14001 Certified Companies

ISO 14001 Certified	Frequency	Per cent
Yes	13	6.8
No	177	93.2
Total	**190**	**100.0**

Source: Analysis of Data

The sample includes only 2.6 per cent of multi-national companies, whereas almost all (97.4 per cent) companies are national (Table 11).

Table 11 Multi-nationality of the Companies

Multi-nationality	Frequency	Per cent
Yes	5	2.6
No	185	97.4
Total	**190**	**100.0**

Source: Analysis of Data

Environmental Disclosure Practices

The nature and extent of the environmental reporting disclosure have been analyzed and discussed through descriptive statistics. The frequency distribution presented here considers each disclosure item. Fifty-two environmental reporting items are considered corporate environmental reporting disclosure items in the study.

Appendix-table-1 demonstrates that the level of compliance on the items of corporate environmental disclosure under the study is not so satisfactory. Most of the items under the study have not been disclosed by the companies listed in DSE. Only one item (Pollution control or voice for the prevention or repair of environmental damage) complied by 77.89 per cent of companies under the study, and two items ('Identification of applicable laws, environmental laws and regulations, and compliance monitoring,' and 'The entity located in protected areas designated by the country's laws or international treaties and conventions') are complied by 67.37 and 67.89 per cent companies respectably. Another item (Financing for pollution control equipment or facilities) is complied with by 51.58 per cent of companies under the study. All other items under the study regarding environmental disclosure have complied with 0.53 per cent to less than 50 per cent of companies. Dutta & Bose (2008) found that any reporting companies did not disclose fifty per cent of the items included in the EDI.

As evident from Table 12, the EDI of the companies under the study is a poor index (mean 22.48) with a high deviation among the companies (SD 19.93) and a large volume of range (86.54). Statistical results indicate that though the mean index is 22.48 and mode is 0 (zero), more than one-fifth of the companies (20.50 per cent) do not currently disclose environmental information. Islam & Hossain (2022) found that about 4 per cent of the companies did not publish any environmental information in the yearly report for the fiscal year 2018–2019. Ullah et al. (2013) found that the average environmental disclosure in the annual report-2011 of 30 sample companies in Bangladesh is 15.23 per cent. Though the volume of the compliance index is inadequate in the 2017 annual report, the volume increased in a mentionable quantity. Dyduch (2017) found that the overall disclosure index is 16.37 per cent in Poland. Hewaidy (2016) found that the overall disclosure level is 21 per cent in Kuwait.

Table 12 Descriptive Statistics of EDI

Mean	22.48
Maximum	86.54
Minimum	00
Range	86.54
Standard Deviation	19.93
Standard Error of the mean	1.45
Mode	00

Source: Analysis of Data

Study results indicate that (Table 13) only 0.5 per cent of companies secure the highest score (41- 45 out of 52), and 20.5 per cent of companies are not disclosing any environmental information. In contrast, many companies (21.6 per cent) disclosed only 6 to 10 items under the study.

Table 13 Environmental Reporting Compliance Levels

EDS (Out of 52)	Frequency	Per cent	Cumulative Percent
0	39	20.5	20.5
1- 5	23	12.1	32.6
6- 10	41	21.6	54.2
11- 15	23	12.1	66.3
16- 20	26	13.7	80.0
21- 25	16	8.4	88.4
26- 30	10	5.3	93.7
31- 35	7	3.7	97.4
36- 40	4	2.1	99.5
41- 45	1	0.5	100
Total	**190**	**100.0**	

Source: Analysis of data

It is evident from Table 14 that the banking companies under the study obtained the highest EDI score (mean 41.24 and SD 11.86), cement companies secure second highest (mean 33.65 and SD 11.65), tannery industries secure third highest (mean 33.65 and SD 28.65), pharmaceuticals & chemicals companies secure fourth (mean 33.40 and SD 26.23), engineering companies got the fifth (mean 28.85 and SD 23.83), financial institutions secure sixth (mean 26.08 and SD 17.24), food & allied secure seventh (mean 23.27 and SD 25.29), textile companies secure eighth (mean 22.38 and SD 17.32), fuel & power companies secure ninth (mean 21.30 and SD 15.87), paper & printing companies secure tenth (mean 19.23 and SD 27.20), telecommunication companies secure eleventh (mean 18.35 and SD 14.96), ceramic companies secure twelfth (mean 15.38 and SD 12.39), insurance companies secure thirteenth (mean 10.78 and SD 13.13), services & real estate companies secure fourteenth (mean 7.21 and

SD 7.42), and miscellaneous sector secure fifteenth position (mean 7.05 and SD 11.46) in order to EDI whereas IT sector gained the lowest EDI (mean 0.55 and SD 1.45). Considering the above result, it is clear that the IT sector, Jute, services & real estate, miscellaneous, and insurance companies under the study are comparatively inferior positions than banks, cement, tannery, and textile companies regarding environmental disclosure practices.

Table 14 EDI based on Company Category

Categories	EDI	Obtainable EDI	SD	Sample Size
Bank	41.23	100	11.86	18
Financial Institutions	26.08	100	17.24	16
Insurance	10.78	100	13.13	28
Pharmaceuticals and Chemicals	33.41	100	26.22	16
Jute	3.85	100	.	1
Textile	22.38	100	17.33	36
Cement	33.65	100	11.65	6
Services and Real Estate	7.21	100	7.43	4
Foods	23.27	100	25.29	10
Tannery	33.65	100	28.63	4
Engineering	28.85	100	23.83	13
Ceramic	15.38	100	12.39	5
Fuel and Power	21.30	100	15.87	13
Telecommunication	16.35	100	14.96	2
IT Sector	.55	100	1.45	7
Paper and Printing	19.23	100	27.20	2
Miscellaneous	7.05	100	11.46	9
Total	**22.48**	**100**	**19.93**	**190**

Source: Analysis of Data

The EDI of manufacturing companies is higher than (mean of 24.40 and SD 21.20) that of non-manufacturing companies (mean of 20.34 and SD 18.30) under the study (Table 15). Islam & Hossain (2022) found that environmental disclosure was 14.84 per cent in manufacturing companies in Bangladesh.

Table 15 EDI based on Company Nature

Categories	EDI	Obtainable EDI	SD	Sample Size
Manufacturing	24.40	100	21.20	100
Non-manufacturing	20.34	100	18.30	90
Total	**22.48**	**100**	**19.93**	**190**

Source: Analysis of Data

Results of Regression Analysis

In Table 16, the estimated value for the company category is -1.074, and its t-value is -4.567 with a p-value of 0.000, the estimated value for the nature of the company is -8.623 and its t-value is -3.563 with a p-value of 0.000, the estimated value for NAVPS is 0.010, and its t-value is 0.661 with p-value 0.510, the estimated value for profit after tax is -0.002, and its t-value is -2.478 with p-value 0.014, the estimated value for nature of dividend is 3.923, and its t-value is 2.872 with p-value 0.005, the estimated value for ISO 14001 certification is 30.411, and its t-value is 6.494 with p-value 0.000, the estimated value for multi-nationality is 11.038, and its t-value is 1.116 with p-value 0.266, the estimated value for company age is 0.491, and its t-value is 5.031 with p-value 0.000, the estimated value for capital employed is 0.00006385, and its t-value is 5.380 with p-value 0.000, and the estimated value for total revenue is 0.000, and its t-value is 3.343 with p-value 0.001.

Table 16 Regression Coefficients[a]

Model	Regression Coefficients	t	P-value	Collinearity Statistics	
	B			Tolerance	VIF
(Constant)	17.816	3.010	0.003		
Company Category	-1.074	-4.567	0.000	0.844	1.185
Nature of Company	-8.623	-3.563	0.000	0.808	1.237
NAVPS	0.010	.661	0.510	0.680	1.471
Profit after Tax	-0.002	-2.478	0.014	0.406	2.463
Nature of Dividend	3.923	2.872	0.005	0.929	1.076
ISO 14001 Certified	30.411	6.494	0.000	0.885	1.129
Multi-nationality	11.038	1.116	0.266	0.523	1.913
Age	0.491	5.031	0.000	0.749	1.335
Capital employed	.00006385	5.380	0.000	0.720	1.389
Total Revenue	0.000	3.343	0.001	0.412	2.428
R-Squire	0.558				
Adjusted R-Squire	0.530				
Durbin-Watson	1.645				
F-statistic	19.970				
p-value of F-statistic	0.000				

a. Dependent Variable: FACI
Source: Regression coefficient of data.

Statistical results indicate that company categories and the nature of the companies are significant at a 5 percent level. Similarly, Ohidoa et al. (2016); Portella & Borba (2020), and Sarkar et al. (2020) revealed that industry type has a significant relationship with environmental disclosure. However, Bani-Khalid et al. (2017); Kalash (2020) found that industry type is not significantly related to the extent of environmental disclosure. Statistical results also indicate that profit after tax and the nature of dividend (cash/ stock/ cash and stock) are significant at a 5 per cent level. A similar result was found in the studies of Akbas (2014); Nimanthi & Priyadarshanie (2021). However, Bani-Khalid et al. (2017); Fajarini & Triasih (2020); Kalash (2020); Portella & Borba (2020)

found that profitability is not significantly related to the extent of environmental disclosure. The study results indicate that ISO 14001 certification is significant at a 5 per cent level. The result has similar to the prior result of Wahyuningrum et al. (2021) and Sarkar et al. (2020) found a significant influence of ISO 14001 certifications on environmental disclosure. Sarkar & Ahmed (2020) found that ISO 14001 certification is significantly associated with environmental accounting disclosure. On the other hand, Sarkar (2021) found that ISO certification impacts sustainability disclosure. The analytical results of the study designate that the age of the company (years of establishment) is significant at a 5 per cent level. The result has consistent with the previous study of Burgwal & Vieira (2014) found that the company's age is significantly related to the extent of environmental disclosure. However, Akbas (2014); Bani-Khalid et al. (2017); Fajarini & Triasih (2020); Wahyuningrum et al. (2021) found that age has no statistically significant relationship with the extent of disclosure. Statistical results of the current study identified that capital employed and total revenue is significant at a 5 per cent significance level. On the other hand, NAVPS is insignificant at the same significant level. Akbas (2014); Bani-Khalid et al. (2017); Fajarini & Triasih (2020); Nor et al. (2016); Portella & Borba (2020); Suttipun & Stanton (2012); Wahyuningrum et al. (2021) found that company size significantly relates to environmental disclosure. Multi-nationality is insignificant at a 5 per cent significance level. The study result is similar to that of Sarkar et al. (2020) found no significant relationship between multi-nationality and environmental disclosure. However, the study result contradicts the result of Emmanuel et al. (2018); Portella & Borba (2020) found that multi-nationality had a significant influence on environmental disclosure. Sarkar & Ahmed (2020) found that multi-nationality is significantly associated with environmental accounting disclosure. On the other hand, Sarkar (2021) found that multi-nationality impacts sustainability disclosure. The Variance inflation factor (VIF) values for all ten independent variables are less than five, which indicates a lack of multi-collinearity in the data. Upon review of the correlation matrix, the highest value is 0.698, which is lower than the value of 0.7±.1. Result of the correlation matrix testimony that there is no variable with a higher correlation in the data set. The Durban Watson test statistics value is 1.645, in the normal range of 1.5 to 2.5. Field (2009) suggests that values under one or more than 3 are a definite cause for concern. So the result indicates that there is no autocorrelation. Histogram (Figure 1) and Normal P-P plot regression standardised residual (Figure 2) indicate that the data set is normally distributed. The R^2 value for this model is 0.556, and the AdjR^2 value is 0.530. Therefore, the predictor variables can explain about 55.6 per cent of total variation by R^2 and about 53.0 per cent of total variation by AdjR^2.

EDI = 17.816 – 1.074 ComCat – 8.623 ComNat + 0.010 NAVPS – 0.002 ProATax + 3.923 NatDiv + 30.411 ISO + 11.038 MulNat + 0.491 Age + 0.00006385 CapEmp + 0.000 TotRev

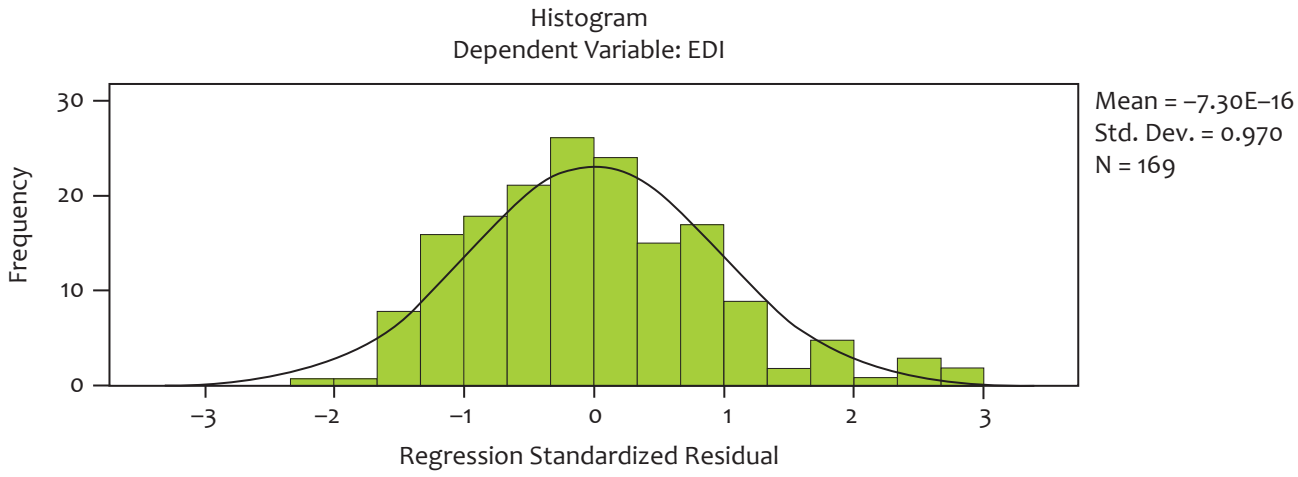

Figure 1 Histogram

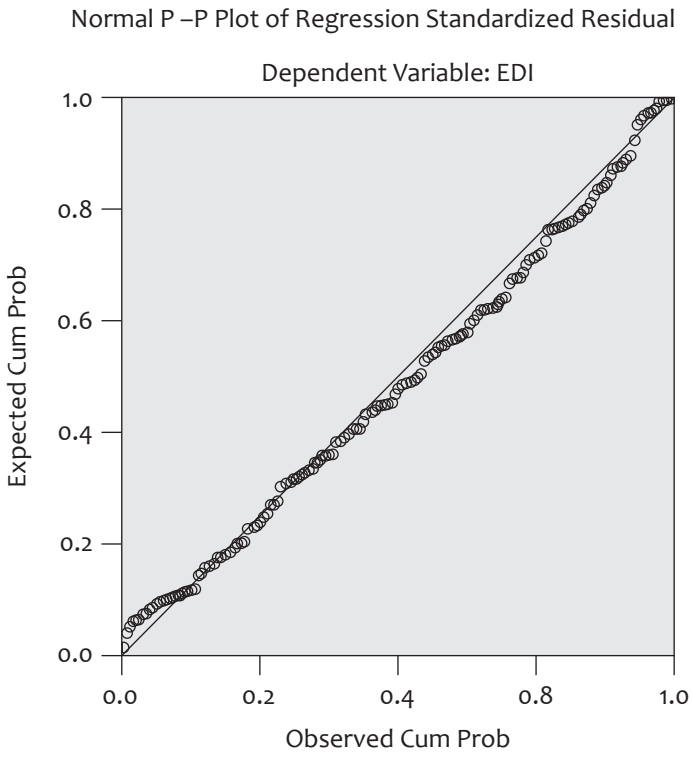

Figure 2 Normal P –P Plot of Regression Standardized Residual

CONCLUSION

Global warming and environmental changes are a matter of trepidation both for the present and future generations due to a lot of negative impacts that arise from different environmental factors. Bangladesh has been facing the severe adverse effects of environmental degradation and hazards over the years, as Dhaka is one of the top polluted cities in the world. Corporate environmental disclosure is a social reporting under voluntary disclosure. The report addresses environmental information about the factors influencing environmental degradation and necessary measures that corporate entities could take to address environmental degradation and pollution. It can conclude that the environmental reporting practices scenario in terms of EDI of companies listed in DSE is 22.48 with a high deviation (SD 19.93). Considering the DSE classification, banking companies secured the highest EDI (mean 41.24 and SD 11.86), and the IT sector secured the lowest EDI (mean 0.55 and SD 1.45). On the other hand, manufacturing companies disclose more environmental items (mean EDI 24.40 and SD 21.20) than non-manufacturing companies (mean EDI 20.34 and SD 18.30). Many companies are apathetic to environmental disclosure because, till 2017, about 20 per cent of companies under the study are not disclosing any environmental information. The study has developed a model of EDI in which predictor variables can explain about 55.6 per cent of total variation by R^2 and about 53.0 per cent of total variation by AdjR^2. All variables other than NAVPS and multi-nationality are significant at a 5 per cent significance level. So the model is well-fitted. Significant limitations of the research are- it considered only one year based on cross-sectional data published in the annual reports of companies in 2017 on environmental information. The population frame of the study excluded 268 companies (corporate bonds, debenture, mutual funds, and treasury bonds) as

the nature of activities is dissimilar from all others. The future researchers may choose any issues regarding environmental disclosure among environmental disclosure based on time series data, environmental disclosure based on word count, environmental disclosure based on the number of sentences, benefits of environmental disclosure, the relationship between company characteristics and environmental disclosure, comparative study of environmental disclosure among SAARC countries.

ACKNOWLEDGEMENT

The article is a part of the research project financed by the Jatiya Kabi Kazi Nazrul Islam University, Trishal, Mymensingh-2224, Bangladesh.

ORCID

Shakhawat Hossain Sarkar https://orcid.org/0000-0001-5528-896x
Razu Ahmed https://orcid.org/0009-0009-0128-1522
Md. Ashraful Alam https://orcid.org/0000-0002-5151-5624

REFERENCES

Abbasabadi, Y., Tehrani, R., & Janani, M. H. (2022). From environmental accounting to integrated reporting: towards a new approach to environmental disclosure. *Journal of Advances in Environmental Health Research, 10*(2), 95–104. http://dx.doi.org/10.32598/JAEHR.10.2.1222

Abubakar, A. A. (2017). Influence of firms attributes on environmental disclosure in listed brewery companies in Nigeria. *Research Journal of Finance and Accounting, 8*(21), 31–35. https://core.ac.uk/reader/234632160

Akbas, H. E. (2014). Company characteristics and environmental disclosure: an empirical investigation on companies listed on Borsa Istanbul 100 index. *The Journal of Accounting and Finance*, April, 145-163.

Bani-Khalid, T., Kouhy, R., & Hassan, A. (2017). The impact of corporate characteristics on social and environmental disclosure (CSED): the case of Jordan. *Journal of Accounting and Auditing: Research & Practice, 2017*(2017), 1–28. https://doi.org/10.5171/2017.369352

Bhuiyan, M. N. U., Hossain, S. M. K., & Akther, F. (2017). Environmental reporting practices and its relationship with corporate characteristics: an evidence from manufacturing companies listed in Dhaka Stock Exchange (DSE). *The Cost and Management, 45*(1), 3–11.

Burgwal, D. V., & Vieira, R. J. O. (2014). Environmental disclosure determinants in Dutch listed companies. *Revista Contabilidade & Finanças USP Sao Paulo, 25*(64), 60-78. https://doi.org/10.1590/S1519-70772014000100006

Carreira F., Damião A., Abreu R., & David F. (2014). Environmental disclosure - from accounting to the report perspective. In *Proceedings of the 16th International Conference on Enterprise Information Systems Volume 2* (pp. 496–501). SciTePress. https://doi.org/10.5220/0004973604960501

Cunningham, S., & Gadenne, D. (2003). Do corporations perceive mandatory publication of pollution information for key stakeholders as a legitimacy threat?. *Journal of Environmental Assessment Policy and Management, 5*(4), 523–549. https://doi.org/10.1142/S1464333203001474

Das, P. K. (2017). An introduction to the concept of environmental accounting and reporting- Indian scenario. *Imperial Journal of Interdisciplinary Research, 3*(4), 13-22.

Ding, X., Ye, L., Yang, Y., Efimova, O., Steblyanskaya, A., & Zhang, J. (2022). The impact mechanism of environmental information disclosure on corporate sustainability performance—micro-evidence from China. *Sustainability, 14*(19), 1-22. https://doi.org/10.3390/su141912366

Djajadikerta, H. G., & Trireksani, T. (2012). Corporate social and environmental disclosure by Indonesian listed companies on their corporate websites. *Journal of Applied Accounting Research, 13*(1), 21-36. https://doi.org/10.1108/09675421211231899

Dutta, P., & Bose, S. (2008). Corporate environmental reporting on the internet in Bangladesh: an exploratory study. *International Review of Business Research Papers*, *4*(3), 138–150.

Dyduch, J. (2017). Financial environmental disclosure in the annual reports of listed companies in Poland. *International Journal of Trade, Economics, and Finance, 8*(3), 169–174. https://doi.org/10.18178/ijtef.2017.8.3.557

Emmanuel, O., Uwuigbe, U., Teddy, O., Tolulope, I., & Eyitomi, G. A. (2018). Corporate diversity and corporate social environmental disclosure of listed manufacturing companies in Nigeria. *Problems and Perspectives in Management, 16*(3), 229-244. https://doi.org/10.21511/ppm.16(3).2018.19

Faisal, F., & Achmad, T. (2014). Internal contextual factors influencing the extent of environmental disclosure. *International Journal of Managerial and Financial Accounting, 6*(4), 357–374. http://dx.doi.org/10.1504/IJMFA.2014.066404

Fajarini, I. S. W., & Triasih, A. (2020). Determinants of the quantity of environmental disclosure in Australian companies. *International Conference on Economics, Business and Economic Education 2019, KnE Social Sciences*, 1327–1342. https://doi.org/10.18502/kss.v4i6.6684

Ganapathy, E., & Kabra, K. C. (2017). The impact of corporate governance attributes on environmental disclosures: evidence from India. *Indian Journal of Corporate Governance, 10*(1), 24–43. https://doi.org/10.1177/0974686217701464

Habbash, M. (2015). Corporate governance, ownership, company structure and environmental disclosure: evidence from Saudi Arabia. *Journal of Governance and Regulation, 4*(4), 460–470. http://dx.doi.org/10.22495/jgr_v4_i4_c4_p3

Hewaidy, A. M. (2016). Social and environmental disclosure in corporate annual reports: evidence from Kuwait. *International Journal of Social Sciences and Management, 3*(1), 8–16. https://doi.org/10.3126/ijssm.v3i1.14219

Hossain, M. A., Islam, K. S., & Andrew, J. (2006). Corporate social and environmental disclosure in developing countries: evidence from Bangladesh. in *Proceedings of the Asian Pacific Conference on International Accounting Issues, Hawaii, October 2006*. http://ro.uow.edu.au/commpapers/179

Islam, S. M. F., & Hossain, S. Z. (2022). Environmental reporting practices in an emerging economy. *Indonesian Journal of Sustainability Accounting and Management, 6*(2), 225–238. https://doi.org/10.28992/ijsam.v6i2.577

International Organization for Standardization (ISO). (2015). *Introduction to ISO 14001*. Available at: https://www.iso.org/files/live/sites/isoorg/files/store/en/PUB100371.pdf

Jerry, M. S., Teru, P., & Musa, B. (2015). Environmental accounting disclosure practice of Nigerian quoted firms: a case study of some selected quoted consumer goods companies. *Research Journal of Finance and Accounting, 6*(22), 31–37. https://core.ac.uk/download/pdf/234631167.pdf

Jose, A., & Lee, S. (2007). Environmental reporting of global corporations: a content analysis based on website disclosures. *Journal of Business Ethics, 72*, 307–321. https://doi.org/10.1007/s10551-006-9172-8

Joyce, S. P. (2020). Environmental disclosure and financial performance of listed oil and gas companies in Nigeria: a review on literature. *IOSR Journal of Business and Management (IOSR-JBM), 22*(9), 58–66. https://www.iosrjournals.org/iosr-jbm/papers/Vol22-issue9/Series-3/F2209035866.pdf

Juhmani, O. (2014). Determinants of corporate social and environmental disclosure on websites: the case of Bahrain. *Universal Journal of Accounting and Finance*, 2(4), 77–87. https://doi.org/10.13189/ujaf.2014.020402

Kalash, I. (2020). Environmental disclosure: determinants and effects on financial performance? Empirical evidence from Turkey. *Sosyoekonomi, 28*(46), 95–115. https://doi.org/10.17233/sosyoekonomi.2020.04.05

KENPRO. (2012). *Sample Size Determination Using Krejcie and Morgan Table*. available at: https://www.kenpro.org/sample-size-determination-using-krejcie-and-morgan-table/

Khan, M. F. R., & Jui, R. P. (2016). Environmental reporting practices: A Study on selected manufacturing companies in Bangladesh. *The Journal of the Institute of Cost and Management Accountants of Bangladesh: The Cost and Management, 44*(4), 36–48. available at: https://icmab.gov.bd/wp-content/uploads/2019/12/July-August-2016.pdf

Masud, M. A. K., Bae, S. M., & Kim, J. D. (2017). Analysis of environmental accounting and reporting practices of listed banking companies in Bangladesh. *Sustainability, 9*(10), 1–19. https://doi.org/10.3390/su9101717

Mehedy, S. R., Sajib, H. M., & Karim, R. (2018). Environmental reporting practices of listed companies in Bangladesh. *International Journal of Academic Research in Accounting, Finance and Management Sciences, 8*(3), 178-193. https://doi.org/10.6007/IJARAFMS/v8-i3/4759

Menike, L. M. C. S. (2020). Impact of environmental disclosure on firm performance: an empirical analysis of food, beverage and tobacco sector companies listed in Colombo Stock Exchange, Sri Lanka. *International Journal of Academic Research in Business and Social Sciences, 10*(10), 518–536. http://dx.doi.org/10.6007/IJARBSS/v10-i10/7977

Nimanthi, D. K. S., & Priyadarshanie, W. A. N. (2021). Environmental disclosure practices and firm performance; evidence from Sri Lanks. *International Journal of Accounting & Business Finance, 7*(2), 75–90. https://doi.org/10.4038/ijabf.v7i2.96

Nor, N. M., Bahari, N. A. S., Adnan, N. A., Kamal, S. M. Q. A. S., & Ali, I. M. (2016). The effects of environmental disclosure on financial performance in Malaysia. *Procedia Economics and Finance, 35*, 117–126. https://doi.org/10.1016/S2212-5671(16)00016-2

Odoemelam, N., & Okafor, R. G. (2018). The influence of corporate governance on environmental disclosure of listed non-financial firms in Nigeria. I*ndonesian Journal of Sustainability Accounting and Management, 2*(1), 25–49. https://doi.org/10.28992/ijsam.v2i1.47

Ohidoa, T., Omokhudu, O. O., & Oserogho, I. A. F. (2016). Determinants of environmental disclosure. *International Journal of Advanced Academic Research, 2*(8), 49–58. https://www.ijaar.org/articles/Volume2-Number8/Social-Management-Sciences/ijaar-sms-v2n8-aug16-p1.pdf

Portella, A. R., & Borba, J. A. (2020). Environmental disclosure in corporate websites: a study in Brazil and USA companies. *RAUSP Management Journal, 55*(3), 309–324. https://doi.org/10.1108/RAUSP-07-2018-0053

Pramanik, A. K., Shil, N. C., & Das, B. (2008). Corporate environmental reporting: an emerging issue in the corporate world. *International Journal of Business and Management, 3*(12), 146–154. http://dx.doi.org/10.5539/ijbm.v3n12p146

Rafique, M. A., Malik, Q. A., Waheed, A., & Khan, N. -U. (2017). Corporate governance and environmental reporting in Pakistan. *Pakistan Administrative Review, 1*(2), 103–114. http://nbn-resolving.de/urn:nbn:de:0168-ssoar-53683-7

Saha, B., Saha, A. K., & Khan, M. (2019). Research on social and environmental accounting: current trends and future approaches. *Indonesian Journal of Sustainability Accounting and Management*, *3*(2), 119–136. https://doi.org/10.28992/ijsam.v3i2.81

Sani, M. D. (2018). Mandatory social and environmental disclosure: a performance evaluation of listed Nigerian oil and gas companies pre- and post-mandatory disclosure requirements. *Journal of Finance and Accounting, 6*(2), 56–68. https://doi.org/10.11648/j.jfa.20180602.12

Sarkar, S. H., & Ahmed, R. (2020). Corporate environmental accounting disclosure in Bangladesh. *International Journal of Applied Business and Economic Research, 18*(1), 39–53.

Sarkar, S. H. (2021). Compliance of GRI G4 and pattern of sustainability disclosure in the corporate sector of Bangladesh. *BUFT Journal of Business & Economics (BJBE), 2*, 62–80.

Sarkar, S. H. (2022). Influence of corporate governance on sustainability disclosure in Bangladesh. *Journal of Management and Research, 9*(1), 122–153. https://doi.org/10.29145/jmr/91/05

Sarkar, S. H., Ahmed, R., & Islam, M. N. (2020). Level and pattern of environmental disclosure in the corporate sector of Bangladesh. *Emperor International Journal of Finance and Management Research, 6*(4), 21–41.

Suttipun, M., & Stanton, P. (2012). Determinants of environmental disclosure in Thai corporate annual reports. *International Journal of Accounting and Financial Reporting, 2*(1), 99–115. https://doi.org/10.5296/ijafr.v2i1.1458

Trireksani, T., & Djajadikerta, H. G. (2016). Corporate governance and environmental disclosure in the Indonesian mining industry. *Australasian Accounting, Business and Finance Journal*, *10*(1), 18–28. https://doi.org/10.14453/aabfj.v10i1.3

Ufere, K. J., Alias, B., Uche, A. G., & Onu, U. J. (2017). The level of environmental disclosure in listed property sector companies. *International Journal of Real Estate Studies, 22*(2), 85–92.

Ullah, M. H., Hossain, M. M., & Yakub, K. M. (2014). Environmental disclosure practices in annual report of the listed textile industries in Bangladesh. *Global Journal of Business and Management Research, 14*(1), 96–108.

Ullah, M. H., Yakub, K. M., & Hossain, M. M. (2013). Environmental reporting practices in annual report of selected listed companies in Bangladesh. *Research Journal of Finance and Accounting*, *4*(7), 45–58. Retrieved from https://www.iiste.org/Journals/index.php/RJFA/article/view/6272/6636

Uwalomwa, U., & Uadiale, O. (2011). Corporate social and environmental disclosure in Nigeria: a comparative study of the building material and brewery industry. *International Journal of Business and Management, 6*(2), 258–264. http://dx.doi.org/10.5539/ijbm.v6n2p258

Wahyuningrum, I. F. S., Amal, M. I., & Sularsih, S. (2021). The effect of environmental disclosure and performance on profitability in the companies listed at stock exchange of Thailand (SET). *Jurnal Ilmu Lingkungan, 19*(1), 66–72. https://doi.org/10.14710/jil.19.1.66-72

Welbeck, E. E., Owusu, G. M. Y., Bekoe, R. M., & Kusi, J. A. (2017). Determinants of environmental disclosures of listed firms in Ghana. *International Journal of Corporate Social Responsibility*, *2*(11), 1–12. https://doi.org/10.1186/s40991-017-0023-y

Wiseman, J. (1982). An evaluation of environmental disclosures made in corporate annual reports. *Accounting, organizations and society, 7*(1), 53-63. https://doi.org/10.1016/0361-3682(82)90025-3

Yusoff, H., Kamaruddin, S. H., & Ghani, E. K. (2018). Environmental reporting practices of top public listed companies: analyzing pre-post CSR framework. *Indonesian Journal of Sustainability Accounting and Management*, *2*(1), 50–64. https://doi.org/10.28992/ijsam.v2i1.48

Yusoff, H., Othman, R., & Yatim, N. (2013). Environmental reporting practices in Malaysia and Australia. *The Journal of Applied Business Research*, *29*(6), 1717–1726. http://dx.doi.org/10.19030/jabr.v29i6.8209

Appendix Table 1 Distribution of environmental reporting items

No.	Details of item	Yes		No	
		Frequency	Per cent	Frequency	Per cent
1	Pollution control or voice for the prevention or repair of environmental damage	148	77.89	42	22.11
2	Tree Plantation	53	27.89	137	72.11
3	Conservation of natural resources	74	38.95	116	61.05
4	Energy Conservation	72	37.89	118	62.11
5	The energy efficiency of products	38	20.00	152	80.00
6	Water discharge information	64	33.68	126	66.32
7	Solid waste disposal information	24	12.63	156	82.11
8	Recycling plant of waste products	36	18.95	154	81.05
9	Installation of biomass processing plants	23	12.11	167	87.89
10	Installation of Effluent Treatment Plants (ETPs)	39	20.53	151	79.47
11	Beautification activities	21	11.05	169	88.95
12	Product Safety	79	41.58	111	58.42
13	Reducing pollution from product use	36	18.95	154	81.05
14	Product quality disclosure	75	39.47	115	60.53
15	Air emission information	53	27.89	137	72.11
16	Publicity regarding any existing or possible future environmental matters	25	13.16	165	86.84
17	Has any key performance indicators relating to environmental issues	27	14.21	163	85.79
18	There is a carbon-neutral objective	46	24.21	144	75.79
19	Reports by environmental experts regarding site assessments, due diligence investigations, or environmental impact studies	23	12.11	167	87.89
20	Internal audit and other internal reports regarding environmental matters	46	24.21	144	75.79
21	Reports issued by and correspondence with regulatory and enforcement agencies	17	8.95	173	91.05
22	Publicly available registers or plans for the restoration of soil contamination	24	12.63	166	87.37
23	The entity has a procedure for identifying, measuring and managing environmental risk	59	31.05	131	68.95
24	The entity has taken or planned any action to manage the identified environmental risks	53	27.89	137	72.11
25	There are procedures in place to identify, assess and reduce environmental risk and to monitor any mitigating actions and controls	37	19.47	153	80.53
26	The entity operates an environmental information system, an environmental management system or any other system that captures environmental data	61	32.11	129	67.89
27	There are data on greenhouse gas emissions	51	26.84	139	73.16

28	The entity is participating in an emissions trading scheme or planning to do so	36	18.95	154	81.05
29	There is adequate communication between finance personnel and operational management who are responsible for identifying and maintaining environmental risks	25	13.16	165	86.84
30	Identification of applicable laws, environmental laws and regulations, and compliance monitoring	128	67.37	62	32.63
31	Internal reporting and management of environmental issues	56	29.47	124	65.26
32	Management system for monitoring emissions and emissions trading	44	23.16	146	76.84
33	System for controlling resource use, energy and waste	59	31.05	131	68.95
34	Wastes (including hazardous wastes and other industrial wastes) generated from the project facilities are properly treated and disposed of in accordance with the country's regulations	43	22.63	147	77.37
35	Noise and vibrations comply with the country's standards	21	11.05	169	88.95
36	The entity has any accident prevention equipment and scheme to store, emit and transport toxic and hazardous materials	27	14.21	163	85.79
37	Environmental Impact Assessment (EIA) reports are prepared in the official process	19	10.00	171	90.00
38	EIA reports have been approved by the authorities of the country	13	6.84	177	93.16
39	The entity is located in protected areas designated by the country's laws or international treaties and conventions	129	67.89	61	32.11
40	Past and current expenditures for pollution control equipment and facilities	45	23.68	145	76.32
41	Past and current operating costs of pollution control equipment and facilities	10	5.26	180	94.74
42	Future estimates of expenditures for pollution control equipment and facilities	5	2.63	185	97.37
43	Future estimates of operating costs for pollution control equipment and facilities	12	6.32	178	93.68
44	Financing for pollution control equipment or facilities	98	51.58	92	48.42
45	Maintain separate environmental accounting	17	8.95	173	91.05
46	Maintain separate records for environmental costs and or expenses	20	10.53	170	89.47
47	The entity has made a reasonably reliable estimate of the financial effects of the environmental risks	26	13.68	164	86.32
48	Management is aware of the existence and potential impact on the financial statements of any risk or liabilities arising as a result of pollution of soil, groundwater, surface water or air	22	11.58	168	88.42
49	Internal recording of actual or pending legal proceedings and fines and penalties for non-compliance	4	2.11	186	97.89
50	Development, review, and approval of accounting estimates included in the financial statements	1	0.53	189	99.47
51	Environmental risks covered by insurance	1	0.53	189	99.47
52	Environment-related separate statement	68	35.79	122	64.21

Source: Analysis of Data