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Abstract

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Keywords

Social and Environment Disclosure, annual report, Company Characteristics, Corporate Annual Reports, Social Reporting, Social Accounting, Developing Countries, Bangladesh, listed companies, Disclosure Index

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Corporate Social and Environmental Disclosure in Developing Countries: Evidence from Bangladesh

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Abstract

This is an exploratory study designed to investigate the extent and nature of social and environmental reporting in corporate annual reports. Specifically, we examine the relationship between social and environmental disclosure and several corporate attributes in a developing country, Bangladesh. In order to do this, we have developed and utilized a disclosure index to measure the extent of disclosure made by companies in corporate annual reports. This study reports significant differences in levels of social and environmental disclosure, as measured by the mean values of the social and environmental disclosure index in Bangladesh. This study reports that a very few companies in Bangladesh are making efforts to provide social and environmental information on a voluntary basis, which are mostly qualitative in nature. Companies in Bangladesh appeared to have the lowest levels of social and environmental disclosure. It was also found that significant number of the lowest ranking companies suffered losses during the period under study and significant proportions of the ranking companies were subsidiaries of multinational companies or large corporations.

Key Words: Social and Environment Disclosure, annual report, Company Characteristics, Corporate Annual Reports, Social Reporting, Social Accounting, Developing Countries, Bangladesh, listed companies, Disclosure Index

1 Introduction

Dhaka and Mexico City continue to compete for the less than salubrious title of the world's most polluted city. This apparently gives testimony to social and environmental concerns of two countries. Over the last twenty years, corporate social and environmental reporting has become an issue of interest for researchers. In the decade of 1980, the focus switched over from corporate social disclosure to corporate disclosure and reporting of environmental information and the trend continued in the 1990s as well as beyond. Historical events, such as Exxon Valdez oil spill in Alaska (Patten, 1992) and the Union Carbide gas leak in India (Blacconiere and Patten, 1994), show that a firm's activities can have significant impact on the environment. Social and environmental disclosure as well as philosophical discussions on social and environmental accounting dominated the financial research agenda during 1990s (Belal, 1999).

Social performance information, social audit, social accounting, socio-economic accounting, social responsibility accounting and social and environmental reporting have been used interchangeably in the literature. Corporate environmental disclosure is a part of social reporting and the environmental disclosures are mainly non-financial in nature. The extent of literature on corporate disclosure focuses on the determinants of voluntary disclosure and on the effect of voluntary disclosures on returnearnings relation (see e.g., Healy and Palepu 2001; Lundholm and Myers 2002). However, there is a lack of specific studies regarding Corporate Social and Environmental Disclosures (CSEDs) both in developed and developing countries.

Survey and anecdotal evidence show that corporations are disclosing social and environment information in corporate annual reports and this has increased over years. It has been argued by the researchers that the level of Corporate Social and Environmental Disclosure is dependent on several corporate attributes and there are studies which empirically examined the extent of social and environmental disclosure and measured the relationship between environment disclosure and several corporate attributes However, most of these studies gave concentrated on developed countries (e.g. Europe, Singapore, South Africa and USA). Very few studies focus on developing countries (e.g. Korea, Singapore and India) and no such study was carried out with special reference to Bangladesh.

It has been argued that corporate social and environmental disclosure may not apply universally to all countries which are in various stages of economic development and with corporations having differing levels of awareness and attitudes towards corporate environmental disclosure. However as economies grow and outlook become more global, we are likely to see an increasing convergence in corporate social and environmental disclosure practices (Ismail and Koh, 1999). Bangladesh has not been experiencing rapid economic growth since its inception in 1971 although a number of industries have been established at an accelerated rate and there is a demand for a cleaner environment. The Government of Bangladesh has promulgated an Act entitled Environment Protection Act 1995.

The sample of firms and the methodology employed and discussed in section two, where a systematic method for quantifying the content of social and environmental disclosures made by the companies is developed. Results of both the measured content and the statistical analyses are presented in section three. Section four of this study contains a general discussion on the results, followed by a summary and conclusions. The implications for Bangladeshi social and environmental accounting policies, recommendation for future research and limitations of the study are also discussed.

2.1 Research Design

This section deals with selection of sample companies, construction of social and environmental disclosure index (SEDI), scoring scheme of the social and environmental information comprising SEDI and development of a regression model to measure the relationship between the extent of corporate social and environmental disclosure and several corporate attributes.

2.1.1 Sample of the Companies

The sample covers the annual reports of companies for the year 2002-2003. The sample represents the whole population of the non-financial companies listed on the Dhaka Stock Exchange. The planned size of the sample represented approximately 150 companies. The researcher collected the address books of companies listed on the Dhaka Stock Exchange (DSE). Out of 150 companies, the corporate annual reports of 107 non-financial

Data for evaluating social and environmental information were extracted from corporate annual reports of the sample listed companies.

2.2.1 Information Items Included in the Social and Environmental Disclosure Index

Disclosure Index Approach has been used to provide an evaluation of the social and environmental disclosure in CARs. There is a problem as to the measurement of corporate social and environmental disclosure. The major task of the present research is to develop a suitable disclosure index comprising items of social and environmental information that are expected to be disclosed in corporate annual report from the view point of developing countries. There is no generally accepted theory to predict user information needs and there is an absence of an appropriate generally accepted model for the selection of the items of social and environmental information to be included in a disclosure index. The items of environmental information included in the disclosure were selected from the study of Wiseman (1992), Porwal and Sharma (1991), and Singh, and Ahuja (1983) which were considered essential for complete environmental disclosure. The list of this social and environmental disclosure information can be found as **Appendix B**.

To summarize, the items of social and environmental information included in the social and environmental disclosure index have been developed based on the following criteria:

- i) Items of social and environmental information commonly required by the statutes in Bangladesh.
- ii) Disclosure items identified in other studies examining disclosure in Bangladesh (if any).
- iii) Disclosure indices generally used in developing countries other than Bangladesh (e.g., Porwal and Sharma (1991) and Singh, and Ahuja (1983).
- iv) Disclosure indices generally used in developed countries (e.g., Wiseman, 1992).

The disclosure index constructed for this study included 60 items, which were used in social and environmental index formulations.

2.2.2 Scoring in the Social and Environmental Disclosure Index

There are various approaches available to develop a scoring scheme to determine the disclosure level of corporate annual reports from the works of other researchers. Among the alternative approaches, unweighted disclosure index approach has been used to measure the extent of disclosure of social and environmental information where an item scores one if disclosed and zero if not disclosed. An unweighted environmental index is the ratio of the value of the number of items a company discloses divided by total value that it could disclose. Under an unweighted environmental disclosure index, all items of information in the index are considered equally important to the average user.

In the unweighted environmental disclosure index disclosure of individual items has been treated as a dichotomous variable. Here, the only consideration is whether or not a company discloses an item of environmental information in its corporate annual report. If a company discloses an item of social and environmental information in its annual report it will be awarded '1' and if not it will be awarded '0'. The disclosure model for the unweighted social and environmental disclosure thus measures the total disclosure (TD) score for a company as additive as follows:

$$TD = \sum_{i=1}^{n} di$$
Where,

d = 1 if the item d_i is disclosed 0 if the item di is not disclosed n = number of items

2.3.1 The Dependent Variables, Explanatory Variables and Hypotheses

The dependent variable used in this study is Social and Environmental Disclosure Index (SEDI) and the disclosure index has been calculated for each of the companies studied. The explanatory variables used in the study have taken into the account previous studies undertaken by other researchers. The

corporate attributes considered are size (proxied by sales and assets), profitability (proxied by rate of return on assets and net profit margin), multinationality (subsidiaries of the multinational companies), industry type, and international link of the audit firm, and audit fees. The following paragraphs provide a rationale for taking into consideration the corporate variables chosen as explanatory variables:

1. Size of the company

There are several studies which have been found that a significant positive association between the size of the company and the extent of corporate social and environmental disclosure in the corporate annual report in both developed and developing countries. However, other researchers like Roberts (1992), Ng (1985) and Davey (1982) found that the size of the company did not significantly explain an association with the level of corporate social and environmental disclosure and its variability.

Larger companies may be hypothesized to disclose corporate social and environmental information in their company annual reports than smaller companies for a variety of reasons. According to the Agency Theory, social responsibility disclosure campaigns can be used to reduce political costs, which in turn, could reduce wealth of a firm. As the magnitude of political costs is highly dependent on firm size, it is inferred that there will be a positive size and corporate social and environmental disclosure relationship. There are several measures of size available (e.g., number of employees, total asset value, sales volume, etc.). However, these three proxies for size are highly correlated. In this study, sales turnover and total assets will be used as the measures of company size. These two variables were labeled as ASSETS and SALES. The following specific hypotheses have been tested regarding size of the firm:

 $H_{l(a)}$: firms with greater total assets disclose social and environmental information to a greater extent than do those firms with fewer total assets.

 $H_{l(b)}$: firms with greater sales turnover disclose social and environmental information to a greater extent than do those firms with lower sales turnover.

2. Profitability or Corporate Financial Performance

Profitability as well as corporate financial performance was used by a number of researchers as an explanatory variable for differences in disclosure level. However, the relationship between corporate financial performance and corporate social and environmental disclosure is arguably one of the most controversial issues yet to be solved (Choi, 1998). The proponents argue that there are additional costs associated with the social and environmental disclosure and, the profitability of the reporting company is depressed.

The results of different studies measuring the relationship between corporate financial performance and corporate social and environmental disclosure show mixed results. Among these researchers found a positive association between profitability and the extent of corporate social and environmental disclosure (Waddock and Gravess, 1997) whereas Cowen *et. al* (1987) found no association between the variables. Again, the results Belkaoui and Kirkpik (1989) tend to be more intriguing. They showed a significantly pair-wise correlation, yet an insignificant negative regression co-efficient for return on assets and corporate social and environmental disclosure. There are researchers those used log of profits and among these researchers, Roberts (1992) has found a positive relationship between profitability level of a company and corporate social and environmental disclosure. However, Patten (1992) fails to find any significant positive relationship between profitability and corporate social and environmental disclosure.

For profitable companies if the rate of return or return on investment is more than the industry average, the management of a company has an incentive to communicate more information (including social and environmental information) which is favourable to it as the basis of explanations of good news and is likely to disclose social and environmental information in their corporate annual reports as a result. In the present study, net profit to sales and rate of return on assets have been used as the measures of profitability. These two variables are labeled as NPMARGIN and ROASSETS. The following specific hypotheses have been tested regarding profitability:

 $H_{2(a)}$: firms with higher net profit to sales disclose social and environmental information to a greater extent than do those firms with lower net profit to sales ratios.

 $H_{2(b)}$: firms with higher rates of return on assets disclose social and environmental information to a greater extent than do those firms with lower rates of return on assets.

3. Subsidiaries of Multinational Company

The subsidiaries in developing countries of parent multinational companies from developed countries are likely to disclose social and *environmental* information than their local counterparts. The parent companies of these multinationals' subsidiaries usually operate their businesses in developed countries where these parent MNCs in many cases disclose social and *environmental* information in their CARs. Again, it has been argued that the political costs for these subsidiaries may be more in developing countries than in developed countries and subsidiaries of multinational companies in developing countries may be considered as significant in the economies of their host countries and such companies may risk the threat of government control, even the threat including nationalisation. A dichotomous variable labeled as MNCS was used with the value of '1' if the company was a subsidiary of a multinational parent, and '0' otherwise. The following specific hypothesis has been tested regarding the multinationality:

 H_3 : firms with the mutinationality connections (subsidiaries of multinational companies) disclose social and environmental information to a greater extent than do with those of their domestic counterparts.

4. Audit firm

Several studies have examined empirically the relation between the characteristics of the audit firm (size of audit firm or international link of the auditing firm) and the extent of social and *environmental* disclosure and found positive association between the audit firm size and the level of disclosure. It is believed to be an important responsibility of auditors to recommend their client companies to practice socially responsible accounting practices (Choi, 1998). It is hypothesized that companies under the contract with larger audit firms are likely to disclose more social and environmental information. This variable is a dummy variable and labeled as INLINK, and is used in the regression and correlation analyses, '1' for larger domestic audit firms or audit firms having international link with audit firms including, otherwise a '0'. The following specific hypothesis has been tested regarding the audit firm size or international link of the audit firm:

 H_5 : firms that engage international audit firms or larger domestic audit firms disclose social and environmental information to a greater extent than do those firms that engage domestic audit firms.

5. Industry Type

Industry type has been used by a very few number of researchers as an explanatory variable for differences in disclosure level. This study divides industries into two categories (viz., manufacturing and non-manufacturing) for the purpose of analysis. The companies belong to manufacturing industries were assigned '1', otherwise '0'. The following specific hypotheses will be tested regarding industry type:

 H_5 : firms falling within a specific industry type disclose different amounts of social and environmental information than do those firms in other industry types.

3.4.1 Multiple Regression Models

 ε = the error term.

Multiple linear regression techniques are used to test hypotheses. The model is created one using UADI.

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SEDI= \alpha + \beta_1 ROASSETS + \beta_2 NPMARGIN + \beta_3 MULTICOM + \beta_4 INDUTYPE + \beta_5 SALES + \beta_6 INLINK + \beta_7 ASSETS + \beta_8 AGE + \epsilon ......(1.1) Where, SEDI = total score received each sample company under social and environmental disclosure index; \alpha = the constant, and
```

The description of the ten independent variables, their labels and expected signs and relationships are present in Table 1.

Table 1
List of independent variables, their labels and expected signs and relationships in the regression

Variable Labels	Variables	Expected sign and relationship
INTLINK	International link of auditing firms	INLINK has a significant positive relationship with the level of social and environmental disclosure
ASSETS	Total Assets	ASSETS has a significant positive relationship with the level of social and environmental disclosure
NPMARGIN	Net profit margin	NPMARGIN has a significant positive relationship with the level of social and environmental disclosure
ROASSETS	Rate of return on total assets	ROASSETS has a significant positive relationship with the level of social and environmental disclosure
MNCS	Multinationality of companies (Subsidiary of a multinational company)	MNCS has a significant positive relationship with the level of social and environmental disclosure
SALES	Total assets	SALES has a significant positive relationship with the level of social and environmental disclosure
DEBENTURE	Presence of Public Debenture	DEBENTURE has a significant positive relationship with the level of social and environmental disclosure
AFEES	Total of Audit Fees	AFEES has a significant positive relationship with the level of social and environmental disclosure
INDUSTRY	Industry Type	INDUSTRY a significant positive relationship with the level of social and environmental disclosure

4.1 Results of the Study

The results of the study are presented in three sections. In the first section, the nature and extent of the corporate social and environmental disclosure has been analysed and discussed. The second section focussed on the discussion on multivariate analysis of correlation co-efficient and results of multiple regression model of the corporate social and environmental disclosure and six corporate attributes are presented in the third section. Spearman Rank Correlation Co-efficient, and Ordinary Least Square (OLS) regression were used to test the hypotheses of the study.

4.1.1 Disclosure Levels by the Sample Companies in Bangladesh

This section focuses on the measurement and analysis of the extent of social and environmental disclosure in corporate annual reports in a developing country, Bangladesh. In most of the studies reviewed, a disclosure index was prepared in order to measure the extent of social and environmental disclosure in the annual reports of the companies under study.

The score received by all individual companies in the sample has been made. A summary descriptive statistics of values for the companies are provided in Table 2.

Table-2
Descriptive statistics of the social and disclosures in Bangladesh

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Mean	5.69
Standard Deviation	3.69
Minimum	0
Maximum	19

Comparison of social and environmental disclosure patterns may also be made by comparing the distribution of scores under the disclosure index in the Bangladesh. Table 3 contains data on the dispersion of the disclosure scores (range as given by the differences between minimum and maximum scores and standard deviation).

Table 3
Disclosure Levels made by the Sample Bangladeshi companies

Score Range	Companies with Disclosure			
Total number of items in Disclosure index	No. of companies	% in the sample		
0- 5	60	56.10		
6-10	36	36.10		
11-15	6	2.80		
16 - 20	5	4.70		
20-Over	0	0.00		
Total	107	100.00		

Table 3 shows the distribution of disclosure performance by expressing the number of items disclosed as percentages of the total of 60 comprising the social and environmental disclosure score. Column one of Table 3 distinguishes ranges of disclosure performances in these terms. Table 3 shows the modal disclosure to be less than 6 items made by in Bangladeshi companies in their corporate annual reports. The distribution shows a skew towards relatively low levels of the social and environmental disclosure for the sample companies in Bangladesh.

4.1.2 Top and Lowest Ranking Companies

The sample companies were ranked on the basis of the value of the disclosure for each of the companies. Table 4 shows the top and bottom ranked companies by the size of the disclosure index. The table also provides the disclosure score and the percentage of disclosure made by the companies under study. Further, these provide insights about which industries are disclosing more social and environmental information in the corporate annual reports.

Table 4 indicates that the highest disclosure index in Bangladesh was obtained Anlima Yarn Dyeing Ltd. followed by Beximco Denims Ltd., Beximco Knitting Ltd.. Beximco Synthetics Ltd. Chittagong Cement Clinker Grinding Co. Ltd., and so on. Non of the top ranking companies are subsidiaries of multinational companies. Further, when these companies were classified into industrial categories, it was found that five of them came from the "Textile" category.

Table 4
Ranking of the companies based on the disclosure of Social and Environmental Disclosure

Name of the Companies	Items Disclosed	Ranking
Anlima Yarn Dyeing Ltd.	19.00	1
Beximco Denims Ltd.	18.00	2
Beximco Knitting Ltd.	18.00	2
Beximco Synthetics Ltd.	18.00	2
Chittagong Cement Clinker Grinding Co. Ltd.	17.00	5
Aramit Cement Ltd.	11.00	6
Confidence Cement Ltd.	11.00	6
Kohinoor Chemical Co. (BD) Ltd.	11.00	6
Aftab Automobiles Ltd.	10.00	9
Ashraf Textile Mills Ltd.	10.00	9
National Tea Company Ltd.	10.00	9

Table 5 presents the lowest ranked twelve companies in Bangladesh using the unweighted disclosure index as the basis of the rankings. The lowest scores were obtained by Gachihata Aquaculture Farms Ltd. and Shyampur Sugar Mills Ltd.... It is interesting to note that of the fifteen companies ten are shown to be loss-making concerns for the year under study when their profit and loss accounts are

examined. Further, five of these four lowest ranked Bangladeshi companies are from the 'Cement and Ceramic' industrial category.

Table-5
Ranking of the companies based on the lowest Social and Environmental Disclosure

1	Gachihata Aquaculture Farms Ltd.	.00	105
2	Shyampur Sugar Mills Ltd.	.00	105
3	Eastland Camelia Ltd.	.00	105
4	Intech Online Ltd.	1.00	102
6	Paper Converting and Packaging Ltd.	1.00	102
7	Alpha Tobacco Manufacturing Co. Ltd.	2.00	93
8	Bangladesh Zipper Industries Ltd.	2.00	93
9	Fu-Wang Ceramic Industries Ltd.	2.00	93
10	Modern Cement Ltd.	2.00	93
11	Nilon Cement Industries Ltd.	2.00	93
12	Rahima Food Corporation Ltd.	2.00	93
13	Keya Detergent Ltd.	2.00	93
14	Raspit Data Management & Telecommunications Ltd.	2.00	93
15	Standard Ceramic Industries Ltd.	2.00	93

4.1.3 Items Not Disclosed by any Sample Companies in Bangladesh

There are some items of information, which were not disclosed by any of the companies in the sample countries under study. These items of information belong to the category of voluntary disclosure. However, the number of such items of information disclosed by the sample companies varied from one company than another.

Table-6Items of environmental items of information not disclosed by any sample companies

Item Number	Item of information			
	Past and current expenditure for pollution control equipment and facilities.			
	Support for public or private action designed to protect the environment.			
	Past and current operating costs of pollution control equipment and facilities.			
	Future estimates of expenditures for pollution control equipment and facilities.			
	Future estimates of operating costs for pollution control equipment and facilities.			
	Information about support for day-care, maternity and paternity leave			
	Public Hall and/or Auditorium			
	Utilisation of waste materials for energy conservation			
	Providing information for conducting safety research on the company's products			
	Discussion of accidental statistics			

]4.2.1 Correlation analysis

To examine the correlation between the independent variables, Pearson product moment correlation coefficients (r) were computed. A correlation matrix of all the values of r for the explanatory variables along with the dependent variables was constructed and is reported. The Pearson product-moment coefficients of the correlation between DEBENTURE and NPMARGIN, between ROASSET and NPMARGIN, and AFEES and ASSETS variables are higher than the coefficient of the correlation between every two of the other corporate attributes. Table 2 shows a noteworthy collinearity ($p \le 0.01$) between certain variables (i.e., between DEBENTURE and NPMARGIN variables (.322), ROASSET and NPMARGIN variables (.186) and between AFEES and ASSETS variables (.177). However, Kaplan (1982) suggests that multicollinearity may be a problem when the correlation between independent variables is 0.90 and above whereas Emory, (1982) considered more than 0.80 to be problematic. It is evident from the table that the magnitude of the correlation between variables seems to indicate no severe multicollinearity problems.

Table 6
Spearman Rank Correlation

VARIABLES		ASSETS	DEBENTURE	INDUSTRY	LINK	NP
	AFEES					
AFEES	1.000					
ASSETS	.177*	1.000				
DEBENTURE	041	005	1.000			
INDUSTRY	.034	060	.085	1.000		
LINK	035	024	100	054	1.000	
NPMARGIN	.037	.020	322**	062	.031	1.000
ROASSETS	.027	050	117	087	.143	.186*
MNCS	.081	.022	072	.059	.090	.018

^{**} coefficient of correlation significant at 1% level or better (p ≤0.001)

4.3.1 Results of Regression Analysis

It was hypothesised that for the sample companies, INLINK, ASSETS, NPMARGIN, AUDITFEES, MNCS, ROASSET, DEBENTURE and INDUSTRY variables would be positively associated with the extent of social and environmental disclosure. It was found industry variable (INDUSTRY), presence of debenture in financial statements (DEBENTURE), and net profit margin (NPMARGIN) were positively significant at 5% level. The relationship between social and environmental disclosure and other five were found not to be significant.

Table 7
Summary of the regression output

, v 8	1 1
Coefficient of multiple regression (Multiple R)	.489
Coefficient of determination (R ²)	.239
Adjusted R ²	.174
Standard Error	3.4231

Analysis of Variance

	D.F.	Sum of Squares	Mean Squares
Regression	8	343.007	42.876
Residual	93	1089.747	11.718

F ratio = 3.659

Variables in the Equation -----

variables in the Equation					
	Unstandardize	d Coefficients	Standardized Coefficients		
Variable	В	Standard Error	Beta	T	Sig T
(constant)	2.281	1.348		1.691	.094
NPROFIT	1.365	.561	.235	2.432	.017
INDUSTRY	2.924	1.360	.197	2.150	.034
INLINK	390	1.218	030	321	.749
ASSETS	2.197E-10	.000	.099	1.075	.285
MNCS	724	1.598	042	453	.652
ROASSETS	-1.320	4.836	026	273	.785
DEBENTURE	5.300	1.218	.421	4.353	.000
ADITFEES	2.367E-06	.000	.065	.701	.485

The R² under the model was .489, which indicates that the model is capable of explaining 48.90% of the variability of the disclosure of social and environmental information in the sample Bangladeshi companies under study. The adjusted R² indicate that 23.90 percent of the variation in the dependent

^{*}coefficient of correlation significant at 5% level or better ($p \le 0.05$)

variable in the model used here is explained by variations in the independent variables. The F-ratio indicates that the model significantly explains the variations in environmental disclosure of annual reports in Bangladesh Table 7 ndicates that the actual sign of one of the variables were not in the direction predicted.

Table 7
Relationship between corporate environmental disclosure and corporate attributes for Bangladeshi Sample companies

Variable labels	Expected sign	Actual sign	Significance level
NPMARGIN	+	+	*
AUDITFEES	+	+	
INDUSTRY	+	+	*
INLINK	+	_	
MNCS	+		
ASSETS	+	+	
ROASSETS	+	-	
DEBENTURE	+	+	**

^{*} Significance level at 5%

5.1 Summary and Conclusion

It is very interesting to note that some companies in Bangladesh are making efforts to provide social and environmental information on a voluntary basis in their corporate annual reports. The study shows that on average 8.33% of Bangladeshi companies disclose social and environmental information in their corporate annual reports. These disclosures were voluntary in nature and largely qualitative. Contrary to the developed and some developing countries, the disclosure of environmental information made by the listed companies in their corporate annual reports in Bangladesh is very disappointing.

This paper has reported the results of multiple linear regressions to test the association between a number of corporate attributes and the extent of social and environmental disclosure in company annual reports for a developing country, Bangladesh. The extent of social and environmental disclosure was measured using an unweighted environmental disclosure index. The results showed that corporate environmental disclosure levels are associated with some company characteristics. For Bangladesh, the variables those were found to be positively significant in determining disclosure levels are the nature of the company (INDUSTRY), presence of debentures in the corporate annual reports (DEBENTURE), and the net profit margin (NPMARGIN). Specifically, in Bangladesh, we found that manufacturing companies with higher profitability and those that had issued debentures tended to disclose more social and environmental information.

However, it is not clear why the subsidiaries of the multinational companies in Bangladesh did not disclose social and environmental information adequately. This calls for further investigation.

This study considers the annual reports for a single year (i.e. 2002-2003). Further research can be undertaken to measure the extent of environmental disclosure longitudinally to determine whether quality of disclosure has improved over time. Such a study would provide additional insights on corporate disclosure practices in Bangladesh. This study does not concentrate on any particular industry type. Further research can be undertaken based on particular industry type (e.g., the pharmaceutical industry and textile industries in Bangladesh). It should also be noted that the number of social and environmental disclosure items was limited to 60 items and the results may be different if the numbers of environmental information were increased or another set of environmental disclosure items was examined. As always, much more research is needed if we are to contribute to a more socially and environmentally responsible corporate practices in all corners of the world.

^{**} Significance level at 1%

Appendix A List of the companies surveyed

- 1. Atlas Bangladesh Ltd.
- 2. Aftab Automobiles Ltd.
- 3. Agricultural Marketing Co. Ltd.
- 4. Alltex Industries Ltd.
- 5. Alpha Tobacco Manufacturing Co. Ltd.
- 6. Anlima Yarn Dyeing Ltd.
- 7. Anwar Galvanizing Ltd.
- 8. Apex Footwear Ltd.
- 9. Apex Foods Ltd.
- 10. Apex Tannery Ltd.
- 11. Apex Weaving & Finishing Mills Ltd.
- 12. Aramit Cement Ltd.
- 13. Aramit Ltd.
- 14. Ashraf Textile Mills Ltd.
- 15. Aziz Pipes Ltd.
- 16. Bangas Ltd.
- 17. Bangladesh Export Import Company Ltd.
- 18. Bangladesh Monospul Paper Manufacturing Co. Ltd.
- 19. Bangladesh Thai Aluminium Ltd.
- 20. Bangladesh Welding Electrodes Ltd.
- 21. Bangladesh Zipper Industries Ltd.
- 22. Square Textiles Ltd.
- 23. Bengal Biscuits Ltd.
- 24. Beximco Denims Ltd.
- 25. Beximco Fisheries Limited
- 26. Beximco Knitting Ltd.
- 27. Beximco Synthetics Ltd.
- 28. Bionic Seafood Exports Ltd.
- 29. Chictex Ltd.
- 30. Chittagong Cement Clinker Grinding Co. Ltd.
- 31. Confidence Cement Ltd.
- 32. Delta Millers Ltd.
- 33. Eastern Cables Ltd.
- 34. Eastern Housing Ltd.
- 35. Eastern Lubricants Blenders Ltd.
- 36. Fu-Wang Ceramic Industries Ltd.
- 37. Fu-Wang Foods Ltd.
- 38. Gachihata Aquaculture Farms Ltd.
- 39. GQ Ball Pen Industries Ltd.
- 40. Raspit Inc. (BD) Ltd.
- 41. H.R. Textile Mills Ltd.
- 42. Padma Printers and Colour Ltd.
- 43. Yusuf Flour Mills Ltd.
- 44. Intech Online Ltd.
- 45. Zeal-Bangla Sugar Mills Ltd.
- 46. Lexco Ltd.
- 47. Meghna Cement Mills Ltd.
- 48. Metro Spinning Ltd.
- 49. Miracle Industries Ltd.
- 50. Mita Textile Mills Ltd.
- 51. Mithun Knitting and Dyeing (CEPZD) Ltd.
- 52. Modern Cement Ltd.
- 53. Mona Food Industry Ltd.
- 54. Monno Ceramic Industries Ltd.
- 55. Monno Fabrics Ltd.
- 56. Tallu Spinning Mills Ltd.
- 57. National Tubes Ltd.
- 58. Niloy Cement Industries Ltd.

- 59. Olympic Industries Ltd.
- 60. Padma Cement Ltd.
- 61. Paper Processing and Packaging Ltd.
- 62. Manola Perfume Chemical Industries Limited
- 63. Quasem Drycells Ltd.
- 64. Quasem Silk Mills Ltd.
- 65. Quasem Textile Mills Ltd.
- 66. Rahim Textile Mills Ltd.
- 67. Rahima Food Corporation Ltd.
- 68. Rangamati Food Products Ltd.
- 69. Rangpur Foundry Ltd.
- 70. Renwick, Jajneswar & Co. (BD) Ltd.
- 71. Rose Heaven Ball Pen Ltd.
- 72. Safko Spinning Mills Ltd.
- 73. Shyampur Sugar Mills Ltd.
- 74. Singer Bangladesh Ltd.
- 75. Sinobangla Industries Ltd.
- 76. BDCOM Online Ltd.
- 77. Al-Amin Chemical Industries Ltd.
- 78. Apex Spinning & Knitting Mills Ltd.
- 79. Bengal Fine Ceramics Ltd.
- 80. Desh Garments Ltd.
- 81. Dhaka Fisheries Ltd.
- 82. Dulamia Cotton Spinning Mills Ltd.
- 83. Eastland Camelia Ltd.
- 84. First Lease International Ltd.
- 85. Gulf Foods Ltd.
- 86. Imam Button Industries Ltd.
- 87. Keya Cosmetics Ltd.
- 88. Keya Detergent Ltd.
- 89. Kohinoor Chemical Co. (BD) Ltd.
- 90. Metro Spinning Ltd.
- 91. National Polymer Industries Ltd.
- 92. National Tea Company Ltd.
- 93. Niloy Cement Industries Ltd.
- 94. Olympic Industries
- 95. Padma Oil Company Ltd.
- 96. Paper Converting and Packaging Ltd.
- 97. Pharma Aids Ltd.
- 98. Prime Textile Spinning Mills Ltd.
- 99. Raspit Data Management & Telecommunications Ltd.
- 100.Reckitt Bencksier (Bangladesh) Ltd.
- 101. Saiham Textile Mills Ltd.
- 102. Aftab Automobiles Ltd.
- 103. Samata Leather Complex Ltd.
- 104. Samorita Hospital Ltd.
- 105. Standard Ceramic Industries Ltd.
- 106. Tamijuddin Textile Mills Ltd.
- 107. Wonderland Toys Ltd.

Appendix B Questionnaire on Social and Environmental Disclosure

Company Information Name of the company:

- 1. (i) Debt:
 - (ii) Equity:
 - (iii) Debt equity ratio:
- 2. (i) Net profit:
 - (ii) Sales:
 - (iii) Profit margin (net):
- 3. (i) Profit after tax:
 - (ii) Total capital employed:
 - (iii) Return on investment:
- 4. (i) Fixed asset (Book value):
 - (ii) Total assets (Net of depreciation):
 - (iii) Assets-in-place:
- 5. Public debenture yes/no
- 6. Nature of industry (manufacturing/non-manufacturing) yes/no
- 7. International link of audit company : Name of the Audit Firm yes/no
- 8. Subsidiary of multinational company yes/no
- 9. Audit fees

Appendix C Disclosure Index

A. Environmental Information

- 1. Past and current expenditure for pollution control equipment and facilities.
- 2. Past and current operating costs of pollution control equipment and facilities.
- 3. Future estimates of expenditures for pollution control equipment and facilities.
- 4. Future estimates of operating costs for pollution control equipment and facilities.
- 5. Financing for pollution control equipment or facilities.
- 6. Air emission information.
- 7. Water discharge information.
- 8. Solid waste disposal information.
- 9. Environmental policies or company concern for the environment.
- 10. Conservation of natural resources.
- 11. Recycling plant of waste products
- 12. Installation of effluent treatment plant
- 13. Anti-litter and conservation campaign
- 14. Land reclamation and forestation programmes
- 15. Pollution control of industrial process
- 16. Research on new methods of production to reduce environmental pollution
- 17. Raw materials conservation
- 18. Support for public or private action designed to protect the environment.

B. Employees Information

- 19. Human Resource Development (e.g. Training Programme/Scheme)
- 20. Educational Facilities
- 21. Health and Safety Arrangements (i.e. safety of the employees).
- 22. Pensions
- 23. Holidays and Vacations.
- 24. Information about support for day-care, maternity and paternity leave
- 25. Recreation Clubs and public libraries
- 26. Reduction or elimination of pollutants, irritants, or hazards in the work environment
- 27. Discussion of accidental statistics
- 28. Training of the employees through in-house programmes
- 29. Establishment of training centres
- 30. Discussion on staff accommodation/staff home ownership schemes
- 31. Policies for the company's remuneration package/scheme
- 32. Number of employees in the company
- 33. Providing per employee statistics (e.g. assets per employee, statistics on employee turnover and sales per employee)
- 34. Providing information on the qualification of employees recruited
- 35. Providing information on the company/management relationships with the employees in an effort to improve job satisfaction and employee motivation
- 36. Sponsoring educational conferences, seminars or art exhibitions
- 37. Providing information on the stability of the workers' job and company's future
- 38. Discussion on the company's relationship with trade unions and/or works
- 39. Discussion on any strikes, industrial actions/activities and the resultant losses in terms of time and productivity

C. Community and Others

- 40. Donations to the charity, arts, sports, etc
- 41. Relations with local population
- 42. Social welfare
- 43. Seminars and conferences
- 44. Canteen, Transportation, and crèches for the employees' children.
- 45. Rehabilitation Programmes
- 46. Establishment of Educational Institution (s).
- 47. Medical Establishments
- 48. Parks and Gardens
- 49. Public Hall and/or Auditorium

D. Energy

- 50. Conservation of energy in the conduct of business operations
- 51. Utilisation of waste materials for energy conservation
- 52. Discussion of the company's efforts to reduce energy consumption

E. Products

- 53. Information on developments related to the company's products including its packaging (e.g. making containers re-usable);
- 54. The amount/percentage figures of research and development expenditures and/or its benefits
- 55. Information on research projects set up by the company to improve its product in any way
- 56. Information whether the product(s) need(s) applicable safety standards
- 57. Providing information for conducting safety research on the company's products
- 58. Providing information on the safety of the company's product
- 59. Information on the quality of the company's product as reflected in prizes/awards received
- 60. Verifiable information that the quality of the firms' product has increased (e.g. ISO 9,000).

 ${\bf Appendix} \ {\bf D} \\ {\bf Social} \ {\bf and} \ {\bf environmental} \ {\bf items} \ {\bf of} \ {\bf information} \ {\bf disclosed} \ {\bf by} \ \ {\bf sample} \ {\bf companies} \\$

Item	Item of Environmental Information	Disclosed	Not	% of
No.			Disclosed	disclosure
1	Past and current expenditure for pollution control equipment and facilities.	0	107	.00%
2	Past and current operating costs of pollution control equipment and facilities.	0	107	.00%
3	Future estimates of expenditures for pollution control equipment and facilities.	0	107	.00%
4	Future estimates of operating costs for pollution control equipment and facilities.	0	107	.00%
5	Financing for pollution control equipment or facilities.	1	106	.90%
6	Air emission information.	2	105	1.8%
7	Water discharge information.	1	106	0.90%
8	Solid waste disposal information.	2	105	1.90%
9	Environmental policies or company concern for the environment.	15	92	14.00%
10	Conservation of natural resources.	1	106	0.90%
11	Recycling plant of waste products	1	106	0.90%
12	Installation of effluent treatment plant	3	104	2.80%
13	Anti-litter and conservation campaign	2	105	1.90%
14	Land reclamation and forestation programmes	5	102	4.7%
15	Pollution control of industrial process	5	102	4.7%
16	Research on new methods of production to reduce environmental pollution	1	106	0.90%
17	Raw materials conservation	1	106	0.90%
18	Support for public or private action designed to protect the environment.	0	107	0.00%
19	Human Resource Development	28	79	26.20%
20	Educational Facilities	2	105	1.9%
21	Health and Safety Arrangements	40	67	37.4%
22	Pensions	44	63	41.1%
23	Holidays and Vacations.	1	106	0.90%
24	Information about support for day-care, maternity and paternity leave	0	107	0.00%
25	Recreation Clubs and public libraries	20	87	18.7%
26	Reduction or elimination of pollutants, irritants, or hazards in the work environment	9	98	8.4%
27	Discussion of accidental statistics	0	107	0.00%
28	Training of the employees through in-house programmes	24	83	27.4%
29	Establishment of training centres	3	104	2.8%
30	Discussion on staff accommodation/staff home ownership schemes	7	100	6.5%
31	Policies for the company's remuneration package/scheme	24	83	22.4%
32	Number of employees in the company	20	87	18.7%
33	Providing per employee statistics	2	105	1.9%
34	Providing information on the qualification of employees recruited	3	104	2.8%
35	Providing information on the company/management relationships with the employees in an effort to improve job satisfaction and employee motivation	45	62	42.1%
36	Sponsoring educational conferences, seminars or art exhibitions	3	104	2.8%
37	Providing information on the stability of the workers' job and company's future	16	91	15%

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38	Discussion on the company's relationship with trade unions and/or works	1	106	0.90%
39	Discussion on any strikes, industrial actions/activities and the resultant losses in terms of time and productivity	2	105	1.9%
40	Donations to the charity, arts, sports, etc	74	33	69.2%
41	Relations with local population	2	105	1.9%
42	Social welfare	42	65	39.3%
43	Seminars and conferences	4	103	3.7%
44	Canteen, Transportation, and crèches for the employees' children.	16	91	15.00%
45	Rehabilitation Programmes	1	106	0.90%
46	Establishment of Educational Institution (s).	3	104	2.8%
47	Medical Establishments	16	91	15.00
48	Parks and Gardens	6	101	5.6%
49	Public Hall and/or Auditorium	0	107	0.00%
50	Conservation of energy in the conduct of business operations	3	104	2.8%
51	Utilisation of waste materials for energy conservation	0	107	0.00%
52	Discussion of the company's efforts to reduce energy consumption	2	105	1.9%
53	Information on developments related to the company's products including its packaging (e.g. making containers reusable);	38	69	35.5%
54	The amount/percentage figures of research and development expenditures and/or its benefits	3	104	2.8%
55	Information on research projects set up by the company to improve its product in any way	7	100	6.5%
56	Information whether the product(s) need(s) applicable safety standards	1	106	0.90%
57	Providing information for conducting safety research on the company's products	0	107	0.00%
58	Providing information on the safety of the company's product	2	105	1.9%
59	Information on the quality of the company's product as reflected in prizes/awards received	2	105	1.9%
60	Verifiable information that the quality of the firms' product has increased (e.g. ISO 9,000).	10	97	9.3%

Appendix E

Ranking of the companies based on the disclosure of Social and Environmental $$\operatorname{Disclosure}$$

No.	Name of the Companies	Items Disclosed	Ranking
1.	Anlima Yarn Dyeing Ltd.	19.00	1
1.	Beximco Denims Ltd.	18.00	2
2.	Beximco Knitting Ltd.	18.00	2
3.	Beximco Synthetics Ltd.	18.00	2
4.	Chittagong Cement Clinker Grinding Co. Ltd.	17.00	5
5.	Aramit Cement Ltd.	11.00	6
6.	Confidence Cement Ltd.	11.00	6
7.	Kohinoor Chemical Co. (BD) Ltd.	11.00	6
8.	Aftab Automobiles Ltd.	10.00	9
9.	Ashraf Textile Mills Ltd.	10.00	9
10.	National Tea Company Ltd.	10.00	9
11.	Apex Foods Ltd.	9.00	12
12.	Apex Weaving & Finishing Mills Ltd.	9.00	12
13.	Bangladesh Welding Electrodes Ltd.	9.00	12

14.	Eastern Cables Ltd.	9.00	12
15.	Quasem Drycells Ltd.	9.00	12 12
16.	Metro Spinning Ltd.	9.00	12
17.	Alltex Industries Ltd.	8.00	18
		8.00	
18.	Square Textiles Ltd.		18
19.	Bengal Fine Ceramics Ltd.	8.00	18
20.	Saiham Textile Mills Ltd.	8.00	18
21.	Atlas Bangladesh Ltd.	7.00	22
22.	Agricultural Marketing Co. Ltd.	7.00	22
23.	Aziz Pipes Ltd.	7.00	22
24.	Bangas Ltd.	7.00	22
25.	Meghna Cement Mills Ltd.	7.00	22
26.	Tallu Spinning Mills Ltd.	7.00	22
27.	National Tubes Ltd.	7.00	22
28.	Safko Spinning Mills Ltd.	7.00	22
29.	Sinobangla Industries Ltd.	7.00	22
30.	Apex Spinning & Knitting Mills Ltd.	7.00	22
31.	Olympic Industries	7.00	22
32.	Apex Footwear Ltd.	6.00	33
33.	Apex Tannery Ltd.	6.00	33
34.	Aramit Ltd.	6.00	33
35.	Monno Fabrics Ltd.	6.00	33
36.	Ouasem Silk Mills Ltd.	6.00	33
37.	Rahim Textile Mills Ltd.	6.00	33
38.	Rangamati Food Products Ltd.	6.00	33
39.	Rose Heaven Ball Pen Ltd.	6.00	33
40.	Desh Garments Ltd.	6.00	33
41.	Dhaka Fisheries Ltd.	6.00	33
42.			
	National Polymer Industries Ltd. Pharma Aids Ltd.	6.00	33
43.		6.00	33
44.	Prime Textile Spinning Mills Ltd. Aftab Automobiles Ltd.	6.00	33
45.		6.00	33
46.	Tamijuddin Textile Mills Ltd.	6.00	33
47.	Bangladesh Thai Aluminium Limited	5.00	48
48.	Bengal Biscuits Ltd.	5.00	48
49.	Eastern Lubricants Blenders Ltd.	5.00	48
50.	GQ Ball Pen Industries Ltd.	5.00	48
51.	Mithun Knitting and Dyeing (CEPZD) Ltd.	5.00	48
52.	Monno Ceramic Industries Ltd.	5.00	48
53.	Paper Processing and Packaging Ltd.	5.00	48
54.	Manola Perfume Chemical Industries Limited	5.00	48
55.	Quasem Textile Mills Ltd.	5.00	48
56.	Renwick, Jajneswar & Co. (BD) Ltd.	5.00	48
57.	Imam Button Industries Ltd.	5.00	48
58.	Niloy Cement Industries Ltd.	5.00	48
59.	Padma Oil Company Ltd.	5.00	48
60.	Reckitt Bencksier (Bangladesh) Ltd.	5.00	48
61.	107.00	5.00	48
62.	Bangladesh Monospul Paper Manufacturing Co. Ltd.	4.00	52
63.	Beximco Fisheries Limited	4.00	52
64.	Bionic Seafood Exports Ltd.	4.00	52
65.	Chictex Ltd.	4.00	52
66.	Delta Millers Ltd.	4.00	52
67.	Yusuf Flour Mills Ltd.	4.00	52
68.	Zeal-Bangla Sugar Mills Ltd.	4.00	52
69.	Lexco Ltd.	4.00	52
70.	48.00	4.00	52
70.	Miracle Industries Ltd.	4.00	52
/1.	MITACIC IIIUUSUIES LIU.	4.00	32

72.	59.00	4.00	52
73.	Singer Bangladesh Ltd.	4.00	52
74.	BDCOM Online Ltd.	4.00	52
75.	Al-Amin Chemical Industries Ltd.	4.00	52
76.	Gulf Foods Ltd.	4.00	52
77.	Keya Cosmetics Ltd.	4.00	52
78.	Samorita Hospital Ltd.	4.00	52
79.	Anwar Galvanizing Ltd.	3.00	79
80.	Bangladesh Export Import Company Ltd.	3.00	79
81.	Eastern Housing Ltd.	3.00	79
82.	Fu-Wang Foods Ltd.	3.00	79
83.	Raspit Inc. (BD) Ltd.	3.00	79
84.	H.R. Textile Mills Ltd.	3.00	79
85.	Padma Printers and Colour Ltd.	3.00	79
86.	Mita Textile Mills Ltd.	3.00	79
87.	Mona Food Industry Ltd.	3.00	79
88.	Padma Cement Ltd.	3.00	79
89.	Rangpur Foundry Ltd.	3.00	79
90.	Dulamia Cotton Spinning Mills Ltd.	3.00	79
91.	Samata Leather Complex Ltd.	3.00	79
92.	Alpha Tobacco Manufacturing Co. Ltd.	2.00	93
93.	Bangladesh Zipper Industries Ltd.	2.00	93
94.	Fu-Wang Ceramic Industries Ltd.	2.00	93
95.	Modern Cement Ltd.	2.00	93
96.	Nilon Cement Industries Ltd.	2.00	93
97.	Rahima Food Corporation Ltd.	2.00	93
98.	Keya Detergent Ltd.	2.00	93
99.	Raspit Data Management & Telecommunications Ltd.	2.00	93
100.	Standard Ceramic Industries Ltd.	2.00	93
101.	Intech Online Ltd.	1.00	102
102.	First Lease International Ltd.	1.00	102
103.	Paper Converting and Packaging Ltd.	1.00	102
104.	Gachihata Aquaculture Farms Ltd.	.00	105
105.	Shyampur Sugar Mills Ltd.	.00	105
106.	Eastland Camelia Ltd.	.00	105

Appendix-F
The score received by the sample companies along with percentage of disclosure

Sl. No	Name of the companies	No. items	Percentage
		Disclosed	of disclosure
1	Atlas Bangladesh Ltd.	7.00	11.67
2	Aftab Automobiles Ltd.	10.00	16.67
3	Agricultural Marketing Co. Ltd.	7.00	11.67
4	Alltex Industries Ltd.	8.00	13.33
5	Alpha Tobacco Manufacturing Co. Ltd.	2.00	3.33
6	Anlima Yarn Dyeing Ltd.	19.00	31.67
7	Anwar Galvanizing Ltd.	3.00	5.00
8	Apex Footwear Ltd.	6.00	10.00
9	Apex Foods Ltd.	9.00	15.00
10	Apex Tannery Ltd.	6.00	10.00
11	Apex Weaving & Finishing Mills Ltd.	9.00	15.00
12	Aramit Cement Ltd.	11.00	18.33
13	Aramit Ltd.	6.00	10.00
14	Ashraf Textile Mills Ltd.	10.00	16.67
15	Aziz Pipes Ltd.	7.00	11.67

18

16	Bangas Ltd.	7.00	11.67
17	Bangladesh Export Import Company Ltd.	3.00	5.00
18	Bangladesh Monospul Paper Manufacturing Co. Ltd.	4.00	6.67
19	Bangladesh Thai Aluminium Limited	5.00	8.33
20	Bangladesh Welding Electrodes Ltd.	9.00	15.00
21		2.00	3.33
22	Bangladesh Zipper Industries Ltd. Square Textiles Ltd.		
23		8.00	13.00.
	Bengal Biscuits Ltd.	5.00	8.33
24	Beximco Denims Ltd.		30.00
25	Beximco Fisheries Limited	4.00	6.67
26	Beximco Knitting Ltd.	18.00	30.00
27	Beximco Synthetics Ltd.	18.00	30.00
28	Bionic Seafood Exports Ltd.	4.00	6.67
29	Chictex Ltd.	4.00	6.67
30	Chittagong Cement Clinker Grinding Co. Ltd.	17.00	28.33
31	Confidence Cement Ltd.	11.00	18.33
32	Delta Millers Ltd.	4.00	6.67
33	Eastern Cables Ltd.	9.00	15.00
34	Eastern Housing Ltd.	3.00	5.00
35	Eastern Lubricants Blenders Ltd.	5.00	8.33
36	Fu-Wang Ceramic Industries Ltd.	2.00	3.33
37	Fu-Wang Foods Ltd.	3.00	5.00
38	Gachihata Aquaculture Farms Ltd.		
39	GQ Ball Pen Industries Ltd.	5.00	8.33
40	Raspit Inc. (BD) Ltd.	3.00	5.00
41	H.R. Textile Mills Ltd.	3.00	5.00
42	Padma Printers and Colour Ltd.	3.00	5.00
43	Yusuf Flour Mills Ltd.	4.00	6.67
44	Intech Online Ltd.	1.00	1.67
45	Zeal-Bangla Sugar Mills Ltd.	4.00	6.67
46	Lexco Ltd.	4.00	6.67
47	Meghna Cement Mills Ltd.	7.00	11.67
48	48.00	4.00	6.67
49	Miracle Industries Ltd.	4.00	6.67
50	Mita Textile Mills Ltd.	3.00	5.00
51	Mithun Knitting and Dyeing (CEPZD) Ltd.	5.00	8.33
52	Modern Cement Ltd.	2.00	3.33
53	Mona Food Industry Ltd.	3.00	5.00
54	Monno Ceramic Industries Ltd.	5.00	8.33
55	Monno Fabrics Ltd.	6.00	10.00
56	Tallu Spinning Mills Ltd.	7.00	11.67
57	National Tubes Ltd.	7.00	11.67
58	Nilon Cement Industries Ltd.	2.00	3.33
59	59.00	4.00	6.67
60	Padma Cement Ltd.	3.00	5.00
61	Paper Processing and Packaging Ltd.	5.00	8.33
62	Manola Perfume Chemical Industries Limited	5.00	8.33
63	Quasem Drycells Ltd.	9.00	15.00
64	Quasem Drycens Ltd. Quasem Silk Mills Ltd.	6.00	10.00
65	Quasem Stik Mills Ltd. Quasem Textile Mills Ltd.	5.00	8.33
66	Rahim Textile Mills Ltd.	6.00	
			10.00
67	Rahima Food Corporation Ltd.	2.00	3.33
68	Rangamati Food Products Ltd.	6.00	10.00
69	Rangpur Foundry Ltd.	3.00	5.00
70	Renwick, Jajneswar & Co. (BD) Ltd.	5.00	8.33
71	Rose Heaven Ball Pen Ltd.	6.00	10.00
72 73	Safko Spinning Mills Ltd. Shyampur Sugar Mills Ltd.	7.00	11.67

74	Singer Bangladesh Ltd.	4.00	6.67
75	Sinobangla Industries Ltd.	7.00	11.67
76	BDCOM Online Ltd.	4.00	6.67
77	Al-Amin Chemical Industries Ltd.	4.00	6.67
78	Apex Spinning & Knitting Mills Ltd.	7.00	11.67
79	Bengal Fine Ceramics Ltd.	8.00	13.33
80	Desh Garments Ltd.	6.00	10.00
81	Dhaka Fisheries Ltd.	6.00	10.00
82	Dulamia Cotton Spinning Mills Ltd.	3.00	5.00
83	Eastland Camelia Ltd.		
84	First Lease International Ltd.	1.00	1.67
85	Gulf Foods Ltd.	4.00	6.67
86	Imam Button Industries Ltd.	5.00	8.33
87	Keya Cosmetics Ltd.	4.00	6.67
88	Keya Detergent Ltd.	2.00	3.33
89	Kohinoor Chemical Co. (BD) Ltd.	11.00	18.33
90	Metro Spinning Ltd.	9.00	15.00
91	National Polymer Industries Ltd.	6.00	10.00
92	National Tea Company Ltd.	10.00	16.67
93	Niloy Cement Industries Ltd.	5.00	8.33
94	Olympic Industries	7.00	11.67
95	Padma Oil Company Ltd.	5.00	8.33
96	Paper Converting and Packaging Ltd.	1.00	1.67
97	Pharma Aids Ltd.	6.00	10.00
98	Prime Textile Spinning Mills Ltd.	6.00	10.00
99	Raspit Data Management & Telecommunications Ltd.	2.00	3.33
100	Reckitt Bencksier (Bangladesh) Ltd.	5.00	8.33
101	Saiham Textile Mills Ltd.	8.00	13.33
102	Aftab Automobiles Ltd.	6.00	10.00
103	Samata Leather Complex Ltd.	3.00	5.00
104	Samorita Hospital Ltd.	4.00	6.67
105	Standard Ceramic Industries Ltd.	2.00	3.33
106	Tamijuddin Textile Mills Ltd.	6.00	10.00
107	107.00	5.00	8.33

References

Belal, A. T. 1999. "Corporate Social Disclosure in Bangladesh Annual Reports", *The Bangladesh Accountants*, ICAB, Vol 27, No. 1, (January-March): 76-81.

Belkaoui, A. 1976. "The Impact of the Disclosure of the Environmental Effects of Organizational Behaviour on the Market", *Financial Management*, (Winter): 26-31.

Belkaoui, A. and P. G. Karpik .1989. Determinants of the Corporate Decision to Disclose Social Information, *Accounting, Auditing and Accountability Journal*, Vol. 2, No. 1:.36-51.

Bowman, E.H. and M. Haire .1975. "A Strategic Posture Towards Corporate Social Responsibility", *California Management Review*, (Winter): 49-58.

Choi, J. S. 1998. "An Investigation of the Initial Voluntary Environmental Disclosures Made in Korean Semi-Annual Financial Reports", A conference paper accepted for the Second Asian Pacific Interdisciplinary Research in Accounting, Osaka University, Japan.

Cowen, S., Ferrari, L. and L. Parker. 1987. The Impact of Corporate Characteristics on Social Accounting Disclosure: A Topology and Frequency Based Analysis. *Accounting, Organisations and Society*. Vol. 12. No. 2: 111-122.

Davey, H.B. 1982. "Corporate Social Responsibility Disclosure in New Zealand: An Empirical Investigation". *Unpublished Working Paper*, Massey University, Palmerston North, New Zealand.

De Villiers, C. J. (1998), "The Willingness of South Africans to Support More Green Reporting" *South African Journal of Economic and Management Science*, Vol. 1, No.1: 145-167.

De Villiers, C. J. and Q.Vorster. 1995. "More Corporate Environmental Reporting in South Africa", *Meditari*: 44-66.

Deegan, C. and B. Gordon. 1996. A Study of The Environmental Disclosure Practices of Australian Corporations. *Accounting and Business Research*, Vol. 26. No. 3: 187-199.

Doppegieter, J.J and C.J. Devlliers.1996. "Environmental Reporting Practices in African Energy Sector", *Management Dynamics*, Vol. 5, No.1: 15-42.

Eken, R.C.W. 1998. "Environmental Disclosure in the Annual Report: An Analysis by Branch of Business in Netherlands, paper presented on the European Accounting Conference.

Emory, E. 1982. Business Research Methods. Homewood, IL: Irwin.

Fekat, A. M., C. Inclan, and Petroni. 1996. Corporate Environmental Disclosures: Competetive Disclosure Hypothesis Using 1991 Annual Report Data. *The International Journal of Accounting*, Vol. 31 No. 2: 175-195.

Gamble, G. O., , K. Hsu, C. Jacksonand and C. D. Tollerson. 1996. Environmental Disclosure in Annual Reports: An International Perspective. *The International Journal of Accounting*. Vol. 31. No. 3:.293-331.

Gamble, G. O., K. Hsu, D. Kite and R. R. Radtke. 1995. "Environmental Disclosures in Annual Reports and 10-Ks: An Examination." *Accounting Horizons*, Volume 9, No. 3: 34-54.

Gray, R. H., R. Kouhy and S. Lavers. 1995. Constructing a Research Database of Social and Environmental Reporting by UK Companies: A Methodological Note". *Accounting, Auditing and Accountability Journal*, Vol. 8:78-108.

Gray, R. H., R. Kouhy and S. Lavers. 1995. Corporate Social and Environmental Reporting: A Review of the Literature and Longitudinal Study of UK Disclosure. *Accounting, Auditing and Accountability Journal*, Vol. 8: 47-77.

Gray, R., D. Owen, and K. Maunders. 1987. *Corporate Social Reporting: Accounting and Accountability*, Prentice-Hall, Homel Hempstead.

Guthrie, J. and L. Parkar. 1990. Corporate Disclosure Practice: A Comparative International Analysis. *Advances in Public Interest Accounting*. Vol. 3:159-175.

Hackston, D. and M. J. Milne. 1996, "Some Determinants of Social and Environmental Disclosures in New Zealand Companies", *Accounting, Auditing and Accountability Journal*, Vol. 9 No. 1:77-108.

Halme, M. and M. Huse. 1997. "The Influence of Corporate Governance, Industry and Country Factors of Environmental Reporting." *Scandinavian Journal of Management*. Vol. 13, No 2: 137-157

Healy, P., and K. Palepu .2001, 'Information Asymmetry, Corporate Disclosure, and the Capital Markets: A Review of the Empirical Disclosure Literature', *Journal of Accounting and Economics*, Vol. 31, pp. 405-440.

Hossain , M. A. 1999. Disclosure of Information in Corporate Annual Reports of Listed Non-financial Companies in Developing Countries: A Comparative Study of India , Pakistan and Bangladesh, Unpublished Ph.D. Thesis, School of Accounting and Finance, The Victoria University of Manchester.

Ismail, Z and, B. E. Koh. 1999. "Corporate Social Responsibility Disclosure in Singapore", a paper presented in Third International Conference on International Accounting and Nanagement Issues, Bangalore, India.

Kaplan, R. 1982. Advanced Management Accounting. Englewood Cliffs, NJ: Prentice-Hall

KPMG. 1997a. UK Environmental Reporting Survey, KPMG: London.

KPMG. 1997b. The KPMG Survey of Environmental Reporting. KPMG: London.

Lundholm, R. J. and L. Myers (2002), 'Bringing the Future Forward: The Effect of Disclosure on the Return-Earnings Relation', *Journal of Accounting Research*, Vol. 40, pp. 809-840.

Ng, L. W. 1985. "Social Responsibility Disclosures of Selected New Zealand Companies for 1981, 1982 and 1983. *Occasional Paper No.54*. Massey University, Palmerston North, New Zealand.

Patten, D. M. 1991. "Exposure, Legitimacy, and Social Disclosure", *Journal of Accounting and Public Policy*, Vol. 10: 297-308.

Porwal, L. S. and Sharma, N. 1991. "Social Responsibility Disclosure by Indian Companies", *The Chartered Accountant* (India), Vol. XXXIX, No 8, (February): 630-634.

Preston, L.E. 1978. "Analysing Corporate Social Performance: Methods and Results", *Journal of Contemporary Business*, Vol. 7: 135-149.

Roberts, R. W. 1992. Determinants of Corporate Social Responsibility Disclosure. *Accounting, Organisations and Society*. Vol. 17. No. 6: 595-612.

Robertson, D.C and N. Nicholson. 1996. Expressions of Social Responsibility in UK Firms, *Journal of Business Ethics*, Vol. 15: 1095-1106.

Singh, D. R. and J. M. Ahuja. 1983. "Corporate Social Reporting in India." *International Journal of Accounting Education and Research*, (Spring): 151-69.

Spicer, B. H. 1978. "Investors, Corporate Social Performance and Information Disclosure: An Empirical Study", *The Accounting Review*, Vol. 53 No.1: 178-185.

Waddock, S.A. and S.B. Graves. 1997. "The corporate Social Performance-Financial Performance Link.", *Strategic Management Journal*, Vol. 18, No. 4: 303-319.

Watts R. L. and J L. Zimmerman. 1986. *Positive Accounting Theory*, Englewood Cliffs, N.J: Prentice Hall Inc.

Wiseman, J. 1982. An Evaluation of Environmental Disclosure Made in Corporate Annual Reports. *Accounting, Organisations and Society*. Vol. 7. No. 1: 53-63.