The Relationship Between Corporate Environmental Reporting Practices and Company Characteristics: Evidence from India

Mahesh Chand Garg* and Sandeep Kumar**

This study investigates the extent of environmental information disclosure in the annual reports of companies listed on the stock Dollex-200, and tests whether there is any relationship between the amount of environmental disclosure index and company characteristics such as industry type, age, size, profitability, liquidity and leverage. By using a purposive sampling method, 90 Indian private listed companies were selected as of March 31, 2014. The findings indicate that 62% of the companies have environmental disclosure of 20 to 50% in their annual reports. The results of the study also indicate that industry type and size (total assets, profit after tax and net sales) of the company are positively affected by the extent of environmental information disclosure in annual reports. These results imply that larger companies disclose more environmental information than smaller companies. However, there is no significant relationship between the extent of environmental disclosure and other company characteristics such as market capitalization, age, profitability, liquidity and leverage.

Introduction

Environmental reporting means incorporation of environmental issues into the annual reports of corporate entities. It denotes voluntary disclosures by corporate entities of the impacts of its activities on environment (Parmanik, 2002). Business organizations should contribute towards the development and protection of natural and environmental resources. Activities directed towards alleviating or preventing environmental deterioration, i.e., air, water and noise pollution, and conservation of scarce resources and the disposal of solid waste are included in the social performance of the companies.

* Professor, Haryana School of Business, Guru Jambheshwar University of Science and Technology, Hisar 125001, Haryana, India. E-mail: mc_garg@yahoo.com

** Research Scholar, Haryana School of Business, Guru Jambheshwar University of Science and Technology, Hisar 125001, Haryana, India; and is the corresponding author. E-mail: casandeeppurwa@gmail.com

In the environment of modern economic development, corporate sector no longer functions in isolation. The contention that corporations are accountable only for their profits is no longer valid. Corporate accountability must now include the responsibility for proper utilization and protection of natural and environmental resources by the corporate management. The foundation for this concept of broader accountability for corporate management's action lies in the notion of equity and fairness, which is born of the belief that "Corporations are managed in a way that damage people who are unable to protect themselves" (Benston, 1982). The company must behave and function as a responsible member of the society just like any other individual. Thus, it can neither ignore the actual compulsions nor shun moral values. Though profit is still a necessary part of the total practice, the company must accept its obligations to be socially responsible and to work in the larger interests of the society (Sacher Committee, 1978, quoted by Sikidar, 1994).

The performance of any business is dependent not only on its economic performance, but also on its efficiency to discharge its responsibilities towards the environment and social (human) dimensions. The performance of a business organization is a function of the total impact of its activities on the various segments of the society and financial profits are only a part of it (Badani and Saksena, 1990).

The concept of corporate accountability with regard to its interaction with social and environmental issues has been developing for many years. This widening in the role of business entities from merely economic entities to social entities has led to a change in the corporate accounting and reporting objectives. Financial reporting and accounting is now regarded as a service activity, a descriptive, analytical discipline and an information system. It is the media through which entities communicate with the outside world. Increased awareness of social responsibilities of business and accountability of directors to shareholders and the wide public interest has led to the development of a need for improvement in corporate reporting practices. Because of these factors, corporate reporting practices have undergone a tremendous change both at the national and the international levels during the last decade. The objective of the financial statement is to report those activities of the enterprise that affect the society and which can be determined and described or measured and which are important for the role of the enterprise in its social environment (Trueblood Committee, 1973 quoted by Sikidar, 1994). One of the social responsibilities that is expected of a corporate entity towards society is the effective and efficient use of natural and environmental resources. Various environmental rules, regulations and laws have been enacted all over the world to make businesses discharge this responsibility in right earnest. But because of the poor implementation of these rules, significant results could not be achieved.

Events such as Exxon Valdez Oil Spill (Patten, 1992) and Union Carbide Gas Leak in India (Blacconiere and Patten, 1994) show that the activities of a firm can have a significant impact on the environment. Social and environmental performance is an extremely essential issue. Therefore, investors, government authorities and general public give importance to the social and environmental disclosure provided by the companies. The stakeholders must know the companies that follow the procedures for controlling their pollution and for environmental protection. Corporate social disclosure is an expansion of the financial disclosure system, which reflects the wider prospect of a society related to the role of business community in the economy. Gray *et al*. (1996) noted that corporate social reporting practices appear to be different across the world. The different levels of social and environmental reporting are influenced by the domicile of the company. Companies domiciled in more developed countries are likely to report their social and environmental activities extensively than companies that operate in lesser developed countries (Douglas *et al*., 2004). Although no guidelines or accounting standards have been issued regarding accounting for environmental issues in India, yet the following developments have taken place during the last few years regarding environmental reporting issues.

Bureau of Public Enterprises (BPE) vide its letter number BPE-1 (19)/ADV/F/69 made it obligatory for central public enterprises to disclose the expenditure incurred by them on social overheads in the annual reports (Chander, 1992). Similarly, an amendment was made in the Companies Act in 1988, through which the disclosure of information relating to "energy conservation" was made mandatory in the annual reports. In 1991, the Government of India announced that every company shall in the Report of its Board of Directors disclose briefly the particulars of compliance with environmental laws, steps taken or proposed to be taken towards adoption of clean technologies for prevention of pollution, waste minimization, waste recycling and utilization, pollution control measures, investment on waste reduction, water and other resource conservation. In April 1993, a notification under the Environment (Protection) Rules, 1986 was issued requiring industries to submit an environment statement for the financial year ending on or before September 30, every year in a prescribed format to the State Pollution Control Boards concerned (Rajaraman, 1997).

Against this background, the present paper analyzes the relationship between the company characteristics and the amount of environmental disclosure made in the annual reports of the Indian companies.

Literature Review

This section deals with the review of empirical studies related with the status of environmental disclosure in the corporate annual reports. Some studies conducted in India and abroad relating to the corporate environmental reporting have been reviewed. The review of empirical studies has helped in the identification of problem areas, construction of disclosure index and the choice of statistical techniques for the conduct of the study.

Cohen (1994) found that some companies had issued special environmental reports, but they were fragmented and ordinary. Savage (1994) found that out of 115 South African companies, about 63% make environmental disclosures. Gamble *et al*. (1996) confirmed that there were differences between industries and that there was an increase in environmental disclosure over time. Gray *et al*. (1995) stated that the corporate environmental reporting appears to be unsystematic, not related to profits in the same period, related to the company size, industry type, country of reporting and ownership, and the capacity intensity. Deegan and Gordon (1996) found that the environmental disclosures were positive rather than negative and that there was an enhancement in voluntary environmental disclosures during this period due to increases in environmental group membership. Rankin (1996) concluded that the consumers in Australia demand more environmental information than they are getting. A total of 68% of the consumers wanted environmental information in the annual reports. Eric and Tsang (1998) observed that the most disclosed theme is human resources, followed by environment, community involvement, and others. Belal (1999) analyzed that most of the companies in Bangladesh made disclosure on employees, followed by disclosure on some environmental and ethical issues. Cheema (2000) found that the environmental reports were made up of two parts (a) qualitative information; and (b) quantitative information. The study also found that all the Canadian corporations (100%) provide environmental information in the environmental reports which were separate but published along with the annual reports. Ince (1997) found that the companies/industries, which were environmentally damaging, disclosed more social and environmental information than non-environmentally damaging companies/industries. Imam (2000) reported in an empirical research in 1996-1997 that most of the listed companies in Bangladesh did not provide any information regarding the environment, human resources, community and consumers. Environment disclosures were found to be totally ignored by most of the companies.

Imam (2002) found in his study of 40 companies that only 9 (22.5%) companies disclosed environmental information in their annual report. Pradhan and Bal (2002) reported that a majority of the respondents felt the need for environmental disclosure. The most favored disclosure variables among the respondents were environmental audit reports, corporate environmental policy, quantifiable future targets and goals on environmental issues, disposal of toxic or hazardous substances and environmental spending. Nikam and Wickramarachchi (2002) reported that there was a positive relationship between the status of environmental disclosure and the dependent variables. The relationship between the total assets and the environmental disclosure was found to be significant. However, the relationship between the number of the stakeholders and the environmental disclosure turned out to be insignificant. Samuel and Towler (2004) found in their empirical research that an increasing number of companies in UK, irrespective of their size, are recognizing that corporate social reporting is beneficial to them.

Gupta (2007) concluded that trends in socially responsible initiatives are encouraging as well as critical in India. Islam and Dellaportas (2011) concluded that accountants do have positive attitude towards corporate social and environmental accounting, but improvement is partial. Moroney *et al.* (2011) found the value of voluntary environmental disclosure scores significantly higher for assured companies than for companies for which there was no assurance. Experience was also noticed to be a factor in the quality of environmental disclosures. Suttipun and Stanton (2012) found that 83% companies provided environmental information in their annual reports and that a positive relationship existed between the amount of environmental disclosures and size of the company. Uyar *et al.* (2013) found that there is a positive relationship between voluntary information disclosure and company characteristics (firm size, audit firm, corporate ownership and corporate governance), but there is a negative relationship between leverage and ownership diffusion with the extent of voluntary disclosure. Akbas (2014) found that company size and industry membership are positively related, but profitability is negatively related with disclosure of information. It was also found that neither leverage nor age has a significant relationship with the extent of disclosure. Setyawan and Kamilla (2015) reported that there is no relationship between corporate governance variables and environmental disclosure except for size and meeting frequency. Akbas (2016) found that only board size has statistical significance and positive relationship with the extent of environmental disclosure. This result implies that firms with larger boards disclose more environmental information than firms with smaller boards. Khalid *et al.* (2017) found that firm size, type of audit firm and financial performance in Amman Stock Exchange (ASE) are significantly associated with the amount of Corporate Social and Environmental Disclosure (CSED). On the other side, it was also found that firm profitability, age, type of industry and ownership are not related to the practices of CSED. Djuminah *et al.* (2017) reported that the proportion of independent audit committee and educational background of the commissioner have a positive effect on environmental disclosure but the size of the audit committee and company size has no significant effect on environmental disclosure. Heawaty (2018) found that environmental performance and profitability have a positive influence on earning informativeness but leverage has a negative influence on earning informativeness.

The review of empirical studies provided detailed insights on the subject matter included in disclosures, over time trend of environmental disclosure and the general relationship between the corporate characteristics and environmental disclosure. However, the above review reveals that there is a dearth of studies on corporate environmental disclosure, but very few studies have been conducted in developing countries like India which show the relationship between company characteristics and the amount of environmental disclosure. Therefore, the present study is an attempt in this direction.

Objective

The main objective of the study is to find out the relationship between corporate environmental reporting practices and company characteristics in the Indian private listed companies.

Hypotheses

Based on the objective, the following hypotheses are framed:

H_1 : *There is an association between the industry type and EDI of companies.*

H_2 : *There is an association between the age of the company and EDI of companies.*

H_3 : *There is an association between company size and EDI of companies.*

H_4 : *There is an association between profitability and EDI of companies.*

H_5 : *There is an association between company liquidity and EDI of companies.*

H_6 : *There is an association between leverage and EDI of companies.*

Data and Methodology

Secondary data has been used for this study. The data for the Environmental Disclosure Index (EDI) has been taken from the websites of 90 Indian private sector companies. The sample was chosen by purposive sampling method. The definitions of variables are given in Table 1.

For the purpose of this study, the sample included all the companies which were a part of Dollex-200 Index as on March 31, 2014. To measure the type and extent of environmental disclosure by the sample companies, a worksheet referred to as EDI was prepared. The information was collected on a worksheet comprising 14 items (Corporate Environmental Policy, Environmental Law and Regulation, Environment Management Audit, Awards, ISO 14001, OHSAS 18001, ISO 50001, Pollution Control, Waste Management, Conservation of Energy, Energy Efficiency, Environmental Research and Development, Conservation of Natural Resources and Water Conservation) on various dimensions of environmental disclosure. The scoring criterion has been formulated on qualitative, quantitative and non-disclosure basis, encoded as 1, 2 and 0, respectively, except for a few items which were encoded as 1 for disclosure and 0 for non-disclosure (Corporate Environmental Policy, Environmental Law and Regulation, Environment Management Audit, Awards, ISO 14001, OHSAS 18001 and ISO 50001). So, the maximum score of EDI came to 21.

Table 1: Definition of Variables

Variable	Definition
Size	
Market Capitalization	Market value of companies as measured by their total capitalization
Total Assets	Average total assets
Profit After Tax	Profit earned after paying dividend and taxes
Net Sales	Sales after return of sales
Profitability	
Return on Total Assets	Profit after tax*100/ Total assets
Return on Equity	Profit after taxes and preference dividend/ Shareholders equity*100
Return on Sales	Profit after tax as % of sales
Leverage	
Debt-Equity Ratio	Total debt/total equity
Liquidity	
Current Ratio	Current assets/Current liabilities
Note: The variables are taken as of March 2014.	

Results and Discussion

The EDI scores of 90 Indian private sector companies were collected and its relationship with company characteristics was examined. This section covers the results of EDI and analysis of relationship between EDI and various company characteristics.

Classification of Companies as per Environmental Disclosure Index

Table 2 presents the classification of companies on the basis of EDI percentage. It reveals that in the case of 90 private sector companies, 15.56% have an EDI score between 30 and 40%, and 23.33% companies have an EDI score between 20 and 30%. 23.33% private sector companies also have an EDI between 40 and 50%. Only 5.56% of companies have an EDI of above 60%.

On the basis of the above analysis, it can be concluded that on an average, 62% of the companies have an EDI between 20 and 50%, which shows that annual reports of a majority of Indian private companies are relatively better in terms of content, quality, and social and environmental aspects.

Table 2: Distribution of Companies According to Environmental Disclosure Index

Environmental Disclosure Index (in %)	No. of Private Sector Companies
Less than 20	17 (18.89)
20-30	21 (23.33)
30-40	14 (15.56)
40-50	21 (23.33)
50-60	12 (13.33)
60 and Above	5 (5.56)
Total	**90**

Note: Figures in parentheses represent percentages.

Relationship Between Company Characteristics and Environmental Disclosure Index

For the purpose of this study, a number of company characteristics have been considered. It has been assumed that the type and quality of disclosure depends upon the company characteristics like industry sector, age, size, profitability, liquidity and leverage. Various statistical tests such as ANOVA, regression, Kruskal-Wallis *H*-test and chi-square test have been applied to test the hypotheses. The ANOVA results on EDI and industry sector are shown in Table 3.

One-way ANOVA results show that there is a significant relationship between type of industry sector and the amount of information disclosed in company's annual reports (see Table 3). The results are highly significant at 1% level of significance. So, the hypothesis H_1

Table 3: ANOVA on Environmental Disclosure Index and Industry Sector					
	Sum of Squares	**df**	**Mean Square**	***F***	**Sig.**
Between Groups	305.597	15	20.372	2.428	0.006
Within Groups	620.892	74	8.390		
Total	**926.489**	**89**			

is accepted, and it can be concluded that the type of industry sector has a positive association with EDI score of a company. This shows that industry sector, to which a company belongs, leaves an impact on the environmental disclosure practices of those companies. The same has been supported by previous studies (Pahuja, 2009; Burgwal and Vieira, 2014; and Akbas, 2014).

Regression has been used to statistically test the relationship between age of a company and EDI. The results (Table 4) show that age is less significantly explaining the variations in EDI. The value of adjusted R^2 is also very low which shows that age is less explaining the changes in value of EDI. So, the hypothesis H_2 is rejected and it can be concluded that there is less significant negative association between age of a company and the information disclosed in annual reports of a company. This means that the companies older in age may have more social disclosure as compared to younger companies. The same is supported by previous studies (Andrew *et al.*, 1989; Haniffa and Cooke, 2002; Garg and Gakhar, 2010; Suttipun and Stanton, 2012; Akbas, 2014; and Khalid *et al.*, 2017).

Table 4: Regression Results of Age of Company and Environmental Disclosure Index					
	Unstandardized Coefficients		**Standardized Coefficients**	***t***	**Sig.**
	B	**Std. Error**	**Beta**		
Constant	7.852	0.589		13.337	0
Age of the Company	–0.007	0.010	–0.075	–0.710	0.480
F	0.504				
Sig.	0.480				
R^2	0.006				
Adjusted R^2	–0.006				
Note: Dependent Variable: *Environmental Disclosure Index.*					

To measure the size of a company, market capitalization, total assets, profit after tax and net sales were considered as the variables. To find the relationship between size and EDI, Kruskal-Wallis test is used and the results are presented in Table 5. The results are insignificant for market capitalization but significant for total assets, profit after tax and net sales at 5% level of significance. It can be said that the size of a company has significant association with EDI. So, the hypothesis H_3 is accepted for total assets, profit after tax, net sales, and rejected for market capitalization. The results also indicate that companies with bigger size

Table 5: Kruskal-Wallis *H*-Test for Size and Environmental Disclosure Index				
	Market Capitalization	**Total Assets**	**Profit After Tax**	**Net Sales**
Chi-Square	6.377	14.498	15.391	11.184
df	4	4	4	4
Asymp. Sig.	0.173	0.006	0.004	0.025

are likely to make greater environmental disclosure as compared to smaller companies. The same is supported by previous studies (Andrew *et al.*, 1989; Adams *et al.*, 1998; Nikam and Wickramarachchi, 2002; Patten, 2002; Samuel and Towler, 2004; Pahuja, 2009; Garg and Gakhar, 2010; Suttipun and Stanton, 2012; Uyar *et al.*, 2013; Akbas, 2014 and 2016; Setyawan and Kamilla, 2015; and Khalid *et al.*, 2017). The reasons for this phenomenon may be that they possess more resources to be spent on accumulation and dissemination of information, and social reporting will give them a competitive edge. It will help them generate more confidence in the stakeholders.

The Kruskal-Wallis (*H*) test has also been carried out to test the relationship between each profitability variable (i.e., return on equity, return on total assets and return on sales) and environmental disclosure in the annual reports. Table 6 reveals that the results of *H*-test are not significant at 0.05 level of significance. The results show that there is no significant relationship between return on total assets, return on equity, return on sales, and the type of information disclosed in the annual reports. So, hypothesis H_4 is rejected. The same is supported by previous studies (Ahmad *et al.*, 2003; Cho *et al.*, 2010; Sun *et al.*, 2010; Galani *et al.*, 2012; Zeng *et al.*, 2012; and Khalid *et al.*, 2017).

Table 6: Kruskal-Wallis *H*-Test for Profitability and Environmental Disclosure Index			
	Return on Equity	**Return on Total Assets**	**Return on Sales**
Chi-Square	5.922	4.577	5.487
df	4	4	4
Asymp. Sig.	0.205	0.333	0.241

Chi-square test has been used to test the association between EDI and liquidity of a company (Table 7). The results show that there is no significant association between liquidity and

Table 7: Chi-Square Test on Environmental Disclosure Index and Liquidity			
	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	28.245	36	0.818
Likelihood Ratio	30.779	36	0.715
Correlation	0.114		0.287

information disclosure in the company's annual reports as the chi-square values are insignificant at 5% level of significance. This is supported by the correlation values, which show very low degree of positive correlation and are also not significant at 5% level of significance. Hence, hypothesis H_5 is rejected and it may be concluded that there is no positive association between company's liquidity and the extent of information disclosed in the annual reports.

Table 8 presents chi-square results testing the relationship between leverage and EDI. The results are insignificant at 5% level of significance. This result is reinforced by the correlation between leverage and EDI (0.012), which is very low and also insignificant. So, it can be concluded that there is no significant relationship between leverage and EDI. The same is supported by previous studies (Alsaeed, 2006; Huafang and Jianguo, 2007; Chau and Gray, 2010; Garg and Gakhar, 2010; and Akbas, 2014). Hence, hypothesis H_6 is rejected.

Table 8: Chi-Square Test on Environmental Disclosure Index and Leverage

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	44.969	52	0.744
Likelihood Ratio	52.809	52	0.443
Correlation	0.012		0.913

Conclusion

This paper examined the relationship between selected company characteristics and the extent of environmental disclosures of Indian private companies, using a sample of 90 private sector companies listed on the Dollex-200 as of March 31, 2014. This covers 16 sectors of the Dollex-200. Based on the previous literature, six company characteristics are considered as the independent variables that may influence the extent of environmental disclosures of sample companies, namely, industry type, age, size, profitability, liquidity and leverage. The study found that 62% of the Indian private companies have EDI between 20 and 50% in the annual reports. These disclosures were voluntary in nature and largely qualitative. The results of the study indicate that industry sector and size (total assets, profit after tax and net sales) of the company positively affect the extent of information disclosure in the annual reports. But variables like age of the company, profitability, liquidity and leverage do not affect environmental reporting by companies. The findings are consistent with the previous studies (Garg and Gakhar, 2010; and Huang and Kung, 2010) that companies bigger in size tend to disclose more information in annual reports, because they derive some benefits by disclosing more information. Overall, the disclosure practices of all Indian companies are fairly good.

Limitations: This study is subject to many limitations. First, the period of the study covers only one year, hence the analyses are conducted with cross-sectional data. Second, only annual reports are considered as the source of environmental disclosure, although companies can use other modes of communication, such as social responsibility or sustainability reports, with a separate section for environmental information and webpages. Third, the sample of study consists of 90 private sector companies listed on the Dollex-200 and these companies are mostly larger companies. In this sense, the results of the study may not be generalized for small companies.

Despite these limitations, it is considered that the study has contributed to the related literature because it has provided some insights from a developing country, and represents the first attempt to analyze the relationship between company characteristics and EDI of Indian private companies.

It is recommended that further studies may be undertaken to explore the environmental disclosures of Indian listed companies such as corporate websites and stand-alone environmental reports. Further efforts can also be made to establish from company management the reasons that companies provide environmental information in their annual reports. The government and The Institute of Chartered Accountants of India can play a major role in this regard by issuing a detailed accounting standard on environmental disclosure issues. Moreover, the trend of environmental disclosure in annual reports should be studied by using longitudinal data.■

References

1. Adams C, Hill W Y and Roberts C (1998), "Corporate Social Reporting Practices in Europe: Legitimating Corporate Behaviour?", *The British Accounting Review,* Vol. 30, No. 1, pp. 1-21.

2. Ahmad Z H, Salleh M J and Junaini M (2003), "Determinants of Environmental Reporting in Malaysia", *International Journal of Business Studies,* Vol. 11, No. 1, pp. 69-90.

3. Akbas H E (2014), "Company Characteristics and Environmental Disclsoure: An Empirical Investigation on Companies Listed on Borsa Istanbul 100 Index", *The Journal of Accounting and Finance*, Vol. 62, April, pp. 145-164.

4. Akbas H E (2016), "The Relationship Between Board Characteristics and Environmental Disclosure: Evidence from Turkish Listed Companies", *South East European Journal of Economics and Business,* Vol. 11, No. 2, pp. 7-19.

5. Alsaeed K (2006), "The Association Between Firm-Specific Characteristics and Disclsoure: The Case of Saudi Arabia", *Managerial Auditing Journal*, Vol. 21, No. 5, pp. 476-496.

6. Andrew B H, Gul F A, Guthrie J E and Teoh H Y (1989), "A Note on Corporate Social Disclosure Practices in Developing Countries: The Case of Malaysia and Singapore", *The British Accounting Review,* Vol. 21, No. 4, pp. 371-376.

7. Badani K N and Saksena R M (1990), "Corporate Social Disclosure in Public Enterprises", in M Saeed (Ed.), *Corporate Financial Reporting*, Anmol Publicationss, New Delhi.

8. Belal A R (1999), "Green Reporting Practices in Bangladesh", *The Bangladesh Accountant*, Vol. 19, No. 2, pp. 107-115.

9. Benston G J (1982), "Accounting and Corporates Accounatability", *Accounting, Organisations and Society*, Vol. 7, No. 2, pp. 87-105.

10. Blacconiere W G and Patten D M (1994), "Environmental Disclosure, Regulatory Costs, and Changes in Firm Value", *Journal of Accounting and Economics*, Vol. 18, No. 3, pp. 367-377.

11. Burgwal D V D and Vieira R J O (2014), "Environmental Disclosure Determinants in Dutch Listed Companies", *Rev. contab. finanç.*, Vol. 25, No. 64, pp. 60-78.

12. Chander S (1992), *Corporate Reporting Practices in Public and Private Sector*, Deep and Deep Publications, New Delhi.

13. Chau G and Gray S J (2010), "Family Ownership, Board Independence and Voluntary Disclsoure: Evidence from Hong Kong", *Journal of International Accounting, Auditing and Taxation,* Vol. 19, No. 2, pp. 93-109.

14. Cheema C S (2000), "Global Initiative on Environment Reporting", *The Management Accountant*, Vol. 35, No. 36, pp. 420-424.

15. Cho C H, Roberts R W and Patten D M (2010), "The Language of US Corporate Environmental Disclsoure", *Accounting, Organisations and Society,* Vol. 35, No. 4, pp. 431-443.

16. Cohen D C (1994), "Corporate Environmental Reporting Seen as Growth Industry", *Safety and Health*, Vol. 150, No. 3, pp. 121-124.

17. Deegan C and Gordan B (1996), "A Study of the Environmental Disclosure Practices of Australian Corporates", *Accounting and Business research,* Vol. 26, No. 3, pp. 187-199.

18. Djuminah Mona W, Kurniawati S B and Satyanovi V A (2017), "Firms Characteristics and Environmental Disclosure: A Comparative study of Hospitality Industry of Indonesia, Malaysia and Thailand", *Review of Integrative Business and Economics Research*, Vol. 6, No. 4, pp. 364-376.

19. Douglas A, Doris J and Johnson B (2004), "Corporate Social Reporting in Irish Financial Institutions", *The TQM Magazine*, Vol. 16, No. 6, pp. 387-395.

20. Eric W K Tsang (1998), "A Longitudinal Study of Corporate Social Reporting in Singapore: The Case of the Banking, Food and Beverages and Hotel Industries", *Accounting, Auditing & Accountability Journal*, Vol. 11, No. 5, pp. 624-648.

21. Galani D G, Efhymios S and Antonious (2012), "Company Charaterstics and Environmental Policy", *Business Strategy and the Environment*, Vol. 21, No. 4, pp. 236-247.

22. Gamble G O, Jackson K Hsu C and Tollersou C D (1996), "Environmental Disclosure in Annual Reports: An International Perspective", *The International Journal of Accounting*, Vol. 31, No. 3, pp. 293-331.

23. Garg M C and Gakhar D V (2010), "Web-Based Corporate Reporting Practices in India", *The IUP Journal of Accounting Research & Audit Practices*, Vol. 9, No. 3, pp. 7-19.

24. Gray R, Kouhy R and Lavers S (1995), "Corporate Social and Environmental Reporting: A Review of the Literature and a Longitudinal Study of UK Disclosure", *Accounting, Auditing and Accountability Journal*, Vol. 8, No. 2, pp. 47-77.

25. Gray R H, Owen D and Adams C (1996), *Accounting & Accountability: Changes and Challenges in Corporate Social and Environmental Reporting*, Prentice-Hall, London.

26. Gupta A D (2007), "Social Responsibility in India Towards Global Compact Approach", *International Journal of Social Economics*, Vol. 34, No. 9, pp. 637-663.

27. Haniffa R and Cooke T E (2002), "Culture, Corporate Governance and Disclosure in Malaysian Corporations", *Abacus,* Vol. 38, No. 3, pp. 317-349.

28. Heawaty V (2018), "The Effect of Environmental Performance and Accounting Characteristics to Earnings Informativeness", *The Fourth International Seminar on Sustainable Urban Development*, pp. 1-6, IOP Conf. Series: Earth and Environmental Science 106 (2018) 012077, available at http://iopscience.iop.org/article/10.1088/1755-1315/106/1/012077/pdf

29. Huafang X and Jianguo Y (2007), "Ownership Structure, Board Compostion & Corporate Voluntary Disclosure: Evidence From Listed Companies in China", *Managerial Auditing Journal*, Vol. 22, No. 6, pp. 604-619.

30. Huang Cheng-Li and Kung Fan-Hua (2010), "Drivers of Environmental Disclosure and Stakeholder Expectation: Evidence from Taiwan", *Journal of Business Ethics*, Vol. 96, No. 3, pp. 435-451.

31. Imam S (2000), "Corporate Social Performance Reporting in Bangladesh", *Managerial Auditing Journal*, Vol. 15, No. 3, pp. 133-141.

32. Imam S (2002), "Environmental Disclosure in Bangladesh", in Parmanik Alok Kumar (Ed.), *Environmental Accounting and Reporting*, Deep and Deep Publications Pvt. Ltd., New Delhi.

33. Ince D (1997), "Determinants of Social and Environmental Disclosure of the UK Companies in Environmental Policy Statements", available at www.enviroreporting.com

34. Islam M and Dellaportas S (2011), "Perceptions of Corporate Social and Environmental Accounting and Reporting Practices from Accountants in Bangladesh", *Social Responsibility Journal*, Vol. 7, No. 4, pp. 649-664.

35. Khalid T B, Kouhy R and 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*, Vol. 2017, No. 2017, pp. 1-28.

36. Moroney R, Windsor C and Aw Y T (2011), "Evidence of Assurance Enhancing the Quality of Voluntary Environmental Disclosures: An Empirical Analysis", *Accounting & Finance*, Vol. 52, No. 3, pp. 903-939.

37. Nikam G A and Wickramarachchi M W (2002), "Environmental Reporting and Its Application by the Listed Companies in Sri Lanka", in Parmanik Alok Kumar (Ed.), *Environmental Accounting and Reporting*, Deep and Deep Publications Pvt. Ltd., New Delhi.

38. Pahuja S (2009), "Relationship Between Environmental Performance and Environmental Disclosure", *Accounting, Organisations and Society,* Vol. 27, No. 8, pp. 763-773.

39. Pardhan Bibhuti B and Bal Ranjan K (2002), "Corporate Environmental Reporting: Perceptions of Corporate Managers", in Parmanik Alok Kumar (Ed.), *Environmental Accounting and Reporting*, Deep and Deep Publications Pvt. Ltd., New Delhi.

40. Patten D M (1992), "Intra-Industry Environmental Disclosures in Response to the Alaskan Oil Spill: A Note on Legitimacy Theory", *Accounting, Organizations and Society*, Vol. 17, No. 5, pp. 471-475.

41. Patten D M (2002), "The Relation Between Environmental Performance and Environmental Disclosure: A Research Note", *Accounting, Organization and Society*, Vol. 27, No. 8, pp. 763-773.

42. Pramanik A K (2002), "Environmental Accounting and Reporting: An Emerging Issue", in Parmanik Alok Kumar (Ed.), *Environmental Accounting and Reporting*, Deep and Deep Publications Pvt. Ltd., New Delhi.

43. Rajaraman N (1997), "Environmental Auditing", *The Management Accountant, ICWAI,* Vol. 32, No. 9, New Delhi.

44. Rankin M (1996), "Corporate Reporting – the Green Gap, The Environmental Accounting Task Force", The Impact of Environmental Matters on the Accountancy Profession: Discussion Paper, p. 9, The Institute of Chartered Accountants in Australia, Melbourne, available at https://books.google.co.in/books/about/Corporate_Reporting_the_Green_Gap.html?id=gREGNAAACAAJ&redir_esc=y

45. Samuel O Idowu and Towler B A (2004), "A Comparative Study of the Contents of Corporate Social Responsibility Reports of UK Companies", *Management of Environmental Quality*, Vol. 15, No. 4, pp. 420-437.

46. Savage A (1994), "Corporate Social Disclosure Practices in South Africa: A Research Note", *Social and Environmental Accounting*, Vol. 14, No. 1, pp. 2-4.

47. Setyawan H and Kamilla P (2015), "Impact of Corporate governance on Corporate Environmental Disclosure: Indonesian Evidence", *International Conference on Trends in Economics, Humanities and Management* (ICTEHM'15), Pattaya (Thailand), pp. 13-18, available at http://icehm.org/upload/2392ED815026.pdf

48. Sikidar S (1994), "Pollution Disclosure, Fulfillment of Social Obligations and Corporate Financial Reporting", in B S Bhatia and H L Verma (Eds.), *Development in Accounting*, Pointer Publishers, Jaipur.

49. Sun N S, Aly H and Khaled H M (2010), "Corporate Environmental Disclosure, Corporate Governance and Earnings Management", *Managerial Auditing Journal*, Vol. 25, No. 7, pp. 679-700.

50. Sutantoputra A W, Lindorff M and Johnson E Prior (2012), "The Relationship Between Environmental Performance and Environmental Disclosure", *Australasian Journal of Environmental Management*, Vol. 19, No. 1, pp. 51-65.

51. Suttipun M and Stanton P (2012), "Determinants of Environmental Disclosure in Thai Corporate Annual Reports", *International Journal of Accounting and Financial Reporting*, Vol. 2, No. 1, pp. 99-115.

52. Uyar A, Kilic M and Bayyurt N (2013) "Association Between Firm Characteristics and Corporate Voluntary Disclosure: Evidence from Turkish Listed Companies", *Omnia* Science, Vol. 9, No. 4, pp. 1080-1112.

53. Zeng S X, Xu X D, Yin H T and Tam C M (2012), "Factors That drive Chinese Listed Companies in Voluntary Disclosure of Environmental Information", *Journal of Business Ethics*, Vol. 109, No. 3, pp. 309-321.

Reference # 09J-2018-07-02-01