

# Environmental Reporting Disclosures Practices of Listed Ceramic and Cement Companies at DSE in Bangladesh

Mohammad Main Uddin<sup>1</sup>, Rabiul Islam<sup>2</sup>, Md. Abdur Rouf<sup>3</sup> and Md. Javed Kayser<sup>4</sup>

<sup>1</sup> Hajee Mohammad Danesh Science and Technology University

*Received: 6 December 2018 Accepted: 1 January 2019 Published: 15 January 2019*

## Abstract

This study attempts to investigate the environmental accounting disclosure reporting practices in annual report of listed ceramic and cement companies at Dhaka Stock Exchange (DSE) in Bangladesh. To derive the results, we had collected data from secondary source more specifically from annual report. Collected data are analyzed by using, with statistical tools and SPSS software. For testing hypothesis, we have conducted data analysis with regression model and ANOVA test. The study revealed that only 40

**Index terms**— environmental disclosure, annual reports, ceramic and cement companies.

## 1 Introduction

Environment and human life are directly related to each other. Several activities are needed to perform by human to sustain or survive themselves in world. Conducting business is another prime activity performed by human being. Several industries have been developed time to time in order to enhance the living standards of people in all across the world including Bangladesh. From several industries ceramic and cement are two of them. These ceramic and cement industry directly or indirectly pollute the environment like way of air pollution, water pollution, soil pollution, sound pollution, thermal pollution, radioactive pollution and light pollution. That's why; industry or business organization needs to be accountable about their environmental conservative activities. What activities are actually performing by business organization with their regular business activities? This information need to communicate with the stakeholders of environment. To communicate this matter to shareholder and stakeholders, there are several ways. Disclosing environmental information in annual reports is one of the easy and productive ways. There are various types' disclosers practiced by business organization all over the world. Some of them are mandatory to disclose, some are regularity disclosure and some are voluntary disclosure. It's very disappointing matters of us that, though environment is very vital part of our daily life and our survival depends on sustainability of living environment but environmental reporting is not mandatorily disclosed by law yet. Now in all over the world, it is found that environmental reporting and environmental information are disclosed properly by the companies in their annual reports in huge volume. In Bangladesh by law it is not mandatory to reveal environmental disclosures and environmental reporting practices in companies' annual reports. But in isolated way many company disclose environmental information in their annual report under several section like mission or vision statement or in director's report. In few companies it is found environmental compliance statement separately. Considering so, this study is trying to find the actual situation of environmental disclosures and environmental reporting practices by ceramic and cement companies listed in DSE. With this it is also try to disclose the relationship among volume of disclosure and EPS, NP, CD, TA and NAPV of the company.

## 2 II.

## 3 Objectives of the Study

The prime objective of the study is to know volume of environmental accounting information disclosures shown in annual reports of the ceramic companies and cement companies listed at Dhaka Stock Exchange (DSE).

The another specific objective of this study is to justify weather there is any relationship among extend of environmental disclosure and Earnings Per Share (EPS), extend of environmental disclosure and Net Profit, extend of environmental disclosure and rate of cash dividend, extend of environmental disclosure and total assets and extend of environmental disclosure and NAPV.

### 4 III.

## 5 Literature Review

Ullah et al. (2014) studied on environmental disclosure practices in annual report of the listed textile industries in Bangladesh. The study revealed that maximum 69% textile companies disclosed nothing relating to environmental issues in their annual reports and overall disclosure of the textile sector is poor. The high standard deviation in total environmental disclosure indicated high variation among the textile companies in addressing environmental issues in their annual reports. Textile companies in Bangladesh disclosed least environmental information connecting to environmental finance, environmental energy and environmental policy. Dyduch (2017) an article aimed to investigate and analyzed the volume and quality of financial environmental disclosure in annual reports of companies listed in poland. After conducting of content analysis of 148 company's annual reports produced in for 2015. And result showed about 60% of companies disclosed financial environmental information in their annual reports. Another result from this same study found that a positive but moderate dependence between the level of disclosure and total assets and the lack of impact of profitability. Mehedy et al. (2018) investigated that Environmental Reporting Practices of Listed Companies in Bangladesh and result revealed that Companies have been found to disclose only positive qualitative information about their environmental activities in annual reports and No company separately disclosed the amount of normal provisions or provisions set aside for contingent liabilities in respect of the environment. Another result found from the study is that the companies do not maintain either monetary or physical approaches of environmental accounting. Major relationship of the company's Assets, Gross Profit and Earnings per Share (EPS) with the level of their environmental accounting information disclosure in the annual reports is reveled from the study.

Hossain (2016) examined the Environmental Reporting Practices in annual Reports of selected pharmaceutical and chemical companies in Bangladesh. from selected 15 Pharmaceutical and Chemical Companies of Bangladesh, the study identified only two companies disclosed maximum 18 environmental factors in their annual report out of 74 factors. Rakivet al. (2016) advocated a study on environmental accounting reporting disclosure and company profitability and taken listed manufacturing companies of Bangladesh as sample. This research paper disclosed that only 41 companies out of 166 companies are providing some sort of environmental disclosures in their annual reports and there is a significant positive relation between company profitability and environmental accounting reporting disclosure index. Hossain (2006) studied Corporate Social and Environmental Disclosure in Developing Countries: Evidence from Bangladesh reported that a very few companies in Bangladesh are making efforts to provide social and environmental qualitative information on a voluntary basis, Bangladeshi Companies seemed to have the lowest levels of social and environmental disclosure in their annual report. Islam and Arafin (2017) performed a study on an analysis of environmental accounting and reporting of Bangladeshi Corporate Sector and tried to determine the driving factors that initiate the companies to adopt these practices. From the study it was found that a very few companies in Bangladesh were voluntarily disclosed the environmental matters in their Annual reports. High polluting industries, size of the company, High Debt to equity ratios and environment performance are the driving factors, have positive impact on the environment disclosure. From the study it addressed the reason behind the lowly disclosure in environmental matters in annual report in Bangladesh was lack of environmental legislations. Kabir (2015) studied on evaluation of disclosures of listed textile companies in Bangladesh in annual report. And study revealed that there were major differences in disclosure practices among the sample companies. But the level of disclosures was dissatisfactory as the average disclosure score was 45.3787 out of 144 which represented only 31.51% of the total allotted score. Again, the average voluntary disclosure score was 5 out of 35 (14.29%) which was dissatisfactory at all.

### 6 IV.

## 7 Statement of Problem

From the discussion done in literature review we found it clearly that so many works done about environmental reporting practices in annual reports of companies all over the world including Bangladesh. Though different studies have been made on environmental reporting practices in their annual report but taking all the ceramic and cement companies listed in DSE as sample in the year 2018 has not been conducted yet. Some study done by taking sample company from ceramic sectors and cement listed in DSE but that study did not provide the actual scenario that is why there is a research gap. In addition, ceramic sector and cement sector is closely related with environment. For this reason, accordingly the researchers try to figure out the problem by this study.

V.

---

## 8 Methodology a) Research design and sample size

This study is empirical research by nature which investigates the volume of environmental accounting information disclosures shown in annual reports of the ceramic companies and cement companies listed at Dhaka Stock Exchange (DSE) in Bangladesh. There are 22 sectors in DSE. Ceramic and cement are two of them. To complete this study ceramic and cement sectors was purposively selected from available 22 sectors which are listed with DSE. There are five companies which are listed in ceramic sector at DSE and seven companies which are listed in cement sector at DSE. From ceramic and cement sector all the companies were selected as sample.

## 9 b) Time frame

To make the study logical, reliable, relevant and up to date, the data should be taken from latest and current year. Therefore, now its running 2019 and 2018 is most recent, latest and up to date year. So the year 2018 was taken as selected year of data collection and annual report of five ceramic companies and seven cement companies listed in DSE for the year 2018 was taken.

## 10 c) Source of data

This study was conducted on the basis of secondary data that are taken from published annual reports of the selected ceramic cement companies listed at DSE.

## 11 d) Data analysis tools

Data collected were analyzed by using different statistical tools and technique to make the conclude decision. In addition, the SPSS application was used to analyze the quantitative data. To get the reliable conclusion we had set some hypothesis. For testing hypothesis, we had conducted data analysis regression model, ANOVA test and coefficient variance test. For the reason, all data collected from annual report of respective selected companies' researchers developed Environmental Accounting Disclosure Reporting Practices Index (EADRPI) consisting of ten factors for scoring the companies in order to rank the sample companies on environmental accounting disclosure reporting practices.

## 12 VI.

## 13 Research Hypothesis

H A : There is significant relationship between extend of environmental disclosure and Earnings Per Share (EPS).

H 0 : There is no significant relationship between extend of environmental disclosure and Earnings Per Share (

## 14 EPS).

H A : There is significant relationship extend of environmental disclosure and Net Profit. H 0 : There is no significant relationship extend of environmental disclosure and Net Profit. H A : There is significant relationship between extend of environmental disclosure and rate of cash dividend. H 0 : There is no significant relationship between extend of environmental disclosure and rate of cash dividend. H A : There is significant relationship between extend of environmental disclosure and total assets. H 0 : There is no significant relationship between extend of environmental disclosure and total assets. H A : There is significant relationship between extend of environmental disclosure and Net Asset Value per Share (NAVS). H 0 : There is no significant relationship between extend of environmental disclosure and Net Asset Value per Share (NAVS). ??

—( ?? ————— (3) EADRPI= ? 0 +? 1 TA +e ?? —————  
—(4) EADRPI= ? 0 +? 1 NAPV +e ?? —————(

## 15 Development of research model:

EADRPI= ? 0 +? 1 EPS +e 0-

## 16 Result and Discussion

Content Analysis: Basically this study base on the information about environmental disclosures and reporting practice available in annual report. Source: Authors' Estimation. listed cement companies at DSE are seven. From seven companies, five (71.44%) companies disclosed their environmental accounting disclosure reporting practices in annual report. Other two (28.56%) companies did not provide any information about their environmental accounting disclosure reporting practices in annual report. Interpretation: from this table 3, it was found that no company from ceramic and cement companies listed at DSE disclosed any monetary information in their annual report. Only nonmonetary information was disclosed by the ceramic and cement companies in Bangladesh. Interpretation: Results of model—( ??)

From the analysis we found it that p value 0.128 which is greater than 0.05. So the alternative hypothesis is rejected that means there is no significant relationship between extend of environmental disclosure and Earnings

Per Share (EPS). Interpretation: Results of model- ?? (2) From the analysis it found that p value 0.822 which is greater than 0.05. So the alternative hypothesis is rejected that means there is no significant relationship between extend of environmental disclosure and Net Profit. Interpretation: Results of model- (3) From the analysis we found it that p value 0.246 which is greater than 0.05. So the alternative hypothesis is rejected, that means there is no significant relationship between extend of environmental disclosure and cash dividend paid. Interpretation: Results of model- ?? (4) From the analysis we found it that p value 0.650 which is greater than 0.05. So the alternative hypothesis is rejected that means there is no significant relationship between extend of environmental disclosure and total assets. Interpretation: Results of model- (5) From the analysis we found it that p value is 0.244 which is greater than 0.05. So the alternative hypothesis is rejected that means there is no significant relationship between extend of environmental disclosure and Net Asset Value per Share (NAVS).

## VIII.

## Findings

This study revealed that from five ceramic companies listed at DSE only two companies that represents 40% of total ceramic company at DSE disclosed their environmental accounting disclosure reporting practices in annual report. In case of nature of information disclosed it is clear that no company provide any financial or monetary information they only disclosed nonmonetary information in their annual report. In case of cement company from seven cement companies listed at DSE, five cement company that represents 71.43% of total cement company listed at DSE disclosed their environmental accounting disclosure reporting practices in annual report. In case of nature of information disclosed in annual report about environmental accounting disclosure reporting practices it is clear that no company provide any financial or monetary information they only disclosed nonmonetary information in their annual report. The another specific objective of this study was taken place and result was found that there is no significant relationship between extend of environmental disclosure and Earnings Per Share (EPS), extend of environmental disclosure and Net Profit, extend of environmental disclosure and rate of cash dividend, extend of environmental disclosure and total assets; and extend of environmental disclosure and Net Asset Value per Share (NAVS).

## IX.

## Suggestions

After conducting of this study it was very much clear that, the information which is mandatory to disclose by law in annual report this information was perfectly disclosed in annual report. Environmental accounting disclosure reporting practices in annual report is not mandatory in Bangladesh yet. That's why; it was found a tendency of ignorance of disclosing environmental accounting disclosure reporting practices in annual report. So controlling authority of the listed company or ministry of climate change should have established a regularity framework in order to guiding the listed companies to do environmental accounting disclosure reporting practices in annual report. As we see some benefits packages need to give the company who disclosed certain level of environmental accounting disclosure reporting practices in annual report. It may be in financial term or in nonfinancial benefits like tax holiday scheme, convenient rate of interest in providing loan, investment allowance, rating of the company's performance, prize giving, rewarding etc.

## X.

## Conclusion

Present study basically focused on environmental accounting disclosure reporting practices of listed ceramic and cement companies at DSE in Bangladesh. As well it tried to find the relationship between degree of environmental accounting disclosure reporting practices with EPS, Total assets, net profit and NVPS. In our result it is found that cement company is in better position in case of disclosing environmental accounting disclosure reporting practices in annual report. Because only 28.27% ceramic company disclosed environmental accounting disclosure reporting practices in their annual report on other hand 71.43% cement company disclosed environmental accounting disclosure reporting practices in their annual report. In case of relation analysis between degree of environmental accounting disclosure reporting practices with EPS, total assets, net profit and NVPS, we found it that no significant relation between degree of environmental accounting disclosure reporting practices with EPS, total assets, net profit and NVPS. In case of doing the study and in interpreting the result some limitations need to disclosed like, the major limitation of the study is that; this study based on secondary data only basically from annual report and annual report of one year (2018) were used for the study. This study recommended if controlling authority taken some regularity measure, financial and nonfinancial benefits packages that would motivate the ceramic companies and cement companies in disclosing environmental accounting disclosure reporting practices in annual report.

---

## 23 9.

Environmental Governance and Compliance 10.  
Environmental Audit Program/ Committee

1

Name of the sector	Number of the com- panies Ceramic sector listed in DSE	Number of Taken company as sample	Percentage of the sam- ple from total population
Ceramic	5	5	100%
Cement	7	7	100%

Source: Authors Estimation.

Figure 1: Table 1 :

2

Name of the sector	Companies listed at DSE	Sample companies	Making environmental disclosure or not	% of total population	Total % of providing disclosure	Total % of not providing disclosure
	Standard Ceramic Industries Limited	Standard Ceramic Industries Limited	Not	20%		
	Fu-Wang Ceramic Industry Limited	Fu-Wang Ceramic Industry Limited	Yes	20%		
Ceramic	Monno Ceramic Industries Limited	Monno Ceramic Industries Limited	Not	20%	40%	60%
	ShainePukur Ceramic Limited	ShainePukur Ceramic Limited	Not	20%		
	RAK Ceramics (Bangladesh) Limited	RAK Ceramics (Bangladesh) Limited	Yes	20%		
	Premier Cement Mills Ltd.	Premier Cement Mills Ltd.	Yes	14.28%		
Cement	Confidence Cement Limited	Confidence Cement Limited	No	14.28%		
	Heidelberg Cement Bangladesh Limited	Heidelberg Cement Bangladesh Limited	Yes	14.28%		
	Lafarge Holcim Bangladesh Limited	Lafarge Holcim Bangladesh Limited	Yes	14.28%		28.56%
	Megna Cement Mills Ltd	Megna Cement Mills Ltd	Yes	14.28%	71.44%	
	M. I. Cement Factory Limited	M. I. Cement Factory Limited	Yes	14.28%		
	Aramit Cement Limited	Aramit Cement Limited	No	14.28%		

Figure 2: Table 2 :

3

Nature of the disclosed information of Companies	No. of the Co.	%
Monetary information	0	0
Nonmonetary information	7	100
Both monetary and nonmonetary information	0	0
Total	7	100

Source: Authors Estimation.

Figure 3: Table 3 :

4

Score in per- centage	Name of the company companies	% of the	% of sample	total
10%	Lafarge Holcim Bangladesh Limited	20%	14.28%	
20%	Fu-Wang Ceramic Industry Limited	50%	14.28%	
40%	Megna Cement Mills Ltd.	20%	14.28%	
50%	M. I. Cement Factory Limited	20%	14.28%	
70%	RAK Ceramics (Bangladesh) Limited	50%	14.28%	
80%	Heidelberg Cement Bangladesh Limited	40%	28.57%	
80%	Premier Cement Mills Ltd.			

Source: Au-  
thors Estima-  
tion.

50%, 70% of EADRPI respectively. And 28.57% sampled  
company scored 80% of EADRPI score.

Figure 4: Table 4 :

5

Name of the company	EPS
Lafarge Holcim Bangladesh Limited	0.96
Fu-Wang Ceramic Industry Limited	0.68
Megna Cement Mills Ltd.	3.62
M. I. Cement Factory Limited	2.13
RAK Ceramics (Bangladesh) Limited	2.27
Heidelberg Cement Bangladesh	14.33
Premier Cement Mills Ltd.	4.18

Source: Authors  
Estimation.

Figure 5: Table 5 :

6

Name of the company	In MN Tk.
Lafarge Holcim Bangladesh Limited	1114.652
Fu-Wang Ceramic Industry Limited	84.08
Megna Cement Mills Ltd.	81.45
M. I. Cement Factory Limited	315.61
RAK Ceramics (Bangladesh) Limited	883.18
Heidelberg Cement Bangladesh	809.758
Premier Cement Mills Ltd.	442.18

Source: Authors Es-  
timation.

Figure 6: Table 6 :

7

Name of the company	Rate of Cash Dividend
Lafarge Holcim Bangladesh Limited	10
Fu-Wang Ceramic Industry Limited	00
Megna Cement Mills Ltd.	20
M. I. Cement Factory Limited	15
RAK Ceramics (Bangladesh) Limited	10
Heidelberg Cement Bangladesh	75
Premier Cement Mills Ltd.	10
Source: Authors Estimation.	

Figure 7: Table 7 :

8

Name of the company	In Tk. (MN)
Lafarge Holcim Bangladesh Limited	26,888
Fu-Wang Ceramic Industry Limited	1903.08
Megna Cement Mills Ltd.	6881
M. I. Cement Factory Limited	19713.9
RAK Ceramics (Bangladesh) Limited	11,791.15
Heidelberg Cement Bangladesh	8641.419
Premier Cement Mills Ltd.	13567.17
Source: Authors	

Figure 8: Table 8 :

9

Name of the company	NAVS
Lafarge Holcim Bangladesh Limited	30.30
Fu-Wang Ceramic Industry Limited	11.61
Megna Cement Mills Ltd.	30.58
M. I. Cement Factory Limited	13.27
RAK Ceramics (Bangladesh) Limited	57.51
Heidelberg Cement Bangladesh	15.29
Premier Cement Mills Ltd.	128.66
Source: Authors Estimation.	

Figure 9: Table 9 :



10

Name	Mean	ST. Deviation	Minimum	Maximum
EADRPI	.5000	.28284	.10	.80
EPS	4.0243	4.71938	.68	14.33
NP	532.9871	407.93654	81.45	1114.65
CD	20.0000	25.00000	.00	75.00
TA	12769.3884	8356.08310	1903.08	26888.00
NAPV	41.0314	41.78047	11.61	128.66

From the table of descriptive statistics indicated that mean, minimum and maximum value of EPS is 4.0243, 0.68 and 14.33 respectively. NP 532.9871, 81.45 and 1114.65 respectively. CD is 20.00, 0.00 and 75.00 respectively. TA is 12769.3884, 1903.08 and 26888.00. NAPV is 41.0314, 11.61 and 128.66 respectively. For better understanding another test of coefficient variance is done. Which indicates the value more inconsistent.

Name of Variable	ST. Deviation	Mean	Coefficient Variance (CV)
EPS	4.71938	4.0243	0.56568
NP	407.93654	532.9871	1.172721
CD	25.00000	20.0000	0.765378
TA	8356.08310	12769.3884	1.25
NAPV	41.78047	41.0314	0.654384

From this table CV varies lowest value 0.56568 in case of EPS from highest value 1.25 in case of total asset. So variation in total asset is most inconsistent than the other.

Figure 10: Table 10 :

10

Name	Model (1)	Model (2)	Model (3)	Model (4)	Model (5)
Constant	.348	.461	.385	.591	.147
EPS	.038 (.128)				
NP		7.31 (.822)			
CD			.006 (.246)		
TA				-7.14 (.650)	
NAPV					.003 (.24)
R 2	.399	.011	.257	.045	.258
F	3.315	0.056	1.728	.233	1.740
Sig.	.128	.822	.246	0.65	.244

Figure 11: Table 10 :



## .1 Appendix

Environmental Accounting Disclosure Reporting Practices Index (EADRPI):

[ Monno Ceramic Industries Limited ()] , *Monno Ceramic Industries Limited* 2018.

[Annual Reports’: Standard Ceramic Industries Limited ()] *Annual Reports’: Standard Ceramic Industries Limited*, 2018.

[Aramit Cement Limited-2018. Confidence Cement Limited ()] *Aramit Cement Limited-2018. Confidence Cement Limited*, 2018.

[ M ()] *Cement Factory Limited*, M . 2018.

[Fu-Wang ()] *Ceramic Industry Limited*, Fu-Wang . 2018.

[Hossain et al. (2006)] ‘Corporate social and environmental disclosure in developing countries: evidence from Bangladesh’. M A Hossain , K S Islam , J Andrew . [https://ro.uow.edu.au/commpapers/179/Proceedings of the Asian Pacific Conference on International Accounting Issues](https://ro.uow.edu.au/commpapers/179/Proceedings%20of%20the%20Asian%20Pacific%20Conference%20on%20International%20Accounting%20Issues), (the Asian Pacific Conference on International Accounting IssuesHawaii) 2006. October 2006.

[Islam and Arafin ()] ‘Environmental Accounting and Reporting an Analysis of Bangladeshi Corporate Sector’. M S Islam , M Arafin . *International Journal of Research in Business, Economics and Management* 2017. 1 (2) p. .

[Rakiv et al. ()] ‘Environmental Accounting Reporting Disclosure and Company Profitability: A Case Study on Listed Manufacturing Companies of Bangladesh’. M Rakiv , F Islam , R Rahman . *International Journal of Ethics in Social Sciences* 2016. 4 (2) p. .

[Ullah et al. ()] ‘Environmental Disclosure Practices in Annual Report of the Listed Textile Industries in Bangladesh’. M H Ullah , M M Hossain , K M Yakub . *Global Journal of Management and Business Research: D Accounting and Auditing* 2014. 14 (1) .

[Hossain ()] ‘Environmental Reporting Practices in annual Reports of selected pharmaceutical and chemical companies in Bangladesh’. M M Hossain . *International Journal of Business and Management Invention* 2016. 5 (7) p. .

[Mehedy et al. ()] ‘Environmental Reporting Practices of Listed Companies in Bangladesh’. S R Mehedy , H M Sajib , R Karim . *International Journal of Academic Research in Accounting* 2018. 8 (3) p. . (Finance and Management Sciences)

[Kabir ()] ‘Evaluation of Disclosures in Annual Report-A Study on the Listed Textile Companies in Bangladesh’. M R Kabir . *IIUC Business Review* 2015. 4 p. .

[Dyduch ()] ‘Financial Environmental Disclosure in the Annual Reports of Listed Companies in Poland’. J Dyduch . *International Journal of Trade, Economics and Finance* 2017. 8 (3) p. .

[Green Environmental Practice 2. Green production Facilities 3. Waste Management and Waste Conversion System 4. Water and Green Environmental Practice 2. Green production Facilities 3. Waste Management and Waste Conversion System 4. Water and Garbage Management 5. Air Pollution Awareness Initiatives 6. Tree Plantation Program and Initiative 7, (Implementation of Effluent Treatment Plant 8. Achieving Environmental Clearance Certificate)

[Megna Cement Mills Ltd -2018. Premier Cement Mills Ltd ()] *Megna Cement Mills Ltd -2018. Premier Cement Mills Ltd*, 2018.

[ShainePukur Ceramic Limited -2018. RAK Ceramics (Bangladesh) Limited ()] *ShainePukur Ceramic Limited -2018. RAK Ceramics (Bangladesh) Limited*, 2018.