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Corporate Social and Environmental Disclosure in a Developing Country: Evidence from Pakistan

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Abstract: The corporate social and environmental disclosure (CSED) literature mostly revolves around the western developed world. This paper presents CSED in the context of a developing country; Pakistan. A sampling frame has been constructed from the quantitative analysis of the CSR-related information in annual reports, separate CSR reports and corporate websites of a sample of 59 companies drawn from the Karachi Stock Exchange (KSE).The empirical evidence shows that the sample companies disclose social and environmental information, with the most common areas of concern being community relations, health and safety issues and human resource aspects. In this, corporate websites appear to be the favoured avenue of disclosure. Further, we present evidence that larger companies tend to disclose less information on social and environmental performance. Moreover, profitable companies and those with higher sales disclose more information. Our findings suggest that high sales and profitability are contributing factors in CSR disclosure.

Keywords: Corporate Social Reporting; Corporate Social Disclosure; Social and Environmental Reporting; Developing Countries; Pakistan

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Introduction

More recently, expectations regarding a responsible role of businesses in society has increased considerably. One of the ways to address these societal expectations is to provide social and environmental information to different stake holders concerning business, social and environmental activities (Brooks, & Oikonomou, 2018). Literature suggests that improved corporate social and environmental disclosure (CSED) can help to reduce the gap between management and stakeholder expectations by lessening the problem of information asymmetry, and in doing so enhance firm liquidity, reduce cost and increase the value of stocks in the capital market (Ashfaq, & Rui, 2019; Khan, & Yunis, 2019,Apostolou & Nanopoulos, 2009; Cormier, Ledoux, & Magnan, 2009).As a result, a large number of business organisations have started using CSED as a mean of communication with stakeholders. Particularly during the past decade, the demand for CSED on the part of listed companies has increased significantly and stock markets have put increasing pressure on publicly listed firms to improve the quality of their CSED (Beretta & Bozzolan, 2004; Lungu, Caraiani, & Dascălu, 2011). Despite visible progress in CSED, there is lingering scepticism regarding good intentions that are not always translated into disclosure actions(Lungu et al., 2011) or symbolic patterns of disclosures (without much substance) particularly across the developing world (Golob& Bartlett, 2007).

From an academic perspective, an interest in CSED has soared since the early 1980s,(Gao, Heravi, & Xiao, 2005).However, most of the research to date on CSED has been conducted in the developed countries while a little is known about the nature and patterns of CSED in developing countries and their links to specific corporate and environmental issues (Khan, & Yunis, 2019; Akhtaruddin, 2005; Alsaeed, 2006; Barako & Brown, 2008; Khan, 2010; Rouf, 2011; Sahay, 2004).
This research paper presents a novel study of CSED in the context of a developing country; Pakistan. The study is important given the scarcity of research on CSED in developing countries in general and in Pakistan specifically. The study makes a potentially important contribution to the field of CSR research, given the obvious need and significance of understanding CSED in a specific context and highlighting potential differences in disclosure patterns across countries(Ashfaq, &Rui, 2019;Hope, 2003).

2. Literature Review and Hypotheses

CSED can be described as the process of communicating the social and environmental effects of organisations' to particular interest groups within society and to society at large (Campopiano, & De Massis, 15; R Gray, Owen, & Dams, 1996). This suggests that CSED is an important component of accountability through which organisations can discharge moral responsibility and gain legitimacy by informing members of society. In addition, scholars(Hossain, & Alam, M. 2016; Hasseldine, Salama, & Toms, 2005) have extended argument of accountability(Crane & Glozer, 2016), by arguing that CSED can be used as a communication instrument for public relation strategies, influencing stakeholder perceptions, creating a positive image, and enhancing reputation(Wong & Fryxell, 2004).

CSED has received considerable attention from many researchers with most of the literature focusing on western developed countries(Amorelli&García-Sánchez, 2020; Almahrog, Aribi, & Arun Dagiliene,2018; Leitoniene, & Grencikova, 2014; Cooke, 1989; Golob & Bartlett, 2007; Hackston & Milne, 1996; Holder-Webb, Cohen, Nath, & Wood, 2009; Wallace, Naser, & Mora, 1994).However, scholars have started focusing on the context of developing countries. For instance, a study (Khan, 2010) presents corporate reporting in the banking sector of Bangladesh. The study shows that overall, voluntary CSR reporting by Bangladeshi banks is limited to only few aspects of the overall CSR activities. Banks mainly disclose information on the contributions made to help natural disasters. In addition, regarding board structure, foreign affiliations of banks and non-executive board member presence have statistically positive relationship with social reporting. However, there was no significant relationship between CSR reporting and women's representation in the board.

Barako and Brown (2008) examine the influence of gender and board representation on corporate social reporting in Kenyan banks. The study results show that disclosure level is generally low particularly relating to human resource of banks. In addition, the study found that independent board directors and women representation in board progress the level of social disclosure. Amran and Susela Devi (2008)study the effects of foreign affiliation, i.e., multinational companies and government institutions on the level of corporate social disclosure in Malaysia. Their empirical evidence shows that foreign affiliation is not correlated with social reporting. However, there is strong evidence that the involvement of government institutions positively correlates with level of disclosure and is the main cause of CSR commitment in Malaysian context. Ratanajongkol, Davey & Low (2006) note an increase in level of corporate social disclosure among Thai companies over a period of time (1997-2001). Disclosure regarding human resource is the major one among them for social reporting. In addition, in terms of sectoral effect, the study indicates that the manufacturing sector discloses the highest amount of social information. Thus, social disclosure trends are different in different sectors. Sahay (2004) study from the Indian context concludes that most of Indian companies are behind developed countries in environmental reporting. Result of the study shows that companies do not provide relevant information to stakeholders. This study concludes that environmental reporting is unsystematic and inadequate in India because stakeholders put less pressure on companies to disclose environmental information.

Within the CSR-related disclosure literature, there is accumulating empirical evidence that CSED varies with several corporate attributes, particularly those pertaining to company size and profitability. We present in the following sections three hypotheses that we intend to test in the present study.

2.1 Profitability

Many researchers have used profitability as an explanatory variable for CSED (Ashfaq, & Rui, 2019;Apostolou & Nanopoulos, 2009; Hossain, Islam, & Andrew, 2006;Meek, Roberts, & Gray, 1995). It has been argued in this respect that high profits might encourage and motivate management to share more information not only because the company can afford it, but also because it increases investor confidence(Mahrani & Soewarno, 2018; Singhvi & Desai, 1971). Similarly,Alsaeed (2006) andHossain et al. (2006)argue that a profitable firm may wish to disclose more information to the public to promote positive impressions of its performance. However, the evidence pertaining to the relationship between profitability and CSED are not uniform. Different studies have presented mixed results about the relation between profitability and corporate social and environmental disclosure(Hossain et al., 2006; Lungu et al., 2011). Leventis and Weetman (2004)and Haniffa and Cooke (2002)put forward a positive and statistically important relationship between profitability and CSED. Similarly, a statistically positive and considerable relationship between net profit margin and corporate disclosure but the return on assets is not positively correlated with disclosure level(Hossain et al., 2006).Belkaoui and Karpik (1989)highlight a considerably pair-wise correspondence, on the other hand an insignificant negative regression co-efficient for return on assets and corporate social disclosure is shown. Moreover, Roberts (1992) has used a log of profits and reported a positive relationship between profitability and the level of disclosure.
Hategan, Sirghi, Curea-Pitorac &Hategan (2018), Hackston and Milne (1996), Patten (1992), andCowen, Ferreri, and Parker (1987) report no relationship between CSED and profitability. In contrast ,Smith, Yahya, &Amiruddin (2007)show inverse relationships between profitability and CSED. In addition to the mixed evidence on offer, researchers have used different profitability measures such as net profit margin, dividend growth, return on assets and return on equity (Akhtaruddin, 2005). Therefore, we propose to test

the relationship between CSED and profitability in our research using net profit margin as the measure of profitability, leading to the following hypothesis based on the review of the literature presented above.

Hypothesis 1.Firms' net profit margin will be positively related to public disclosure of its social and environmental information.

2.2 Company size

The size of the reporting company is an important factor that can affect the level of CSED. A large number of studies have examined the influence of firm size on CSED (Khan & Yunis,2020, Hossain, & Alam, 2016, Barako, Hancock, & Izan, 2006; Cho & Patten, 2007; Cormier & Magnan, 2003; da Silva Monteiro & Guzmán, 2010; Gao et al., 2005; Rob Gray, Javad, Power, & Sinclair, 2001; Hackston & Milne, 1996; Hossain et al., 2006; Lungu et al., 2011; Sufian, 2012; Wallace et al., 1994).Several reasons have been presented in support of positive relationships between company size and social and environmental disclosure. For example, according to some scholars, large companies (in size) often get greater attention and face immense pressure from different stakeholders (Aguilera-Caracuel & Guerrero-Villegas, 2018; Alsaeed, 2006; Deegan & Gordon, 1996; Lungu et al., 2011; Schipper, 1991). Consequently, they are likely to make public more social and environmental information compared to smaller firms. Also, social and environment information disclosed is specific and costly; consequently, only large firms have the technical resources and can afford the necessary cost (Khan & Yunis 2020; Aguilera-Caracuel & Guerrero-Villegas, 2018;Hossain, &Alam, 2016; Alsaeed, 2006; da Silva Monteiro & Guzmán, 2010). It has also been argued that disclosing more social and environmental information allows the large companies to access new funds at a cheaper cost (Botosan, 1997). Furthermore,Wong and Fryxell (2004) suggest that large companies try to project a favourable image and develop a better reputation through extensive corporate social disclosure.

Although most of the previous work indicates a positive relationship between firm size and disclosure level, however, the evidence is neither consistent nor uncontested. For example, scholars (Ali, Alsayegh, Ahmad, Mahmood, & Iqbal 2018;Hossain et al., 2006; Lynn, 1992; Roberts, 1992)report that CSED is not considerably elucidated by the size of the company. Therefore, this study proposes to test the relationship between CSED and firm size. The prevailing measurements of firm size in CSR literature come from financial point of view (such as assets, equity), market point of view (such as sales) and social point of view (for example number of employees). In this paper, the total assets and total net sales gauge the size of the company, which leading to the following hypotheses based on the review of the literature presented above.

Hypothesis 2: Firms' total assets will be positively related to public disclosure of its social and environmental information.

Hypothesis 3: Firms' sales will be positively related to public disclosure of its social and environmental information.

3. Methodology

3.1 Sample and data collection

An initial sample of 100 listed companies was taken from the Karachi Stock Exchange. In terms of profitability, we selected the non-financial companies that fall into(KSE-100) [1]index to narrow down our study to those firms whose daily activities have profound impact on the natural environment and to those firms whose reporting patterns are aligned[2].Out of KSE-100 companies,33 were financial firms and 8 companies websites were not working, consequently our sample size reduced to 59. They are the companies that report their social and environmental information through annual reports, separate CSR reports and websites. The sector wise distribution of these companies is as follows. We use 4 companies from the textile sector (6.8% of the total sample), 17 companies from the Fuel and Energy sector (28.8%), 8 companies from Chemical sector (13.6%), 1 company from Sugar and Allied industries (1.7%), 8 companies from Cement sector (13.6%), 5 companies from Transport sector (8.5%), 7 companies from Transport and Communication sector (8.5%), 7 companies from Engineering sector (11.9%), 6 companies from Miscellaneous sectors (10.2), and 1 company from each of these sectors: Paper, Jute, and Tobacco.

The sources of data used in this study are the annual reports, separate CSR reports and corporate websites of 59 non-financial firms of KSE-100 index on the outcomes for the year ended 2018.We use content analysis approach to extract a cross sectional dataset. Literature has extensively used content analysis to investigate non-financial disclosure behaviour (Alsaeed, 2006; Barako & Brown, 2008; Dutta & Bose, 2007; Holder-Webb et al., 2009; Khan, 2010; Rouf, 2011).

3.2 Measures and Variables

Thus far, researchers have had different point of views regarding CSED, but one of the most important study areas is to explain the relationship between social and environmental information and corporate size, profitability, characteristics and/or industry. We use the generalized linear models with Poisson distribution and log link approach to draw the relationship between CSED level (the dependent variable named SEDI) and each of the independent variables and the control variables as detailed below.

3.2.1 Dependent Variable

There are numerous approaches towards developing an appropriate scoring scheme in determining the level of (CSED) for a company. In this study, we follow the approach taken by scholars (Dutta & Bose, 2007; Hossain et al., 2006)in developing a scoring index for each respective company for the purpose of calculating the level of CSED in their annual reports, websites as well as their social responsibility reports. If a company chooses to disclose an item with respect to social and environmental information (for example, information regarding solid waste), the company will be awarded a score of 1 and 0 otherwise for a total of 60 items (see Appendix B for a list of corporate social and environmental disclosure items being used to evaluate the corporate social and environmental disclosure provided by each company in Pakistan).

[1]KSE 100 index are calculated on the basis of market capitalisation of top 100 companies listed in Karachi stock Exchange.

[2] Previous studies (for instance see (Dutta & Bose, 2007; Holder-Webb et al., 2009; Hossain et al., 2006) excluded financial companies (such as bank, mutual funds etc.) because reporting pattern of financial companies is substantially different from non-financial companies.

Therefore, in developing our dependent variable, a total corporate social and environmental disclosure index for each respective company (TD) is given as the sum of scores for all the items in the questionnaire:

$$TD = \sum_{i=1}^{60} d_i \qquad (0)$$

Whered_i refers to the individual score with respect to item-i.

The TD measure takes a minimum value of 0 when no corporate and social environmental disclosure is made and a maximum of 60 when the company makes full disclosure with respect to their corporate and social environmental information.

3.2.2 Control Variables

a)Subsidiaries of Multinational Companies

Different scholars(da Silva Monteiro & Guzmán, 2010; R Gray et al., 1996;Hossain et al., 2006)imply that subsidiaries associated with multinational corporations (MNCs) operating in developing countries are prone to disclose more social and environmental information. The justification is often based on positive spill over effects between the MNCs and its subsidiaries and the sharing of best practice in relation to both CSR and CSED (Meyer, 2004).However, empirical work of da Silva Monteiro and Guzmán (2010) and Hossain et al. (2006)found that subsidiaries of multinational companies do not reveal social and environmental information adequately. Explanations that have been advanced pertain to modest patterns of mimetic isomorphism[3] on the part of subsidiaries to comply with the central directions of the MNC and home stakeholders or even symbolic patterns conformity or disengaging, which involves formal adoption and changing the traditional structures while buffering internal units (Jamali, 2010; Jamali & Neville, 2011).With the aim to focus on a single country setting, therefore, we propose to control the firm being a local firm or subsidiary of a MNC in our study.

b) Industry type

Hossain et al. (2006)find statistically positive and significant relationships between type of industry (manufacturing and non-manufacturing) and social disclosure. Cooke (1989) suggests that manufacturing companies' level of disclosure is higher than non-manufacturing companies. However,Owusu-Ansah (1998) andWallace and Naser (1996)report no association between industry type and disclosure level. Therefore, we decide to control the industry type in the model.

For the normal distribution assumption of the variables in regression model, we take the natural logarithm of net profit margin, total assets and total net sales of the sampled companies. The variables, their label and expected symbols in the association between each of the dependent variables with SEDI are described in the Table 1.

Table1: Measurement of variables and their hypothesized sings

Variable labels	Variables	**Expected sign and relationship with th dependent variable**
SEDI	Score for the corporate social and environment: information items that a company disclosed	Dependent variable

[3](DiMaggio & Powell, 1991)define mimetic isomorphism as an organizational reaction to deal with uncertainty, therefore, an organization will try to mimic actions of other organizations.

NPM	Natural logarithm of net profit margin	+
TASSETS	Natural logarithm of total assets	+
TNSALES	Natural logarithm of total net sales	+
MULTI	Being a subsidiary of a multinational company (1) or not (0)	Control
IND.TYPE	Being a manufacturing (1) or non-manufacturir company (0)	Control

3.3 Generalized Linear Model

Since the dependent variable in our study is based on count data, we use Generalized Linear Model with Poison distribution and log link. We estimate the following model:

$$SEDI = \alpha + \beta_1 \, NPM + \beta_2 \, TASSETS + \beta_3 \, TNSALES + \beta_4 \, MULTI + \beta_5 \, INDTYPE + \epsilon$$

Where

$\alpha = \text{intercept}$

$\beta_j = \text{Regression Coefficents}$

$\epsilon = \text{error term}$

4. Empirical Analysis and Discussions

The empirical analysis is presented in three parts. In the first part, the nature and extent of the CSED has been analyzed and discussed on the principles of descriptive statistics. The second part concerns with the discussion of multivariate analysis of correlation coefficient. The result of GLM regression of the corporate social and environmental disclosure on three corporate characteristics are presented in the third part.

4.1 Descriptive Statistics

This part focuses on the descriptive statistical analysis of the level of social and environmental disclosure in the corporate annual reports, separate CSR reports and corporate websites in Pakistan (SEDI) and the prevailing attributes of its explanatory variables.

Table 2: Descriptive statistics

	Variable	Min	Max	Mean	Sta. dev	Skewness	Kurtosis
1	SEDI	5	38	18.41	8.48	.67	2.54
2	NPM	-5.47	0.70	-2.37	1.25	-.59	3.67
3	TASSETS	6.85	11.94	9.69	1.11	-.30	2.97
4	TNSALES	7.59	12.77	9.54	1.24	.31	1.88
5	MULTI	0	1	0.29	0.46	.94	1.88
6	IND.TYPE	0	1	0.63	0.49	-.52	1.28

Table 2 showsthat the mean of corporate social and environmental disclosure score (SEDI) in each of the 59firms in KSE-100 for all the 60 items is18.41 points while the standard error is 8.48. This clearly shows a substantial difference in the items of disclosure of the sample firms. A majority of the companies in the final dataset fall into the manufacturing type of industry while a minority of them are subsidiaries of multinational companies.

The skewness of the explanatory variables approaching to 0 and the kurtosis approaching 3 suggest that the normality of the variables is statistically accepted.

Table 3: Disclosure score

Score Range	Quantity of the Companies With Disclosure	
Total number of items i disclosure index	No. of companies	% in the sample
0 -10	12	20.34
11 – 20	26	44.07
21 – 30	14	23.73
31 – 40	7	11.86
41 – above	0	0
Total	59	100

Table 3highlights the distribution of disclosure performance by expressing the number of items revealed as social and environmental disclosure score. Column 1 of Table 3distinguishes ranges of disclosure performances. The distribution shows the majority of the companies in the sample disclose social and environmental information at low level. Most companies (88.14 %) disclose less than half disclosure index items (30 or below 30 out of total 60 items).

Ranking of Companies

Each sampled company was ranked according to the scores of the disclosure index. Table4presents the standing of the companies using the un weighted disclosure index as the ranking criteria (for complete ranking see Annex X). Further, the ranking result provides the insights on those industries which are revealing more social and environmental information in their corporate annual reports usually separate CSR reports and corporate website.

Table 4: Ranking of the companies based on CSED score

No.	Name of Company	Industry	Items Disclosed	Ranking
	A Chemicals[4]	Manufacture	38	1
	B Chemicals	Manufacture	37	2
	A Refinery	Non-Manufacture	36	3
	B Refinery	Non-Manufacture	35	4
	A Fertilizer	Manufacture	33	5
	A Tobacco Company	Manufacture	32	6
	A Motors	Manufacture	31	7
	C Chemical Pakistan	Manufacture	30	8
	C Refinery	Non-Manufacture	29	9
	A Textile	Manufacture	29	9

The highest disclosure index in Pakistan was obtained by A Chemicals Pakistan Ltd. and the second highest was B Chemicals Pakistan Ltd. which are a subsidiary of multinational company. When the

[4]Company actual names are kept confidential

companies were classified into industrial categories, it was established that 13 of them with high disclosure levels were from the "Oil and Gas" category.

Items not Disclosed by any Sampled Company in Pakistan
Some information items in the disclosure list were not revealed by the sampled companies under this study. Nevertheless, the number of items that are not made public by the sampled firms differs from one company to another.

Table 5: Items of SEDI not disclosed by the sampled companies

Item No.	Items
4	Future estimates of operating costs for pollution control equipment an facilities.
5	Financing for pollution control equipment or facilities
33	Providing per employee statistics (e.g. assets per employee, statistics o employee turnover and sales per employee)
34	Providing information on the qualification of employees recruited

4.2 Correlation Analysis

Table6: Correlation matrix

		1	2	3	4	5	6
1	SEDI	1.00					
2	NPM	-.08	1.00				
3	TASSETS	.16	-.08	1.00			
4	TNSALES	.37**	-.43**	.72***	1.00		
5	MULTI	.16	-.11	-.19	-.05	1.00	
6	IND.TYPE	.07	-.01	-.38**	-.32*	.10	1.00

* p<.05 ** p<.01 *** p<.001

Table 6 highlights the correlation coefficients involving each pair of the variables. Apart from the significant correlation between TASSETS and TNSALES, the correlation coefficient between each pair of the variables in the model is either reasonably small or within the accepted magnitude (no larger than 0.45), thus there is not much information on the variable relationship lost in the interpretations of the regression output. The significant correlation in this model between TASSETS and TNSALES is statistically accepted because the multicollinearity test results of the classical regression model illustrate that the influence of the variables in the model is accepted (VIF = 1.67).

The correlation matrix illustrates that there is no significant association between each of the independent variable with the dependent variable (SEDI) except TNSALES. It suggests that net sales of the companies in the sample are positively associated to the amount of social and environmental revelation of the company.

4.3 Regression Analysis

In this section, we report the results of the regression analysis. Since the dependent variable in our study comes from count data, we use the generalized linear model with Poisson distribution and log link to fit the data. The regression output is reported in Table 7.

Table 7: Generalized Linear Regression Output

Variable	SEDI
NPM	0.508***
	(0.0942)
TASSETS	-0.111**
	(0.0457)
TNSALES	0.268***
	(0.0397)
MULTI	0.168**
	(0.0681)
IND.TYPE	0.196***
	(0.0705)
N	59
AIC	7.349538
Deviance	146.9603697
Pearson	151.972613
Log likelihood	-210.8113715

Standard errors in parentheses
* p<.05 ** p<.01 *** p<.001

Overall, there is a rigorous evidence of the considerable positive relationship between profitability (NPM) and (SEDI) the social and environmental disclosure index (β = 0.508, p<.01). There is a possibility that the level of social and environmental information disclosure increases by 0.508 times if net profit margin increases by one unit at 95% confidence interval. Therefore, H1 is supported. Profit margin tells how much profit a company earn from one unit of sales. This ratio shows the cost control capacity of a company. Therefore, our finding is interpreted that those firms who are more efficient in cost control are more confident in disclosing social and environmental information.

Firm size, which is measured as total assets of the companies (TASSETS), is negatively related to social and environmental disclosure (β = -0.111, p<.05); in contrast, their net sales (TNSALES) is positively associated to social and environmental disclosure (β = 0.268, p<.001). Thus, H2 is rejected while H3 is supported. It could be interpreted that there is probably a minimal reduction of social and environmental information amount disclosed when total assets of a company increases. However, if net sales of a company improve by one unit, there is a strong likelihood that the firm discloses more social and environmental information by 0.268 times by 99% confidence interval.

With regard to the control variables, there is statistically significant evidence that corporate social responsibility disclosures are different for different industry types (IND.TYPE) and being a subsidiary of multi-national corporation (MULTI).Therefore, our results indicate that manufacturing firms disclose more information about their CSR activities. A plausible explanation for this could be that manufacturing businesses are more likely to harm the environment in which they operate as compared to non-manufacturing businesses. Thus, there is an inherent risk if they don't report their CSED, stakeholders might rate them negatively. Similarly, the level of disclosure is more in companies that are subsidiaries of a multinational corporation. Perhaps it is so because the parent multinational companies mostly originate/operate in developed economies where CSED are even mandatory at times. Thus, their subsidiaries bring those good reporting practices to Pakistan.

Overall, the regression result suggests that total net sales and profit margin are the most significant factors leading to the increase in the spectrum of social and environmental disclosure of the Pakistani company in KSE-100. However, total assets have a negative effect on the number of items of CSED disclosure.

A rundown of the model diagnostic test results is highlighted in Table7, which demonstrates that the model specification does not omit important variables. Furthermore, the model does not violate the important assumptions of regression estimation. The test results of regression assumptions show that our proposed model is good of fitness.

7. Conclusions

This paper reports the descriptive statistics and the empirical analysis for a dataset we created. The degree of social and environmental disclosure was calculated by using anon-weighted social and environmental disclosure index (Hossain et al., 2006).We used generalized linear model (GLM) with Poisson distribution and log link to test three hypotheses. We found three corporate attributes, total assets; profit margin and sales have significant impacts on the extent of CSED information items the companies disclosed.

In the context of Pakistan, the most familiar types of information revealed during the period pertain to community relations, health and safety matters, and human resource. Usually Environmental matters were not discussed as frequently as these categories. The results show that for Pakistan, net profit margin and net sales are considerably and positively correlated to the level of social and environmental disclosures. In other words, companies with higher profit margin or turnover are more interested in disclosure of their social and environmental information. On the other hand, companies with larger assets are less interested in such disclosure items. Therefore, in the Pakistani context we suggest a likelihood that cost control efficiency rather than assets of a company is positively related to transparency and accountability in corporate social and environmental performance.

Our study makes an important contribution to the insight of CSED in a specific developing country context, particularly with respect to the probability that a company respond to CSED in line with sales, profit margin and assets. Our paper, therefore, shedding light on the association between corporate financial performance and social and environmental information disclosure is one of the essential issues for the development of global CSR theory.

Our paper ends by commenting briefly on three possibilities for future study. The first is that we propose expanding the dataset in terms of time and number of observations in order to better understanding the impacts on CSED in different sectors and different types of ownership in a single country setting. This study is cross sectional because it is bound to the disclosure data for a single year. Additional research can be undertaken to measure the level of environmental disclosure longitudinally to determine whether the level of disclosure, either in terms of the quantity or the level, have increased over time. A study like that would provide added insights on corporate disclosure practice in Pakistan. The second is that we propose further research that focuses on a particular industry sector. The third proposal is that the disclosure index built on(Hossain et al., 2006) study with 60 items might be different if the number of environmental information are higher or some other set of environmental disclosure items are developed.

Appendix A: 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. Utilization 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)

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