MANAGERS' PERCEPTION ON FACTORS IMPACTING ENVIRONMENTAL DISCLOSURE

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ABSTRACT

This research paper focuses on the current environmental management practices and captures the perception of corporate managers on environmental reporting through a structured questionnaire to understand the factors impacting companies in disclosing environmental information. The data for this research was collected through a questionnaire survey. Analysis of the responses indicates long-term survival, reduction in waste and improved efficiency' and acknowledging social responsibility as the top reasons for disclosure. Avoid providing sensitive and confidential information, no legal requirement to report and avoid possible damage to company's reputation were the reasons preventing an organisation from making disclosures. Overall, the findings suggest that the perceptions of both 'reporter' and 'non-reporter' are similar indicating the existence of other factors that impact disclosure. The findings support both the legitimacy and stakeholder theory as organisations strive for long-term survival and aspire to have a better corporate image.

Key words: Corporate Environmental Disclosure, Indian Companies, Drivers, Barriers, Survey

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1. INTRODUCTION

Corporate activities are closely linked to climate change and global warming. Disclosure of corporate environmental performance is sought by varied sections of society to understand and mitigate the harmful impact of the business activities on the planet. This forces corporates to make a clear cut trade-off between ecology and economy since environmental disclosure results in additional reporting costs impacting the bottom line (Porter and Linde, 1995). There is a steady increase in the number of companies voluntarily publishing sustainability reports, by going beyond the mandatory requirements, ever since the Alaskan oil spill in 1989 (Campbell, 2004).

While in the early years, corporate action in favour of environmental protection was driven by the regulatory requirements, over the years corporates have adopted a proactive stance towards safeguarding the environment. Increasingly organisations have begun treating environmental awareness and protection as a strategic input that would influence corporate actions especially the governance routines that can help achieve environmental goals (Khanna and Speir, 2007). Researchers in the past have employed legitimacy (Deegan et al., 2002; Dawkins and Fraas, 2011) and stakeholder theories (Gray et al., 1995; Islam and Deegan, 2008; Jensen, 2010) to explain the incentives for voluntary environmental disclosure as both theories hold that voluntary disclosures are made for strategic reasons.

2. LITERATURE REVIEW

2.1. Corporate Environmental Disclosure Practices in India

Most of the environmental reporting is unsystematic and non-comparable in India. Very few companies are providing good information and the rest of the reporting seems to be aimed at publicity (Sahay, 2004). Information needs of stakeholders are not met adequately and there is a lack of information with respect to their environmental issues and environmental expenditure & costs (Shukla and Vyas, 2013). A manager's decision to disclose or withhold information depends on the trade-off between the costs and benefits of providing such additional information. It is often argued that the cost of disclosing additional environmental information exceeds the benefits (Wiseman, 1982). According to legitimacy theory, it is easier to manage an organisation's image through environmental information disclosure. However, some have also stated the political cost from increased disclosure may lead to less disclosure (Cormier and Magnan, 1999). Hence the circumstances or events that lead a firm to disclose less or more environmental information need to be understood. Previous research on the determinants of environmental disclosure has used measurable firm characteristics such as size, leverage, industry type, profitability, age of the firm, regulatory requirements (Patten, 2002). Harrison and Wicks (2013) stated that the value that stakeholders seek has been overly simplified and is understood as economic value in literature. Kagan et al. (2003) identified two sets of interfaces that form corporate environmental behaviour, first "external variables" legal, economic, and social/political, the second between corporate managerial attitudes and each of the external factors. A quantitative and qualitative analysis of theories of corporate environmental behaviour is inadequate and incomplete if the focus is on a single variable whether legal, economic, or attitudinal. The following section discusses the various drivers of and barriers to environmental disclosure.

2.2. Drivers of Corporate Environmental Disclosure

Annual reports are considered to be an important document for a company to shape its social image by presenting favourable environmental information in the annual report without incurring significant cost (Gray et al., 1995). Companies may also start sustainability reporting in order to mitigate reputational risks of bad press and exploit possible benefits of good press

(Hahn and Kühnen, 2013). Globalisation of business has increased the demand for transparency from ‘global audience’ resulting in increased pressure on Indian companies to start reporting on sustainability issues (Chakrabarty, 2011). According to a research by Khanna and Speir (2007), perceived regulatory pressure, sense of moral responsibility towards the environment, improvements in environmental and financial performance had a strong influence on the decision to adopt proactive environmental management practices (EMS). Firms increase the level of voluntary disclosure when they are certain that non-compliance will result in a harsh penalty or legal action (Gunningham and Thornton, 2003; Graham et al., 2005).

Cormier and Magnan (1999) suggest that it is more efficient for management of widely held firms to disclose environmental information directly than for individual investors to collect it themselves. Local community and the investment community may favour organisations that measure and disclose environmental performance (Deegan and Rankin, 1999). Companies have the incentive to disclose more information on environmental and societal practices to increase the trust of such companies among the stakeholders (Meek et al., 1995). Environmental investments promote goods and services with qualities or features that are environmentally friendly, thus giving a signal to the consumers that the company is concerned about the environment (McWilliams and Siegel, 2000).

Sandhu et al. (2012) in a study on stakeholders who can influence business organisation in India into becoming environmentally responsive found supply chain and internal pressures as the drivers for pollution control, recycling of wastes and decreased resource consumption. Basic environmental commitment has a significant impact on stakeholder satisfaction, perhaps because it represents the actions which are more easily perceived by employees (Molina-Azorin et al., 2009). Adverse publicity can be created by environmental activists that can increase economic pressures due to consumers boycotts (Kagan et al., 2003), resulting in loss of reputation among customers, employees, lenders, and suppliers (Cormier and Magnan, 1999), thus inducing firms to improve their environmental performances. As argued by Deegan et al. (2002) and Dawkins and Fraas (2011), these theories explain to a large extent why companies disclose sustainability information i.e. they use it as a mode to constantly get approval from the society. According to Chakrabarty (2011), mind set and attitudes of stakeholders on issues relating to environmental and social responsibility have changed within India.

As per Porter and Linde (1995) complying with regulations can trigger innovations which may result in preventing pollution caused by the firm and also improve the production process resulting in reduction in wastage and thereby improving the efficiency of operations. Environmental investments often lead to direct cost savings like reduced operating costs by decreased energy consumption, income earned from recycling, and reducing the use of costly hazardous materials. Further, they mitigate the threat of government regulation, reduce risks, improve the cost of capital to the firm and also increase firm’s revenues from carbon trading, increased loyalty among current customers and generating new market opportunities (Peloza, 2009). Unnikrishnan et al. (2014) found better environmental management practices led to substantial cost savings in the form of reduction of electrical bill by 60 percent, increase in the availability of groundwater and enhanced productivity. The support of the community in which the organisation operates may be increased, along with the increased support of the investment community which values good environmental performance (Deegan and Rankin, 1999).

Businesses now face not only the costs of present environmental compliance but the cost of future environmental protection and massive liabilities of past actions. Many companies can go out of business due to the massive clean-up cost of environmental hazards. Supplier and vendor relationship may be damaged due to poor environmental performance (Sadowitz, 1992). Improved relationships with customers, investors and employees could create a certain level of loyalty that leads to an improved financial outcome through extra sales, or the lack in loss of

sales (Waddock and Graves, 1997). Good environmental performance reduces regulatory risk, hence, directly affects valuation through a lower discount rate (Clarkson et al., 2011). Dixon et al. (2005) summarised environmental risk as: fines for pollution of land, water, or air, penalties and clean-up costs, liability for disposal of hazardous wastes, lawsuits due to safety hazards, product liability suits or recall costs, damaged reputation or corporate image, loss of market share may result in loss of license to operate or be shut down. Singh et al. (2014) identified commitment of top management was as the top driver for adoption of green products and industrial ecology. The attitude of individual accountants in relation to the environmental issue may also impact the inclination of a particular company to disclose environmental information (Deegan and Rankin, 1999).

Analysis of literature shows brand management and reputation (Sahay, 2004; Palenberg et al., 2006) to be the most significant driver behind environmental reporting followed by stakeholder pressure (Porter and Linde, 1995; Berry and Rondinelli, 1998; Dixon et al., 2005; Palenberg et al., 2006) on companies to become more transparent and responsible about their social and environmental performance. Perhaps this is the reason most environmental sensitive industries demonstrate the highest growth in publishing environmental reports (Wiseman, 1982; Campbell, 2004). Pressure from competitors, NGOs, governments, customers, employees (Porter and Linde, 1995; Berry and Rondinelli, 1998; Sandhu et al., 2012), not to be subjected to legal actions (Graham et al., 2005), mitigate reputational risks of bad press (Hahn and Kühnen, 2013), non-compliance resulting in harsh penalty (Gunningham and Thornton, 2003), fear of consumer boycotts (Kagan et al., 2003), investors refusing to do business with environmentally damaging companies (Sadowitz, 1992) are the other drivers behind environmental reporting.

2.3. Barriers to Corporate Environmental Disclosure

Historically, environmental investments were considered as a drag on the financial performance due to diversion of funds from core business activities to non-productive use (Bragdon and Marlin, 1972). The resources allocated for environmental investments can be spent on investment projects which will improve the financial performance of the firm (Molina-Azorín et al., 2009). According to Bragdon and Marlin (1972) controlling pollution and profit maximisation do not go together. The price of goods and services offered by an environmentally responsible firm will be higher in comparison to other non-environmental disclosing companies resulting in a competitive disadvantage (McGuire et al., 1988).

Graham et al. (2005) argue that setting a disclosure precedent prevents a manager from making voluntary disclosures as the market would expect the company to be committed to the new disclosures and maintain them whether the news is good or bad. Also, managers may reduce voluntary disclosures if they face the risk of being penalised against their forecasts. According to Cormier and Magnan (1999) disclosure of additional information about their environmental obligations or commitments by firms in poor financial condition, is unlikely to enhance their reputation among creditors and suppliers. Graham et al. (2005) argued that due to agency issue managers' may reduce voluntary disclosure so as to not attract attention from stockholders and bondholders about issues of no importance. Political costs of disclosure may deter managers from disclosing voluntary information that regulators might use against them.

Disclosure of environmental liabilities and costs provide a potential signal to outside stakeholders that the firm is a "polluter" (Karim et al., 2006). When companies disclose more information on environmental and societal practices such sensitive and voluminous information may act in the favour of competitors (Meek et al., 1995). The consequences of environmental impacts on business include legal, financial, and reputational (Chakrabarty, 2011). As per Sadowitz (1992), if a company must make substantial outlays for environmental

compliance, clean-up, or litigation it could result in a significant decrease in the value of its stock. Alternatively, proprietary costs may prevent managers from disclosing information that may affect the competitive position of their company in a market, even if this would increase the associated cost of capital (Graham et al., 2005). The potential costs from increased legal or political exposure can lead to less disclosure (Cormier and Magnan, 1999). Luthra et al. (2015) found high initial capital as the top reason acting as a barrier to adoption of renewable/sustainable energy.

3. RESEARCH PROBLEM

Corporate environmental behaviour appears to be shaped by corporate managerial attitudes and various other factors, which are broadly divided into internal (shareholders, employees, managers), external (image, regulatory, market and societal) and financial factors (cost, benefits), that impacts a firms' environmental disclosure strategies (Kagan et al., 2003). Most of the existing empirical studies have been conducted using measurable firm characteristics (e.g. size, risk, auditors, listing status, ownership structure etc.) as drivers for voluntary corporate environmental disclosure. Few types of qualitative research are based on perceptions of report users like investor/stakeholder perceptions. There is a lack of research on report preparers and various pressures exerted on companies in relation to environmental disclosures.

4. RESEARCH OBJECTIVES

Environmental disclosures are not mandatory in India, yet a small proportion of companies have begun to publish environmental reports. Why would a company want to do more than the law requires since compliance is itself often expensive? Yet selected companies are making environmental disclosure suggesting some motivation to issue environmental reports. The objective of this research is to analyse the factors that influence the management's decision to report or not report environmental information. To achieve the research objective the following two questions need to be answered:

- What are the **drivers** of environmental disclosure for companies in India?
- What are the **barriers** to environmental disclosure for companies in India?

5. RESEARCH METHODOLOGY

This paper seeks to address these two questions by capturing the managers' perception using a structured questionnaire. The questionnaire was designed on the basis of the research of Solomon and Lewis (2002); thus, the validity and reliability of the survey instrument and pilot study were already tested. The questionnaire was shared with two academic experts in the area of environmental reporting to validate the questionnaire and to ensure that the questionnaire fulfilled its intended objectives. (A copy of the questionnaire is available from the first-named author on request).

The questionnaire was sent to managers working in BSE 500 companies excluding companies in the financial and banking sector. BSE 500 index represents major industries of the Indian economy and a sizeable share (93 percent) of the market capitalisation. After continuous follow-up, responses were received from 64 companies (21%). Of these, four questionnaires were found to be incomplete. A further six subjects declined to complete the survey, principally because environmental disclosure was part of their annual reports and rest of the information was stated as confidential. This provided a total useable response rate of 17% (54 respondents) which is in line with other studies in this field (Palenberg et al., 2006; Singh et al., 2014). Reliability was tested using Cronbach's Alpha test, which was 0.858, above the minimum (0.7) indicating a high level of reliability.

Descriptive statistics were adopted to explore the data collected, and frequencies and percentages of occurrence were provided to summarise and analyse the level of adoption of environmental management practices. Secondly, each factor was ranked for average mean to find out the top reasons for disclosure and non-disclosure. For the purpose of analysis, the responses received were classified into two groups, namely, 'Reporters' and 'Non-Reporters'. Mann Whitney U test was applied to identify if there were differences between the attitudes of both groups. Mann Whitney U test has been employed to test for significant difference between the opinion and perception of two groups (Deegan and Rankin, 1999).

6. RESULTS & DISCUSSION

The findings from the questionnaire survey are presented in three sub-section; current environmental management practices, drivers to disclose environmental information and barriers to disclosing environmental information.

6.1. Current Environmental Management Practices

This sub-section analyses the responses of the respondents to questions focusing on their companies' current environmental management practices. The first question required the respondents to state whether or not the company had an environmental policy. The second question required the respondents to state whether or not the company had a designated environment department. The third question required the respondents to state whether or not environmental management system (EMS) has been implemented in their organisation, and if not whether the company was in the process of developing an EMS. With respect to having an environmental policy, 49 (90.7%) managers indicated their companies had an environmental policy, while remaining 5 (9.3%) reported that their companies did not have such policy. Out of these 49 companies, three companies have an environmental policy but no designated environmental department.

Figure 1 Response of Firms for Environmental Management Practices (N=54)

Analysis of the data collected through questionnaire for adoption of environmental management practices is shown in Figure 1. Most companies have an environmental policy and perform internal environmental audits (90 percent) but a large proportion of the companies does not perform environmental accounting (53 percent) and do not publish environmental reports in public domain (37 percent). Environmental accounting is the initial step towards assimilating information on environmental issues in the existing accounting framework of the entity in order

to make such information available to the management for decision making. The doubtfulness of the benefits to be gained from adopting environmental accounting, the complexity or the costs could be the reasons for the low rate of adoption of environmental accounting.

6.2. Drivers to Disclosing Environmental Information

Table 1 illustrates the results with regards to the drivers to disclosure environmental information. The three main factors that drive the decision to disclose environmental information are ‘long-term survival’, ‘to acknowledge social responsibility’, ‘compliance with local laws and regulations’. Long-term survival is considered to have the most influence on environmental disclosure, possibly due to the fact that respondents feel that environmental awareness will increase over time and stakeholders will increasingly demand environmentally friendly practices and procedures. Findings support the commonly held idea that external stakeholder pressure has a major influence on perceived environmental disclosure practices (Singh et al., 2014).

Table 1 Factors Driving Environmental Disclosure

	Overall (n = 54)	Respondent Group (mean)		Sig.
	Mean	Reporter (n = 34)	Non Reporter (n = 20)	
Long-term survival of an organisation	4.63	4.68	4.55	.981
Reduction in waste and improved efficiency	4.50	4.44	4.60	.325
To acknowledge social responsibility	4.43	4.41	4.45	.861
To prevent or control pollution caused by the organisation	4.42	4.38	4.50	.614
Compliance with local laws and regulations	4.39	4.44	4.30	.435
Improved corporate image	4.35	4.44	4.20	.116
Reduction in future environmental liabilities	4.19	4.12	4.30	.317
Benefits of disclosure outweigh the cost of disclosure	3.83	3.97	3.60	.077
Increased employee satisfaction	3.78	3.68	3.95	.168
Reduction in the cost of capital & improved access to funds	3.70	3.79	3.55	.191
Improved financial performance	3.63	3.85	3.25	.008*
Pressure from customers/ competitors	3.59	3.68	3.45	.778

* indicates the distribution between the two groups is significantly different at 5% using Mann-Whitney U Test

The scale runs from 1 (strongly disagree) to 5 (Strongly agree).

A significant Mann Whitney U test indicated that ‘improved financial performance’ is the only factor which is statistically different between both the groups. The mean value of each group ‘reporter’ (mean 3.85) and ‘non-reporter’ (mean 3.25) indicated that the differences were in the level of agreement and not in the level of disagreement. It is interesting to note that the mean score for both groups are greater than 3, indicating that majority of the respondents agree with these factors driving environmental disclosure. This could indicate a growing concern towards environmental issues and possible damage to a companies’ image if they are seen not to be conforming to such a positive trend. The findings of this survey are consistent with results obtained by prior researchers, that is: market pressure (Singh et al., 2014); investor pressure

(Khanna and Speir, 2007); regulatory pressure (Deegan and Rankin, 1999; Khanna and Speir, 2007, Unnikrishnan et al., 2014); acknowledging social responsibility (Solomon and Lewis, 2002). The non-reporter group perceives that environmental disclosure will not result in improved financial performance. Unnikrishnan et al. (2014) found capital cost and budget as the main barrier. Kagan, et al. (2003) found economic pressures limit the most environmentally committed firm as the investment in new technologies are not clearly likely to pay for themselves in financial terms. The findings support the legitimacy theory (Patten, 2002; Deegan et al., 2002; Dawkins and Fraas, 2011) and stakeholder theory (Gray et al., 1995; Islam and Deegan, 2008) as organisations strive for long-term survival and aspire to have a better corporate image.

6.3. Barriers to Disclosing Environmental Information

Table 2 illustrates the results with regards to the barriers to environmental disclosure. The top three reasons preventing firms' from disclosing environmental information were 'to avoid providing sensitive and confidential information to competitors', 'no legal requirement to report' and 'possible damage to companies' reputation'. All these reasons are factors external to the organisation.

Table 2 Factors Impacting Non-Disclosure

	Overall (n = 54)	Respondent Group (mean)		Sig.
	Mean	Reporter (n = 34)	Non Reporter (n = 20)	
To avoid providing sensitive and confidential information to competitors	3.46	3.24	3.85	0.106
No legal requirement/obligation to report	3.22	3.03	3.55	0.171
To avoid possible damage to company's reputation	3.15	3.32	2.85	0.129
To avoid providing information beyond mandatory requirements to regulators	3.07	3.09	3.05	0.962
Management feels disclosure will not result in competitive advantage	2.94	3.09	2.70	0.263
Organisations lack the expertise to produce and disclose such information	2.80	2.74	2.90	0.496
Cost of obtaining external advice/ assurance	2.80	2.91	2.60	0.318
Capital investment in pollution control equipment is high	2.78	3.06	2.30	0.037*
Cost of setting up environmental management systems	2.69	3.06	2.05	0.009*
Organisations are unsure of the benefits of environmental disclosure	2.67	2.85	2.35	0.096
Management feels that such information are not important for stakeholders	2.54	2.59	2.45	0.75
Cost of disclosure (producing, printing & distributing) the report is high	2.19	2.32	1.95	0.198

* indicates the distribution between the two groups is significantly different at 5% using Mann-Whitney U Test

The scale runs from 1 (strongly disagree) to 5 (Strongly agree).

The results support the legitimacy theory and stakeholder theory as an organisation does not wish to publish sensitive environment information as it may damage its reputation and may

be used by competitors. The factors receiving the lowest score from both the groups were the cost of disclosure (producing, printing and distributing) the report is high. Both the groups perceive that the cost of producing, printing and distributing the report is not a factor acting as a barrier to report environmental information. The Mann Whitney U test did not indicate a statistical difference between the two groups other than for 'cost of setting up environmental management systems' and 'capital investment in pollution control equipment is high'. Interestingly the non-reporter group has a low mean for these two factors compared to the reporter group. This indicates that the cost is not the only factor preventing the adoption of environmental disclosure. The reasons for possible disincentives for disclosure are consistent with past results: reluctance to report sensitive information, possible damage to company's reputation and to avoid providing incriminating information to regulators (Solomon and Lewis, 2002).

7. CONCLUSION AND RECOMMENDATION

Analysis of the data collected shows respondents strongly agree with the factors influencing disclosure; however, a gap exists between the current environmental disclosure practices and the perception of the respondents. This is indicated by the low level of current environmental disclosure reported by Indian companies. Companies measure the cost of gathering and presenting such information, and compare it with the benefits of doing so while arriving at the decision to disclose environmental information in their annual reports (Deegan and Rankin, 1999). A trade-off needs to be achieved between the increased benefit and the competitive disadvantage associated with such disclosures (Meek et al., 1995).

Corporate responsibility and sustainability is the right thing to do, but for many, acting responsibly is an extra cost that impacts a company's profitability. Proving the commercial benefit of being a sustainable and responsible business is required if sustainability is to become central to mainstream business strategy. Unless companies are confident about the benefits of being sustainable, they will not increase their sustainability budgets. Secondly, environmental disclosure should be made mandatory to address the companies' fear of providing sensitive information, thus resulting in increased environmental disclosure. The findings can also be generalised to other developing countries having similar socio-economic and political structure and thus they may provide valuable insights to their respective context. Government and the regulators can better understand the factors influencing the disclosure practices of corporates and design rules to increase the level of disclosure.

Based on this research it is possible to understand the role played by the perception of managers in strengthening the drivers and ways to overcome barriers of CED. It is expected that the results provide meaningful insights to help 1) in designing effective policies to promote environmental disclosure; 2) companies benchmark their environmental management system against similar companies, and 3) strengthen perceived benefits and to overcome perceived cost barriers that will result in better environmental disclosure. The primary data collection method was a challenge due to the distance and sensitivity of respondents to information. Some of the respondents were reluctant and sensitive to confidentiality. Yet, this research adds to the existing literature and provides relevant inputs for further investigation.

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