

## **Corporate Social Responsibility in Emerging Economies: Assessing Environmental Reporting of Indian Firms**

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**Abstract:** Going green, green innovation, green technology, green marketing, green packaging, etc. are common words now days for every company. It is difficult to tell that a firm with green initiative perform financially well or a financially sound company is more concerned for environment but one thing is very much clear that both aspects go hand by hand, we cannot avoid one over other if sustainability is the ultimate aim of organization. This study investigates these concepts with respect to 50 listed companies of nifty. Purpose of this study is to unearth various green initiatives taken by the companies and to examine the effect of industrial sectors and ownership on their environmental reporting. Unweighted scoring is done for quantifying content analysis of annual reports. These annual reports are generated from official websites of companies for financial year 2012-2013. Result obtained from the study shows that green initiatives are sector specific and ownership does not affect reporting practice much but still there is a scope for improvement in reporting pattern of listed government companies. This study contributes to the literature of Indian environmental reporting and corporate social responsibility where government is still in the process of implementing various laws for making companies more responsible.

**Key words:** Corporate social responsibility, environmental reporting, content analysis, law, India

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### **INTRODUCTION**

Earlier companies produce goods and services to satisfy the needs of their customers and they consider it as their primary job, serving society is not in their scope other than giving employment to people. Now, where competition is so sky-scraping that it become a necessity to differentiate from other not only in terms of goods and services but also in terms of presenting themselves as socially responsible firms. This corporate social responsibility enlarges with increased number of stakeholders associated with company, who need to know that how their resources are utilized for betterment of society. Social disclosure can be elucidates as reporting ethncal, environmental and human issues (Gray *et al.*, 1995; Hackston and Milne, 1996). Every organization reports these aspects according to the priorities given to them. Environment should be considered as a part of stakeholders or not is always been a issue of debate but with increased number of global issues like carbon emission, green house gas emission, waste and water management, energy conservation, etc. which are mainly caused by industrial operations, it is become an obligation

for all. Environmental reporting gained much importance after so many rules and regulation imposed by governing authorities 3 days.

Countries and companies with high environmental impact, issue such report more often in comparison to other to show their accountability and concern for the environment. Many research scholars explained the importance of environmental reporting and its impact on companies' performance (Gray *et al.*, 1996; Hackston and Milne, 1996; Patten, 2002; Denise Luehtge and Han, 2012). Most of the studies on corporate social reporting are from developed economies, still there is scarcity of environmental studies in emerging economies like India.

This study will contribute to fill this gap and provides a better understanding of present scenario of listed companies with respect of their industrial sector and ownership. List of green initiative will give help companies and government to formulate strategies for those areas which are important for environment and long term sustainability.

**Literature review:** The CSR is a broad concept which comprises various normative and philosophical issues

related to the responsibility of business in society (Maignan and Ferrell, 2001). Legitimacy theory used as a base in various studies of CSR and environmental disclosure from annual reports and sustainability reports (Guthrie and Parker, 1989; Patten, 1992; Neu *et al.*, 1998; Wilmshurst and Frost, 2000). This theory explains corporate social responsibility as a social contract between companies and society, under which a company has a right to exist till it validates the value system of society (Lindblom, 1994). This social contract comes with implicit and explicit set of rules (Gray *et al.*, 1996) and if a company invalidate these set norms then it has to face consequences which directly or indirectly affect the long term financial and social sustainability of that company. Legitimacy of a company is generally dependent and controlled by the stakeholders outside the organization and company always try to formulate and implement such policies which divert the focus of these people from such issues in order to change their perception about the firm's performance (O'Donovan, 2002).

Economic development of industrial sector affect environment adversely not only in terms of creating pollution but also depleting natural resources. Environmental reporting facilitates companies to improve public image and create environment friendly brand which ultimately help to reduce legal and social investigations. Such reporting is a means to maintain friendly relationship with stakeholder (Ullmann, 1985) and alleviate their pressure in advance to avoid legal rules and regulation related to environment (Brammer and Pavelin, 2006). Several studies conducted to assess the manager's attitude for stakeholders while reporting environmental activities. The researchers found that there is a relationship between manager's attitude and reporting pattern and quality of report. By taking up CSR seriously, a firm shows its commitment towards society and its willingness to take steps for improvement. Environmental reporting is way to exhibit social responsibility and obligation (Huang and Kung, 2010).

Prior to 2013 corporate social responsibility was a voluntary practice in India as it is deep rooted in its cultural background. Big companies like Tata, Birla and Infosys always have been known for their responsible investment for the development and sustainability of society. But with entry of multinationals after liberalization and privatization there was a start of good practice to report such activities to attract international investment. International investment for an emerging economy not only helpful in economic development but also assist in strategy formulation for global integration (Flora and Agrawal, 2014) which become a necessity with increased pressure of shareholders and stakeholders.

International reporting standards like GRI become famous to disclose such information in annual reports or in separate sustainability reports for government and non-government organizations (Dejean and Martinez, 2009). These standards compel organizations to disclose information on the subject of environmental asset, provisions and social obligations in their standalone or consolidated accounts of annual reports regardless of their size (Criado-Jimenez *et al.*, 2008). Now, India become first country to implement mandatory CSR contribution of all companies whose net worth is Rs 500 crore or more or a turnover of Rs 1,000 crore or more or net profit of Rs 5 crore or more during any financial year must contribute at least 2% of the average net profit of company made during three previous financial year.

Firms look forward to contribute environmental and social improvement not just because it is an obligation but they know that their survival is possible only if society and environment sustain in long term. At the same time, reporting such activities is a means to communicate management performance to its stakeholders and attract international investors which is very important for growth of an emerging economy, especially when it is in its transition phase (Flora and Agrawal, 2014a, b).

## **MATERIALS AND METHODS**

The annual reports of top 50 companies listed in nifty were generated from official website of companies during the month of April-May 2014. Companies were selected on the basis of market capitalization which is an appropriate method for sample selection (Guthrie and Parker, 1990). These companies cover 70.14% of total market capitalization during this period of study. The purpose of this study is to evaluate corporate social reporting of listed companies in nifty. Four aspect of CSR reporting are to be discussed here:

- Environmental issues addressed in annual reports
- The green initiative taken by companies
- Sector specific green initiatives
- The similarity and difference of reporting between non-government owned companies and government owned companies

We employ content analysis to measure environmental reporting in consent to previous studies (Wiseman, 1982; Guthrie and Parker, 1990; Hackston and Milne, 1996; Toms, 2002; Clarkson *et al.*, 2008; Luethge and Han, 2012). Krippendorff (1980) mentioned that "content analysis is a research technique for making

replicable and valid inferences from data according to their context". For content analysis score, we assign 1 point if a company discloses that particular item from given list of green initiative. Company that do not discloses that item get 0. List of items in the green initiative based on literature review, non-voluntary guidelines given by governing authorities and instructions given by mostly used standard, i.e., global reporting initiative. Sector of a company decided on the basis of majority income generated from the given number of operations and finally ownership was fix on the basis of majority number of shareholding.

## RESULTS AND DISCUSSION

**Item wise reporting:** Number of items selected in the list of green initiatives was based on literature review of environmental disclosure and content analysis of annual reports of fifty companies. There are thirty five items in the list which are mostly reported by the companies. Item wise score was calculated by dividing total score of that item with total number of companies in the sample. Publishing annual report score 100% as it is compulsory disclosure by governing authorities of India while Business responsibility reporting score 90% even when it is mandatory by SEBI for top 100 listed companies. Recycling industrial waste/E-waste, energy conservation, energy efficient improvement, renewable energy, environmental impact assessment, reducing carbon emission and water conservation/rainwater harvesting reported 90, 88, 86, 82, 82, 76 and 74%, respectively (Table 1).

**Company wise reporting:** Company wise reporting has been calculated by dividing total score attain by that particular company to total number of green initiative. Infosys leads among 50 companies of nifty in reporting green initiative with 77% which is followed by TCS and Wipro from same sector with 74%. It is followed by NTPC with 69% and Tata power with 68.6% of initiative. NMDC reported 66% of initiative which is followed by Reliance, ACC, UltraTech, ONGC, Power Grid and Jindal with 63% of initiative (Table 2).

**Sector wise reporting:** It is very clear from the table that IT sector leads in environmental reporting in comparison to other sectors. There are 5 IT companies listed among fifty companies of nifty and their mean score is 61.6% of green initiative. Cement and cement products sector reported 60.75% of green initiatives with four companies in the list. Energy sector reported 59.78% of initiative with

Table 1: Item wise reporting

Green initiatives	Score
Publishing annual report	100
Publishing Business Responsibility Report (BRR)	90
Recycling industrial waste/E-waste	90
Energy conservation	88
Energy efficient improvements	86
Renewable energy	82
Environmental impact assessment	82
Reducing carbon emission	76
Water conservation/rainwater harvesting	74
Local procurement of goods and services	70
Recycling sewage water/waste water	70
Products or services whose design has incorporated social or environmental concerns	68
R&D for environment friendly product	66
Biodiversity	64
ISO14000	64
Publishing sustainability report	62
Sustainable sourcing	62
No legal issue regarding environmental issue	56
Clean technology	56
Awards for environment effort/CSR	50
GHG emission reduction	48
Environment policy extent to suppliers/vendors/contractor/subsidiary	46
Reducing carbon footprint	42
Clean development mechanism	36
Biogas plant/organic waste mechanism	34
Recycling and reuse of waste paper	32
Customer interface/internet usage	28
Web conferencing and meeting	20
Green building	18
Mobile interface	14
Use Alternative Fuels and Raw material (AFR)	10
Use of green IT	10
Eco friendly packaging	8
Supporting earth hour movement	6
Green marketing	2

8 companies. It is followed by automobile sector which reported 54.5% of initiatives with five companies. Construction sector reported 54.5% of initiative with two companies. Industrial sector and Telecom sector reported 54 and 51% of initiative respectively with one company in each sector. Metal sector reported 49.33% of initiative with six companies. Consumer goods and Pharma sector reported 47.98 and 42.08% of initiative respectively with four companies in each sector. Financial service sector which cover ten companies, maximum in the list lag behind in green initiative with mean score 41.13% only (Table 3).

**Ownership wise reporting:** It is evident from Table 4 that non-government owned companies report environment initiative more in comparison to government owned companies. As there is not much difference in reporting quality of both but still non-government owned companies reported 53.42% of initiative with 39 organizations while eleven governments owned companies reported 50.45% of initiative (Table 4).

Table 2: Company wise reporting

Company name	Sectors	Ownership	Score
Infosys Ltd.	IT	NGOC	77.0
Tata consultancy services Ltd.	IT	NGOC	74.0
Wipro Ltd.	IT	NGOC	74.0
NTPC Ltd.	Energy	GOC	69.0
Tata Power Co. Ltd.	Energy	NGOC	68.6
NMDC Ltd.	Metals	GOC	66.0
Reliance Industries Ltd.	Energy	NGOC	63.0
ACC Ltd.	Cement and cement products	NGOC	63.0
UltraTech Cement Ltd.	Cement and cement products	NGOC	63.0
Oil and Natural Gas Corporation Ltd.	Energy	GOC	63.0
Power Grid Corporation of India Ltd.	Energy	GOC	63.0
Jindal Steel and Power Ltd.	Metals	NGOC	63.0
I T C Ltd.	Consumer goods	NGOC	62.9
Larsen and Toubro Ltd.	Construction	NGOC	60.0
Ambuja Cements Ltd.	Cement and cement products	NGOC	60.0
Mahindra and Mahindra Ltd.	Automobile	NGOC	60.0
Grasim Industries Ltd.	Cement and cement products	NGOC	57.0
Asian Paints Ltd.	Consumer goods	NGOC	57.0
GAIL (India) Ltd.	Energy	GOC	57.0
Tata Motors Ltd.	Automobile	NGOC	57.0
Axis Bank Ltd.	Financial services	NGOC	54.0
Bajaj Auto Ltd.	Automobile	NGOC	54.0
Bharat Heavy Electricals Ltd.	Industrial manufacturing	GOC	54.0
Maruti Suzuki India Ltd.	Automobile	NGOC	54.0
Bharti Airtel Ltd.	Telecom	NGOC	51.0
Kotak Mahindra Bank Ltd.	Financial services	NGOC	51.0
Dr. Reddy's Laboratories Ltd.	Pharma	NGOC	51.0
Tata Steel Ltd.	Metals	NGOC	51.0
Hindalco Industries Ltd.	Metals	NGOC	51.0
DLF Ltd.	Construction	NGOC	49.0
Hero MotoCorp Ltd.	Automobile	NGOC	49.0
IDFC Ltd.	Financial services	NGOC	49.0
Hindustan Unilever Ltd.	Consumer goods	NGOC	49.0
Cairn India Ltd.	Energy	NGOC	48.6
Bharat Petroleum Corporation Ltd.	Energy	GOC	46.0
HDFC Bank Ltd.	Financial services	NGOC	43.0
Lupin Ltd.	Pharma	NGOC	43.0
State Bank of India	Financial services	GOC	43.0
HCL Technologies Ltd.	IT	NGOC	43.0
Sun Pharmaceutical Industries Ltd.	Pharma	NGOC	40.0
IndusInd Bank Ltd.	Financial services	NGOC	40.0
Tech Mahindra Ltd.	IT	NGOC	40.0
Housing Development Finance Corporation Ltd.	Financial services	NGOC	37.0
Punjab National Bank	Financial services	GOC	37.0
Cipla Ltd.	Pharma	NGOC	34.3
ICICI Bank Ltd.	Financial services	NGOC	34.3
Coal India Ltd.	Metals	GOC	34.0
Sesa Sterlite Ltd.	Metals	NGOC	31.0
United Spirits Ltd.	Consumer goods	NGOC	23.0
Bank of Baroda	Financial services	GOC	23.0

GOC = Government Owned Companies; NGOC = Non-Government Owned Companies; IT = Information Technology

Table 3: Sector wise reporting

Sectors	No. of companies	Mean score
IT	5	61.60
Cement and cement products	4	60.75
Energy	8	59.78
Automobile	5	54.80
Construction	2	54.50
Industrial manufacturing	1	54.00
Telecom	1	51.00
Metals	6	49.33
Consumer goods	4	47.98
Pharma	4	42.08
Financial services	10	41.13

IT = Information Technology

Table 4: Ownership wise reporting

Ownership	No. of companies	Mean score
Non-government owned companies	39	53.42
Government owned companies	11	50.45

## CONCLUSION

Big numbers in the balance sheet or profit and loss account of annual report only indicate that a firm is doing well and earning good amount of profit for its shareholders but it does not relate to its growth and sustainable development. A responsible firm should feel

accountable and answerable to all other stakeholders as well and that is why now day's annual reports are full of environmental and social information in which some are mandatory and some are voluntary.

This study investigated that items that are mandatory, scores high in the list like publishing annual report or business responsibility report but other item like eco-friendly packaging, using alternative fuel, green marketing, etc., score very less instead they play very important role in reducing pollution and help to conserve natural resources.

Infosys Ltd. which is always known for its good practices leads in reporting environmental issue and fulfil its CSR. Sectors which produce goods are high on the side of reporting their environmental improvement activities as they exploit the nature more in comparison to service sectors. Financial services sectors with 10 companies in the list lag behind in reporting environmental activities. There is not much difference in reporting pattern and quality of government owned companies and non-government owned companies but still there is a scope for improvement in their reporting norms.

Based on our findings of study companies are able to formulate better strategies for corporate social responsibility and make it as a part of their vision and mission for long term sustainability. Government should try to make sector specific policies for better results as few green initiatives which are relevant for one sector but irrelevant for other sector.

### **LIMITATIONS**

Results of this study is based on content analysis of annual reports of companies which is a standard document for comparative analysis but still sustainability reports present more detailed information about CSR activities so, there is a scope of detailed study based on sustainability reports. Green initiative enclose only those items which are mostly reported by the companies, there is a possibility that other items which are important for reporting should be included or deleted from the list. Lastly, this study is based on only 50 companies of nifty.

### **REFERENCES**

- Brammer, S. and S. Pavelin, 2006. Voluntary environmental disclosures by large UK companies. *J. Bus. Finance Account.*, 33: 1168-1188.
- Clarkson, P.M., Y. Li, G.D. Richardson and F.P. Vasvari, 2008. Revisiting the relation between environmental performance and environmental disclosure: An empirical analysis. *Account. Organ. Soc.*, 33: 303-327.
- Criado-Jimenez, I., M. Fernandez-Chulian, C. Larrinaga-Gonzalez and F.J. Husillos-Carques, 2008. Compliance with mandatory environmental reporting in financial statements: The case of Spain (2001-2003). *J. Bus. Ethics*, 79: 245-262.
- Dejean, F. and I. Martinez, 2009. Environmental disclosure and the cost of equity: The French case. *Account. Eur.*, 6: 57-80.
- Flora, P. and G. Agrawal, 2014a. A co-integration and causality analysis of highest FDI recipient asian economies. *J. Knowl. Econ.* 10.1007/s13132-013-0177-0.
- Flora, P. and G. Agrawal, 2014b. Foreign direct investment and economic growth relationship among highest FDI recipient Asian economies: A panel data analysis. *Int. Bus. Manage.*, 8: 126-132.
- Gray, R., D. Owen and D. Adams, 1996. *Accounting and Accountability: Changes and Challenges in Corporate Social and Environmental Reporting*. Prentice Hall, London, ISBN-13: 9780131758605, Pages: 332.
- Gray, R., R. Kouhy and S. Lavers, 1995. Corporate social and environmental reporting: A review of the literature and a longitudinal study of UK disclosure. *Account. Auditing Accountability J.*, 8: 47-77.
- Guthrie, J. and L.D. Parker, 1989. Corporate social reporting: A rebuttal of legitimacy theory. *Account. Bus. Res.*, 19: 343-352.
- Guthrie, J. and L.D. Parker, 1990. Corporate social disclosure practice: A comparative international analysis. *Adv. Public Interest Account.*, 3: 159-175.
- Hackston, D. and M. Milne, 1996. Some determinants of social and environmental disclosures in New Zealand companies. *Account. Auditing Accountability J.*, 9: 77-108.
- Huang, C.L. and F.H. Kung, 2010. Drivers of environmental disclosure and stakeholder expectation: Evidence from Taiwan. *J. Bus. Ethics*, 96: 435-451.
- Krippendorff, K., 1980. *Content Analysis: An Introduction to Its Methodology*. Sage Publication, Newbury Park, CA.
- Lindblom, C.K., 1994. The implications of organizational legitimacy for corporate social performance and disclosure. *Proceedings of the Critical Perspectives on Accounting Conference*, July 12, 1994, New York.
- Luethge, D. and H.G. Han, 2012. Assessing corporate social and financial performance in China. *Soc. Responsib. J.*, 8: 389-403.
- Maignan, I. and O.C. Ferrell, 2001. Corporate citizenship as a marketing instrument: Concepts, evidence and research directions. *Eur. J. Market.*, 35: 457-484.

- Neu, D., H. Warsame and K. Pedwell, 1998. Managing public impressions: Environmental disclosures in annual reports. *Account. Organ. Soc.*, 23: 265-282.
- O'Donovan, G., 2002. Environmental disclosures in the annual report: Extending the applicability and predictive power of legitimacy theory. *Account. Auditing Accountability J.*, 15: 344-371.
- Patten, D.M., 1992. Intra-industry environmental disclosures in response to the Alaskan oil spill: A note on legitimacy theory. *Account. Organ. Soc.*, 17: 471-475.
- Patten, D.M., 2002. The relation between environmental performance and environmental disclosure: A research note. *Account. Organ. Soc.*, 27: 763-773.
- Toms, J.S., 2002. Firm resources, quality signals and the determinants of corporate environmental reputation: Some UK evidence. *Br. Account. Rev.*, 34: 257-282.
- Ullmann, A.E., 1985. Data in search of a theory: A critical examination of the relationships among social performance, social disclosure and economic performance of U.S. firms. *Acad. Manage. Rev.*, 10: 540-547.
- Wilmshurst, T.D. and G.R. Frost, 2000. Corporate environmental reporting: A test of legitimacy theory. *Account. Auditing Accountability J.*, 13: 10-26.
- Wiseman, J., 1982. An evaluation of environmental disclosures made in corporate annual reports. *Account. Organ. Soc.*, 7: 53-63.