Building Pillars of Sustainability : An Empirical Investigation

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Abstract

In the present parlance, sustainability is the requirement. Humankind is using natural resources at a faster rate than they are being replaced. If this continues, future generations will not have the resources they need for their development. Sustainable development is about meeting the needs of the society while living within the planet's ecological limits and without jeopardizing the ability of future generations to meet their needs. Social responsibility is closely linked to sustainable development. Corporate Social Responsibility is an entry point for understanding sustainable development issues and responding to them in a firm's business strategy. Keeping in mind the objectivity of the article, the paper describes the conceptual framework of sustainable development and its three pillars. The next section discusses the relationship between sustainable development and corporate social responsibility in the context of developing economies. For the empirical analysis, the hypotheses were formulated to study the relationship between the average market price of the companies and the environmental performance and expenditure on CSR.

***Keywords* : sustainable development, corporate social responsibility, economic performance, expenditure on CSR**
JEL Classification : C33, C87, M14, Q56

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The World Commission on Environment and Development (Brundtland Commission) published its report in 1987 and presented a new concept - Sustainable Development (Wikipedia, Brundtland Commission, 2013). The concept became one of the most successful approaches to business to be introduced in the times to come. In fact, it has helped to shape the international agenda and the international community's attitude towards economic, social, and environmental development. The Brundtland Commission's report defined sustainable development as "development which meets the needs of current generations without compromising the ability of future generations to meet their own needs". The concept supports strong economic and social development, in particular, for people with a low standard of living. At the same time, it underlines the importance of protecting the natural resource base and the environment. Economic and social well-being cannot be improved with measures that destroy the environment. Intergenerational solidarity is also crucial: all development has to take into account its impact on the opportunities for future generations (Barlund, n.d.)

Three Pillars of Sustainability

The three main pillars of sustainable development include economic growth, environmental protection, and social equality. While many people agree that each of these three ideas contribute to the overall idea of sustainability, but it is difficult to find evidence of equal levels of initiatives for the three pillars in countries' policies worldwide. With the overwhelming number of countries that put economic growth on the forefront of sustainable development, it is evident that the other two pillars have been suffering, especially with the overall well-being of the environment in a dangerously unhealthy state (Elkington, 1998).

❖ **Economic Growth:** Economic Growth is the pillar that most groups focus on when attempting to attain more sustainable efforts and development. That is, urge for more investment and generate income (Wikipedia : United States Education Program/Courses/Global Enterprise and Sustainable Development (Ming Xu)/Sandbox Brundtland Commission, 2013).

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❖ **Environmental Protection:** Environmental protection has become more important to government and businesses over the last 20 years, leading to great improvements in the number of people willing to invest in green technologies. For instance, the United States and Europe added more power capacity from renewable sources such as wind and solar in the second year in a row in 2010. In 2011, the efforts continued with 45 new wind energy projects beginning in 25 different states. The focus on environmental protection has transpired globally as well, including a great deal of investment in renewable energy power capacity. Eco-city development occurring around the world helps to develop and implement water conservation, smart grids with renewable energy sources, LED street lights, and energy efficient buildings. The consumption gap remains, consisting of the fact that "roughly 80 percent of the natural resources used each year are consumed by about 20 percent of the world's population." This level is striking and still needs to be addressed now and throughout the future (Wikipedia:United States Education Program/Courses/Global Enterprise and Sustainable Development (Ming Xu)/Sandbox Brundtland Commission, 2013).

❖ **Social Equality:** The social equality pillar of sustainable development focuses on the social well being of people. The growing gap between incomes of the rich and poor is evident throughout the world with the incomes of richer households increasing relative to the incomes of the middle or lower class households. Global inequality has been declining, but the world is still extremely unequal, with the richest 1% of the world's population owning 40% of the world's wealth, and the poorest 50% owning around 1% (Wikipedia:United States Education Program/Courses/Global Enterprise and Sustainable Development (Ming Xu)/Sandbox Brundtland Commission, 2013).

Corporate Social Responsibility and Sustainability

Organizations such as the World Business Council for Sustainable development (WBCSD) actively take part in the sustainability and the corporate social responsibility (CSR) discussion. WBCSD regards CSR as an engine for the social dimension (social progress) which supports companies to fulfill their responsibilities as good citizens and defines CSR as "business commitment to contribute to sustainable economic development, working with employees, their families, the local community, and the society at large to improve their quality of life" (WBCSD, 2006). CSR aims to achieve overall sustainability considering the economic, ecology, and social aspects so as to maximize and safeguard "profit, planet, and people" (Ebner & Baumgartner, 2006).

Sustainable Development is a widely accepted concept and guiding objective that gained international recognition following the publication of the Report of the United Nations World Commission on Environment and Development: Our Common Future. Sustainable development is about meeting the needs of the society while living within the planet's ecological limits and without jeopardizing the ability of future generations to meet their needs. Sustainable development has three dimensions – economic, social, and environmental – which are interdependent; for instance, the elimination of poverty requires the promotion of social justice, and sustainable development is about meeting the needs of the society while living within the planet's ecological limits and without jeopardizing the ability of future generations to meet their needs.

Social Responsibility has the organization as its focus and concerns an organization's responsibilities to the society and the environment. Social responsibility is closely linked to sustainable development. Because sustainable development is about the economic, social, and environmental goals common to all people, it can be used as a way of summing up the broader expectations of society that need to be taken into account by organizations seeking to act responsibly. Therefore, an overarching objective of an organization's social responsibility should be to contribute to sustainable development. Since CSR activities in developing countries have different issues than that of developed countries, therefore, I take the example of Carroll's pyramid model (Caroll, 1979) to best understand the different aspects of CSR. In developing countries, economic responsibilities are still getting the most emphasis. However, philanthropy is given the second highest priority, followed by legal and then ethical responsibilities :

❖ **Economic Responsibilities:** Developing economies are characterized by shortage of foreign direct investment, high unemployment, and widespread poverty. Therefore, the major thrust is on economic contribution, and CSR by companies tends to stress the importance of 'economic multipliers,' including the capacity to generate investment and income, produce safe products and services, create jobs, invest in human capital, establish local business linkages, build physical and institutional infrastructure, and so forth.

❖ **Philanthropic Responsibilities:** Philanthropy for developing countries generally gets higher priority as a manifestation of CSR. Companies realize that they cannot succeed in societies that fail, and philanthropy is seen as the most direct way to improve the prospects of the communities in which their businesses operate.

❖ **Legal Responsibilities:** As compared to developed countries, developing countries generally give a lower priority to legal responsibilities. One of the reasons may be poorly developed legal infrastructure that often lacks independence, resources, and administrative efficiency.

❖ **Ethical Responsibilities:** In developing countries, however, ethics seem to have the least influence on the CSR agenda. This is not to say that developing countries have been untouched by the global trend towards improved governance.

Hypotheses

❖ **H1 :** There is a relationship between the sales turnover of the company and the expenditure incurred towards CSR practices.

❖ **H2 :**There is a positive relationship between economic performance of the company and the environmental performance.

Methodology

In this study, the key question is whether MNEs (multi national enterprises) really work towards sustainable development through honest social responsibility initiatives or they hide the reality behind the veil of glossy sustainability reports. I faced some problems while collecting the data for the present study, as the actual expenditure incurred by the concerned companies on CSR practices wasn't revealed in their sustainability and annual reports. Also, for collecting the primary data, I did not get support from the companies. Thus, their performance was ascertained on the basis of the data compiled from the annual reports.

❖ **Time Period of the Study :** For regression analysis, the time period considered for the present study was three financial years i.e. from 2009 to 2012 because of the lack of availability of actual data on social expenditure by the corporates. For multidimensional correlation analysis, data of 11 financial years i.e. from 2000 to 2011 was compiled and analyzed.

❖ **Methods Used :** In this study, regression analysis (panel data)(Refer to Appendix 1 and Appendix 2 for panel data and definitions used) and multidimensional correlation analysis have been used for analyzing the deployment of CSR expenditure by different enterprises (Maharatnas, Navratnas, and MNEs). The study also analyzes the relationship between economic indicators and social indicators on the one hand, and the environmental indicators on the other hand. Data regarding environmental and social indicators were compiled from secondary sources. The present study is a multidimensional study and through the above mentioned techniques, I have tried to compare different groups of giant enterprises by analyzing the degree of relationship and correlating different CSR performance indicators so as to empirically support the findings. Thus, the study includes the comparison between giant enterprises so as to analyze the deployment of CSR expenditure by these enterprises. Secondary data was compiled from the companies' annual reports, sustainability reports, Karmayog organisation survey, CAG reports, and by referring to various articles and journal papers.

❖ **Panel Regression Model :** A common panel data regression model looks like :

$$Y(it) = a + bx(it) + e(it) \ldots\ldots\ldots\ldots\ldots\ldots\ldots(1)$$

where,

y is the dependent variable, x is the independent variable, a and b are coefficients, i and t are indices for individuals and time. The error *e (it)* is very important in this analysis. Assumptions about the error term determine whether the fixed effects or random effects are spoken about. In a fixed effects model, *e (it)* is assumed to vary non-stochastically over *i* or *t,* making the fixed effects model analogous to a dummy variable model in one dimension. In a random effects model, *e (it),* it is assumed to vary stochastically over *i* or *t* requiring special treatment of the error variance matrix.

❖ **Regression Equation:**

$$\text{CSR } Ex._{it} = \alpha + \beta_1 * \text{sales turnover}_{it} + \beta_2^{*} \text{Navratna}_i + \beta_3^{*} \text{MNC}_i + \varepsilon_{it} \text{ .... (2)}$$

where,
i = the company,
t = is time period,
$\alpha, \beta_1, \beta_2, \beta_3$ = coefficient,
ε_{it} = random error term.

Analysis and Discussion

For the first hypothesis, results show that in comparison to the Maharatnas, the Navratnas spent less amount on CSR practices, whereas there was no significant difference between the spending pattern of the Maharatnas and MNEs on CSR practices (Table 1). That is, I did not find a significant relationship between sales turnover and expenditure towards CSR (Refer to Table 1 in the Appendix for the Panel data). For the second hypothesis, the results shows that with the percentage growth in the market price of the company, the percentage energy utilization declines, that is, I found a negative relationship. With the carbon dioxide generation and sequestration, I got a negative relation, and the degree was also less. The average water intake shows a positive relation with market price, but again, the degree is minimal (Refer Table 3). I also found a negative relationship between economic performance of ITC limited and the

Table 1 : Random Effect Panel Data Model

Explanatory variables	Coefficient	Std. error
Sales turnover	-0.00681	0.01971
MNCs	-2.54634	3.016902
Navratna	-3.70*	2.198884
Cons	4.706822	3.026347

Source: SPSS Calculation

Table 2 : Percentage Change in Economic and Environmental Performance: ITC Limited

	Economic Performance	Environmental Performance			
			Carbon dioxide		Water Management
Year	Market Price	Energy Utilization	Generation	Sequestration	Average
2000-01					
2001-02	-24.52				-3.32
2002-03	-2.39				-13.75
2003-04	49.05				-19.57
2004-05	33.03		4.44	191.32	-7.21
2005-06	62.62		13.61	37.31	0.49
2006-07	23.92		-4.91	62.78	-28.50
2007-08	19.52	3.90	18.29	30.27	4.64
2008-09	-18.47	65.47	16.27	40.07	16.36
2009-10	46.31	12.07	8.72	29.50	-7.85
2010-11	39.12	20.16	19.72	-16.18	1.55

Source: Raw data has been compiled from Sustainability Reports of ITC Limited

Table 3 : Correlation Analysis - Correlation Between Economic Performance and Environmental Performance : ITC Limited					
	Economic Performance	Environmental Performance			
			Carbon dioxide		Water Management
Year	Market Price	Energy Utilization	Generation	Sequestration	Average
Market Price	1				
Energy Utilization	-0.8269	1			
Carbon Dioxide Generation	-0.0949	0.0975	1		
Carbon Dioxide Sequestration	-0.03	0.3106	-0.5479	1	
Average Water Management	0.0047	0.9	-0.7853	0.0535	1
Source: SPSS Calculation					

environmental performance, but the degree too, was less (Refer to Tables 2 and 3 for the correlation raw data of ITC Limited).

The Government of India is planning to make it mandatory for all companies to set aside 2% of their profit for CSR activity. Data released by the Government shows that the Maharatna and Navaratna public sector undertakings (PSUs) have not been able to fully spend their CSR budget. From the data gathered for the present study (data released by the Ministry of Heavy Industries & Public Enterprises, Government of India, 2012) it can be observed that the five Maharatna companies – ONGC, Coal India, IOC, NTPC, and SAIL – managed to spend just 49% of the combined budget for three years beginning 2009-10 (the spending budget for most PSUs was updated till the end of September 2011). The combined spending of the Navaratna companies was higher at 65%. But at least five of these 21 PSUs (Maharatna and Navaratna) managed to spend less than 25% of the CSR budget of the three years. National Aluminum Ltd., or Nalco, was the only one that managed to fully spend its ₹ 31.55 crores budget. Coal India spent only 27% of the budget, according to the released information. Its CSR budget in 2011-12 was about doubled to ₹

Table 4 : CSR Fund Allocation and Utilization by Maharatna Companies					
S. No.	Name of the CPSE	Year	Total funds allocated for CSR (₹ Crore)	Percentage of Profit After Tax (PAT) of previous year	Funds utilized for CSR (₹ Crore)
1	Coal India Limited	2009-10	43.81	2.11	40.14
		2010-11	262.28	2.73	152.33
		2011-12	553.33	5.09	37.26
2	Indian Oil Corporation Limited	2009-10	37.69	1.28	46.85
		2010-11	131.11	1.28	128.41
		2011-12	95.6	1.28	48.8
3	National Thermal Power	2009-10	16.74	0.2	20.4
	Corporation Limited	2010-11	72.37	0.83	72.21
		2011-12	45.52	0.5	6.48
4	Oil & Natural Gas	2009-10	322.52	2	268.87
	Corporation Limited	2010-11	335.35	2	219.03
		2011-12	378.48	2	21.86
5	Steel Authority of	2009-10	80	1.3	78.79
	India Limited	2010-11	94	1.39	68.95
		2011-12	64	1.3	22.94
Source: Ministry of Heavy Industries & Public Enterprises [Press Release] CSR Fund Allocation of Maharatnas and Navratnas, 23rd May, 2012 (www.pib.nic.in)					

Table 5 : CSR Fund Allocation and Utilization by Navratna Companies					
S. No.	**Name of the CPSE**	**Year**	**Total funds allocated for CSR (₹ Crore)**	**Percentage of Profit After Tax (PAT) of previous year**	**Funds utilized for CSR (₹ Crore)**
1	Bharat Electronics Limited	2009-10	2.59	0.36	2.59
		2010-11	2.74	0.24	2.08
		2011-12	1.84	---	0.35
2	Bharat Heavy Electrical Limited	2009-10	3.14	0.1	6.01
		2010-11	21.55	0.5	4.3
		2011-12	30.05	0.5	1.8
3	Bharat Petroleum Corporation Ltd.	2009-10	14.72	2	14.12
		2010-11	22	1.43	18.23
		2011-12	7.73	0.5	1.5
4	GAIL (India) Limited	2009-10	55.91	2	45.78
		2010-11	69.54 (includes carry forward amount of financial year 2009-10)	2	48.43
		2011-12	80.95 (includes carry forward amount of financial year 2010-11)	2	14.85
5	Hindustan Aeronautics Limited	2009-10	No specific allocation of money for CSR, as CSR Policy was notified formally during November 2010	----	3.9
		2010-11	5		1.79
		2011-12		PAT of 2010-11 is yet to be declared	
6	Hindustan Petroleum Corporation Limited	2009-10	15	2.41	13.84
		2010-11	15	1.54	20.1
		2011-12	30.78	2	3.59
7	Mahanagar Telephone Nigam Limited	2009-10 2010-11 2011-12	Since MTNL is in losses, no specific allotment is made under CSR head	----	---
8	National Aluminium Company Limited	2009-10	12.72	1	12.72
		2010-11	8.14	1	8.14
		2011-12	10.69	1	10.69
9	NMDC Limited	2009-10	80	1.9	83.07
		2010-11	81.56	1.8	62.23
		2011-12	80.13	0.57	37.24
10	Neyveli Lignite Corporation Limited	2009-10	5.9	0.72	8.19
		2010-11	12.47	1	13.23
		2011-12	12.98	1	1.02
11	Oil India Limited	2009-10	20	0.95	24.12
		2010-11	25	0.95	29.4
		2011-12	51.9	2	15
12	Power Finance Corporation Limited	2009-10	Nil	---	------
		2010-11	11.89	0.5	1.93
		2011-12	13.1	0.5	1
13	Power Grid Corporation of India Limited	2009-10	12.67	0.75	4.31
		2010-11	20.41	1	15.58
		2011-12	26.97	1	6.62

14	Rashtriya Ispat Nigam Limited	2009-10	12.75	0.95	9.37
		2010-11	15.4	2	11.73
		2011-12	12	1.82	5.39
15	Rural Electrification Corporation Limited	2009-10	3.18	0.25	0.31
		2010-11	5	0.25	1.37
		2011-12	12.85	0.5	0.27
16	Shipping Corporation of India Limited	2009-10	9.41	1	2.03
		2010-11	3.77	1	5.84 (including the balance carried forward from the previous year
		2011-12	5.67	1	1.13

Source: Ministry of Heavy Industries & Public Enterprises [Press Release] CSR Fund Allocation of Maharatnas and Navratnas, 23rd May, 2012 (www.pib.nic.in)

553.33 crores, and it managed to spend only ₹ 37.26 crores until September 2011. In the first year, it spent 92% of the budget and in the second year, it spent about 58%. Oil and gas explorer, ONGC did better ; it spent 49% of the budget in the three years. Like Coal India, its performance in the third year was disappointing. It spent only 6% of the budget until September 2011. Indian Oil Corporation spent 85% of the ₹ 264.4 crores it set aside, and Sail spent 72% of the ₹ 179.68 crores (Refer toTable 4 for the Maharatna Companies and the Table 5 for the Navratna Companies).

The Asia monitor Resource Centre has presented a report on the impact of CSR on workers in China, South Korea, India, and Indonesia. It was alleged that Hindustan Unilever Limited's glossy CSR hides the truth. The CSR report of Hindustan Unilever on "improving health and well-being of People" in India is in extreme contrast with the company's ruthless ways of dealing with workers. In its Doom Dooma factory in Assam, about 700 workers and union leaders have been attacked since 2007 for asserting their basic rights (Pratap, Pandita, & Panimbang, 2012). On the flip side, the annual reports depict that Hindustan Unilever has been involved in a number of CSR initiatives by promoting programmes such as the Project Shakti of Unilever. As per the HUL's Annual Report (2009-2010), the project is aimed at creating rural entrepreneurs by providing training to 13,000 underprivileged Indian women, who are trained to distribute the company's products to 70 million rural consumers. Working with women's self-help groups, the company teaches them selling and book-keeping skills and equips them with commercial knowledge.

The case clearly shows that the CSR initiatives are merely a marketing gimmick and an effective exercise in green-washing. On the one hand, the company deliberately neglects the rights of its own workers at the workplace, while on

Table 6 : Karmayog CSR Rating of the Largest 500 Indian Companies in India for the year 2010

Company Name	CSR Rating 2010	CSR Rating 2009	CSR Rating 2008	CSR Rating 2007	Sales (2009-2010) in ₹ Crores	Profit before Tax (in ₹ crores) ₹ [0 - Loss]	Recommended CSR 0.2% of sales (in ₹ crores)	Type of Company	Industry Category
Hindustan Construction Company Ltd.	1	2	2	2	3990	124	8	I-MNC	Construction and Infrastructure
Hindustan Copper Ltd.	2	2	2	X*	1430	216	3	PSU	Metals and Minerals
Hindustan Petroleum Corporation Ltd.	2	3	1	2	113300	2419	227	PSU	Oil and Gas
Hindustan Unilever Ltd.	2	2	3	3	18108	2720	36	MNC	FMCG and Consumer Durables
ITC Ltd.	0	0	0	0	18665	0	37	PVT	Miscellaneous

*not rated

Source: Compiled from www.karmayog.org

the other hand, it builds a good image of contributing to the society. Exploiting a large number of women under the banner of CSR by involving them in selling and distributing Unilever's products, Hindustan Unilever, in fact, has increased its profits by manifolds. The women participating in the project have been reaching out to the Indian domestic market that helped Unilever to get 30% more consumers in rural areas since the inception of the project in the year 2000. With regards to ITC, I found that an NGO, Karmayog Organization, had rated ITC 0/5 in their survey in which they covered the largest top 500 companies for their efforts towards CSR, and ITC being a tobacco products marketer did not fulfill their criteria. HUL was rated 2/5 in the year 2010, which shows a decline in its rating from 3/5 to 2/5 in 2010 (Refer to Table 6 for the ratings of different years).

Conclusion

It can be seen from the present study that corporate houses use CSR projects as a marketing strategy rather than as a social initiative. The rights of workers at shop floors have, in fact, been deliberately neglected and violated for the sake of higher profits, exposing the *real corporate sense of responsibility*. The sustainability reports are like bridal makeup - corporates include the details of those efforts made by them which present their clean and benevolent side to the society, but in reality, the reports do not reveal the true picture, they don't give the hard facts regarding the corporates' actual standing in terms of CSR practices and spending.

HUL's efforts towards CSR through the Shakti Project is a successful women empowerment project giving the women livelihood, confidence, and instilling in them a business sense, but the womens' average monthly income ranges between ₹ 700 to ₹ 1000 (HUL-CSR Progress Report, 2009), and this amount is clearly not sufficient for them to pull themselves out of the vicious cycle of poverty. In fact, in the garb of CSR, it is a very smart marketing strategy adopted by HUL to target rural areas as well, so that HUL can penetrate into the rural markets by taking their products to the doorsteps of the rural people, enabling them to grab a huge share of the untapped market, which in turn helps them to earn huge profits with the help of poor ammas (cheap labour) living below the poverty line. On the other hand, considering ITC's project, e-Choupal is again a very successful project, giving purchasing power into the hands of the farmers, accessibility of know-how, etc. But looking beyond this is again a strategic move to acquire cheap and easily available agri- based resources (raw materials) for the company.

Thus, evidently, CSR projects are actually a marketing gimmick and a strategy which has many folds. The PSUs are required to fix their CSR budget for each financial year and the funds are non-lapsable. The CSR activity is also part of the annual memorandum of understanding (MoU) with the Government, where each PSU commits to meeting targets for revenues and profits. Normally, CSR activity has to be taken up around the area where the PSU has commercial activities. They are, however, free to choose the activities they would like to take up. To conclude, altruism should be the biggest incentive for the corporates while taking decisions to take up CSR activities.

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Appendices

Table 1: INDEX (BASE YEAR : 2009-10)										
S.No.	Time Period	Company	Sales Turnover	Expenditure on CSR	Category	Maharatna	Navratna	MNCs	t	Comp
1	2009-10	Coal India Limited	100.00	9.96	1	1	0	0	1	1
	2010-11		101.55	37.78		1	0	0	2	1
	2011-12		103.14	9.24		1	0	0	3	1
2	2009-10	Indian Oil Corporation Limited	100.00	0.02	1	1	0	0	1	2
	2010-11		122.19	0.05		1	0	0	2	2
	2011-12		161.45	0.02		1	0	0	3	2
3	2009-10	NTPC	100.00	0.04	1	1	0	0	1	3
	2010-11		121.02	0.15		1	0	0	2	3
	2011-12		128.68	0.01		1	0	0	3	3
4	2009-10	ONGC	100.00	0.26	1	1	0	0	1	4
	2010-11		227.40	0.21		1	0	0	2	4
	2011-12		141.50	0.02		1	0	0	3	4
5	2009-10	SAIL	100.00	0.19	1	1	0	0	1	5
	2010-11		105.11	0.17		1	0	0	2	5
	2011-12		112.19	0.06		1	0	0	3	5
6	2009-10	Bharat Electronics Limited	100.00	0.05	2	0	1	0	1	6
	2010-11		104.37	0.04		0	1	0	2	6
	2011-12		107.19	0.01		0	1	0	3	6
7	2009-10	Bharat Heavy Electrical Limited	100.0	0.02	2	0	1	0	1	7
	2010-11		158.2	0.02		0	1	0	2	7
	2011-12		178.6	0.01		0	1	0	3	7
8	2009-10	Bharat Petroleum Corporation Limited	100.00	0.01	2	0	1	0	1	8
	2010-11		112.04	0.01		0	1	0	2	8
	2011-12		156.63	0.00		0	1	0	3	8
9	2009-10	GAIL India Limited	100.00	0.18	2	0	1	0	1	9
	2010-11		129.61	0.19		0	1	0	2	9
	2011-12		160.93	0.06		0	1	0	3	9
10	2009-10	Hindustan Petroleum Corporation Limited	100.00	0.01	2	0	1	0	1	10
	2010-11		107.15	0.02		0	1	0	2	10
	2011-12		142.95	0.00		0	1	0	3	10
11	2009-10	National Aluminium Company Limited	100.00	0.25	2	0	1	0	1	11
	2010-11		117.41	0.16		0	1	0	2	11
	2011-12		128.18	0.21		0	1	0	3	11
12	2009-10	NMDC Limited	100.00	1.33	2	0	1	0	1	12
	2010-11		182.22	1.00		0	1	0	2	12
	2011-12		180.51	0.60		0	1	0	3	12
13	2009-10	Neyveli Lignite Corporation Limited	100.00	0.20	2	0	1	0	1	13
	2010-11		95.83	0.32		0	1	0	2	13

	2011-12		118.10	0.02		0	1	0	3	13
14	2009-10	Oil India Limited	100.00	0.30	2	0	1	0	1	14
	2010-11		106.67	0.36		0	1	0	2	14
	2011-12		122.18	0.19		0	1	0	3	14
15	2009-10	Power Grid Corporation of India Limited	100.00	0.06	2	0	1	0	1	15
	2010-11		125.66	0.23		0	1	0	2	15
	2011-12		150.32	0.10		0	1	0	3	15
16	2009-10	Rural electrification Corporation Limited	100.00	0.00	2	0	1	0	1	16
	2010-11		126.06	0.02		0	1	0	2	16
	2011-12		157.83	0.00		0	1	0	3	16
17	2009-10	Shipping Corporation of India Limited	100.00	0.06	2	0	1	0	1	17
	2010-11		102.32	0.17		0	1	0	2	17
	2011-12		124.41	0.03		0	1	0	3	17
18	2009-10	Kansai Nerolac Paints Ltd	100.00	0.02	3	0	0	1	1	18
	2010-11		126.45	0.03		0	0	1	2	18
	2011-12		153.10	0.03		0	0	1	3	18
19	2009-10	Ambuja Cement Limited	100.00	0.61	3	0	0	1	1	19
	2010-11		104.68	0.33		0	0	1	2	19
	2011-12		119.79	0.49		0	0	1	3	19
20	2009-10	Bosch Ltd	100.00	2.85	3	0	0	1	1	20
	2010-11		137.85	2.60		0	0	1	2	20
	2011-12		163.08	4.96		0	0	1	3	20

Source: Data compiled from Companies sustainability reports

Table 2: Definition and Descriptive Statistics of the Variables Used In the Analysis

Variable	Definition	Mean	Std. Error	Minimum	Maximum
Dependent variable					
CSR Ex.	Index of Expenditure on social activities by companies with base 'sales turnover of 2009-10'	1.27	5.14	0	37.78
Explanatory variables					
Sales Turnover	Index of sales by companies with base 'sales turnover of 2009-10'	122.07	28.01	95.83	227.4
Maharatna	1 if company is Maharatna, 0 otherwise	0.25	0.44	0	1
Navratna	1 if company is Navratna, 0 otherwise	0.6	0.49	0	1
MNC	1 if company is MNC, 0 otherwise	0.15	0.36	0	1

Source: SPSS calculation