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Measurement of corporate social performance: an Indian perspective

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Abstract:
Purpose – This paper aims to: design a comprehensive, review-based and statistically tested corporate social responsibility disclosure (CSRD) index; measure item-wise and theme-wise the social performance of the top 82 companies in India; and investigate item-wise and theme-wise the variations in CSRD.

Design/methodology/approach
– The paper presents an empirical study of CSRD in 2009-2010, using content analysis, Cronbach’s α, the Kolmogorov-Smirnov and Shapiro-Wilk tests of normality and a six point scale (0-5), mean, skewness, kurtosis, and Levene’s, Kruskal-Wallis’s and Mood’s median tests for analysis and interpretation.

Findings
– CSRD shows less satisfactory social performance, mainly narrative, and varies significantly among items and themes. Community development, with a mean score of 14.30, is the most disclosed theme, followed by HR, with a score of 11.20. The human element is the center of social performance in India. More than equal focus should be given to the environment and to emissions, which impact the greater interests of the world. Some burning global issues like water usage, alternative sources of energy, product safety and innovation have not received adequate attention.

Research limitations/implications
– The study offers ample scope for the further studies as each and every theme and item considered in the model/index requires individual focus to serve the future generations of mankind. Longitudinal/transnational studies in the area of CSR could be carried out to set the scene for further studies.
Practical implications
– The paper recommends mandatory CSR norms leading to improved disclosure, the sharing of innovative knowledge, cost reductions and enhanced effectiveness in managing scarce resources.

Originality/value
– The paper evaluates social performance in the economic, social, religious environment and highlights the emerging philanthropic attitude. The paper improves an existing model by incorporating an emerging dimension, i.e. “Emissions of carbon and other harmful gases”. The CSEEE index designed here is highly appropriate for developing economies like India. The paper measures CSRD using six-point scales for the first time.

Keywords:
Carbon emissions, CSEEE index, Community, Energy, Environment, Human resources, India, Social responsibility, Disclosure

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Article
1. Introduction

Corporate social responsibility (CSR) has been catching the attention of academicians, researchers, and international media and policy makers for more than half a century and recently the minds of corporate bigwigs as well. The dimensions and challenges to managerial world are becoming broader with social issues falling within their ambit. The Prime Minister of India, Dr Manmohan Singh in his speech at Indian Institute of Management, Ahmedabad deliberated upon social challenges before the budding managers in India, as “We should recognize that our high growth is not sustainable unless it is made more inclusive, in a manner that helps to reduce social tensions and disparities. The innovation – in management, in systems, in ideas, in communication – is not just a matter of helping a firm or its bottom line alone but it should address pressing economic and social challenges” (Singh, 2011). Further, similar viewpoint has been advocated by the Managing Director General of Asian Development Bank who stated that the challenge for India is to grow with sustainability and inclusiveness (Nag, 2011).

1.1 Global environment necessitating social focus

Under precarious social, economic conditions prevailing in the major part of the globe and religious backdrop, it becomes pertinent to study the contribution of the corporate world towards the society. It is well established that business is the biggest creator and contributor to the gross domestic product. So, it being an important constituent of society, cannot afford to remain lukewarm towards the societal issues and challenges.
1.2 Social perspective – a typical gap between the haves and have-not’s

United Nations Development Program (UNDP) in its Human Development Report 2010, entitled as “The real wealth of nations: pathways to human development” measured the number of deprived and the intensity of their deprivation through a newly designed index called MPI (multidimensional poverty index – a combination of serious deprivations in the dimensions of health, education and living standards). The study revealed the nerve-racking figure that 1.75 billion people in the 104 countries covered by the MPI live in acute deprivation in health, education and standard of living. This exceeded the estimated 1.44 billion people in those countries who live on $1.25 a day or less. The study also puts on record the prevalence of extreme multidimensional poverty in South Asia and Sub-Saharan Africa. Another study covering 145 countries highlighted that 50 to 86 percent of the population lives below poverty line in 27 countries specifically Zambia at 86 percent; Chad, Gaza Strip, Haiti, Liberia at 80 percent each; Sierra Leone 70.2 percent; and in other 21 countries people living below poverty line range from 50 to 70 percent. In India also, which targets 9 percent growth rate of GDP and claiming to be at second position in reporting growth rate, also bears the stigma of having 33 percent of the population below poverty line (www.indexmundi.com). There are 1210 billionaires in the world having a net worth of 4.5 trillion dollars as on 11 March, 2011 (www.forbes.com). This valley wide gap between haves and have-not’s warrants urgent action of these billionaires to ameliorate the sufferings of the human fraternity, more urgently than ever.

1.3 Economic perspective

Great economists like Robbins (1935) documented the scarcity of resources available with individuals and society as “Economics is the social science that examines how people choose to use limited or scarce resources in attempting to satisfy their unlimited wants.” Scarcity means that wants are more than available resources. Scarcity limits us both as individuals and as a society. In every society, limited resources such as manpower, machinery, and natural resources definitely put constraint on the amount of goods and services that can be produced” (http://ingrimayne.com/econ/Introduction/Definitions.html). Dire necessities of the community and its consequent expectations coupled with the meagerness of resources with the governments, the contribution and concern of the corporate towards the society is the need of the hour. The corporate are expected to supplement the resources and endeavors of the government. The view has been supplemented by some Indian business icons like Narayana Murthy (Chairman and Chief Mentor, Infosys Technologies Limited) in these words “For benefits of globalization and technology to reach the poor, the private sector, philanthropic institutions and committed individuals should cooperate and establish partnerships with the government institutions. This would lift millions of our people out of poverty, provide them with opportunities and make them participate in the process and progress of globalization” (Infosys Technologies Limited, 2007).

1.4 CSR and religious perspective

Most of the people on this planet are religious people. All religions preach and promote philanthropic attitude, the sacred giving, sharing and sacrificing one’s personal earnings for eternal gain of salvation. In all religions, the people have been motivated to contribute a part of their earning for social cause for example Daswandh, i.e. 1/10 of the earnings in Sikh religion (Amrit Keertan Gutka, pp. 1016-1020) and Zakat; 2.5 to 10 percent of the earnings in Muslim religion (Quran Sharif Surah Muzamil, Para 28). In Christianity, the humankind is induced towards giving at the end of every three years by bring all the tithes of that year’s produce for the Levites, the aliens, the fatherless and the widows so that the LORD, your God may bless you (The Deuteronomy, n.d., 14, pp. 28-29).
1.5 CSR and emerging philanthropic attitude of global business tycoons

In the recent past social responsibility has been engaging the minds of big business magnates and emerging as a force to reckon with. Though they might have amassed plenty of the wealth in the business but later on they realized to donate their wealth for social cause. A pretty number of iconic personalities’ focus has now shifted from wealth maximization to wealth distribution for social causes. Among these some prominent names are Warren Buffet, Bill Gates, Vinod Khosla, John Doerr, Larry Ellison, Tom Steyer and Mark Zuckerberg, Ratan Tata, Azim Premji, G.M. Rao, Sunil Bharti Mittal, Nandan Nilekani, Ramchandra Guha, Vineet Nayyar and there are many more in the queue treading on the path of philanthropy. Moved by this wave, 69 elites have become signatories to the public pledge that supports philanthropy (Press Trust of India, 2011). The present philanthropic wave is a diversion from the stakeholder theory propagated by Milton Friedman (1962, 1970) which argues that the business of business is business and the only social responsibility of business is to increase profit. This shift in philosophy is further substantiated by the chairman, Reliance Industries limited (largest company in India in terms of market capitalization) stating that “It is important to get the business of businesses right. The primary responsibility of business is social improvement” (Ambani, 2011). Perhaps this attitude of the rich people is driven by the Maslow need hierarchy theory, i.e. the highest order needs of “Esteem and self actualization”.

2. Theoretical framework and prior research

CSR has earlier been conceptualized from conflicting perspectives. The term, “corporate social responsibility” is currently used to encompass both social and environmental issues. CSR can be discerned in these three words, “Maximizing returns to shareholders” (Zenisek, 1979). Frederick (1986) identified corporate social responsibility as “an examination of corporations' obligation to work for social betterment and referred this to as CSR1”. Frederick et al. (1992) stated that CSR means “A corporation should be held accountable for any of its actions that affect people, communities and the environment”. Frederick (1994) redefined CSR as the move to “corporate social responsiveness” (called CSR2) as the capacity of a corporation to respond to social pressures. This reflects change from philosophical approach to a managerial action. The arena of CSR now, has become inclusive of sustainability of business and multi stakeholder concept. Ferrell et al. (2002) have defined CSR “as an organization's obligation to maximize its positive impact on stakeholders and to minimize its negative impact, whereas business ethics comprises principles and standards that guide behavior in the world of business” (as cited in Rolland and Bazzoni, 2009). CSR covers “the relationship between corporations and the societies with which they interact, it includes the responsibilities that are inherent on both sides of these relationships and in society; it includes all stakeholders and constituent groups that maintain on-going interest in the corporation's operations” (Werther and Chandler, 2006). Thorne et al. (2008) has defined CSR “as the adoption by a business of a strategic focus for fulfilling the economic, legal, ethical and philanthropic responsibilities expected by its stakeholders”. Stakeholders include shareholders, workers, community at large, climate, natural environment and resources. GMR infra annual report 2008-2009 commented that “Shareholder value is one-dimensional; community value is true”.

Measurement of social performance by corporate has remained an interesting area of research all over the world. CSR disclosures communicate the activities of the companies to various stakeholders showing their sensitivity to the needs of the society. These disclosures are referred with various names like sustainability, responsibility, environmental, and accountability reports, social accounting or more recent terminology enterprise social responsibility (ESR) or corporate citizenship (Parker, 1986). The definition given by Guthrie and Parker (1989) has defined corporate social responsibility disclosure as “Reporting on the social impacts of its activities, effectiveness of its social programs,
discharge of its social responsibilities, and stewardship of its own social resources”. Majority of the past empirical research work has dealt with the measurement of CSR reporting (extent, type and evidence of CSR disclosures), using content analysis. Theme wise average disclosure has been calculated and the sample size differed widely in most of the prior research work. On one hand, there are longitudinal studies on 100 years of corporate social disclosure in a single company like Shell Oil Company (Guthrie and Parker, 1989), Cement Corporation of India (Gray et al., 1996), Steel Authority of India Limited (Hegde, 1997). On the other hand, there are horizontal/cross sectional studies like Richardson et al. (2002) exploring social and environmental performance disclosure patterns in more than 1,000 companies across the world. Different researchers have presented different viewpoints on the need of corporate social disclosure. Some connect the need with globalization (Birch, 2003), some with alleviation of the negative perceptions of business and insensitiveness to the social issues (Jacoby, 1973), need to position themselves as responsible citizens (Manheim and Pratt, 1986), building corporate reputation and creating value (Dawkins, 2004; Rowe, 2006), building platform for constructive dialogue with relevant stakeholders to foster mutual trust, collaborative action, and shared value (Chaudhary and Wang, 2007). Corporate social report is essentially a communication and measurement of CSR (Abreu et al., 2005). The concept of corporate social responsibility has slowly matured from self-regulation to multi stakeholder concept (Chahoud et al., 2007). Over recent decades, concepts of responsibility and accountability have become increasingly important in organizational discourse and practice (Green et al., 2008). Aras and Crowther (2010) expressed that “being socially responsible is good for business, not just in ethical terms but also in financial terms”. For the purposes of present study CSR as defined by World Business Council for Sustainable Development (1999) “The ethical behavior of an organization towards society, i.e. management acting responsibly in its relationship with other stakeholders who have legitimate interest in the business” has been taken as the operational definition.

2.1 Conceptual conflict and need for resolution

As one endeavors to plunge deeper into the literature on CSR, greater seems to be the mystification regarding the exact content, location, measurement technique, intended uses, motivations and perceived benefits emerging out of such disclosures. The prior research work in this area is characterized by a great deal of heterogeneity. There is no single, authoritative and universally accepted definition hence the scope of research in this discipline is non unidirectional. Previous studies (e.g. Parker, 2005) have also described the scholarly literature concerned with corporate social disclosure (CSD) as “voluminous, disparate, eclectic”, and as existing “without commonly agreed philosophies or standpoints”. Varying definitions of CSR and non uniform disclosure make CSR project analysis difficult for investors and analysts (Rodriguez and LeMaster, 2007). Kaur and Kansal (2009) opined that “an attempt to define an abstract but extremely relevant concept in vague format with ambiguous measurement techniques”. To resolve the conflict with regard to content and measurement, a comprehensive index CSEEE has been constructed. And finally this index is used to revisit the state of corporate social, environmental, energy and emissions disclosures by leading Indian corporate.

2.2 Rationale of the study

The social responsibility concept is being embraced by companies with wide recognition all across the globe, especially in developing and underdeveloped countries. The current paper seeks to evaluate the contribution of highly capitalized listed companies towards the society in the light of aforementioned global environment and emerging philanthropic attitudes.
2.3 Organization of the study

The study has been organized into five parts, i.e. part 1: Introduction, theoretical, religious perspectives to CSR and glaring social and economic disparities across the globe; part 2: Theoretical framework and prior research, spelling out the rationale for the present study; part 3: Research methodology; part 4: Analysis/discussion and findings; and finally part 5: Implications, suggestions, conclusions and the direction for future research in the area.

3. Research methodology

3.1 Objectives

1. To design a comprehensive index (henceforth referred as CSEEE) to measure the social performance of the companies.

2. To measure the item-wise social performance and to study whether significant variations exist in disclosure of all items of CSEEE index.

3. To measure theme-wise social performance and to investigate whether significance variations exist in CSR disclosures under various themes, i.e. community development (CD), human resources (HR), product and services – safety and innovation (PSI), environment (ENV), energy (ENG), emissions (EMSN) and “others CSR”.

3.2 Sample size and sampling method

The present study has considered a sample of top 100 companies from BSE – 500 (a Bombay Stock Exchange index). These 100 companies have been selected on the basis of market capitalization. 18 financial companies have been excluded from the purview of this study because some themes of social performance like energy, environment, and emissions are not directly relevant in these companies and the exclusion of these companies is expected to enhance the comparability of the results. The annual reports of the 82 finally selected companies have been collected from the Ludhiana stock exchange, Delhi stock exchange and websites of the respective companies. The use of annual reports has been validated by earlier researches for accessibility, consistency, timeliness and for being reliable as an audited and comprehensive document (Bozzolan et al., 2003; Abeyekera, 2007; Guthrie et al., 2006; Sobhani et al., 2009; Yi and Davey, 2010; Joshi et al., 2010; Menassa, 2010; Saleh et al., 2010; Samkin and Schneider, 2010).

3.3 Rating scale

(a) In order to measure the items disclosed by different companies, 1 and 0 scale has been used to show the presence or otherwise of the disclosures based the following formula: Equation 1 Where, j represents the number of companies (82 companies in the sample):

- \( \text{dij}=0; \) if the item has not been disclosed.
- \( \text{dij}=1; \) if the item has been disclosed.
- \( n= \) the maximum number of items a company is expected to disclose (96 items).

(b) Six point scale (0-5) has been used to measure the theme wise disclosures of social performance and the following formula has been used to find out the mean disclosures each theme: Equation 2

\[ 2X^*TH=\text{Average weighted disclosure score in a theme}. \]

Where N is total number of companies in the sample; K is the number of items in a theme.
• \( d_{ij} = 0 \); if the item has not been disclosed.
• \( d_{ij} = 1 \); if only one or less than one sentence has been disclosed.
• \( d_{ij} = 2 \); if the more than one sentence have been disclosed.
• \( d_{ij} = 3 \); if only one quantitative figure is found.
• \( d_{ij} = 4 \); if the disclosure is non-monetary and comprises more than one figure.
• \( d_{ij} = 5 \); if the disclosure is expressed in money terms.

3.4 Hypothesis of the study

Null hypothesis \( H_0 \): There is no statistically significant difference among the various items of social performance:

\[
X_1 = X_2 = X_3 = \ldots = X_n
\]

Hypothesis \( H_2 \): There is no statistically significant difference among the weighted mean of social performance of the seven themes, i.e.:

\[
X_{CD} = X_{HR} = X_{PB} = X_{EN} = X_{ENG} = X_{EIN} = X_0
\]

The above hypotheses have been formulated in order to check the equality of emphasis on various items and themes of social endeavors.

3.5 Analytical and statistical tools

Content analysis technique has been used to scan the annual reports for measuring disclosures of social performances. Many of the researchers have already used content analysis to construct disclosure index and have used it for measuring disclosures (Abbott and Monsen, 1979; Guthrie and Parker, 1990; Agarwal, 1992; Belal, 2001; Carol and Zutshi, 2004; Raghu, 2006; Murthy, 2008; Sobhani et al., 2009; Yi and Davey, 2010; Joshi et al., 2010; Singh and Kansal, 2011). For analytical inferences Cronbach alpha, weighted Average, Standard deviation, range, Skewness and kurtosis, Kolmogorov-Smirnov and Shapiro-Wilk tests, Chi square test, Levene’s test of variance, Kruskal-Wallis test of medians and Mood’s Median test have been used.

4. Analysis, discussion and findings

Some prominent indices that exist across the globe to measure social performance are: Association of British Insurers, Covalence EthicalQuote, Dow Jones Sustainability Group Index, FTSE4Good, Global Reporting Initiative, BT-SD “Sustainable Development Index and Karmayog CSR Ratings etc.” Because these indices are country, theme specific and measure social performance in a piecemeal manner so, the present study attempts to design a comprehensive index to measure social performance.

4.1 Construction of CSEEE index

A disclosure index CSEEE has been constructed based on the following criteria:
• The checklist cited in Hall (2002) has been taken as the base. The list is intended to represent an exhaustive itemization of information with social importance (Hackston and Milne, 1996). Another CSR disclosure index by Mitchell et al. (1999) has also been duly considered.

• Disclosure items identified in other studies examining CSR disclosures in India (Singh and Ahuja, 1983; Porwal and Sharma, 1991; Agarwal, 1992) have also been considered.

• Many new items which can become part of corporate social disclosures (on the basis of pilot study conducted on 20 Indian companies) have been considered. Some items of recent emergence like items under carbon emission theme (globally relevant) and reservation to minority communities, i.e. scheduled castes and scheduled tribes (India specific) etc. has been added to develop Corporate Social Environment, Energy, Emissions (CSEEE) index. In total 111 items were identified in this process.

• Finally, the Cronbach’s Alpha.

Equation 3 Where i is the number of components (i items; 111 items here), oX2 the variance of the observed total disclosure score, o2yi the variance of item i for the current sample of companies, i.e. (20 companies selected at random in pilot study) has been run to assess the reliability/internal consistency of the disclosure index. Values of Cronbach’s alpha and Cronbach’s alpha based on standardized items run on 111 items were 0.875 and 0.864 respectively which indicated that the index in question has internal consistency (α > desirable level of 0.70). Fifteen items with zero variance have been excluded from the final CSEEE index. The index with 96 items (as depicted in Table I) have been finally retained and used for the purpose of present study. So this CSEEE index is a literature based; systematic and statistically tested itemized index formulated for developing and underdeveloped countries as they share similar kind of problems of development and sustainability. With respect to social activities, it shall be convenient for the governments, researchers and academicians to measure the performance of the corporate on the basis of proposed model/CSEEE index. Social performance on the basis of CSEEE can be used by appropriate authorities for providing licenses, subsidies, facilities and other infrastructural sanctions.

4.2 Measuring item wise CSR performance in India

To measure intensively and extensively the extent of corporate social responsibility by selected companies in India, item wise disclosures under various themes have been calculated and summarized in the Table I by using the following formula: Equation 4 Where Rp is percentage of companies reporting specific items of CSEEE index.

4.3 Direction of social efforts pursued by the top corporate in India

Taking into account all the items together, “in-house training programs” and “sponsoring public health projects/medical camps” (61 percent of the companies disclosed each of these items) have been the favorite items for showcasing their social performance which fall under community development and HR categories respectively. The next most disclosed item is conservation of energy in manufacturing and operations (51.2 percent), very closely followed by donations/scholarships/education etc. (48.8 percent), generation of jobs (47.6 percent), efforts to reduce energy consumption (46.3 percent), and rural development program/adoption of villages (45.1 percent). Only three companies are providing access of companies facilities to general public, conduct mass marriage programs and release value added statements. Only four companies (4.9 percent of the sample) disclose social accounting system audit and are signatory to MOU with other companies with regard to reduction of emissions. These points highlight the direction of the CSR
orientation of the Indian corporate. These efforts fall in sync with philosophy of UNDP as it stated that “People are the real wealth of a nation” (UNDP, 2010). A central objective of the Human development report published by UNDP for the past 20 years has been to emphasize that development is primarily and fundamentally about people. Though HR is one of the most preferred areas of social performance but more prominence is necessitated from the India corporate as a recent research paper by Singh and Kansal (2011) highlighted the urgency of development of human resources and they documented “low levels of intellectual capital in Indian companies”. The present study found that the majority of the Indian firms have ignored the under-mentioned items under HR theme as least disclosures are found in these items. None of the 82 companies have created employee welfare fund. Some other items like day care, maternity/paternity leaves, holiday benefits, adopting old age homes have been disclosed by only one company each. Merely two companies out of 82 have made disclosures regarding facility of subsidized canteen and employee loan facilities. In order to augment the skills of human resources of the nation, the Government of India has focused on the development of education and research expansion, inclusion, rapid improvement in quality throughout the higher and technical education system, by enhancing public spending, encouraging private participation and initiating the long overdue major institutional and policy reforms (Planning Commission, 2012). The Government of India has passed Women Reservation Bill ensuring 33 percent reservation for fair sex and further contemplates to enhance this limit to 50 percent. Sarcastically, the situation is highly disappointing as just 4.9 percent of the selected companies have disclosed the percentage or number of women employees in the workforce and/or in the various managerial levels.

Energy is a basic and indispensable input of every society. The level of targeted growth rate, i.e. 9 percent of GDP in the ensuing 12th five year plan (2012-2017) will require India to at least triple its primary energy supply and quintuple its electrical capacity. This will force India, which already imports a majority of its oil, to look beyond its borders for energy resources. “There’s a tremendous amount of concern” that the gap between the energy demand and supply will slow down the economy. To narrow down this demand supply gap and attain energy security, most of nations (developed and developing) are depending upon nuclear energy in the long term (Planning Commission Report available at planningcommission.nic.in/reports/genrep/rep_intergy.pdf). Nuclear energy sector in India will likely take decades because of slow implementation and the relatively higher expense when compared to other forms of energy. The havoc created by the radiation crisis in Japan is catastrophically unparalleled. So the nations/industrial houses need to revisit their energy policies in favor of natural and renewable sources of energy like tidal, wind and solar. As regards energy, though approximately 50 percent of the companies are using alternate sources, the efforts done by Indian corporate are not quite encouraging as only 18.3 percent explicitly have stated their energy policies and 11 percent voice concerns about the energy shortages.

In days of consumerism where the consumer is assumed to be the king, it is astonishing that the social responsibility towards consumers is minimal and number of companies making disclosures in PSI theme range from 3.7 to 22 percent only. Three companies (3.7 percent of the sample) have taken care of mentioning improvement in sanitary conditions while processing and manufacturing operations and four companies disclose information on safety of product.

In order to evaluate overall CSR disclosure score distribution, the descriptive statistics (mean, skewness, Kurtosis) have been calculated and discussed in Table II.

The average number of items disclosed is 15.05 against the expected items of 96. This is indicative of very low levels of social activities. The level of disclosures is found to be near to the ground in
previous research work as well (Cowen et al., 1987; Porwal and Sharma, 1991; Andrew et al., 1989; Savage, 1994; Tsang, 1998; Belal, 1999; Nongnooch and Sherer, 2004; Chaudhary and Wang, 2007; Azim et al., 2009; Sobhani et al., 2009; Menassa, 2010).

4.4 Item-wise variations

To test the item wise variations, the data as computed in Table I has been tested for normality by applying Kolmogorov-Smirnov (K-S test) and Shapiro-Wilk test. The results of the tests are shown in Table III. Kolmogorov-Smirnov and Shapiro-Wilk tests D (96)=0.17, p<0.05 confirm that the deviation from the normality of the data are significant. Z score of the skewness is 1.153/0.246=4.68 shows a very significant positive skewness of disclosure score distribution (z score>1.96) but z score of kurtosis at 0.715/0.488=1.47 shows the distribution is not significantly kurtic (z score<1.96). The positive value of skewness at 1.15 indicates pile up of CSEEE scores on left of the distribution indicating non-normality of CSRD score distribution. The graphical presentation of the data in Figure 1 also depicts the asymmetrical distribution indicating the number of companies making disclosures in CSR as a whole and explicitly shows the quite low level of CSR disclosures.

The data was corrected using log transformation of the scores (Table IV).

After transformation, the D (96)=0.085, p>0.05 highlighting non significant deviation from normality. Now, to test the intra items variations regarding the disclosure of CSR, the chi square test has been applied. Though noticeable difference could be seen in item wise disclosures, but chi square test (χ²= Σi=1n (Xi−O)2/E) reveals that the difference is statistically highly significant with χ² (df=95)=845, p<0.05. Hence H1 is rejected, signifying that though all the items are presumed to be equally important yet Indian corporate have shown their own specific focus on social efforts.

4.5 Theme-wise measurement and inter-theme variations

To ascertain theme wise performance and to test the hypothesis regarding no statistically significant difference among the mean disclosures scores of the seven themes of CSR, the theme wise descriptive statistics of disclosure score is presented in Table V.

The grand mean of various themes is 6.25 against the expected score of 68.5 (96 items X 5 points rating/7 themes), Indicating a huge gap between observed and expected score. The community development with average of 14.30 (rank 1) has seen the highest disclosures followed by human resources with disclosure score of 11.19 (rank 2). In the two most emphasized themes, training of HR and education initiatives shall yield direct benefit of better productivity and availability of more skillful workforce in future. Moreover, HR has ultimate benefit in the form of enhanced efficiency and productivity, low level of attrition rate and higher employee loyalty. Prior study also supports this by stating that “HR is one of the four areas (the environment, marketing, recruitment, and international) in which supplementary obligations contribute directly to the bottom line (Capaldi, 2005)”. Though environment disclosures ranks at third place with average disclosure score of 7.50 but it is far below against the expected average of 75. It is followed by energy disclosure with 5.05 score against expected score of 35. This is in spite of the fact that some of energy items are expected to be disclosed in Director’s Report [(217(1)(e) of the Companies Act, 1956 read with Companies Disclosure of Particulars in the Report of the Board of Directors Rules, 1998)].

The success of businesses depends upon swelled top-line which in turn is greatly influenced by the innovations in quality and safety of the products. But unfortunately this theme has not got the due attention of the top decks of the companies in the present study as product safety and innovation has seen minimum disclosure with score of just 0.99. Moreover, receiving awards in product quality
shall definitely provide a competitive strategy to win the confidence of present and prospective customers. Though community development has seen highest disclosure score, but it has maximum variations as revealed by its maximum standard deviation of 12.19 and highest range of 0.52 score. The second ranked theme HR has relatively the lower standard deviation of 10.64 and slightly lesser range 0.49 score. Further, the disclosure score of all the themes is found to be skewed as the values of standard skewness and kurtosis (in some themes) are found transcend the normal limits of +2 and –2. Overall total disclosure is found to be very low at 6.25. The overall disclosures have the standard deviation of 8.76 and coefficient of variation is 140.17 percent.

The authors are of the stern opinion that the disclosures of innovative ideas with respect to any theme are important because these disclosures can motivate others to tread the path and may also help governments (local, state, central) to design appropriate policies for the corporate. One of the companies named Hindustan Construction Company (HCC) has exemplary innovation when its Environment health and Safety (EHS) team figured an inventive way of ground water usage at its Vishakapatnam project. “The company was buying water for ‘100,000 a day from the local municipality. They installed equipment that could clean up and make ground water usable for construction. The cost of equipment ‘3,00,000 was recovered in a month” (Kumar, 2011). In the ensuing summer season, when the region experienced fiercest water shortage and municipality suspended supply to the construction companies, HCC’s work remained unaffected due to this innovative measure.

4.6 Variations across themes

To test the hypothesis that the social performance in all seven themes is receiving equal focus the second Null Hypothesis of no statistically significant difference among the weighted mean of social performance of the seven themes was formulated. The data was found to be skewed (Table III) indicating the violation of normality assumption. Levene’s test of variance of standard deviations has been performed to test the equality of variance with the following null hypothesis (Levene, 1960):

\[ H_0: \sigma^2_{HR} = \sigma^2_{PSI} = \sigma^2_{ENH} = \sigma^2_{ENG} = \sigma^2_{EPA} = \sigma^2_{D} \]

The levene’s test with W=32.4015 is observed to be significant at p<0.5, the null hypothesis of homogeneity of variances is found incorrect. As the assumptions of normality of distribution and homogeneity of variances are not tenable, both of the non-parametric tests i.e. Kruskal-Wallis and Mood’s Median tests have been used to test the hypothesis instead of ANOVA. Analysis of variance (ANOVA) assumes that the data comes from the normally distributed population and that standard deviations of all themes are equal (Field, 2004). Kruskal-Wallis test on medians of theme-wise disclosure score with test statistic 162.705, p-value=0.00 rejects the null hypothesis at 99.0 percent confidence level, signifying that there are statistically significant variations in the medians of all the seven themes. Further, the results of Kruskal-wallis test have been confirmed with Mood’s median test on theme-wise disclosure score. The results of Mood’s median test are as: total n=574, Grand median=1.0, Test statistic=137.766, p-value=0.0 which quite strongly rejects the null hypothesis reflecting the existence of significant variations on either side of the grand median, which equals 1 at 99 percent level of significance.

In the normative sense, all themes should have got equal focus by corporate giants as each and every theme has its own relevance and ensuing benefits for the humanity in totality or for a specific segment of society. The analysis has conclusively proven that Indian corporate has lop-sided approach as community development and HR are the center of social initiatives. It may have business interest aligned to it, i.e. to placate the affected parties in the near vicinity of the factories.
HR and community development have been found to be among the most disclosed themes in the earlier research as well (Savage, 1994; Tsang, 1998; Murthy, 2008; Sobhani et al., 2009; Menassa, 2010; Planken et al., 2010). Suchman (1995) defines legitimacy as “a generalized perception or assumption that the actions of an entity are desirable, proper, or appropriate within some socially constructed system of norms, values, beliefs and definitions”. It seems Indian CSR is explained/driven by the theory of legitimacy which states that corporations use social and environmental disclosures to maintain their legitimacy in society, seek to operate within the bounds and norms of society and use alternative strategies to gain, maintain or repair the legitimacy, depending on the prevailing situation (Gray et al., 1995; Suchman, 1995; O’Donovan, 2002; Deegan, 2002).

4.7 Limitations

The study includes the CSR disclosures of top 82 Indian companies for a period of one year only. Though the reports have been read twice by one researcher and then cross checked by other researcher to give more consistent rating score, the subjectivity inherent in the rating scale remains a limitation. The development of CSEE index though review based and statistically tested may not be generalized for entire globe as items/issues of CSR are sensitive to economic development of the nations.

5. Managerial, administrative and practical implications

1. The innovative disclosures like that of Hindustan Construction Company shall induce many more managers to follow such innovative pursuits across the globe, leading to reduced costs and consequently enhancing the bottom line of the company.

2. Though HR is one of the most disclosed themes but still keen spotlight is expected from the managerial world as India is lagging far behind in the development of human resources. Out of 169 countries taken in a study, India ranks 119 in Human Development Index (HDI) 2010 (UNDP, 2010). Low level of benefits to the employees like no provision for employee welfare fund, day care, maternity/paternity leave, holiday benefits, subsidized canteen and loan facilities, flexi timing etc. may account for the low productivity of Indian workforce. So, the revelation of this pathetic situation on this front shall definitely urge the mangers to follow employee centric policies to match the global HDI rank and enhance the productivity of HR.

3. The Indian corporate are also laggards in the area of environment and emissions (Table VI). This theme needs to be promoted pan world as the environment and emissions impact all the stakeholders of the global society. China has cut its export quotas for rare earths by 35 percent in the first round of permits for 2011 (www.bloomberg.com, 2010). It is in the interest of the business organizations also as there exists a huge potential to earn enormous revenues from green technologies/clean development management projects and subsequent carbon credits. “Carbon trading is becoming a big business. Similarly, bringing down the heat level in buildings is helping companies to save millions of dollars” (Kumar, 2011). Therefore, the study implies that undertaking and reporting these activities shall generate additional revenue and managers can further enhance/share their knowledge to manage the scarce resources effectively.

4. In India, a recent initiative regarding sound corporate environment policy (CEP) and green audit to protect the stakeholders is in offing which shall warrant the mangers to surge their social participation. In future, the appropriate authorities/institutions (both national and international), while granting sanctions and permissions regarding loans/Initial Public Offers/Follow on Public Offers/American Depository Receipts/Global Depository Receipts/External Commercial
Borrowings/Foreign Currency Convertible Bonds may ask for undertaking from the companies to comply with the minimum CSR norms. Asian Development Bank lends only if a project is found to be technically, economically and environmentally viable and finally it gels with the country's socio economic plans (Nag, 2011). In this context of swelling expectations of institutions and low environmental performance depicted by the study, the managers have to inculcate a culture of addressing social and environmental issues.

5. In the light of huge resources at the command of billionaires, universal philosophy of religions to help the needy and wide social disparities, the governments must devise incentive-oriented policies which can prompt the managers to undertake social ventures. So, the study implies that in between the carrot and stick approach, the government's choice should be twisted towards carrot, especially in contrast to the presently contemplated policy directing Public sector enterprises wherein they may lose their Mini-ratna, Navratna and Maharatna status (prestigious status given to certain public sector enterprises) if they fail to spend the stipulated amount on corporate social responsibility (CSR) in a time-bound manner (www.business-standard.com/india/news/pses-may-lose-status-for-csr-shortfall-patel/42 9338/). In order to promote the social initiatives which are found to be low, initially the governments can dole out tax concessions/deductions/exemptions on the basis of measured social performance.

6. The managers need to concentrate and report on product safety and innovation to augment their competitive edge, as this study highlights least focus on this theme.

7. This study provides academic researchers with a comprehensive framework that can be utilized for future empirical studies related to social performance.

5.1 Doable suggestions

1. The miserably low level of CSEEE disclosure score (15.05) reveals the lukewarm attitudes of Indian companies towards the society. Sparse CSR disclosures against the expected score may be due to lack of integrated and rational CSR policy or standards governing it. So, in order to improve the CSR profile, there is an urgent need to formulate accounting and reporting standard which should prescribe the minimum/necessary CSR initiatives. It is in reality a challenge to design a standard which can capture the true picture of CSR initiatives in a meaningful manner. More unfortunate is the fact that International Financial Reporting Standards (IFRS) which are expected to regulate the disclosure of financial and other accounting information have not yet come out with guidelines/standard on this extremely crucial issue. The appropriate authorities throughout the globe are requested to develop and implement IFRS regarding CSR activities.

2. At present, wide variety of issues fall under CSR arena due to diverse motives of corporate pursuing CSR. So in order to implement CSR initiatives in a right balanced way, each organization must be encouraged to establish separate section/department/committees. These departments should be entrusted with the duty of planning, implementing, monitoring CSR activities and subsequent disclosures. The committees must also work in accordance with the priorities of the respective governments. Till CSR activities do not become mandatory, the various governments, central state and local must issue necessary directions to business houses so that they can undertake CSR activities on the basis of priority and gravity of the issue.

3. As per Maslow's need hierarchy theory, water is included in the physiological needs. The depleting water’s quality and quantity requires the emergent action of all constituents of society all over the globe (Pareek, 2009; Nelson and Quick, 2009). In India the position is highly alarming as reported by Athrady (2011) quoting the world bank report, 2011 “29 percent of ground water blocks
(1,615 out of total of 5,723) in the country, are classified as semi-critical, critical or overexploited state and the situation is deteriorating rapidly. It is estimated that 60 per cent of ground water blocks will be in a critical condition by 2025. Climate change will further strain ground water resources”. The present study also documents that the position regarding these activities is dismal as only 37.8 percent of the selected companies work on water reuse, harvesting and water usage reduction, and 32.9 percent of the selected companies have adopted afforestation. So, it is proposed that there is an emergent need on the part of corporate houses to contribute, conserve, non-pollute and augment water reservoirs through rain water harvesting and afforestation activities.

4. Governments across the globe must develop international markets/exchanges to trade CSR credits with “Minimum Support Price” on the lines of carbon credits. Further, CSR credits may be developed as a base for providing subsidies to encourage and incentivize the companies.

5. The managers get motivated by esteem and self actualization needs because their physiological, security and social needs are already met. The chairpersons/CEOs/Manager performing best with respect to society must be awarded by UN bodies, national governments, trade associations and non-government organizations. Besides this, such types of companies and managements must get wide recognition and publicity.

6. Low disclosures in contrast to expected especially in the themes of emissions and environment may prompt the governments across the globe to make these activities mandatory as such performance affect entire creation of the God.

7. Community development theme is receiving the maximum attention among the Indian corporate as revealed by highest mean disclosure score of 14.30. As education, scholarships etc are favorite areas in community development; the managers need to continue their efforts in this direction to provide skilled, competent workforce/manpower in future and to contribute in the improvement of HDI rank of India.

8. Voluntary CSR disclosures being very low, the study recommends that the Government of India should go ahead to implement mandatory CSR policy but after the due orientation and motivation of corporate houses.

9. Government of India should it mandatory to appropriate of some percentage of the profits towards CSR by all the companies.

**6. Conclusions**

Indian companies emphasize on “in-house training programs” and “sponsoring public health projects/medical camps” in community development and HR categories respectively. Indian CSR is driven by the theory of legitimacy. Some burning global issues like water usage, alternative sources of energy, product safety and innovation have not received adequate attention.

As most capitalized and listed Indian companies have raised finances from public they are expected to be highly responsive to needs of the society and need to perform better on social front so as to lead and establish benchmark for other companies. But pathetically the social performance has been found to be significantly low.

**6.1 Scope for further research**

The study offers ample scope for the further studies as each and every theme and item considered in the model/index requires individual focus to serve the future generations of mankind.
Longitudinal/transnational studies in the area of CSR can be carried out to set the scene for further studies.

Equation 1

\[ R = \sum a_i \]

Equation 2

\[ \ln \left( \frac{E(x)}{x} \right) \]

Equation 3

Equation 4

Figure 1 Skewness of CSR disclosure score

Table I Theme and item-wise CSR disclosures (Dichotomous scale)

Table II Descriptive statistics of disclosure score

Table III Output of Kolmogorov-Smirnov test for checking the normality of the CSRD score

Table IV Output from Kolmogorov-Smirnov test of Log transformed CSRD scores
Table V Descriptive statistics and analysis of theme based on CSEEE score

Table VI Levene's test of variance for theme-wise disclosure score

References


Further Reading


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