A Study on linkage between Corporate Social Responsibility Initiatives with Financial Performances: Analysis from Oil and Gas Products Industry in India.

V. L. Govindarajan*
Dr. S. Amilan**

*Research Scholar, Department of Commerce, Pondicherry University Karaikal Campus

**Head and Associate Professor Dept. of Commerce, Pondicherry University, Karaikal Campus

Abstract

The purpose of the present paper is to study the level of CSR initiatives taken by the Indian companies and its influence on the performance of the companies. For this purpose the performance is measured in terms of financial parameters as well as performance in the stock market. Though there are several industries in the Indian corporate sector, the oil and Gas industry is considered as one of the highly polluting industries. Therefore the researchers have taken a sample of 12 companies from Oil and Gas industry which are included in the BSE 200 Index and also ranked by Karmayog (an NGO, which measures the CSR activities of the Indian companies in India) to analyze the linkage between Corporate Social Responsibility (CSR) Initiatives with Financial as well as market Performance. The study is based on secondary data, collected from PROWESS a data base of CMIE. In the analysis, initially the year-wise level of CSR initiatives of selected company was measured. CSP disclosure scores for each selected company has been calculated based on the Karmayog ratings of CSR activities. To Calculate CSP score of a company, three key parameters were considered. They are, CSR ratings given by Karmayog –the company's allocation of fund for CSR activities in the Budget and finally the area of focus made by the company in their CSR activities or involvement. In the present study CSR Activities have been classified into Healthcare, Education, Environment, Rural development and Other Community Welfare activities. After calculating the score on CSR initiatives, an analysis on the relationship between CSP Score and selected financial parameters such as Total Assets, Net worth, EPS, Profit before Tax and Debts. All the variables of the selected companies have been tested with One way Anova, Chi-Square, Karl Pearson's correlation for its validity. The coefficient of determination has also been tested through curve estimation regression analysis and the authors found that CSR initiative Score is significant with financial and as well as stock market performances at 0.05 levels. CSR initiative score influences EPS at 19% and Market Capitalization at 9.1% in this Oil and Gas Industry.

Keywords:

Corporate social responsibility, CSR budget allocations, CSP Score, Financial performance, Stock performance and Oil and Gas Industry.

Introduction

Corporate Social Responsibility (CSR) is a concept, whereby organizations consider the interest of society by taking responsibility for the impact of their activities on Stakeholders as well as environment. This obligation is seen to extend beyond the statutory obligation and taking further steps to improve the quality of life for workforce and their families as well as for local community

and society at large. Social responsibility includes Economic and Environmental responsibility. CSR is about the basic idea that businesses have to meet society's expectations in the practices. It is commonly known that all the enterprises utilize inputs from society in the form of skilled or unskilled labour, raw-materials and natural resources, and in turn, offers goods and services and create wealth and job opportunities for the society. From this it can be stated that the businesses depend on society for their existence and the society too utilizes the opportunities provided by the enterprises. Therefore this interdependence must be realized by the enterprises and should accept they have to bear certain social cost of their transactions. Increased global competition and technological development have indirectly forced suppliers and government to initiate the CSR projects. According to Starbucks," A responsible Company is one that listen its Stakeholders and response with honesty to their concerns".

The aim of Social responsibility of the corporate is to create higher standard of living, while preserving the Profitability of the organizations, for people within and outside the organizations. CSR is a concept which suggests that commercial corporations must fulfill their duty of providing care to the society. The Prime Minister of India Dr. Manmohan Singh stated that Climate changes are threatening our fragile Eco-System. We are staring at the prospect of an impending drought. Water Scarcity is becoming a way of life. Pollution is a growing threat to our health and to our habitats. (Ref: Ensuring Environment Sustainability – Special Address). As the customers are now highly conscious of standards, stakeholders are aware of their interests, legal framework are improving with the establishment of Acts like Right to Information Act, and NGOs are thinking about responsibility of the corporate towards the society etc., the CSR has gained strategic importance in the business society nowadays. Because of this gained importance, levels of corporate disclosure, financial as well as non-financial, through annual reports and website have been increasing. According to Milton Friedman, winner of the 1976 Nobel Prize, the Social Responsibility of Business is to increase its Profit. He criticized the tendency of Businessman talking about social responsibility and social conscience. However the concept of social responsibility has gained importance and that has been used even in the marketing of the products and services by several companies. Thus the companies believe the CSR initiatives would enhance the value of the companies in the society and provide better returns. The primary purposes of Corporate and all Business houses are to create wealth legally and ethically. Every corporate body is to ensure predictability, sustainability and profitability of return year after year. The Corporate Profitability is necessary for the implication of Corporate Social Responsibility. . Social Responsibility might take in democratic organizations providing goods and services to the ethic from each according to ability to each according to need. (Ref: Brazilian Priest Helder Camara, 1971).

Literature Review

In the context of India, the publically available CSR surveys are few. Singh and Ahuga (1983) conducted the first study on CSR of 40 Indian public sector companies for the years 1975-76. They found that 40 percent of the companies disclosed more than 30 percent of total disclosure items included in their survey. From the

year 2000 onwards four important surveys have been carried out. The first survey was carried out in the year 2001 by Business Community Foundation for Tata Energy Research Institute (TERI) - Europe and found that all companies irrespective of size or sector have awareness of CSR and its potential benefits. The second survey was conducted in the year 2002 by Business Community Foundation for TERI jointly with Confederation of Indian Industries (CII), United Nations Development Program, British Council and Price Water Coopers. The survey found that CSR is very much a part of domain of corporate action and passive philanthropy is no longer sufficient. Third survey was conducted in 2007-08 by Karmayog a platform for the Indian non-profit sector established in the year 2004 providing research on CSR activities of Indian Companies. It surveyed the CSR activities of 500 largest Indian companies. In the survey the companies were placed in the levels of their involvement in the CSR activities from 0 to 5. The levels were assigned based on criteria like Product and services, reach of CSR activities, expenditure of CSR, harmless processes etc. The fourth survey carried out by TNS Automotive India in 2008, leading Market Research Company and Times Foundation used a sample size of 250 companies involved in CSR activities through a method of online administration of questionnaire. 82 organizations (11 public sector, 39 private national agencies and 32 private multinational organizations) revealed that over 90% of all major Indian organizations were involved in CSR initiatives and faced few challenges(Lack of community participation in CSR activities, Issue of Transparency, Narrow perception towards CSR initiatives and Non-Availability of clear CSR guidelines) also. Pava and Krausz (1996) identified and reviewed twenty-one empirical studies which addressed the relationship between CSR and financial performance. Of these, twelve studies reported a positive association between social and financial performance, one reported a negative relationship and eight reported neutral relationship. The fundamental idea of CSR is that business corporations have an obligation to contribute to the welfare of the society (Davis William 1984) and to work for social betterment(Fredrick 1986) CSR is the policy in which the firm goes beyond compliance and engages in "Actions that appear to further some social good, beyond the interests of the firm and that which is required by Law"(McWilliams and Siegel,2001) and it at least knowingly does not do anything to harm to its stakeholders (Campbell,2006). Regarding the research works in the area of CSR disclosures, there are few attempts made in by Indian and other countries researchers. John Mahon et al (2012) studied the relationship between Corporate Social Performance and overall organizational performance and access how customer stakeholders and financial stakeholders measured and evaluate Corporate Reputation in an Industry context. Authors selected 5-8 companies in each of nine leading industries across 3-years time span. (56 companies for each year) and developed a measurement tool labeled '"CSP Profiling" consists of Business Motivations, Business Actions and Business Social Impacts and the authors attempt to move the discussion of CSP away from the dominance of Financial performance- Social performance research and focused on the existence and attempts to explain casualty and recognized that results are not statistically significant. Suwaidan (2004), Saleh et al.(2008) found that the size, profitability and risk to be significantly and positively associated with the disclosure of social responsibility information. Tamoi et al. (2007) tried to find out the level and trend of CSR disclosure pattern of Industrial

companies in Malaysia and its relationship with company's characteristics. Content Analysis was used to analyze the data from the Annual Reports of the companies from 1998 to 2003 for this study. They found that there was a positive relationship between CSR and company's turnover. Hossain and Reaz (2007) reported that Indian Banks are disclosing a considerable amount of voluntary information and their finding indicated that size and Asset in place of work were significant and other variables such as Age, diversification, Board composition and complexity of business were insignificant in explaining the level of CSR disclosure. Abdullah et al.(2011) found that family owned firms in Malaysia were negatively associated with the level and the quality of CSR disclosures. Duygu Turker (2008) analyzed the impacts of CSR on Social Identity Theory and concluded that CSR to social and non-social stakeholders, Employees and Customers were the significant predictors of organizational commitment. Shweta Verma(2011) analyzed the motives and benefits of CSR initiatives of Indian companies; a semi structured interview was conducted from 150 Delhi based investors and concluded that most of the investors believe that social responsibility of companies is to satisfy them through maximum returns and if part of the profits is distributed for social activities, their returns will be affected Tobias Gosling and Chris Vocht (2007) stated that Companies with a broad social role conception score significantly better on their social reputations than companies with a narrow role conception. They concluded that the companies adopt it as a tool for building their legitimacy in society. Md. Abdul Rouf (2011) conducted an exploratory study and examined the relationship between corporate attributes and firm-specific factors and corporate social responsibility disclosures. The author concluded that a positive association exists between proportion of independent directors and CSR disclosures. Further it was proved that the size of the firm does not affect the level of corporate social responsibility disclosures. Yaghoub Alavi Matin et al. (2011) examined the relationship between CSR and the financial performance of companies manufacturing pharmaceutical products. The authors concluded that there is no positive relationship between CSR variables with firm financial performance. Babalola et al (2012) examined the relationship between CSR and Firm's Profitability in Nigeria, and found that the sample firms invested less than Ten percent of their annual profit to social responsibility. Sanjay Prathan, Akilesh Ranjan (2010), explored CSR practices in the context of Rural development and used content analysis through thematic areas and concluded that CSR is an important business issue on Indian companies irrespective of Size, sector and business goal. Therefore, CSR actions have positive impact not only on development of rural community but in their business. Richa Gautam et al. (2010) examined CSR practices of companies operating in India and maps against GRI standards and used content analysis technique to Access and concluded that all activities undertaken in the name of CSR are mainly philanthropy or an extension of philanthropy. Dr.Meeta Nihalani and Ashish Mathur (2011), concludes that, Most of the organizations in India are involving CSR as a part of their Business Strategy and investing around 0.02 percent of their profit and integrating CSR into their core practices. Jain Neeta et al (2010) stated about stakeholder theory, Social contract theory and legitimacy theory, and 440 companies were randomly taken from rating list of 2009 by Karmayog CSR ratings of Indian companies. The authors studied the relationship between CSR ratings with firm

characteristics, such as Sales, Number of Employees, Profit before Tax and the Age of the organizations and analyzed through Correlation and Regression analysis and concluded that Sales volume and Number of employees as significant variables of CSR ratings and these variables has positive impact on CSR rating. Saeed Khan (2010) discussed about the method of CSR rating calculations by Karmayog, an NGO, and used good insight on CSR rating of major FMCG companies in India. The author discussed in this paper about top three major FMCGs companies overall CSR initiatives and stated that website of few companies are providing information about their CSR initiatives, but are found not updated. The author focused about the seriousness of minimum annual CSR expenditures, CSR reporting, Adoption of Industry guidelines for improving processes, CSR link to the skill of a company and finally CSR link to the location of a company. Khan and Atkinson (1987) found that Health care and Education are the most prominent CSR-related topics among Indian Corporations. Interview responses also revealed that western CSR concepts are not translating in India. CSR in India is inspired by Gandhian concept of Social Trusteeship and focused on Healthcare, Education and Employees and their families, rather than Environmental issues and Stakeholders Pressure.

Ashok Khurana observed that there is rising trend in publication of corporate sustainability report in India. The study explored global phenomenon in CSR and examined the CSR initiatives and trends of Indian companies on selected CSR indicators in comparison to Asia and World. The author found that Indian companies have shown its presence in the Top Two position in the most of the CSR indicators. i.e. Corporate governance, Codes and Policies, CSR strategy and Communication, Corporate Environmental disclosure, Community Investment initiatives and Total Industry Score. Author concluded the companies in India (53.2%) have the second highest rating for disclosure overall, which topped next to Australia by the comparison analysis form 2001 to 2009. Sumanta Dutta et al. (2011), explored CSR activities of Indian companies by comparing with TBL reporting with GRI and Karmayog ratings and concluded that 128 companies scored 0 level, 147 companies at level1, 146 companies at level 2, 66 companies at level 3, 13 companies at level 4 and No even a company under the level 5 and resulted that there is considerable improvement in the status level 0 from 2007 to 2009. Ashish Mathur provided an enhanced understanding of the nature of CSR by the small and medium scale industries through face to face interview from 250 respondents, operating small and medium firms in the city of Jodhpur by applying convenience sampling and concluded that Agricultural and Food Industry was ranked 1 among the other 9 Industries in the Demographic profile of Small and Medium Industries and the Top Three Area of CSR activities by SMEs are Donation to Welfare Organizations, Health and Safety Programs and finally Contributions to Educational Institutions. Daniel Silberhorn et al (2007) studied an comparative content analysis of the CSR web-sites of 40 British and German companies and Data collected from the senior Managers through an interview, how the notion of CSR was developed and concluded that CSR arises from the performance considerations and stakeholder pressures and business and CSR strategy appear to be an convergent path, making business and CSR integration across the company and the CSR policies varied with Turnover, Industry sector and Nationality. Dr. R.S.Ramesh et al (2012) studied the ITC-e-

CHOUPAL model, Hyundai Motors 'Go Green" project and Tata Motors-Train the drivers scheme as case study and compared the CSR initiatives and measured the social performance of the selected companies through the rating levels of Indian Companies for the period of four years from 2007 to 2010 which measured by KARMAYOG, an NGO, who measures the CSR activities of Indian companies and ranking by Five Levels (0 to 5).The authors also stated that, most Indian companies feel that CSR was only possible if profitability was high and concluded that there is a need today for Indian companies to re-examine their CSR interventions and determine their effectiveness through "think globally and act locally" (Alessandro,2003). Esra Nemli et al (2011) examined the relationship between Corporate Reputation and Corporate Financial Performance in Turkey for the period 2000-2010. The corporate reputation ranking from Capital Magazines Turkey's list used as proxy for Corporate Reputation. Return on Equity, Return on Asset and Market to Book value used as financial performance measures and concluded that there is casual relationship between Corporate Reputation and Corporate Financial performance and Corporate Reputation does not impact performance measure of ROE, but ROE improves corporate reputation. Akinmulegun Sunday Ojo (2012) empirically examined the effect of financial leverage (measured by Debt-Equity ratio) on Earnings per Share (EPS) and Net Assets per Share (NAPS). Author used panel data on effect of leverage on performance indicators of some corporate firms in Nigeria during 1993 and 2005 and employed econometric technique of Vector Auto Regression (VAR) on the variables and found that leverage shock on EPS indirectly affect the NAPS. Leverage therefore significantly affects Corporate Performance. Chih Hung Chen (2011) studied CSR models with best goodness of fit by applied Structural Equation Modeling to assess the proposed CSR model containing Accountability, Transparency, Competitiveness and Responsibility as first order factor components and 13 observation indicators as second order factor and concluded that the correlation among the first order factor was significant and the second order structure fit the observed data well. Social Performance which measured based on Karmayog ratings with respective companies budget allocations are integrated with financial performances like Total Assets, Net Worth, Profit before Tax, Debts and EPS. Market capitalization is treated as measure of stock return.

Objectives of the Study

The study has been carried out with the aim of analyzing the CSP with Financial performances of the selected companies in the Oil and Gas industry. The aim of the study has been carried out with the following specific objectives:

1. To study the nature and extent of CSR initiatives and their disclosure levels of the selected Companies in India.

2. To examine the relationship between the CSR initiative score and Financial Performance of the selected companies in India.

3. To explore, whether there is any impact of CSR initiatives score on the Stock performance of selected companies in India.

Null Hypotheses

1a.That there no any significant difference between the CSR budget and the CSP scores of the selected companies in the selected Industry.

1b. That there no any significant association between the CSP Score and the Total Income of the selected companies in the selected Industry.

2a. That there is no any significant relationship between CSP score and Total Assets of selected Companies in the selected industry

2b.That there is no any significant relationship between CSP score and Net Worth of selected Companies in the selected industry

2c. That there is no any significant relationship between CSP score and Profit before Tax of selected Companies in the selected industry.

2d. That there is no any significant relationship between CSP score and Debts of selected Companies in the selected industry.

2e. That there is no any impact of CSP Score on EPS of selected companies in the selected industry

3. That there is no any impact of Market Capitalization on CSP Score of selected companies in the selected industry.

Research Design

The study is based on the secondary data, collected from CMIE database for the following variables from Karmayog CSR rating of the largest 500 Indian Companies in India for the year ended on 2007, 2008, 2009 and 2010. Henceforth, 12 companies in the Oil and Gas industry, which were ranked by Karmayog and at the same time listed in the BSE 200 Companies were selected for the study. To measure the Corporate Social performance (CSP) the following three key parameters were considered. First, the ratings given by Karmayog, Secondly, budget allocation of fund for CSR activities, which is calculated at 0.02% on Turnover of the year. Third, the focusing area of CSR activity of involvement has been classified into Healthcare, Education including Training Programs, Environment, Rural development and Other Community welfare activities and if an item of information disclosed in their annual or other report, receives a score of 1, and 0 if it is not disclosed (Total Score is 5). This paper uses an weighted approach for disclosure INDEX scoring and equal importance given to all the parameter and calculated as $\sum (B *Kr * Pr)$ where Kr is karmayog rating score, B is Budgeted CSR allocation amount and Pr is performance rating calculated by authors. When the Karmayog rating is 1, the actual CSR allocation is treated as CSP score. Total Assets, Net Worth, Profit before Tax, Debts and EPS were treated as financial measures and market capitalization is treated as stock market performance.

Chart showing the linkage between Social Performance, Financial Performance and the Stock performances of Oil and Gas products industry in India.
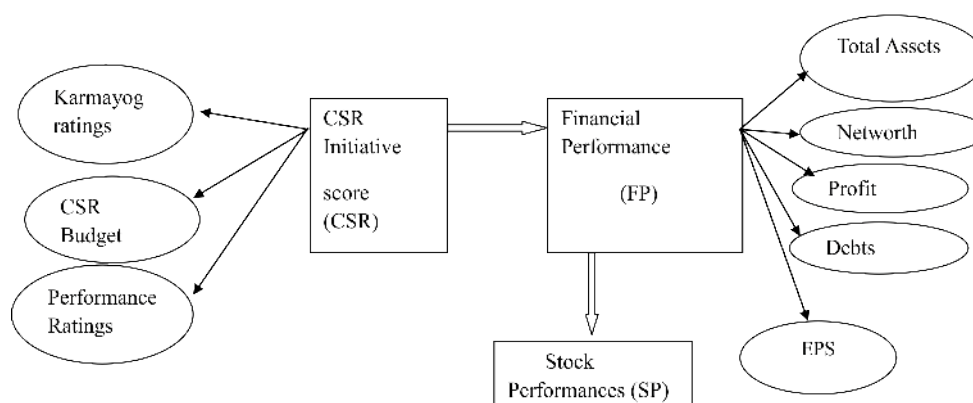
Analysis and Interpretation

Table – 2: Descriptive Statistics of CSR disclosure Score and its determinants of Oil and Gas Industries:

Variables	Mean	Median	Standard deviation	Skewness
CSP score	184.92	87.50	246.00	2.019
Total Assets	52,147.00	21,992.00	66,597.00	1.502
Net Worth	21,760.00	7,593.00	32,189.00	1.827
Profit before Tax	5,385.00	1,604.00	8,167.00	1.60
Debts	11,382.00	1,851.00	17,389.00	1.946
EPS	30.86	21.45	30.69	0.859

In the selected industry, the mean CSP Score is Rs.184.92. Bharat Petroleum, Hindustan Petroleum, Indian Oil, ONGC and Reliance Industries were achieved higher CSR score than the mean score. Mean value of Total Assets is Rs. 52,147 crores. Mean value of Net worth is Rs.21,760 crores. Mean value of Debts is Rs. 11,382 crores. Mean value of profit before tax is Rs. 5,385 crores. Indian Oil, ONGC and Reliance Industries were achieved higher than the mean value in case of Total Assets, Net Worth, and Profit before Tax and Debts. Mean value of EPS IS 30.86. Bhatat petroleum corporation, Hindustan Petroleum corporation, Indian Oil Corp, ONGC and Reliance industries achieved higher value than mean value.

Table – 3: Variables, Variable Scales and Statistical Tool applied in the Research for Hypothesis testing.

| Hyphothesis	Variables	Data Type	Statistical Tool
1a	CSR Budget – CSP Score	Category - Metric	One-way Anova
1b	CSP Score– Total Income	Category - Category	Correspondence Analysis
2a	CSP Score – Total Assets	Metric - Metric	Karl Pearson's Test
2b	CSP Score Net worth	Metric - Metric	Karl Pearson's Test
2c	CSP Score – Profit before Tax	Metric - Metric	Karl Pearson's Test
2d	CSP Score – Debts	Metric - Metric	Karl Pearson's Test
2e	CSP score - EPS	Metric - Metric	Curve Estimation Regression Analysis
3	CSP Score – Market Capitalization	Metric - Metric	Curve Estimation Regression Analysis

Table – 4: The result of One-way ANOVA, Chi-Square and the Karl Pearson's Test for hypothesis testing

Hypothesis	Variable		CSP Score
1a	CSR Budget	F-Value	54.698
		Significant (2 tailed)	0.000
1b	Total Income	Pearson's Chi-Square	1.440
		Significant (2 tailed)	0.012
2a	Total Assets	Correlation	0.634
		Significant (2 tailed)	0.000
2b	Net Worth	Correlation	0.475
		Significant (2 tailed)	0.001
2c	Profit before Tax	Correlation	0.336
		Significant (2 tailed)	0.020
2d	Debts	Correlation	0.754
		Significant (2 tailed)	0.000
2e	Earnings Per Share	Correlation	0.437
		Significant (2 tailed)	0.002
3	Market Capitalization	Correlation	0.301
		Significant (2 tailed)	0.037

Table-5 the results of Regression analysis for the hypothesis testing

	Earnings Per Share			Market Capitalization		
	Beta	R-square	Sig	Beta	R-square	Sig
Constant	20.339		0.000	3,14,522.92		0.051
CSP Score	0.054	0.19	0.002	1,096.66	0.091	0.037

Chart 1 and chart 2 shows the result of Curve estimation regression analysis
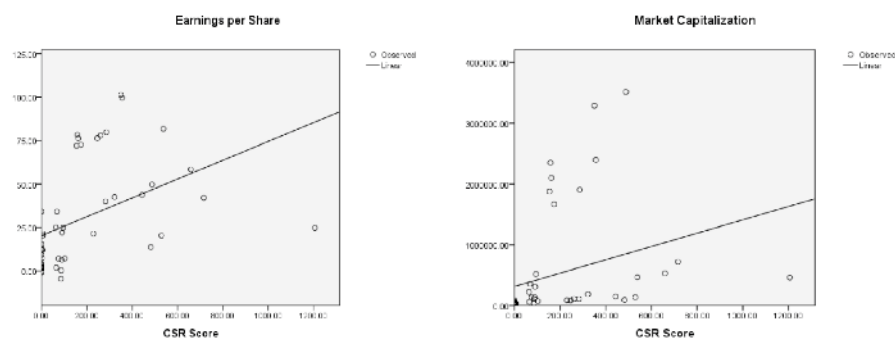
Findings and Conclusions

As for the Hypothesis 1a, null is rejected for the Oil and Gas industry. The one way ANOVA table showed that there is no any significant difference between CSR Budget and CSP Score. So the social performance measure, which is calculated by authors were significant at 0.01 levels. As for the hypothesis 1b, null is rejected and the authors proved with the help of Chi-Square tool and correspondence analysis, that CSP Score and Total Income has significant association at 0.05 levels in all over the periods. Regarding the hypothesis 2a, null is rejected. The Karl Pearson's correlation coefficient between CSP score and Total Assets has positively correlated and has been significant at 0.01 levels. Regarding the hypothesis 2b null is rejected. CSP score and Net worth are significant at 0.01 levels. Regarding the hypothesis 2c, null is rejected and CSP Score has significant relationship with profit before tax. Regarding the hypothesis 2d, the null is rejected and found that Debts and CSP Score are highly correlated in this industry and these variables are significant at 0.001 levels. Regarding the hypothesis 2e, CSP Score and EPS in this industry

has significant relationship at 0.01 levels and authors concluded that CSR initiatives has certain impact on financial performances of this industry. Regarding the hypothesis 3, the null is rejected and statistical results showed that there is significant relationship exist between CSR initiatives score and Stock performances in this Oil and Gas industry. Table-05 showed that the co-efficient of determination through curve estimation regression analysis showed that the linkage between CSR initiatives score with EPS (financial performance 94.6%) and Market capitalization (9.1%) and the authors concluded that there is an positive linkage between CSR initiatives score with financial performance and as well as stock market performances.

References:

Abdullah S.N., Mohamed N.R., and Mokhtar M.Z.,"Board independence, Ownership and CSR of Malaysian Large Firms" cited from http://www.wbiconpro.com.

Akinmulegun Sunday Ojo (2012). Akinmulegun Sunday Ojo,' The effect of financial leverage on Corporate

Performance of some se3lected companies in Nigeria", Journal of Canadian Social Sciences, vol-8, no-1,pp84-90.

Ashok Khurana, "CSR Initiatives in Asia: A Burgeoning Quintessence" / SSRN Publications

Dr. Ashish Mathur, " Perepectives of Samall and Medium enterprises for the CSR in Jodhpur", International Journal of Research in IT, Management and Engineering, Vol-1, Issue-2

Babalola, Yisau Abiodun,"The impact of CSR on Firm's Profitability in Nigeria", European Journal of Economics, Finance and Administrative Sciences, Issue : 45, 2012.

Chih Hung Chen, "The Major Components of CSR", Journal Of Global Responsibility, Vol-2,N0-1, pp 85-99

Daniel silberhorn and Richar C Warren, "Defining CSR: A view from big companies in Germany and UK", European Business review, Vol-19, No-5, 2007

Duyog Turker (2008), "How CSR Influences Organizational Commitment", Journal of Business Ethics, Vol-89, pp 189-204

Encyclopedia of Business Environment' by Sandeep Sharma

Esra Nemli et al (2011) 71. Esra Nemli Caliskan, Basak Turan Iake and Yusuf Aythrk, 'Corporate Reputation and Financial Performance: Evidence from Turkey", Research Journal of International Studies, Issue18, 2011.

John Mahon et al (2012). John Mahon, Steven L. Wartick, "Corporate Social Performance Profiling: Stakeholders perceptions to assess Corporate Reputation", Journal of Public Affairs, Vol-12,Issue1,2012,pp12-28

Jain Neeta and Mishra Shyam Sunder, NIMS University, "Firm Characteristics and CSR rating: Empirical evidence from India", Maratha Maindir's Babasaheb Gaede Institute of Managemwent Studies publications.

Jorge A. Arevalo and Deepa Aravind" Corporate Social Responsibility practices in India, Approach, Drivers and Barriers"-, 2011, vol-11 pp 399-414,

Khan and Atkinson (1987), "Managerial attitude to social responsibility: a comparative study in India and Britain". Journal of Business Ethics, vol.6 , No;6, pp 419-432

Dr. Meeta Nihalani, Head, Management studies, Jai Narain Vyas University, Jodhpur, Mr. Ashish Mathur (2011), "CSR in the modern Economy : A way to Sustainable Business Practices". IJBEMR, Vol -2, issue-2, 2011.)

Dr R.S.Ramesh and Prof.Punitha Goel, 2012, "Study and Measurement of CSR- An Indian Perspectives", International Journal of Multidisciplinay Research, Vol-2, Issue-6, Zenith Research Publications.

Richa Gautam and Anju Singh (2010),"CSR Practices in India: A study of top 500 Companies", Global Business and Management Research ; An International Journal, Vol.2;No.1,pp.4

Saeed Khan (2010), "Corporate Social Performance of Indian FMCG Companies", Issue in Social and Environmental Accounting, vol-3, no-2.

Saleh M., Zulkifli N., Muhamad R., (2008),"An Empirical examination of the relationship between CSR Disclosure and Financial Performance in an Emerging Market", International Journal of Productivity and Performance Management, Vol.59, No.3, pp.229-254.

Sanjay Prathan and Akhilesh Ranjan (2010), "CSR in rural development sector: Evidences from India", School of Doctoral Studies(European Union) Journal – 2010.pp;139 -147

Sumanta Dutta, Prof.Uttam Kumar Dutta and Prof.Saja Das(2011), "Triple Bottom Line Reporting: An Innovative Accounting Initiative", International Journal for Business, Strategy and Management, Vol.1, No.1, pp- 1-13.

Suwaidan M.S (2004),"Social Responsibility disclosures and Corporate Characteristics: The case of Jordanian industrial companies", International Journal of Accounting, Auditing and Performance Evaluation, Vol.1, No.4, pp.432-447.

Shweta Verma (2011), Why Indian Companies Indulge in CSR?, Journal of Management and Public Policy, Vol -2, No- 2, June2011

Tobias Gosling and Chris Vocht (2007), "Social Role Conceptions and CSR Policy Success" Springer 2007, of Business Ethics,   74: 363-372

Yaghoub Alavi Matin, Hamed Thaghafian, Kamal Esapour, Mohammad Amin Alavi and Arash Farhoodi (2011), "A study of the relationship between Corporate Social Responsibility and Firm Financial Performance", Australian Journal of Basic and Applied Sciences, Vol.5, No.12,pp 668-674.

Annexure 1

Selected pattern of Sample data:

BSE 200 listed companies belongs under this industry were only **thirteen** companies. They were Bharat Petro, Cairn India, Essar Oil, GAIL,Gujarat state Petronet, Hindustan Petro, Indian Oil corp, Indraprastha gas , Mngalore refinery limited, ONGC, Oil india ltd, Petronet LNG ltd, Reliance Industries.

Karmayog rated companies under this industry were **21** companies. They were Aban offshore ltd,Bharat petro, Castrol India Ltd,Cairn india, Chennai petroleum corp, DCW ltd, Essar Oil, GAIL, Gujarat Gas Co, Gujarat state Petronet, Gulf oil corp,Hindustan petro, Indian oil,Indraprastha Gas,Jindal Drilling and Industries Ltd,Mangalore refinaery,ONGC, Petronet LNG,Reliance Industries,Savita Oil Technologies ltd, Shiv-Vani Oil and Gas Exploration services ltd and the important thing is, the selected companies in the year 2007,2008,2009 and 2010 may vary year by year.

Therefore author selected BSE 200 and Karmayog ratings integrated 12 companies only.

Annexure -2 Correspondence Analysis Chart

For the year 2007

For the year 2008
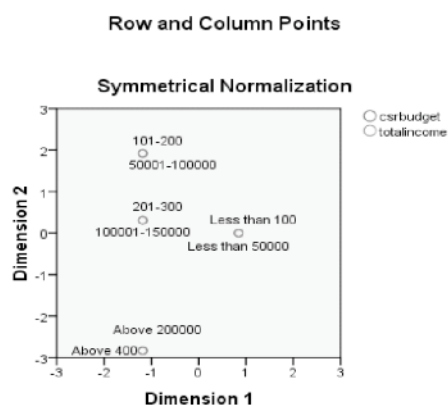
For the year 2009

For the year 2010
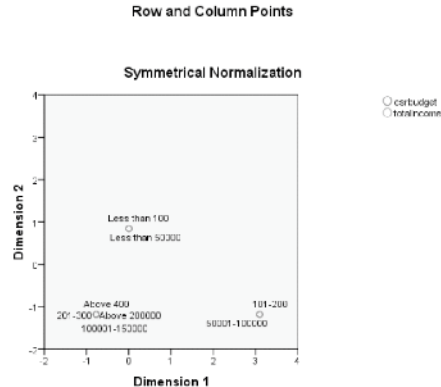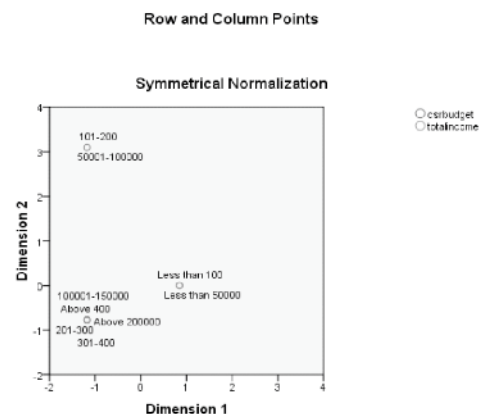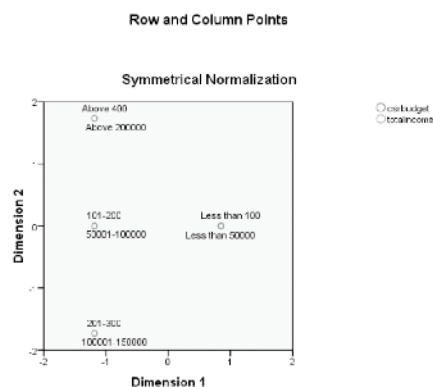
Annexure-3

Table – 2.1 represents the Karmayog ratings and Performance ratings (Kr,Pr), Total Income in crores(TI), Profit before Tax in crores (PBT), CSR budget Allocations in crores(CSRB), Number of Employees(NOE), Total Assets in crores (TA), Net worth in crores (NW), Debts in crores and calculated weighted CSR score in crores of the selected companies in the Oil Industry for the years from 2007 to 2010.

Name	year	Kr, Pr	Total Income	PBT	CSRB	NOE	T A	NW	Debts	SCore
Bharat Petroluem Corporation	2007	3, 2/5	1.08.246	2,761	216	13,968	34,241	10,273	1,083	260
	2008	3, 3/5	1,23,250	2,590	246	14,006	43,249	11,677	15,022	443
	2009	3, 3/5	1,46,946	997	294	14,016	48,178	12.128	21,171	529
	2010	2, 3/5	1,33,773	2,361	268	13,898	54.567	13,087	22,195	322

Company	Year									
Castrol India Ltd	2007	2, 3/5	2,092	237	04	882	808	418	0.20	4.8
	2008	2, 3/5	2,304	341	4.6	913	969	432	0.10	5.5
	2009	1, 3/5	2,600	410	5.2	896	965	476	0.20	5.2
	2010	-	2,767	581	5.5	799	1,187	495	0.00	00
Essar Oil	2007	2, 3/5	484	-54	01	1,542	15,611	2,995	8,571	01
	2008	0, 3/5	669	-42	01	1,259	21,406	3,600	10,015	00
	2009	1, 3/5	42,690	- 543	85	1,556	22,114	3,582	10,073	85
	2010	1, 3/5	43,278	30	86	1,337	26,006	4,674	10,355	86
GAIL India Ltd	2007	3, 3/5	17,470	3,200	35	3,474	18,773	11,393	1,338	63
	2008	3, 3/5	19,190	3,855	38	3,548	21,870	13,005	1,266	68
	2009	3, 3/5	25,217	4,182	50	3,544	25,736	14,769	1,200	90
	2010	3, 3/5	25,929	4,559	52	3,703	30,386	16,799	1,480	94
Gujarat State PetronetLtd	2007	-	318	142	0.6	117	2,103	957	863	00
	2008	1, 2/5	418	148	0.8	140	2,718	1,134	966	0.8
	2009	-	488	192	1.0	152	3,014	1,212	1,148	00
	2010	1, 3/5	992	628	2.0	141	3,798	1,563	1,257	2.0
Hindustan Petroleum Corporation	2007	2, 3/5	1,02,808	2,270	205	10,891	31,861	9,599	10,517	246
	2008	1, 3/5	1,14,593	1,517	229	10,949	41,652	10,563	16,786	229
	2009	3, 3/5	1,33,657	850	268	11,246	47,207	10,730	22,756	482
	2010	2, 3/5	1,17,641	2,067	235	11,291	51,775	11,558	21,302	282
Indian Oil Corporaion	2007	2, 3/5	2,44,282	10,448	488	31,724	1,02,892	34,700	27,082	538
	2008	2, 3/5	2,74,698	10,092	549	31,945	1,25,320	40,962	35,523	659
	2009	3, 3/5	3,34,877	4,313	670	33,998	1,39,063	43,960	44,972	1206
	2010	2, 3/5	2,98,609	13,972	597	34,363	1,58,210	50,538	44,566	716

Company	Year									
Indian Oil Corporaion	2007	2, 3/5	2,44,282	10,448	488	31,724	1,02,892	34,700	27,082	538
	2008	2, 3/5	2,74,698	10,092	549	31,945	1,25,320	40,962	35,523	659
	2009	3, 3/5	3,34,877	4,313	670	33,998	1,39,063	43,960	44,972	1206
	2010	2, 3/5	2,98,609	13,972	597	34,363	1,58,210	50,538	44,566	716
Indraprastha Gas Ltd	2007	0, 2/5	714	206	1.5	Missing	854	467	0.00	00
	2008	0, 2/5	817	261	1.6	Missing	1,072	576	0.00	00
	2009	0, 2/5	970	259	1.8	Missing	1,294	683	0.00	00
	2010	1, 2/5	1,223	324	2.4	Missing	1,626	825	0.00	2.4
Mangalore Refinery Ltd	2007	1, 2/5	32,282	1,060	65	1,046	9,363	2,747	2,377	65
	2008	1, 2/5	37,725	1,788	75	1,202	12,456	3,774	2,067	75
	2009	2, 3/5	42,907	1,764	85	1,253	12,269	4,720	1,996	102
	2010	2, 3/5	36,813	1,691	74	1,312	16,476	5,587	1,706	89
ONGC Ltd	2007	2, 3/5	63,775	23,670	128	33,810	1,37,187	61,410	373	154
	2008	2, 3/5	67,261	25,622	135	32,996	1,27,942	69,943	37	162
	2009	2, 3/5	72,599	24,535	145	33,035	1,53,040	78,085	27	174
	2010	2, 3/5	66,180	25,004	132	32,826	1,68,895	86,442	05	158
Petronet LNG Ltd	2007	0, 2/5	5.509	529	11	240	3,508	1,276	1,382	00
	2008	0, 2/5	6,555	715	13	244	4,030	1,619	1,477	00
	2009	0, 2/5	8,429	774	17	256	5,430	1,983	2,282	00
	2010	0, 2/5	10,649	600	21	274	5,962	2,235	2,500	00
Reliance Industries Ltd	2007	2, 3/5	1,18,832	14,529	238	24,696	1,17,651	61,315	27,825	286
	2008	2, 3/5	1,45,933	23,066	292	25,487	1,50,149	80,577	36,480	350
	2009	2, 3/5	1,48,427	18,447	297	24,679	2,45,953	114588	73,904	356
	2010	2, 3/5	2,03,626	21,560	407	23,365	2,51,249	128366	62,494	488

Annexure 4 shows the amount of BSE Capitalization and EPS of selected companies

Name of the company	year	Capitalization Amount	EPS
Bharat Petroleum Corporation Ltd	2007	1,09,276.10	77.98
	2008	1,48,684.20	43.72
	2009	1,36,174.80	20.35
	2010	1,86,808.80	42.53
Castrol India Ltd	2007	26,075.74	12.06
	2008	29,920.95	20.22
	2009	40,244.92	21.49
	2010	85,534.36	34.13
	2007	31,987.50	-0.82
Essar Oil Ltd	2008	53,680.00	-0.37
	2009	33,160.00	-4.53
	2010	1,05,485.00	0.23
	2007	2,23,717.10	25.01
GAIL India Ltd	2008	3,59,275.10	34.13
	2009	3,09,825.60	22.10
	2010	5,19,822.00	24.75
	2007	25,376.06	1.49
Gujarat State Petronet Ltd	2008	31,556.68	1.78
	2009	21,529.01	2.20
	2010	49,214.25	7.36
	2007	83,712.71	76.34
	2008	86,553.13	21.45
Hindustan Petroleum Corporation	2009	91,124.59	13.68
	2010	1,07,835.90	40.02
	2007	4,66,737.70	81.80
Indian	2008	5,31,322.00	58.39
Oil	2009	4,61,866.20	24.74
Corporaion	2010	7,20,494.90	42.10
	2007	13,993.02	9.12
Indraprastha Gas Ltd	2008	18,515.02	12.46
	2009	15,218.02	12.32
	2010	30,443.03	15.39
	2007	59,335.74	1.83
	2008	1,36,463.50	6.94
Mangalore Refinery Ltd	2009	71,956.64	7.08
	2010	1,33,372.80	6.35
	2007	18,78,251.00	72.03
	2008	20,98,983.00	76.28
ONGC Ltd	2009	16,67,679.00	72.60
	2010	23,49,551.00	78.30
	2007	31,462.50	2.45
Petronet LNG Ltd	2008	52,725.00	2.13
	2009	29,137.50	3.95
	2010	57,000.00	3.19
	2007	19,06,807.00	79.87
Reliance Industries Ltd	2008	32,91,787.00	101.30
	2009	23,97,209.00	99.63
	2010	35,14,508.00	49.65

Annexure – 5: The result of One-way ANOVA , Chi -Square and the Karl Pearson's Test for hypothesis testing. (year wise)

Hypothesis	Variable	Year		CSP Score
1a	CSR Budget	2007	F-value	126.00
			Significant(2 tailed)	0.000
		2008	F-value	27.656
			Significant(2 tailed)	0.000
		2009	F-value	24.250
			Significant(2 tailed)	0.000
		2010	F-value	34.756
			Significant(2 tailed)	0.000
1b	Total Income	2007	Pearson's Chi-Square	36.000
			Significant (2 tailed)	0.000
		2008	Pearson's Chi-Square	28.000
			Significant (2 tailed)	0.006
		2009	Pearson's Chi-Square	28.000
			Significant (2 tailed)	0.001
		2010	Pearson's Chi-Square	36.000
			Significant (2 tailed)	0.003
2a	Total Assets	2007	Correlation	0.699
			Significant (2 tailed)	0.011
		2008	Correlation	0.723
			Significant (2 tailed)	0.008
		2009	Correlation	0.501
			Significant (2 tailed)	0.097
		2010	Correlation	0.766
			Significant (2 tailed)	0.004
2b	Net worth	2007	Correlation	0.584
			Significant (2 tailed)	0.046
		2008	Correlation	0.534
			Significant (2 tailed)	0.074
		2009	Correlation	0.336
			Significant (2 tailed)	0.286
		2010	Correlation	0.609
			Significant (2 tailed)	0.035
2c	Capital Employed	2007	Correlation	0.710
			Significant (2 tailed)	0.010
		2008	Correlation	0.702
			Significant (2 tailed)	0.011
		2009	Correlation	0.460
			Significant (2 tailed)	0.132
		2010	Correlation	0.756
			Significant (2 tailed)	0.004
2e	Number of Employees	2007	Correlation	0.797
			Significant (2 tailed)	0.003
		2008	Correlation	0.769
			Significant (2 tailed)	0.006
		2009	Correlation	0.715
			Significant (2 tailed)	0.013
		2010	Correlation	0.799
			Significant (2 tailed)	0.003

		2007	Correlation	0.778
2f	Debts		Significant (2 tailed)	0.003
		2008	Correlation	0.843
			Significant (2 tailed)	0.001
		2009	Correlation	0.582
			Significant (2 tailed)	0.047
		2010	Correlation	0.890
			Significant (2 tailed)	0.000
2d	Profit before Tax	2007	Correlation	0.505
			Significant (2 tailed)	0.094
		2008	Correlation	0.424
			Significant (2 tailed)	0.169
		2009	Correlation	0.105
			Significant (2 tailed)	0.746
		2010	Correlation	0.573
			Significant (2 tailed)	0.052