



Do CSR compliance influence profitability performance? A study of selected public sector companies in Indian oil and gas industry

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Abstract

Corporate Social Responsibility is a managing idea whereby firms fit in societal and ecological anxieties in their commercial processes and acquaintances with their stakeholders. Business organizations are trying to attain an equilibrium in economic, ecological and societal imperatives with performing societal tasks popularly known as Corporate Social Responsibility (CSR). In this background, the key objective of the study is to examine the relationship between CSR compliance and profitability performance of the selected sample companies in Indian oil and gas industry from 2018-2019 to 2022-2023. One-way ANOVA and simple linear regression equations are used for data analysis. The CSRI compliances of the selected companies are observed to be moderately satisfactory during the study period. Moreover, CSRI compliance of BPCL is found to be better as compared to IOCL and HPCL. However, the study found no significant linkage between CSRI compliance and ROCE. Thus, profitability performance of the sample companies is not driven by their CSRI performance. The study used secondary data. Moreover, the study suffers from the limitations like short study period and small sample size. Hence, future study may be carried out by including more sample companies, longer study period and using other performance variables like ROA, ROE, MVA and EVA.

Keywords: CSRI, CSR, profitability, relationship, ROCE

Introduction

Corporate Social Responsibility is a managing idea whereby firms fit in societal and ecological anxieties in their commercial processes and acquaintances with their stakeholders. Business organizations are trying to attain an equilibrium in economic, ecological and societal imperatives with performing societal tasks popularly known as Corporate Social Responsibility (CSR). This happens voluntarily or legally due to pressure from its stakeholders, shareholders and others parties. A suitably executed CSR idea enable a corporate firm to improve its financial performance and hold good financial position through augmented sales and returns, operative cost savings, enhanced efficiency and quality, better product image and status, boosted buyer loyalty, accountable sourcing, stakeholder rendezvous, labor standards, working conditions, etc.

According to Section 135 and Schedule VII of the Companies Act, 2013 as well as the provisions of the Companies CSR Rules, 2014, any company having net worth of Rs. 500 crore or more or a turnover of Rs. 1000 crore or further or net income of Rs.5 crore or more should mandatorily spend 2% of their 3-year mean net revenue on CSR activity every year. If the corporation fails to spend the required amount, the Board of Directors must explain the reasons for the same in their annual report. This research study mainly focuses on the CSR compliance and its relationship with profitability performance of the selected companies in the Indian Petroleum Industry.

An Overview of Oil & Gas Sector in India

In India, Oil and Gas segment plays a vital role in fueling the rapid growth of the Indian economy and persuading decision making related to other significant segments of the economy. It is the third largest customer of fuel products,

after US and China. The Oil & Gas industry in India always focuses on gas and renewables, demand for oil, and is estimated to grow at least until 2040. The Government has taken many initiatives to satisfy the growing demand. It has permitted 100% FDI in various sections of the segment plus usual gas, fuel products and processing plants, amid others. Today, it entices both national and overseas investment.

Review of Literature

Empirical Studies: For the purpose of the study, we have reviewed some notable literatures which are briefly summarized below:

Seema, S. G. (2009) discussed the idea of CSR as tacit by Indian industries in the earlier time and the varying explanations of the idea in the phase of globalization and growing markets. Govindarajan, V.L. & Amilan, S. (2013) [3] indicated that CSR initiative score was momentous with fiscal and as fine as stock market performances at 0.05 level. CSR score influenced EPS at 19% and market capitalization at 9.1% in oil and gas sector. Abilasha & Tyagi, M. (2019) [1] revealed that the manipulate of CSR on total company's financial performance was significantly optimistic that were related to pecuniary ratios like ROC, ROA, etc., but individually insignificant. Pal, J. & Dutta, U.K. (2021) [8] observed that big companies had given more thrust on education and healthcare. More projects should be taken on environment, rural and community development, promotion of sports, protection of heritage, art and culture to ensure overall growth of an economy. Abilasha, N. & Tyagi, M. (2021) [11], found that companies contributed to the prescribed 2% of average profit of 3 years towards CSR activities. The results showed that pecuniary variables like NPM, ROCE, etc. augmented after introduction of CSR in all designated firms excluding ROE in both the sectors.

Research Gap: Based on the literatures as reviewed above, it is found that most of the studies are related to the CSR compliance and profit rate performance at national and foreign level. However, no such studies are found in oil and gas sector. Hence, this study may act as a pointer to the existing literatures.

Objective of the Study

The key objective of the study is to examine the relationship between CSR compliance and profitability performance of the selected sample companies in Indian oil and gas industry. To attain this key objective, the following secondary objectives are to be examined:

- To examine the CSR compliance of the selected sample companies.
- To examine the differences in CSR compliance that may exist among the selected sample companies.
- To examine the profitability performance of the selected sample companies.
- To inspect the association among CSR compliance and profitability performance of the selected sample companies.

Hypotheses of the Study

The following testable null hypotheses have been formulated as follows:

- No significant difference exists in CSRI compliance among the selected sample companies.

- No significant relationship between CSRI compliance and profit rate performance of the selected sample companies.

Data, Sample, and Methodology

Sample Companies: Based on market capitalization, the sample of our study comprises of top three companies in Indian oil and gas industry. The sample companies are as follows;

- Indian Oil Corporation Limited (IOCL).
- Bharat Petroleum Corporation Limited (BPCL).
- Hindustan Petroleum Corporation Limited (HPCL).

Study Period: The study covered from the financial year 2018-2019 to the financial year 2022-2023.

Data Source: The data for the study is secondary in nature. The relevant information is collected from the published annual reports of the selected companies during the specified time period. Apart from it, money control.com is also sourced in this study.

Methodology: To examine the CSR compliance, CSR index (CSRI) is computed for each selected companies. In this context, Schedule-VII of the Companies Act, 2013 is considered as the base framework for the computation of CSRI. For this purpose, we have arbitrarily assigned equal weightage for calculation of CSRI.

Table1: Calculation of CSRI

Sl. No.	Description of the Activities as per Schedule VII of the Companies Act, 2013	Weightage
1	Eradicating hunger, malnutrition, poverty.	12.5
2	Promoting Education	12.5
3	Promoting gender equality and women empowerment.	12.5
4	Ensuring environmental sustainability, protecting flora and fauna, animal welfare.	12.5
5	Protecting national art, heritage and culture.	12.5
6	Measures for the benefit of armed force veteran, war widows and their dependents.	12.5
7	Training to encourage countryside sports.	12.5
8	Contribution to PMNRF or PM care fund.	12.5
Total 100		

Source: Companies Act, 2013 and Computed

On the basis of Table-1, a gradation on five-Point scale (Bapat, Varadraj and Raithatha Mehul, 2011) [2] of CSRI is calculated which is shown below in Table 2.

Table 2: Grading on Five-Point Scale

Score Range	Rank
86-100	Excellent
71-85	Very Good
56-70	Good
41-55	Average
Below 41	Poor

Source: Bapat, Varadraj and Raithatha Mehul, 2011 [2]

One-way ANOVA is employed in the study to examine whether significant differences exist among the selected companies in terms of CSR compliance. Further to examine the linkage between CSR compliance and profitability performance of the selected companies, the technique of

linear regression equation is applied in the study. The linear regression equation is presented below:

$$P = a + b_{CSRI} + e$$

Where, P= Profitability performance (represented by ROCE),

CSRI = Corporate Social Responsibility Index, a and b = parameters (i.e., intercept and co-efficient respectively), and

e = error term of the equation.

We have chosen ROCE as the measure of profitability performance of the selected companies, since ROCE measures overall return of a firm.

Findings and Analysis

Analysis of CSR Compliance of the Sample Companies

The CSR compliance of all the sample companies taken together and individual sample companies are shown in Table 3 and Table 4 respectively.

Table 3: CSR Compliance of all the Sample Companies (CSRI Scores in Percentage)

Year	Average CSRI Compliance of all the Samples Companies Taken Together
2018-2019	62.50
2019-2020	54.17
2020-2021	62.50

2021-2022	62.50
2022-2023	62.50
Average	60.83

Source: Computed

Table 4: Company-wise CSRI Compliance (CSRI Scores in Percentage)

Year	IOCL	BPCL	HPCL
2018-2019	50	75	62.5
2019-2020	50	62.5	50
2020-2021	50	75	62.5
2021-2022	50	87.5	50
2022-2023	62.50	75	50
Average	52.5	75	55

Source: Computed

Table 3 shows that CSRI compliance of all the sample companies taken together ranged between 54.17% and 62.50% with an average 60.83%. Thus, it indicates that on the average, total sample companies have a satisfactory CSRI compliance during the study period.

Table 4 reveals company-wise CSRI compliance which is stated below:

IOCL: A moderate CSRI compliance is observed for IOCL with an average of 52.5%. The CSRI scores move between

50% and 62.50%. Moreover, all the years have shown moderate CSRI compliance during the period under study.

BPCL: The CSRI compliance of BPCL ranged from 62.50% to 87.50% with an average of 75%. These results indicate that BPCL has made a satisfactory compliance with respect to CSRI scores during all the years under study.

HPCL: Like IOCL, HPCL has a moderate CSRI compliance which ranged between 50% and 62.50% with an average 55%. Furthermore, HPCL has maintained a moderate CSRI compliance during all the years under study. From the above findings with respect to CSRI compliance by the sample companies, it is observed that on the average, BPCL secured first place followed by HPCL and IOCL.

To examine whether noteworthy differences exist among the sample companies in terms of CSRI compliance, one-way ANOVA is applied in the study. The result of one-way ANOVA is shown in Table 5.

Table 5: Result of One-Way ANOVA

Sources of Variation	Analysis of Variance			F value, (p)	
	S.S.	d.f.	M.S.	Observed	Tabulated
Between Groups	1520.83333625	212	760.416667	14.60 (0.0006)	3.885
Within Groups	2145.83333	14	153.27381		
Total					

Source: Computed

Table 5 indicates that there is a noteworthy difference in CSRI compliance at 5% level among the sample companies under study. This also leads to the rejection of the first null hypothesis of the study. Thus, it implies that CSRI compliance of the individuals sample companies have noteworthy influence on CSRI performance of the total sample companies.

Analysis of Profitability (represented by ROCE) of the Sample Companies: The ROCE of all the sample companies taken together and individual sample companies are shown in Table 6.

Table 6: ROCE of Individual Sample Companies and Total Sample Companies (ROCE Scores in Percentage)

Year	IOCL	BPCL	HPCL	Total Sample Companies (Average)
2018-2019	16.87	16.38	19.73	17.66
2019-2020	5.55	6.83	6.63	6.37
2020-2021	17.19	18.46	20.92	18.86
2021-2022	17.61	15.28	10.43	14.44
2022-2023	9.23	5.31	-11.77	0.92
Average	13.29	12.45	9.19	11.65

Source: www.moneycontrol.com & Computed

Table 6 reveals a fluctuating trend in all the sample companies as well as in total sample companies. It is further observed that on the average, ROCE of IOCL is found to be better as compared to other sample companies. The average ROCE of IOCL is observed to be 13.29%, followed by BPCL (12.45%) and HPCL (9.19%). The average ROCE of the total sample companies is found to be 11.65%.

Linkage between CSRI Compliance and ROCE of the Sample Companies: In this segment, simple liner regression equation is used in the study to derive the relationship between CSRI compliance and ROCE of the sample companies. The result of the regression analysis is shown in Table 7.

Table 7: Regression Analysis between CSRI Compliance and ROCE of the Individual Sample Companies

Companies	P = a + bCSRI + e		
	R ²	a	b
Total Sample Companies	0.002	40.7005 (0.054)	1.7920 (0.148) ⁱ
IOCL	0.167	34.605 (1.255)	-0.406 (0.522) ⁱ
BPCL	0.251	-12.898 (-0.507)	0.338 (1.003) ⁱ
HPCL	0.383	-4214.64 (-1.232)	84.328 (1.364) ⁱ

Source: Computed from www.moneycontrol.com of the sample companies.

Notes

- Figure in the brackets are t-values.
- i-marked values indicate insignificant.

Table 7 reveals no significance relationship between CSRI compliance and ROCE in the individuals sample companies as well as all the sample companies taken together. These results accept the second null hypothesis of the study.

Conclusion

The CSRI compliance of the selected companies is observed to be moderately satisfactory during the study period.

Moreover, CSRI compliance of BPCL is found to be better as compared to IOCL and HPCL. However, the study found no significant linkage between CSRI compliance and ROCE. Thus, it may be concluded that profitability performance of the sample companies is not driven by their CSRI performance during the period under study.

Limitations and Direction for Future Research

The study used secondary data. Moreover, the study suffers from the limitations like short study period and small sample size. Despite these limitations, future study may be carried out by including more sample companies, longer study period and using other performance variables like ROA, ROE, MVA and EVA.

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