

Social and Relationship Capital Scenario and Corporate Sustainability – A Study of Selected Companies from Indian Manufacturing Sector

Dr.Akinchan Buddhodev Sinha

Deputy Director

The Institute of Company Secretaries of India (ICSI)

Noida, Uttar Pradesh, India

Email id: akinchanbsinha@gmail.com

Abstract

Social and Relationship capital has gained strong foothold in the arena of business. Days are gone when corporates considered social obligations as discretionary. However, there were some companies which always cared for the society and did noteworthy work for the upliftment and betterment of the society. But the Section 135 of the Companies Act, 2013 acted as a game changer.

The mentioned section states that every company having net worth of rupees five hundred crore or more, or turnover of rupees one thousand crore or more or a net profit of rupees five crore or more during any financial year must spend every financial year, at least two percent of the average net profits of the company made during the three immediately preceding financial years, in pursuance of its Corporate Social Responsibility Policy.

Now companies from various sectors incur expenditure on various activities covered under social and relationship capital, i.e., corporate social responsibility (CSR) such as eradicating hunger, poverty and malnutrition, promoting health care including preventive health care and sanitation; promoting education, including special education and employment enhancing vocation skills especially among children, women, elderly and the differently abled and livelihood enhancement projects; Ensuring environmental sustainability, ecological balance, protection of flora and fauna, animal welfare, agroforestry, conservation of natural resources etc.

In this research paper, the scenario of social and relationship capital (CSR) will be focused for selected companies of Indian manufacturing sector, as it has been observed that emission of carbon / GHG (Green House Gases) emission tends to be higher in case of manufacturing sector-based organisations. The sample of companies that will be considered for the research study will be eclectic, i.e., companies from diverse industries covered under the manufacturing sector of India,

i.e., cement, steel, crude oil and fertiliser . From each mentioned industry two companies will be selected randomly for undertaking analysis of social and relationship capital. Relevant statistical tools will be used to draw inferences pertaining to the social and relationship capital scenario of the companies selected from the above mentioned industries. Further, this research paper will also make an endeavour to reconnoitre the sustainability of the selected companies by gauging their performance on vital financial parameters.

Keywords: Genesis of CSR; Social and Relationship Capital Scenario; Gauging Sustainability.

JEL Classification Code:

Introduction

Social and relationship capital refers to co-operative ties between a company and different communities and stakeholders' group that engage with each other for social welfare. For business organisations or companies, social relationship capital captures the institutions and relationships within and between communities, groups of stakeholders and other networks, and the ability to share information to increase individual and collective well-being.

The World Business Council on Sustainable Development (WBSCD) defines Social Capital as “the resources and relationships provided by people and society.” This definition includes human capital (people’s skills, knowledge and wellbeing), social capital (societies’ shared values, norms and institutions) and relationship capital (connections and networks).

Social capital plays a crucial role in ensuring success of the business organisations. The following points explicate the significance of social capital-

i) **Robust relationships:** One of the most essential facets of any organisation is its relationships with stakeholders. Social capital emphasize on building an edifice of robust relationships with stakeholders of the organisation, especially the external stakeholders. A strong bonding with stakeholders assist immensely in achieving competitive advantage.

ii) **Sharing of more information:** Today we are living in knowledge economy wherein an organisation’s value is determined largely on the magnitude of awareness of its people. Since more the people associated with the organisation are conversant with latest updates and facts, more is the possibility of having innovative ideas, superior practices, risk mitigation, and optimum decisions.

iii) **Sharing of more resources:** Similar to shared information, social capital can contribute prodigiously in resource sharing too. This can prove to be advantageous for the business organisations in two ways-

a) Stakeholders may provide access to resources that may contribute to value addition which in turn assist in accomplishing organisational goals.

b) Organisation may be in better position to provide resources that will add value back to the society and other stakeholders.

iv) **Trust:** It has a very close linkage to the social capital. To build trust, a business organisation needs to meet the expectations of its stakeholders on continuous basis. In view of this, strong focus on social capital may go a long way in building trust among the stakeholders, thereby enhancing the goodwill of the organisation.

v) **Efficiency:** As social capital entails sharing of information and resources, thereby gaining trust, in view of this, if it is adhered to in true letter and spirit then it may assist the business organisation to get the work done faster and efficiently.

vi) **Maintaining pace with social change:** One of the noteworthy changes in the recent years pertains to increase in social network platforms. Social networks can put social capital on steroids, thereby assisting people to-

a) Connect directly with their existing network.

b) Create new relationships and groups on the basis of shared connections, interests, and experiences.

c) Seek for succour, information, recommendations, and resources.

d) Share information, introductions, reviews, and resources that might assist people in their networks or groups.

vii) **Foster Reciprocity:** Social capital fosters reciprocity. Brands that build robust relationships with their stakeholders might derive benefits from more positive mentions, shares, recommendations, and support on social media platforms. Those brands which fails to build a good relationship with its stakeholders may witness a debilitating impact on organisational growth.

viii) **Strengthen Participation:** Participation in groups is considered to be an essential element of social capital. But it's interesting to note that societies with more social capital are likely to have higher magnitudes of participation and civic engagement. Further, stakeholder participation and engagement can prove to be beneficial in many aspects.

ix) **Resilience:** Social capital is considered as an element of social resilience. To put differently, it can assist communities, organisations, and individuals to surmount challenges and cataclysms. Better the scenario of social capital is, the stakeholders will be placed better to withstand various hiccups or disasters.

x) **Success:** Enhanced social capital can be a yardstick of success, as higher social capital implies higher stakeholder engagement.

Objectives of the study

1. To comprehend the contribution of companies selected from the manufacturing sector of India towards corporate social responsibility (CSR), a vital component of social and relationship capital.

2. To ascertain the sustainability of the companies selected for the research study as to whether they can sustain the CSR expenditures.

Research Methodology

1. **F-Test (One Factor Model):** This statistical tool will assist in ascertaining whether there is a significant difference or not in the CSR expenditure of the manufacturing companies selected for the research study.

2. **Regression Analysis:** This statistical tool will assist in determining the impact of CSR expenditure by the manufacturing companies selected for the research study on two crucial financial variables, i.e., Earnings Before Interest and Tax (EBIT) and Profit after Tax (PAT).

3. **Parabolic Trend Equation:** This statistical tool will help in undertaking the prognosis of EBIT and PAT of the manufacturing companies considered for the research study. An increasing trend of EBIT and PAT will indicate financial sustainability of the selected manufacturing companies.

Limitations of the study

1. The study is based on secondary data.

2. Due to technical constraints all the companies covered under the sectors considered for the research study, i.e., cement, steel, crude oil and fertiliser could not be studied or analysed.

Ascertaining CSR Expenditure Pattern of Companies

In this section, the analysis of CSR expenditure of the companies considered for the research study from steel, cement, crude oil and fertilizers have been undertaken. To comprehend as to whether there exists no or significant difference in the CSR expenditure of the selected companies, F-Test (One Factor Model) have been applied. The details of the companies chosen for the analysis are as under:

i) **Steel Sector-** Tata Steel Limited (Private Sector) and Steel Authority of India Limited (SAIL) (Public Sector).

ii) **Cement Sector-** JAYPEE Cements Limited (Private Sector) and Ultra Tech Cement Limited (Private Sector).

iii) **Fertilizers Sector-** National Fertilizers Limited (Public Sector) and Chambal Fertilizers and Chemicals Limited (Private Sector)

iv) **Crude Oil Sector-** Bharat Petroleum Corporation Limited (Public Sector) and Petronet LNG Limited (Private Sector).

To conduct the analysis, the postulate formed and CSR expenditure of the companies (please refer Table 1) have been provided below-

Null Hypothesis (H0): There is no significant difference in the CSR expenditures of the steel, cement, crude oil and fertilizers companies considered for the research during the period 2018-2022.

Alternative Hypothesis (H1): There is no significant difference in the CSR expenditures of the steel, cement, crude oil and fertilizers companies considered for the research during the period 2018-2022.

Table 1

CSR Expenditures of the Companies

(Rs.in Crores)

Years CSR	Tata Steel Limited	SAIL	JAYPEE Cements Limited	Ultra Tech Cement Limited	Bharat Petroleum Corporation Limited	Petronet LNG Limited	National Fertilizers Limited	Chambal Fertilizers and Chemicals Limited
2018	232	25.70	0.76	60.71	310.56	8.55	2.97	11.2
2019	315	31.18	2.98	74.96	350.19	7.39	2.29	12.66
2020	193	27.56	4.0	125	371.23	117.96	5.75	15.33
2021	222	47.18	4.99	121	144.90	19	1.34	19.58
2022	406	94.24	3.02	103	137.78	52.19	4.09	27.90

Source: Annual Reports of the Companies

The companies have been selected on random basis and CSR dimension has been considered for the analysis since CSR covers vital activities like eradicating hunger, poverty and malnutrition, encouraging health care and sanitation, promoting education including special education and employment enhancing vocational skills especially among children, women, elderly and the differently abled and livelihood enhancement projects, promoting gender equality and empowering women etc. which focus on both social and environmental facets.

The analysis using F-Test (One Factor Model) is provided in table 2 below-

Table 2

F-Test (One Factor Model) Analysis

Anova: Single Factor						
SUMMARY						
<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>		
Column 1	5	1368	273.6	7533.3		
Column 2	5	225.86	45.172	824.2045		
Column 3	5	15.75	3.15	2.4665		
Column 4	5	484.67	96.934	799.676		
Column 5	5	1314.66	262.932	12801.35		
Column 6	5	205.09	41.018	2178.673		
Column 7	5	16.44	3.288	2.89912		
Column 8	5	86.67	17.334	45.04328		
ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	441724.7	7	63103.52	20.87135	2.96E-10	2.312741
Within Groups	96750.47	32	3023.452			
Total	538475.1	39				

Decision: For $v_1= 7$ and $v_2= 32$, $F_{0.05}= 2.31$. The calculated value of F is more than the table value. The null hypothesis does not hold good and hence we conclude that CSR expenditures of the companies considered under steel, cement, crude oil and fertilizers are significantly different.

Prognosis of CSR Expenditure

To ascertain the future trend of CSR expenditure of the companies considered for the research study, prognosis of CSR expenditure has been carried out for period 2023 to 2047. The rationale for making predictions till 2047 is that as in the Indian Union Budget 2022, the Honorable Finance Minister stated that India has entered the Amrit Kaal and in 2047 India will be completing hundred years of independence.

To undertake the projection of CSR expenditure, parabolic trend equation has been applied. The formula of parabolic trend equation is:

$$y = a + bx + cx^2$$

i) Forecasted CSR Expenditure of Steel Sector Companies

The forecasted CSR expenditure of two steel companies considered for the research study i.e., Tata Steel and SAIL is provided in table 3

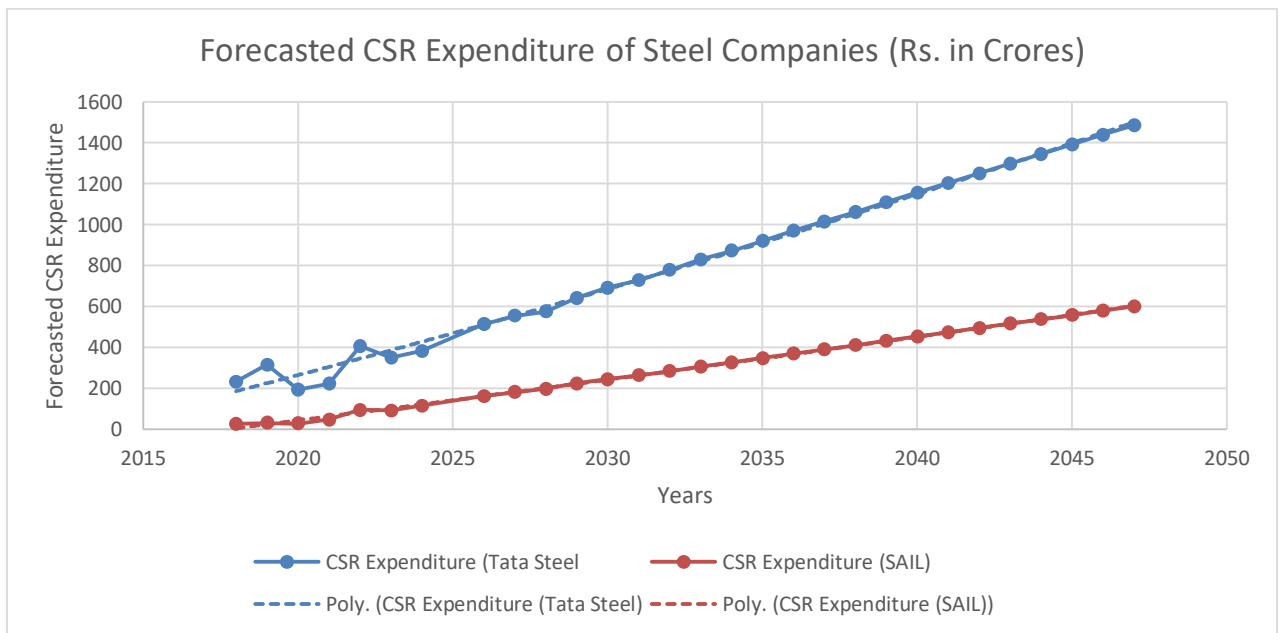
Table 3

Forecasted CSR Expenditure

Years	CSR Expenditure (Tata Steel) (Rs.in Crores)	CSR Expenditure (SAIL) (Rs. in Crores)
2018	232	25.7
2019	315	31.18
2020	193	27.56
2021	222	47.18
2022	406	94.24
2023	350.1	91.096
2024	382.18	114.2048
2026	513.24	161.7384
2027	553.7137838	181.0625838
2028	575.7176996	197.5699042
2029	641.129671	222.822116
2030	691.3353168	243.4451602
2031	728.1092505	262.8795486
2032	777.3237096	284.4086183
2033	829.7806093	306.3455277
2034	872.5227923	326.3832786
2035	919.0282286	347.4950914
2036	968.4640297	368.8641367
2037	1014.882352	389.7175107
2038	1060.779019	410.5285562
2039	1108.845257	431.7516071
2040	1155.984491	452.7246157
2041	1202.492178	473.6438016

2042	1249.724197	494.6878106
2043	1297.026212	515.7304893
2044	1343.844952	536.6839526
2045	1390.890893	557.6957424
2046	1438.071141	578.7183664
2047	1485.079049	599.7111817

The parabolic trend of CSR expenditure from 2023 to 2047 is provided below-



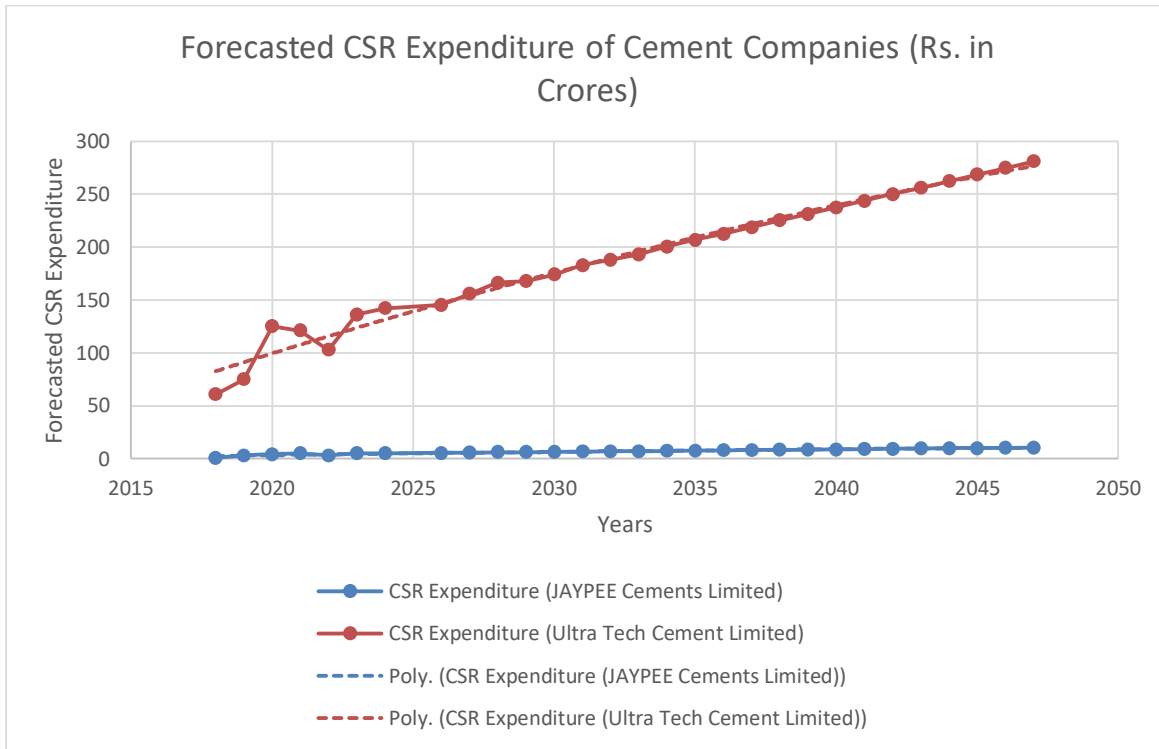
ii) Forecasted CSR Expenditure of Cement Sector Companies

The forecasted CSR expenditure of two cement companies considered for the research study i.e., JAYPEE Cements Limited and Ultra Tech Cement Limited is provided in table 4.

Table 4**Forecasted CSR Expenditure**

Years	CSR Expenditure (JAYPEE Cements Limited) (Rs. in Crores)	CSR Expenditure (Ultra Tech Cement Limited) (Rs. in Crores)
2018	0.76	60.71
2019	2.98	74.96
2020	4	125
2021	4.99	121
2022	3.02	103
2023	5.109	136.12
2024	5.0032	142.112
2026	5.2746	145.184
2027	5.487537838	155.9755676
2028	6.098535135	166.4541898
2029	6.015342898	167.8767126
2030	6.315489467	174.1600851
2031	6.621176266	182.8861056
2032	6.852885677	187.9286235
2033	7.015046224	193.2486214
2034	7.325028965	200.5737365
2035	7.549810006	206.71638
2036	7.771612658	212.3623919
2037	8.014542029	218.8665393
2038	8.268880567	225.2608812
2039	8.491705413	231.2133204
2040	8.733627752	237.4516136
2041	8.976431756	243.7885166
2042	9.213595495	249.9265803
2043	9.449095056	256.1001608
2044	9.691315203	262.3706326
2045	9.929224513	268.5724054
2046	10.16692397	274.7552081
2047	10.40606677	280.9838475

The parabolic trend of CSR expenditure from 2023 to 2047 is provided below-



iii) Forecasted CSR Expenditure of Crude Oil Sector Companies

The forecasted CSR expenditure of two crude oil companies, i.e., Bharat Petroleum Corporation Limited and Petronet LNG Limited is provided in table 5

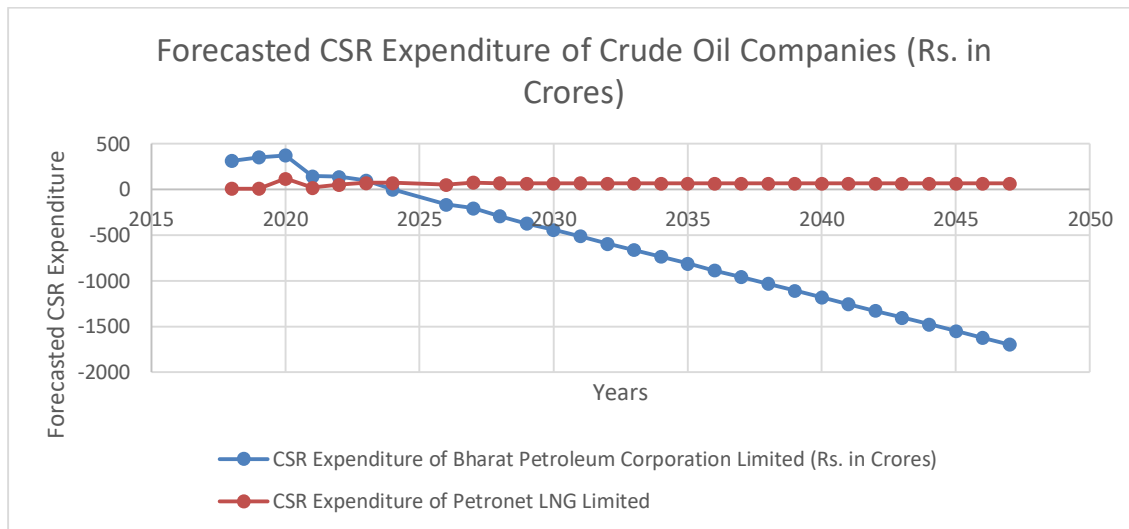
Table 5

Forecasted CSR Expenditure

Years	CSR Expenditure of Bharat Petroleum Corporation Limited (Rs. in Crores)	CSR Expenditure of Petronet LNG Limited (Rs. in Crores)
2018	310.56	8.55
2019	350.19	7.39
2020	371.23	117.96
2021	144.9	19
2022	137.78	52.19
2023	97.677	70.685
2024	-1.1874	71.691
2026	-166.7432	49.964

2027	-206.9493595	72.90941892
2028	-294.0757698	66.96554431
2029	-374.0530254	63.33742728
2030	-442.2186529	63.58469474
2031	-512.2243731	68.6530364
2032	-593.5121093	63.52193995
2033	-664.3299941	64.74104866
2034	-736.821849	65.5909758
2035	-812.2149996	65.24851142
2036	-886.8079628	64.12909821
2037	-959.0803968	65.16284859
2038	-1033.697116	64.78901322
2039	-1107.909244	64.47721305
2040	-1181.425237	64.49653238
2041	-1255.20301	64.62571093
2042	-1329.455005	64.30023678
2043	-1403.180786	64.28902478
2044	-1477.006512	64.26594194
2045	-1550.996207	64.15612925
2046	-1624.909674	64.03537128
2047	-1698.727065	64.01055285

The parabolic trend equation for the period 2023 to 2047 is provided below-



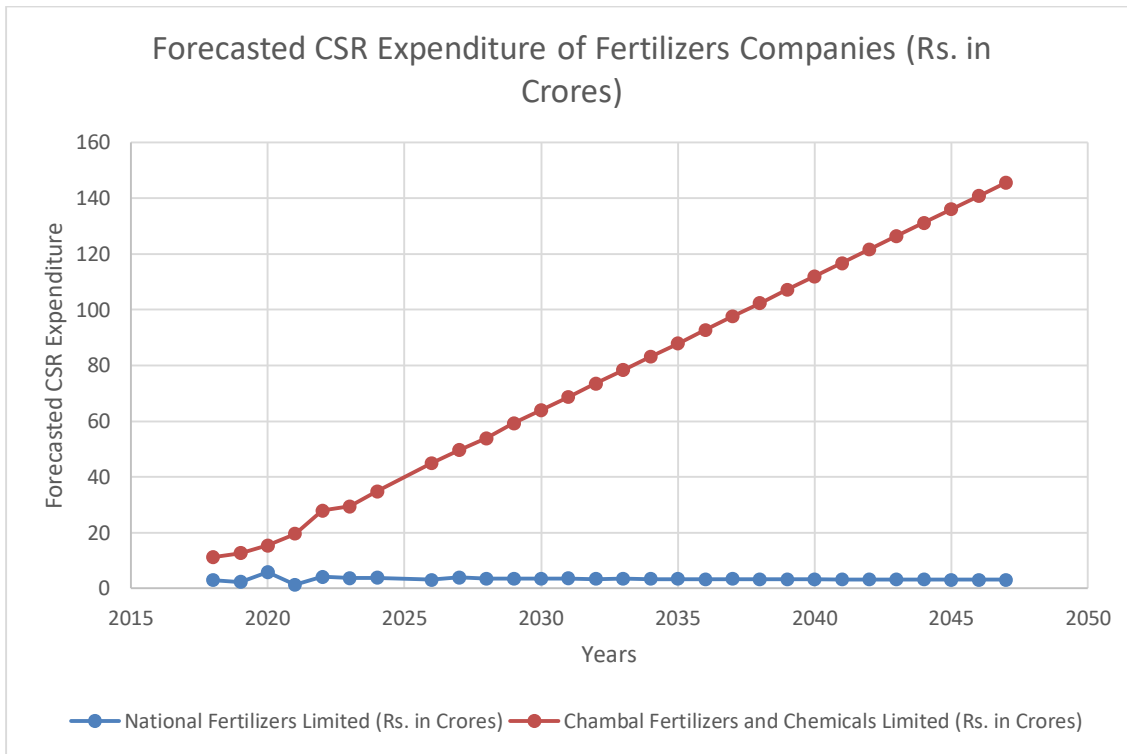
iv) Forecasted CSR Expenditure of Fertilizers Companies

The forecasted CSR expenditure of two fertilizers companies, i.e., National Fertilizers Limited and Chambal Fertilizers and Chemicals Limited is provided in table 6.

Table 6**Forecasted CSR Expenditure**

Years	National Fertilizers Limited (Rs. in Crores)	Chambal Fertilizers and Chemicals Limited (Rs. in Crores)
2018	2.97	11.2
2019	2.29	12.66
2020	5.75	15.33
2021	1.34	19.58
2022	4.09	27.9
2023	3.675	29.43
2024	3.762	34.813
2026	3.067	44.937
2027	3.958662162	49.6212973
2028	3.445539283	53.83901194
2029	3.475691013	59.21958002
2030	3.45220007	63.92125349
2031	3.566047203	68.57766546
2032	3.346057207	73.43425501
2033	3.424524566	78.36292466
2034	3.390361285	83.04304297
2035	3.356278004	87.87647976
2036	3.304083357	92.72079854
2037	3.318602605	97.51349283
2038	3.269333409	102.2970153
2039	3.243812387	107.1336532
2040	3.220517597	111.935457
2041	3.198693349	116.7349266
2042	3.163601573	121.5473018
2043	3.14221685	126.3602247
2044	3.115736222	131.161809
2045	3.088341343	135.9713444
2046	3.061147059	140.7813241
2047	3.036573249	145.5881501

The parabolic trend equation for the period 2023 to 2047 is as under:



Impact of CSR Expenditure on Earnings Before Interest and Tax (EBIT)

In this section, an endeavour has been made to reconnoitre the impact of CSR expenditure on the Earnings Before Interest and Tax (EBIT) of the companies considered for the research study. The summary of the impact of CSR expenditure on EBIT of companies using regression analysis is provided in the table below:

S.NO.	Companies	Multiple R (Correlation Coefficient)	R Square (Co-efficient of Determination)	Inference
1	Tata Steel	0.83	0.69	There is a positive impact of CSR activities on the operating profit of Tata Steel, thereby implying that activities undertaken for the benefit of the society proves to be advantageous for the company.
2	SAIL	0.95	0.90	In this case, it may be observed that high correlation coefficient and coefficient of determination exists between CSR expenditure

				and operating profit, i.e., Earnings Before Interest and Tax.
3	JAYPEE Group	0.39	0.15	In case of JAYPEE Group, the scenario is quite different from what has been observed for Tata Steel and SAIL. Both coefficient of correlation and coefficient of determination are low. However, it is heartening to note that the company has been contributing towards CSR on regular basis, thereby contributing to the betterment of the people as well as the society.
4	Ultratech Cements	0.81	0.66	A strong correlation coefficient and coefficient of determination can be observed, implying that company is reaping benefits of its CSR activities.
5	Bharat Petrochemicals Limited (BPCL)	0.88	0.77	Optimistic scenario can be observed, as expenditure on CSR has exerted a positive impact on the EBIT of BPCL.
6	Petronet LNG	0.27	0.074	In this case, the scenario appears to be gloomy, i.e., CSR has not created positivity to a great extent for the company in terms of EBIT. However, the company has been constantly making contribution towards social good.
7	National Fertilizers Limited	0.15	0.021	In this case too, the impact of CSR activities on the company's EBIT appears to be quite low but it does not imply that the company is not contributing towards CSR. It is engaged in various CSR activities.
8	Chambal Fertilizers and Chemicals Limited	0.80	0.63	Buoyancy can be observed in the EBIT of the company resulting from the expenditure incurred on various CSR activities.

Conclusion

Social and Relationship capital has gained strong foothold across the globe. Today corporate houses has recognized the fact that they do not exist only for increasing revenues and earning profits. Rather along with earning profits, they also need to care for people and planet. As business organisations draw resources from the society to carry out its production process or operations, so there is an obligation on the owners or management of business enterprises to contribute to the society in various ways, especially by undertaking activities mentioned under Permitted CSR activities (Schedule-VII of Companies Act, 2013) like eradication of hunger, promotion of health care including preventive health care and sanitation, making available safe drinking water, promoting education, including special education and employment enhancing vocation skills particularly among children, women, elderly and the differently abled and livelihood enhancement projects, empowering women etc.

CSR is no more a choice for a company fulfilling certain regulatory requirements as per the Companies Act, 2013. It is to be noted that companies mandated by the Companies Act, 2013 to undertake CSR activities are required to constitute a CSR Committee whose roles and responsibilities mainly are- formulate and recommend to the Board, the Corporate Social Responsibility Policy and the activities to be undertaken by the company, recommend the amount of expenditure to be incurred on CSR activities and monitor the Corporate Social Responsibility Policy from time to time.

Thus, it may be opined that corporate social responsibility has become an integral element of corporate sector and it do exert an impact on the sustainability and growth of business to a great extent.

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