CSR Impact on Profitability: Insights from NSE Listed Firms

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ABSTRACT:

Corporate Social Responsibility (CSR) has long been identified as a significant topic of research. In the recent times, CSR has garnered significant interest in the business world due to its potential impact on a company's profitability. However, studies also show that the conclusiveness about this association between corporate social responsibility (CSR) and profitability remains equivocal. This study aims to provide a deeper understanding of this relationship between CSR and profitability in the context of India, evaluating selected industries of manufacturing, construction, transportation, energy, and agriculture. The study blends qualitative and quantitative analysis of secondary data of CSR expenditures and financial performance taken from 15 Indian National Stock Exchange (NSE) listed companies over a period of 2019-2023. The results reveals the positive and significant relationship between characteristics unique to a given sector and how they affect financial results. It demonstrates how businesses can create shared value by aligning CSR initiatives with societal welfare, ultimately leading to enhanced financial performance and sustainable growth. The paper would help in giving a perspective on how CSR impacts the different financial variables.

Keywords: Corporate Social Responsibility, NSE companies, Profitability, Stakeholder Engagement, Sustainability.

Introduction:

A crucial aspect of modern corporate operations is Corporate Social Responsibility (CSR), which represents a paradigm change away from profit-driven goals and toward a more comprehensive strategy that takes social and environmental concerns into account.. India, one of the economies with the highest rate of growth in the world, is at a crossroads in its development, facing a variety of issues from socioeconomic inequality to environmental degradation to poverty relief. In light of this, business firm's roles now extend beyond maximizing profits to include greater societal duties. The significance of CSR as a business necessity rather than a discretionary activity is further highlighted by the Securities and Exchange Board of India (SEBI), which has mandated CSR spending for some qualifying corporations.(***Report of The Companies Law Committee February 2016, MOCA, GOI***, **2016**) As companies increasingly integrate CSR into their core operations, questions regarding the tangible returns on these investments arise. With globalization, technology, and rising stakeholder demands creating a more complicated corporate environment, integrating CSR practices has become essential for long-term success and relevance. In today's rapidly changing global landscape, the convergence of CSR and financial performance has emerged as a pivotal concern for businesses across diverse sectors. Various studies have explored this relationship, affirming the existence of a relation between CSR activities and financial performance (**Li & Li, 2018; Mehmood et al., 2020; Wu et al., 2021**). Furthermore, a number of factors can affect how CSR affects financial success. For instance, the mediating function of company size in the relationship between financial performance and CSR disclosure was emphasized by (**Rosharlianti et al., 2020**). According to (**Wati et al., 2014**), a company's long-term financial performance may be impacted by the financial resources it devotes to its CSR initiatives. The recognition of corporations as integral stakeholders in shaping societal well-being has propelled the adoption of CSR initiatives, aiming to address pressing social, environmental, and ethical challenges. Simultaneously, investors and stakeholders are increasingly scrutinising the financial impact of such responsible practices on companies' long-term sustainability and profitability. As companies navigate this complex relationship between social responsibility and financial performance, understanding the underlying humanistic ethos in CSR becomes imperative.

In the framework of selected Indian companies listed on the National Stock Exchange (NSE), this study attempts to explore the intricate relationship between corporate social responsibility (CSR) initiatives and financial performance. The study covers significant industries such as energy, manufacturing and construction, agriculture, and transportation. The choice to focus on NSE companies within the energy, transport, agriculture, manufacturing, and construction sectors stems from their significant contributions to economic growth and development. These sectors are critical for India's sustainable progress, encompassing industries that impact the lives of millions. The energy industry, which includes both renewable and conventional energy sources, is crucial to India's development. As a result, businesses are under increased scrutiny for their sustainable energy and environmental policies. Comparably, the manufacturing and construction industry, which

forms the backbone of India's industrial landscape, struggles to balance the demands of ecological sustainability and economic growth. The core of India's economy, agriculture, faces urgent issues like food security, land degradation, and farmer welfare, which calls for coordinated CSR efforts. Furthermore, the transportation industry—which includes air, sea, rail, and road transportation—confronts challenges including emissions, road safety, and infrastructure development while acting as a catalyst for economic integration and connection.

Given this, the purpose of this study is to shed light on the intricate relationship that exists between CSR initiatives and financial outcomes in the chosen industry sectors. By exploring how CSR influences the financial performance of companies in these sectors, we endeavour to shed light on the broader implications of responsible business practices on national and regional economies. This study attempts to provide empirical insights into the extent to which CSR activities influence profitability and shareholder value creation by examining the financial metrics and CSR declarations of NSE listed companies. In addition, it aims to illuminate the industry-specific subtleties and forces influencing the CSR-profitability relationship, providing policymakers, business executives, investors, and other stakeholders with useful information.

Literature Review:

This study investigates the effects of Corporate Social Responsibility (CSR) on the financial performance of companies listed on the National Stock Exchange (NSE) in different industries, including manufacturing, construction, energy, transportation, and agriculture. The review of literature delves into existing research and scholarly works to investigate the linkages between CSR practices grounded in the vision of attainment of Sustainable Development Goals (SDGs) and their influence on financial outcomes in the corporate world. Numerous studies have explored the relationship between CSR and financial performance, revealing mixed findings. Some researchers argue that CSR positively affects financial performance, citing enhanced brand reputation, increased customer loyalty, and improved risk management as key drivers. (**McWilliams et al., 2006**) found that companies engaging in socially responsible practices experienced higher financial returns than those that did not. They concluded a neutral relationship between the two variables. They also propagated an ideal' level of CSR which is measurable by doing cost-benefit analysis. Another study, did a meta-analysis of 167 research works and found out a dynamic relationship between CSR and financial performance. When examining the particular aspects of environmental performance, disclosed wrongdoings, and charitable contributions, as well as when evaluating CSP more broadly using observer assessments and self-reported social performance, we discover that the correlation is highest. The relationship is weakest when considering the particular aspects of corporate policy and openness, as well as when evaluating CSP in a broader sense using mutual fund screens and third-party audits (**Margolis et al., 2009**) .The incorporation of values, particularly empathy, compassion, and ethical awareness, into corporate social responsibility (CSR) operations has garnered more attention in recent years. According to (**R. Freeman & Mcvea, 2001**) and (**D. Freeman, 1984**), organizations should prioritize the interests of all stakeholders, not just shareholders, in order to achieve long-term viability. Companies that embrace this perspective strengthen their relationships with stakeholders, which enhances resilience, support, and trust during trying times (**Bansal & Roth, 2000**). Customers are more likely to make purchases from businesses that demonstrate a stronger dedication to environmental conservation, such as their readiness to pay a little bit more for high-quality eco-friendly products. Scholars, however, contend that environmental concern goes beyond the mere marketing of eco-friendly products; rather, it encompasses the business culture, policies, and practices that support an all-encompassing environmental concern (**Rashid et al., 2015**). (**R. E. Freeman, 1994**) asserts that that humanistic organizations are more able to adapt to shifting market conditions, which has an impact on financial performance. Studies show that organizations that put a high priority on the growth and well-being of their workforce are more likely to draw and keep top talent, which boosts output and lowers attrition cost (**Guest, 2017**). Organizations that actively participate in corporate social responsibility (CSR) generate a better work environment and higher levels of employee commitment by strengthening the psychological contract between employers and employees (**Farooq & Noor, 2023**). Research exploring the impact of CSR in specific industry sectors, such as energy, transport, agriculture, manufacturing, and construction, offers valuable insights. (**Gadenne et al., 2009**) found that customer loyalty and financial success in the agriculture sector were positively impacted by CSR initiatives.. In the energy sector too, CSR practices have been associated with improved reputation, positively impacting market valuation (**Fombrun & Shanley, 1990**). Research has demonstrated that joint CSR projects combining alliances with different stakeholders can result in the production of shared value (**Porter & Kramer, 2011**). Through improved market positioning and access to new markets, cooperative projects involving communities, governments, and non-governmental organizations (NGOs) may produce favourable financial results (**Husted & Allen, 2006**). An extensive summary of earlier studies on the association between CSR and financial profitability is given by a meta-analysis done by (**Gupta & Das, 2022**) . The study emphasizes the beneficial correlation between financial results and corporate social responsibility (CSR) policies by synthesizing findings from multiple empirical studies. This study examines how stakeholder engagement, a key aspect of CSR, influences the financial performance of NSE companies over time. The research reveals that companies with strong stakeholder engagement tend to achieve superior financial performance compared to their peers (**Fernández-Guadaño & Sarria-Pedroza, 2018**). Organizations with varying backgrounds in CSR culture see varying effects on financial performance from their CSR performance in terms of technology innovation, shareholders, and customers, but generally, their success outperforms other CSR dimensions (**Li & Li, 2018**). In India, particular attention was given to Indian banks

in a study, and it was determined that CSR has a favourable impact on these institutions' financial performance. A diverse view as to this relationship between CSR and financial performance was highlighted by (**Mehmood et al., 2020**) wherein the Return on Assets (ROA) and Return on Equity (ROE) was observed to be decreasing in relation to the CSR expenditures. Similar mixed conclusions were provided by (**Sharma et al., 2021**) implying that the financial performance of manufacturing sector companies and their CSR score do not significantly correlate. On the other hand, there is a high positive association between ROE, ROA, and ROCE, as well as a positive correlation between all three metrics and the CSR score of service sector companies. A positive association between CSR expenditure and financial performance was accentuated by the study done in India by (**Oware & Mallikarjunappa, 2020**). The study also demonstrated that the relationship between required CSR reporting and financial performance stock price returns is moderated..

Research Objectives:
1. To examine the nature and extent of CSR activities undertaken by selected NSE listed companies.
2. To analyse the financial performance through profitability metrics of the identified NSE listed companies.
3. To investigate the relationship between the level of CSR engagement and the profitability of the selected NSE listed companies.
4. To understand the influence of industry type, company size and age on the relationship between CSR and financial performance of selected NSE companies.
5. To identify successful CSR strategies that have positively impacted financial performance within the energy, transport, agriculture, manufacturing, and construction sectors.

Research Hypotheses:

H_{01} There is a no significant relationship between the level of CSR expenditure and Net Profit.

H_{A1} There is a significant relationship between the level of CSR expenditure and Net Profit.

H_{02} There is a no significant relationship between the level of CSR expenditure and EPS.

H_{A2} There is a no significant relationship between the level of CSR expenditure and EPS.

H_{03} Company age & size will not confluence the relationship between CSR expenditure and Profitability.

H_{A3} Company age & size will confluence the relationship between CSR expenditure and Profitability.

Research Methodology:
- **Research Design:** Quantitative Research
- **Population:** NSE listed companies
- **Sampling method:** Judgement sampling (Non-probability sampling technique)
- **Sample size:** Data of CSR expenditure, Net profit, EPS from 14 companies over a period of 5 years.
- **Tool used:** SPSS
- **Data type:** Secondary Data collected from company websites
- **Data Analysis Device:** Frequency and Percentage
- **Data Presentation tool:** Table
- **Hypotheses testing:** SPSS- Correlation, Regression
- **Variables:**

Independent Variable	Dependent Variables	Control Variables
Corporate Social Responsibility (CSR) expenditure	Financial Performance: 1. Net profit 2. Earnings per share (EPS)	1. Company Age (in yr.s) 2. Company size (Market Cap)

To achieve the research objectives, this study is essentially based on secondary data. The qualitative component comes from Sustainability reports, research articles, interviews and opinions stated by the industry experts, CSR practitioners, and key stakeholders to gain perspectives on the CSR activities undertaken by the selected companies. The quantitative aspect will entail data analysis of financial performance metrics and CSR expenditures as declared in the audited annual reports of the selected NSE companies within the identified sectors. This comparative study assesses the impact of CSR practices on financial performance across sectors, including energy, transport, agriculture, manufacturing, and construction, in the Indian context. The research uncovers sector-specific dynamics and their implications for financial outcomes.

- **Research Procedure**:
  1. Based on their market capital, 50 top Indian companies listed on NSE were selected from the sectors of energy, transport, agriculture, manufacturing, and construction sectors.

2. On the parameter of data availability for the selected period from 2018-19 to 2022-23, 14 companies were chosen from the 50 selected companies using judgement sampling. Out of these, 7 companies belong to the Energy sector, 2 companies from the Manufacturing & Construction sector, 2 companies from the Agriculture sector and 3 companies from the Transport sector.
3. Each selected company's financial performance was measured in terms of their net profit, and earnings per share for five financial years (from 2018-19 to 2022-23).
4. CSR expenditure data was collected from the audited annual reports and business sustainability reports published on the company websites. This data was further cross-checked with the independent Indian CSR portals.
5. Researched from disclosed data of companies the utilisation of the CSR expenditure in activities in alignment with the Sustainability Development Goals, and Companies Act recommendations with prominence given to Diversity and Inclusion, Health and Safety of employees and Supplier and Value Chain Ethics in practice.
6. Using statistical tools, attempt was made to test the hypotheses and attain the research objectives.

Data & Interpretation
1.Data description:
Table 1: Company Sizes in selected sample:

	Company name	Company Size (Market Capital) Rs. (in Crores) as in 2024
1	Adani Ports and SEZ (ADANIPORTS)	174452.82
2	The Bombay Burmah Trading Corporation Ltd.(Bombay Burmah)	7144.64
3	Bharat Petroleum Corporation Ltd.(BPCL)	78667.95
4	Coal India Ltd. (COALINDIA)	144762.49
5	Dhunseri- tea & Industries Ltd. (Dhunseri Tea)	215.19
6	G R Infraprojects Ltd. (G R Infra)	12388.28
7	Indian Oil Corporation Ltd. (IOCL)	132527.82
8	Maruti Suzuki India Ltd. (Maruti Suzuki)	397530
9	National Thermal Power Corporation (NTPC)	210805.52
10	Oil and Natural Gas Corporation (ONGC)	224746.69
11	Rail Vikas Nigam Ltd. (Rail Vikas)	26417.2
12	Reliance Industries	1716126.92
13	Rail India Technical and Economic Service (RITES)	11419.15
14	Tata Power Co. Ltd. (TATAPOWER)	75777.48

Source: https://www.nseindia.com

Amongst the companies selected from the energy sector, Reliance Industries Ltd, National Thermal Power Corporation (NTPC) Limited and Oil and Natural Gas Corporation (ONGC) Ltd. comes out having the largest market capitalization. Rail Vikas Nigam Ltd. & G R Infrastructure are the leaders in market capitalization in the Manufacturing & Construction sector. Maruti Suzuki is the leader in company size metric as per the market capitalization followed by Adani Port and Rail India Technical and Economic Service (RITES) Ltd. Bombay Burmah Trading Corporation has the largest market capital from the NSE listed companies in the Agriculture sector followed by Dhunseri Tea.

Table 2: Summary table of Sector Wise Financial Performance and CSR of companies over a period from 2018-19 to 2022-23:

Industry		Name of Company	Year	Net Profit (Rs. in crores)	CSR Expenditure (Rs. in crores)	Earnings per share (EPS) (Rs. in crores)
Energy	1	NTPC	2018-19	13362.0	285.4600	12.33
	2	NTPC	2019-20	11496.0	304.9200	9.76
	3	NTPC	2020-21	14285.0	418.8700	11.63
	4	NTPC	2021-22	15940.0	356.7200	16.62
	5	NTPC	2022-23	16341.0	315.3200	17.44
	6	ONGC	2018-19	30458.0	614.6400	23.81
	7	ONGC	2019-20	10523.0	607.0000	8.59
	8	ONGC	2020-21	20324.0	458.0000	12.92
	9	ONGC	2021-22	47830.0	219.3800	36.19

	10	ONGC	2022-23	32743.0	475.8900	28.17
	11	COALINDIA	2018-19	17463.0	416.4700	28.14
	12	COALINDIA	2019-20	16701.0	587.8400	27.12
	13	COALINDIA	2020-21	12705.0	553.8500	20.61
	14	COALINDIA	2021-22	17387.0	583.0000	28.17
	15	COALINDIA	2022-23	28133.0	513.0000	45.70
	16	BPCL	2018-19	7590.0	177.9300	39.67
	17	BPCL	2019-20	2265.0	345.5600	15.53
	18	BPCL	2020-21	17645.0	397.1800	81.87
	19	BPCL	2021-22	10145.0	310.7300	54.91
	20	BPCL	2022-23	-60.0	128.6700	10.01
	21	TATAPOWER	2018-19	1329.0	12.6600	8.08
	22	TATAPOWER	2019-20	774.0	39.9700	3.12
	23	TATAPOWER	2020-21	611.0	23.9900	3.17
	24	TATAPOWER	2021-22	680.0	23.7000	5.36
	25	TATAPOWER	2022-23	610.0	50.0000	10.43
	26	RELIANCE	2018-19	39734.0	904.0000	66.82
	27	RELIANCE	2019-20	39773.0	1022.0000	63.07
	28	RELIANCE	2020-21	53223.0	1140.0000	76.37
	29	RELIANCE	2021-22	67565.0	813.0000	92.00
	30	RELIANCE	2022-23	74131.0	744.0000	98.59
	31	IOCL	2018-19	15889.0	490.6000	18.41
	32	IOCL	2019-20	-3242.0	543.3800	-.97
	33	IOCL	2020-21	20565.0	460.0000	23.57
	34	IOCL	2021-22	24491.0	298.2900	27.34
	35	IOCL	2022-23	10842.0	264.0300	7.11
Manufacturing & Construction	1	Rail Vikas	2018-19	589.0	11.4800	3.38
	2	Rail Vikas	2019-20	769.0	19.0500	3.61
	3	Rail Vikas	2020-21	922.0	21.8600	4.42
	4	Rail Vikas	2021-22	1079.0	13.1500	5.67
	5	Rail Vikas	2022-23	1261.0	26.2600	6.81
	6	G R Infra	2018-19	.0	.2908	.00
	7	G R Infra	2019-20	.0	.4219	.00
	8	G R Infra	2020-21	.0	15.1990	.00
	9	G R Infra	2021-22	760.0	19.2706	78.69
	10	G R Infra	2022-23	851.0	20.5042	88.09
Transport	1	RITES	2018-19	481.0	10.2300	23.48
	2	RITES	2019-20	625.0	11.2100	24.64
	3	RITES	2020-21	443.0	13.4000	17.54
	4	RITES	2021-22	537.0	13.9000	21.49
	5	RITES	2022-23	570.0	14.1000	22.56
	6	Maruti Suzuki	2018-19	75.0	154.0000	2.48
	7	Maruti Suzuki	2019-20	56.5	168.2000	2.66
	8	Maruti Suzuki	2020-21	42.3	140.9000	1.25
	9	Maruti Suzuki	2021-22	37.7	100.0000	1.40
	10	Maruti Suzuki	2022-23	80.5	63.1740	1.87
	11	ADANIPORTS	2018-19	4044.0	68.4000	19.27
	12	ADANIPORTS	2019-20	3788.0	69.5000	18.35
	13	ADANIPORTS	2020-21	5063.0	73.0000	24.58
	14	ADANIPORTS	2021-22	4602.0	49.9000	22.39
	15	ADANIPORTS	2022-23	5344.0	31.4000	24.58
Agriculture	1	Dhunseri tea	2018-19	28	0.3119	89
	2	Dhunseri tea	2019-20	73	0.2	86
	3	Dhunseri tea	2020-21	30	0.46	53
	4	Dhunseri tea	2021-22	-94	0.28	9
	5	Dhunseri tea	2022-23	-23	0.38	-24
	6	Bombay Burmah	2018-19	1023	0.1397	40.12

7	Bombay Burmah	2019-20	1147	0.1253	104.49
8	Bombay Burmah	2020-21	1542	0.072	43.85
9	Bombay Burmah	2021-22	1424	0.1096	89.68
10	Bombay Burmah	2022-23	524	0.077	22.64

Source: Published annuals reports from company websites

Energy sector: In order to improve sanitation, Reliance Industries Ltd. contributes to the "Swachh Bharat Abhiyan" by building toilets for households and schools, organizing campaigns to raise awareness of personal hygiene, and expanding the "Go Green Initiative" by organizing mass plantation drives in the designated villages. The goal of R-Aadya is to empower women by encouraging greater interaction, dialogue, and teamwork in the workplace. Reliance is also striving to turn CO2 into a recyclable resource in order to reach Net Carbon Zero status by 2035. The 16th CII-ITC Sustainability Award for Excellence in Corporate Social Responsibility was given to NTPC in 2021. To underline its commitment to diversity and inclusion, NTPC hired its first class of all-female Engineering Executive Trainees (EETs) that same year. NTPC has established policies such as the Right to Equal Opportunity and Human Rights. Diversity and equality are encouraged among NTPC's workforce. The company abides by rules such as Child Care Leave with Pay, Maternity Leave, Sabbatical Leave, and NTPC Special Child Care Leave on Adoption of a Child/Delivering Child through Surrogacy in order to support the female workers. Policy standards and statutory requirements are followed without any form of discrimination. The NTPC does not discriminate based on gender, religion, caste, colour, or creed. The amount spent by Oil and Natural Gas Corporation Limited (ONGC) is Rs. 458 crores in FY 20-21 on CSR.

Manufacturing & Construction Sector: In April 2022, Rail Vikas Manufacturing & Construction built a Modernised Kitchen named as "Annapurna Bhawan" at Ramakrishna Mission Ashrama, Odisha for 700 tribal boys in the residential hostel at a total cost of Rs 2.11 crore. This was followed by construction of girl hostels in Chhattisgarh for 50 tribal girls in two locations at a total cost of Rs 1.12 crore In June 2022, they inaugurated a Cath Lab at Sarada Block in the Charitable hospital of Ramakrishna Mission Sevashrama, Vrindaban at a total cost of   Rs 2.24 crore. G R Infrastructure Ltd. contributed mainly in constructions for Educational projects and Sports. In order to conserve water, they also dug out a pond under the Amrit Sarovar Scheme and used the JCB for 300 hours at three different Ratlam locations.In Rajasthan, an oxygen generator plant was installed as part of a number of healthcare initiatives.

Transportation Sector: Adani Ports and Special Economic Zone Limited (APSEZ) is a prominent Indian port operator and part of the Adani Group conglomerate. Through the Adani foundation they have been involved in various Corporate Social Responsibility (CSR) activities like SuPoshan (December 2019) to deal with malnutrition & Anaemia, Vizhingam Women empowerment initiatives to encourage female entrepreneurs, Mobile HealthCare units

Agriculture Sector: Bombay Burmah Trading corporation Ltd being a part of the Wadia Group, is driven by a community consciousness. Established in 1969 as a charitable trust, the Sir Ness Wadia Foundation works to improve healthcare facilities, create employee housing cooperatives known as "baugs," and provide educational loans to workers and their families. Specifically, the plantations in Tanzania and India have concentrated on the Fair-trade Movement within their tea estates.

2. Test of Normality:

Table 3: Test of normality of financial data

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Net Profit	.230	65	.000	.730	65	.000
Earnings per share (EPS)	.248	65	.000	.799	65	.000

a. Lilliefors Significance Correction

The Kolmogorov-Smirnov statistic in this instance has a value of.025. There are 65 degrees of freedom, which is the same as the number of data points. The p-value for Kolmogorov-Smirnov, as recorded by SPSS and quoted under Sig., is.000 in this instance (p <.001). Thus, there is strong evidence to suggest that the variables have a normal distribution.

3.Test of Hypotheses:

Table 4: Correlation between Net profit & CSR Expenditure

		CSR Expenditure	Net Profit
CSR Expenditure	Pearson Correlation	1	.799[**]
	Sig. (2-tailed)		.000
	Sum of Squares and Cross-products	4973178.450	234419808.542
	Covariance	77705.913	3662809.508
	N	65	65

Net Profit	Pearson Correlation	.799**	1
	Sig. (2-tailed)	.000	
	Sum of Squares and Cross-products	234419808.542	17301909206.201
	Covariance	3662809.508	270342331.347
	N	65	65

**. Correlation is significant at the 0.01 level (2-tailed).

With a coefficient of 0.799, there is a robust positive and linear relation between CSR expenditure and Net Profit across the sectors under study. Therefore, H_{01} stands rejected.

Table 5: Statistical significance of Regression between Net profit & CSR Expenditure

					Change Statistics		
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1
1	.799ᵃ	.639	.633	9961.9158	.639	111.345	1

*Model Summary*ᵇ (header spans above)

a. Predictors: (Constant), CSR Expenditure
b. Dependent Variable: Net Profit

As is seen in Table 4.1, there exists a strong correlation between Net profits and CSR expenditure over the years in the selected company, the degree of causality is strong with a R Square value of 0.639.

Table 6: Regression between Net profit & CSR Expenditure

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11049803900.437	1	11049803900.437	111.345	.000ᵇ
	Residual	6252105305.764	63	99239766.758		
	Total	17301909206.201	64			

*ANOVA*ᵃ (header spans above)

a. Dependent Variable: Net Profit
b. Predictors: (Constant), CSR Expenditure

An F-value of 111.345 suggest a strong relationship between the dependent variable i.e. the CSR expenditure and the independent variable that is the Net profit. This provides further validation to the rejection of H_{01}.

Table 7: Correlation between EPS & CSR Expenditure

			Earnings per share (EPS)	CSR Expenditure
Spearman's rho	Earnings per share (EPS)	Correlation Coefficient	1.000	.415**
		Sig. (2-tailed)	.	.001
		N	65	65
	CSR Expenditure	Correlation Coefficient	.415**	1.000
		Sig. (2-tailed)	.001	.
		N	65	65

**. Correlation is significant at the 0.01 level (2-tailed).

With a coefficient of 0.415, there is a robust positive and linear association between CSR expenditure and Net Profit across the sectors under study. Therefore, H_{02} stands rejected.

Table 8: Statistical significance of Regression between EPS & CSR Expenditure

SUMMARY OUTPUT								
Regression Statistics								
Multiple R	0.84463667							
R Square	0.71341111							
Adjusted R Square	0.6815679							
Standard Error	7501.67523							

Observations	11							
ANOVA								
	df	SS	MS	F	Significance F			
Regression	1	1260780671	1260780671	22.403869	0.00106898			
Residual	9	506476181.6	56275131.3					
Total	10	1767256853						
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	3251.96409	2863.180892	1.13578716	0.28538509	-3225.0011	9728.92925	-3225.0011	9728.92925
285.46	41.2232082	8.70924033	4.73327255	0.00106898	21.5215378	60.9248786	21.5215378	60.9248786

a. Predictors: (Constant), CSR Expenditure
b. Dependent Variable: EPS
R Square is 0.7134 which shows a good fit. Net profit is influenced by CSR Expenditure. Statistical significance denoted by the Significance F value. Here the F value is 0.001 which is less than 0.05. There the previous conclusion is further validated and it can be interpreted that there is a statistically significant relationship between CSR expenditure and financial performance, thus rejecting the null hypothesis 1 & 2.

Table 9: Impact of Moderator: Company Age (Model Summary)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.978[a]	.957	.950	2749.9634

a. Predictors: (Constant), Company Age, CSR Expenditure
It can be seen that 95.7 % of the change in the dependent variable is happening due to the combined impact of the predictors.

Table 10: Impact of Moderator: ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2010362108.300	2	1005181054.150	132.920	.000[b]
	Residual	90747586.633	12	7562298.886		
	Total	2101109694.933	14			

a. Dependent Variable: Net Profit
b. Predictors: (Constant), Company Age, CSR Expenditure
The causality between Company Age, CSR taken together and Net profit is statistically significant.

Table 11: Impact of Moderator: (Coefficients[a])

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-737.595	1568.689		-.470	.647
	CSR Expenditure	43.652	2.736	.984	15.953	.000
	Company Age	7.687	19.269	.025	.399	.697

a. Dependent Variable: Net Profit
The impact of company age on the dependent variable is not statistically significant. However, the impact of CSR is proven to be statistically more significant than the company.

Table 12: Impact of Moderator: Company Size (Market cap) (Model Summary)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.978[a]	.956	.949	2766.7783

a. Predictors: (Constant), Company Size, CSR Expenditure

It can be seen that 95.6 % of the change in the dependent variable is happening due to the combined impact of the predictors.

Table 13: Impact of Moderator: Company Size (Market cap) ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2009248947.780	2	1004624473.890	131.237	.000[b]
	Residual	91860747.154	12	7655062.263		
	Total	2101109694.933	14			

a. Dependent Variable: Net Profit

b. Predictors: (Constant), Company Size, CSR Expenditure

The causality between Company Age, CSR taken together and Net profit is statistically significant.

Table 14: Impact of Moderator: Company Size (Market cap) Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-235.442	918.997		-.256	.802
	CSR Expenditure	43.739	4.110	.986	10.643	.000
	Company Size	.000	.003	-.010	-.109	.915

a. Dependent Variable: Net Profit

The impact of company age on the dependent variable is not statistically significant. However, the impact of CSR is proven to be statistically more significant than the company.

Conclusions:

1. Over the period from the year 2018-19 to 2022-23, the Energy sector has shown a consistent growth in terms of financial performance considering the two financial performance metrics of Net profit margin, and EPS. This trend is studied considering the impact of the COVID-19 lockdown situation. Amongst the Energy sector companies which show the steepest rise in the overall profitability are Reliance Power Ltd, National Thermal Power Corporation (NTPC) Ltd. and Oil and Natural Gas Corporation (ONGC) Ltd. These three companies were also found to be having the largest market cap size.

2. The findings provide validation to the effect of CSR expenditure metrics on the profitability measured in terms of Net Profit and Earning per share. However, it is found that the correlation between Net profit and CSR is stronger at a Coefficient measure of 0.799 than that between EPS and CSR, the coefficient of which measures to 0.415.

3. The study further establishes statistical non-significance of moderating factors like company size and company age as moderators on the impact of CSR on the company financial performances. Individually, however company size in terms of market capital is strongly correlated to CSR and profitability.

4. The qualitative study of the annual financial reports and available sustainability reports concludes that there is a need of uniformity and standardisation of CSR metrics for regulated and impactful CSR decision-making by CSR committees irrespective of the industry type.

It should be noted that findings from above selected NSE companies might not be applicable to other companies, or other stock exchanges or industries, limiting the generalizability of the results. The definition and practices of CSR can change over time, impacting the relevance of the study's findings as new trends emerge. There might be a tendency to publish positive correlations between CSR and financial performance, while studies with no significant findings might remain unpublished. The positive impact of CSR initiatives on financial performance might take years to manifest, making it challenging to capture in a short-term study. Economic fluctuations, market trends, and external shocks can influence financial performance, making it difficult to attribute changes solely to CSR activities.

The intricate interplay between corporate social responsibility (CSR) and financial success is shaped by various factors, including resource allocation, firm characteristics, and CSR disclosure. Although the majority of the research on the topic indicates that CSR initiatives and financial performance are positively correlated, further study is necessary to fully understand the mechanisms and moderating factors at work in this relationship.

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