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An Analysis of Corporate Social Responsibility on Profitability of Selected Navaratna Central Public Sector Companies in India

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Abstract

Corporate social responsibility (CSR) is a company's obligation to the society in which it operates. This study analyzed the effects of corporate social responsibility on profitability of selected Navaratna Central Public Sector Companies in India. Profitability ratios are among the most popular financial metrics. Profitability ratios are the most useful when comparing companies. In this study carried some common profitability measures are NPM, ROCE, ROE, and ROA. The study is based on secondary data gathered from annual reports of selected Navaratna Central Public Sector Companies in India from 2014-15 to 2021-22. Correlation and regression analysis is used in this paper to determine the significant effects of corporate social responsibility on profitability. The results revealed that the significant positive relationship between corporate social responsibility on profitability of selected Navaratna Central Public Sector Companies in India.

Keywords: Corporate social responsibility, Profitability, Navaratna Central Public Companies, Financial metrics

1. Introduction

Corporate Social Responsibility refers to a company's efforts to improve social well-being. CSR is not a new concept; it is required of all eligible entities under the Companies Act of 2013. During the current fiscal year, every company has a net worth of Rs. 500 crores or more, a turnover of Rs. 1000 crores or more, or a net profit of Rs. 5 crores or more. Every eligible entity spends at least 2% of its average net profits over the previous three fiscal years in each fiscal year. Any amount spent on CSR activities is considered CSR expenditure under the provision. Corporate Social Responsibility will increase the company's goodwill, brand recognition, sales, and reputation, all of which will boost financial performance. Companies that perform well financially will be able to invest more in socially responsible activities.

In 1977, the Government of India launched the Navaratna scheme for CPSEs in order to make them more competitive with global players. The government initially granted Navaratna status to nine public-sector enterprises. The Navaratna companies are a group of Central Public Sector Enterprises on which the Government of India has placed a premium on financial liberty. They are free to invest up to one thousand crores of rupees without seeking explicit government approval. They may even invest 15% of their net worth in a single project or 30% of their net worth over the course of the year, as long as they do not exceed the one thousand crore limit. Because of their greater autonomy, these companies have a comparative advantage when competing in the global market. It must meet the Navaratna Company's eligibility criteria, which include the following conditions:

- Based on six parameters, the Navaratna Company must score 60 out of 100. These parameters include net worth, net profit, total cost of production, total labour cost, total cost of services, capital employed, PBDIT (Profit Before Depreciation, Interest, and Taxes), and so on.
- The Navaratna Company must have Miniratna status, and there must be four independent board directors.

In India, there are Thirteen Navaratna Central Public Sector Companies in India. However, this research paper was only chosen by Five Navaratna Central Public Sector Companies in India.

2. Review of Literature

Sharma et al. (2021)[1] their purpose of the study is to investigated the impact of CSR on the financial performance of selected manufacturing and service sector companies in India. The study also discovered a link between CSR scores and ROE, ROA, and ROCE. The study examined financial data from the Indian manufacturing and service industries from 2008

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to 2017. The correlation technique was used to investigated the relationship between CSR score and financial parameters. The results revealed that ROE, ROA, and ROCE have a negative correlation with Manufacturing Sector Companies' CSR Score. Whereas ROA and ROCE have a strong positive correlation with the CSR Score of Service Sector Companies, ROE has a positive correlation with the CSR Score of Service Sector Companies. The finding implies that there is no significant relationship between CSR Score and Financial Performance of Manufacturing Sector Companies.

Kaur and Singh (2021)[2] their paper carried out the impact of corporate social responsibility (CSR) on the Indian steel industry's financial performance (FP) in terms of value-added (VAM), profitability (PM), market (MM), and growth measures (GM). The study based on secondary data collected over 14 years from CSR/annual reports/company websites and the Prowess database from 40 companies. Panel regression analysis, MANOVA, and univariate ANOVA were used to investigate the impact of CSR on FP. The findings indicated that CSR has a positive impact on FP in terms of VAM, PM, and GM, implying that greater investments in CSR will increase shareholder wealth while also improving profitability and sales.

Resmi et al. (2018)[3] their study identified the impact of CSR on financial performance (FP) of agribusiness industries of Bangladesh over a three-year period from 2015 to 2017, using a purposive sample of four renowned agribusiness industries. For data analysis, regression and correlation were used. The findings revealed that return on equity (ROE) and net income have a significant impact on financial performance, favoring firms that practice Corporate Social Responsibility, whereas return on assets (ROA) and earnings per share (EPS) have no significant impact on financial performance. This study proposed that the CSR phenomenon is viewed as an essential growth element and FP-boosting tool in Bangladesh's agribusiness industries.

3. Objectives of the Study

- To analyze the effect of Corporate Social Responsibility on Profitability of selected Navaratna Central Public Sector Companies in India.
- To know of the relationship between Corporate Social Responsibility on Profitability of selected Navaratna Central Public Sector Companies in India.

4. Statement of Problem

The aim of this study is to determine whether the selected Navaratna Central Public Sector Companies will incur CSR expenditure and how this expenditure will affect the profitability of the selected Navaratna Central Public Sector Companies in India. Hence, it is important to analyze how the expenditure shall be utilized effectively.

5. Hypothesis

(H0) – There is no significant relationship between Corporate Social Responsibility on Profitability.
(H1) – There is a significant relationship between Corporate Social Responsibility on Profitability.

6. Research Methodology

The study is to determine the effects of corporate social responsibility on financial performance of selected Navaratna Central Public Sector Companies in India, as well as the relationship between CSR and the financial performance of the sample units. The study considered following dependent and independent variables used for the study:

(A) Dependent Variables
- Net Profit Margin (NPM)
- Return on Capital Employed (ROCE)
- Return on Equity (ROE)
- Return on Assets (ROA)

(B) Independent variable
- Corporate Social Responsibility (CSR)

6.1 Sample Design

For the study total five selected Navaratna Central Public Sector Companies has been selected. The names of companies are as follows:

1. Bharat Electronics Limited (BEL)
2. Container Corporation of India Limited (CONCOR)
3. National Aluminium Company Limited (NALCO)
4. Hindustan Aeronautics Limited (HAL)
5. NBCC (India) Limited (NBCC)

6.2 Period of the Study
The study covers the period from 2014-15 to 2021-22. The data gathered is only for this time period.

6.3 Data Sources
The study is entirely based on secondary data. The necessary information was gathered from various websites, company annual reports, magazines, articles, journals, etc.,

7. Data Analysis and Interpretation
A correlation and regression analysis were done on the data. The findings were as follows:

7.1 Bharat Electronics Limited (BEL)
Regression Analysis

Table 1. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.483[a]	.233	.106	1.76442

Source: Computed from Secondary Data

According to table 1, R-square value less than 0.5 shows that the model is not effective enough to determine the relationship. In this case, the value is .233, which is not good.

Table 2. ANOVA for CSR & NPM

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	5.686	1	5.686	1.826	.225[b]
	Residual	18.679	6	3.113		
	Total	24.365	7			

Source: Computed from Secondary Data

According to table 2, there is no significant effect of CSR and NPM. As a result of the fact that the Sig. value is 0.225, which is greater than the acceptable value of 0.05. Hence, null hypothesis is accepted and alternative hypothesis is rejected.

Table 3. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.492[a]	.242	.115	4.35180

Source: Computed from Secondary Data

According to table 3, R-square value less than 0.5 shows that the model is not effective enough to determine the relationship. In this case, the value is .242, which is not good.

Table 4. ANOVA for CSR & ROCE

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	36.226	1	36.226	1.913	.216[b]
	Residual	113.629	6	18.938		
	Total	149.855	7			

Source: Computed from Secondary Data

According to table 4, there is no significant effect of CSR and ROCE. As a result of the fact that the Sig. value is 0.216, which is greater than the acceptable value of 0.05. Hence, null hypothesis is accepted and alternative hypothesis is rejected.

Table 5. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.498[a]	.248	.122	2.15150

Source: Computed from Secondary Data

According to table 5, R-square value less than 0.5 shows that the model is not effective enough to determine the relationship. In this case, the value is .248, which is not good.

Table 6. ANOVA for CSR & ROE

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	9.140	1	9.140	1.974	.210[b]
	Residual	27.774	6	4.629		
	Total	36.914	7			

Source: Computed from Secondary Data

According to table 6, there is no significant effect of CSR and ROE. As a result of the fact that the Sig. value is 0.210, which is greater than the acceptable value of 0.05. Hence, null hypothesis is accepted and alternative hypothesis is rejected.

Table 7. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.296[a]	.087	-.065	.90641

Source: Computed from Secondary Data

According to table 7, R-square value less than 0.5 shows that the model is not effective enough to determine the relationship. In this case, the value is .087, which is not good.

Table 8. ANOVA for CSR & ROA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	.472	1	.472	.574	.477[b]
	Residual	4.930	6	.822		
	Total	5.401	7			

Source: Computed from Secondary Data

According to table 8, there is no significant effect of CSR and ROA. As a result of the fact that the Sig. value is 0.477, which is greater than the acceptable value of 0.05. Hence, null hypothesis is accepted and alternative hypothesis is rejected.

Table 9. Correlation Matrix

		CSR	NPM	ROCE	ROE	ROA
CSR	Pearson Correlation	1				
NPM	Pearson Correlation	-.483	1			
ROCE	Pearson Correlation	.492	-.480	1		
ROE	Pearson Correlation	.498	-.248	.962**	1	
ROA	Pearson Correlation	-.296	.367	.419	.526	1
**. Correlation is significant at the 0.01 level (2-tailed)						

Source: Computed from Secondary Data

According to table 9, there is a strong negative relationship between CSR and NPM (-0.483), a strong positive relationship between CSR and ROCE (0.492), CSR and ROE (0.498) and a weak negative relationship between CSR and ROA (-0.296).

7.2 Container Corporation of India Limited (CONCOR)

Table 10. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.466[a]	.217	.087	4.50675

Source: Computed from Secondary Data

According to table 10, R-square value less than 0.5 shows that the model is not effective enough to determine the relationship. In this case, the value is .217, which is not good.

Table 11. ANOVA for CSR & NPM

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	33.802	1	33.802	1.664	.245[b]
	Residual	121.865	6	20.311		
	Total	155.667	7			

Source: Computed from Secondary Data

According to table 11, there is no significant effect of CSR and NPM. As a result of the fact that the Sig. value is 0.245, which is greater than the acceptable value of 0.05. Hence, null hypothesis is accepted and alternative hypothesis is rejected.

Table 12. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.881[a]	.777	.740	1.32682

Source: Computed from Secondary Data

According to table 12, R-square value greater than 0.5 shows that the model is effective enough to determine the relationship. In this case, the value is .777, which is good.

Table 13. ANOVA for CSR & ROCE

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	36.781	1	36.781	20.893	.004[b]
	Residual	10.563	6	1.760		
	Total	47.344	7			

Source: Computed from Secondary Data

According to table 13, there is significant effect of CSR and ROCE. As a result of the fact that the Sig. value is 0.004, which is less than the acceptable value of 0.05. Hence, null hypothesis is rejected and alternative hypothesis is accepted.

Table 14. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.475[a]	.225	.096	3.27882

Source: Computed from Secondary Data

According to table 14, R-square value less than 0.5 shows that the model is not effective enough to determine the relationship. In this case, the value is .225, which is not good.

Table 15. ANOVA for CSR & ROE

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	18.743	1	18.743	1.743	.235[b]
	Residual	64.504	6	10.751		
	Total	83.247	7			

Source: Computed from Secondary Data

According to table 15, there is no significant effect of CSR and ROE. As a result of the fact that the Sig. value is 0.235, which is greater than the acceptable value of 0.05. Hence, null hypothesis is accepted and alternative hypothesis is rejected.

Table 16. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.442[a]	.195	.061	2.93650

Source: Computed from Secondary Data

According to table 16, R-square value less than 0.5 shows that the model is not effective enough to determine the relationship. In this case, the value is .195, which is not good

Table 17. ANOVA for CSR & ROA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	12.531	1	12.531	1.453	.273[b]
	Residual	51.738	6	8.623		
	Total	64.269	7			

Source: Computed from Secondary Data

According to table 17, there is no significant effect of CSR and ROA. As a result of the fact that the Sig. value is 0.273, which is greater than the acceptable value of 0.05. Hence, null hypothesis is accepted and alternative hypothesis is rejected.

Table 18. Correlation Matrix

		CSR	NPM	ROCE	ROE	ROA
CSR	Pearson Correlation	1				
NPM	Pearson Correlation	-.466	1			
ROCE	Pearson Correlation	-.881**	.463	1		
ROE	Pearson Correlation	-.475	.989**	.431	1	
ROA	Pearson Correlation	-.442	.983**	.408	.996**	1
**. Correlation is significant at the 0.01 level (2-tailed)						

Source: Computed from Secondary Data

According to table 18, there is strong negative relationship between CSR and NPM (-0.466), CSR and ROE (-0.475), CSR and ROA (-0.442) and a very strong negative relationship between CSR and ROCE (-0.881).

7.3 National Aluminium Company Limited (NALCO)

Table 19. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.372[a]	.138	-.005	5.88719

According to table 19, R-square value less than 0.5 shows that the model is not effective enough to determine the relationship. In this case, the value is .138, which is not good.

Table 20. ANOVA for CSR & NPM

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	33.334	1	33.334	.962	.365[b]
	Residual	207.954	6	34.659		
	Total	241.288	7			

Source: Computed from Secondary Data

According to table 20, there is no significant effect of CSR and NPM. As a result of the fact that the Sig. value is 0.365, which is greater than the acceptable value of 0.05. Hence, null hypothesis is accepted and alternative hypothesis is rejected.

Table 21. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.150[a]	.023	-.140	9.35203

Source: Computed from Secondary Data

According to table 21, R-square value less than 0.5 shows that the model is not effective enough to determine the relationship. In this case, the value is .0.23, which is not good.

Table 22. ANOVA for CSR & ROCE

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	12.140	1	12.140	.139	.722[b]
	Residual	524.763	6	87.460		
	Total	536.902	7			

Source: Computed from Secondary Data

According to table 22, there is no significant effect of CSR and ROCE. As a result of the fact that the Sig. value is 0.722, which is greater than the acceptable value of 0.05. Hence, null hypothesis is accepted and alternative hypothesis is rejected.

Table 23. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.063[a]	.004	-.162	7.39559

Source: Computed from Secondary Data

According to table 23, R-square value less than 0.5 shows that the model is not effective enough to determine the relationship. In this case, the value is .004, which is not good.

Table 24. ANOVA for CSR & ROE

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	1.321	1	1.321	.024	.882[b]
	Residual	328.168	6	54.695		
	Total	329.489	7			

Source: Computed from Secondary Data

According to table 24, there is no significant effect of CSR and ROE. As a result of the fact that the Sig. value is 0.882, which is greater than the acceptable value of 0.05. Hence, null hypothesis is accepted and alternative hypothesis is rejected.

Table 25. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.377[a]	.142	-.001	3.30784

Source: Computed from Secondary Data

According to table 25, R-square value less than 0.5 shows that the model is not effective enough to determine the relationship. In this case, the value is .142, which is not good.

Table 26. ANOVA for CSR & ROA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	10.874	1	10.874	.994	.357[b]
	Residual	65.651	6	10.942		
	Total	76.525	7			

Source: Computed from Secondary Data

According to table 26, there is no significant effect of CSR and ROA. As a result of the fact that the Sig. value is 0.357, which is greater than the acceptable value of 0.05. Hence, null hypothesis is accepted and alternative hypothesis is rejected.

Table 27. Correlation Matrix

		CSR	NPM	ROCE	ROE	ROA
CSR	Pearson Correlation	1				
NPM	Pearson Correlation	-.372	1			
ROCE	Pearson Correlation	.151	.743*	1		
ROE	Pearson Correlation	.063	.867**	.952**	1	
ROA	Pearson Correlation	-.377	.756*	.599	.700	1
*. Correlation is significant at the 0.05 level (2-tailed)						
**. Correlation is significant at the 0.01 level (2-tailed)						

Source: Computed from Secondary Data

According to table 27, there is a moderate negative relationship between CSR and NPM (-0.372) and CSR and ROA (-0.377), there is no relationship between CSR and ROCE (0.151), and CSR and ROE (0.063).

7.4 Hindustan Aeronautics Limited (HAL)

Table 28. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.666[a]	.444	.351	3.22749

Source: Computed from Secondary Data

According to table 28, R-square value less than 0.5 shows that the model is not effective enough to determine the relationship. In this case, the value is .444, which is not good.

Table 29. ANOVA for CSR & NPM

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	49.813	1	49.813	4.782	.071[b]
	Residual	62.500	6	10.417		
	Total	112.314	7			

Source: Computed from Secondary Data

According to table 29, there is no significant effect of CSR and NPM. As a result of the fact that the Sig. value is 0.071, which is greater than the acceptable value of 0.05. Hence, null hypothesis is accepted and alternative hypothesis is rejected.

Table 30. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.896[a]	.802	.769	2.25387

Source: Computed from Secondary Data

According to table 30, R-square value greater than 0.5 shows that the model is effective enough to determine the relationship. In this case, the value is .802, which is good.

Table 31. ANOVA for CSR & ROCE

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	123.558	1	123.558	24.323	.003[b]
	Residual	30.480	6	5.080		
	Total	154.038	7			

Source: Computed from Secondary Data

According to table 31, there is significant effect of CSR and ROCE. As a result of the fact that the Sig. value is 0.003, which is less than the acceptable value of 0.05. Hence, null hypothesis is rejected and alternative hypothesis is accepted.

Table 32. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.820[a]	.673	.619	3.48564

Source: Computed from Secondary Data

According to table 32, R-square value greater than 0.5 shows that the model is effective enough to determine the relationship. In this case, the value is .673, which is not good.

Table 33. ANOVA for CSR & ROE

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	150.039	1	150.039	12.349	.013[b]
	Residual	72.898	6	12.150		
	Total	222.937	7			

According to table, there is significant effect of CSR and ROE. As a result of the fact that the Sig. value is 0.013, which is less than the acceptable value of 0.05. Hence, null hypothesis is rejected and alternative hypothesis is accepted.

Table 34. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.761[a]	.580	.510	1.44723

Source: Computed from Secondary Data

According to table 34, R-square value greater than 0.5 shows that the model is effective enough to determine the relationship. In this case, the value is .580, which is good.

Table 35. ANOVA for CSR & ROA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	17.334	1	17.334	8.276	.028[b]
	Residual	12.567	6	2.094		
	Total	29.901	7			

Source: Computed from Secondary Data

According to table 36, there is significant effect of CSR and ROA. As a result of the fact that the Sig. value is 0.028, which is less than the acceptable value of 0.05. Hence, null hypothesis is rejected and alternative hypothesis is accepted.

Table 36. Correlation Matrix

		CSR	NPM	ROCE	ROE	ROA
CSR	Pearson Correlation	1				
NPM	Pearson Correlation	.666	1			
ROCE	Pearson Correlation	.896**	.635	1		
ROE	Pearson Correlation	.820*	.930**	.867**	1	
ROA	Pearson Correlation	.761*	.968**	.696	.920**	1
**. Correlation is significant at the 0.01 level (2-tailed)						
*. Correlation is significant at the 0.05 level (2-tailed)						

Source: Computed from Secondary Data

According to table 36, there is a strong positive relationship between CSR and NPM (0.666), CSR and ROCE (0.896), CSR and ROE (0.820) and CSR and ROA (0.761).

7.5 NBCC India Limited (NBCC)

Table 37. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.474[a]	.224	.095	1.44892

Source: Computed from Secondary Data

According to table 37, R-square value less than 0.5 shows that the model is not effective enough to determine the relationship. In this case, the value is .224, which is not good.

Table 38. ANOVA for CSR & NPM

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3.646	1	3.646	1.737	.236[b]
	Residual	12.596	6	2.099		
	Total	16.242	7			

Source: Computed from Secondary Data

According to table 38, there is no significant effect of CSR and NPM. As a result of the fact that the Sig. value is 0.236, which is greater than the acceptable value of 0.05. Hence, null hypothesis is accepted and alternative hypothesis is rejected.

Table 39. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.865[a]	.747	.705	4.03310

Source: Computed from Secondary Data

According to table 39, R-square value greater than 0.5 shows that the model is effective enough to determine the relationship. In this case, the value is .747, which is good.

Table 40. ANOVA for CSR & ROCE

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	288.773	1	288.773	17.753	.006[b]
	Residual	97.595	6	16.266		
	Total	386.368	7			

Source: Computed from Secondary Data

According to table 40, there is significant effect of CSR and ROCE. As a result of the fact that the Sig. value is 0.006, which is less than the acceptable value of 0.05. Hence, null hypothesis is rejected and alternative hypothesis is accepted.

Table 41. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.643[a]	.414	.316	5.51780

Source: Computed from Secondary Data

According to table 41, R-square value less than 0.5 shows that the model is not effective enough to determine the relationship. In this case, the value is .414, which is not good.

Table 42. ANOVA for CSR & ROE

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	129.002	1	129.002	4.237	.085[b]
	Residual	182.677	6	30.446		
	Total	311.679	7			

Source: Computed from Secondary Data

According to table 42, there is no significant effect of CSR and ROE. As a result of the fact that the Sig. value is 0.085, which is greater than the acceptable value of 0.05. Hence, null hypothesis is accepted and alternative hypothesis is rejected.

Table 43. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.516[a]	.266	.144	1.67996

Source: Computed from Secondary Data

According to table 43, R-square value less than 0.5 shows that the model is not effective enough to determine the relationship. In this case, the value is .266, which is not good.

Table 44. ANOVA for CSR & ROA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	6.150	1	6.150	2.179	.190[b]
	Residual	16.934	6	2.822		
	Total	23.083	7			

Source: Computed from Secondary Data

According to table 44, there is no significant effect of CSR and ROA. As a result of the fact that the Sig. value is 0.190, which is greater than the acceptable value of 0.05. Hence, null hypothesis is accepted and alternative hypothesis is rejected.

Table 45. Correlation Matrix

		CSR	NPM	ROCE	ROE	ROA
CSR	Pearson Correlation	1				
NPM	Pearson Correlation	.474	1			
ROCE	Pearson Correlation	.865**	.708*	1		
ROE	Pearson Correlation	.643	.927**	.862**	1	
ROA	Pearson Correlation	.516	.937**	.775*	.932**	1
**. Correlation is significant at the 0.01 level (2-tailed)						
*. Correlation is significant at the 0.05 level (2-tailed)						

Source: Computed from Secondary Data

According to table 45, there is a strong positive relationship between CSR and NPM (0.474), CSR and ROE (0.643), CSR and ROA (0.516) and there is a very strong positive relationship between CSR and ROCE (0.865).

8. Conclusion

There are five Navaratna Central Public Sector Companies were chosen for this research paper to study the significant/non-significant effect of Corporate Social Responsibility on Profitability (NPM, ROCE, ROE and ROA). Based on this finding, the study found that Container Corporation of India Limited's regression analysis has a significant effect on CSR and ROCE. CSR and ROCE, CSR and ROE, and CSR and ROA have a significant effect on Hindustan Aeronautics Limited. CSR and ROCE have been significantly influenced by NBCC. Bharat Electronics Limited's correlation analysis shows a positive relationship between CSR and ROCE and CSR and ROE. Hindustan Aeronautics Limited and NBCC (India) Limited have a positive relationship between CSR and Profitability. As a result, the findings reveal that not all profitability ratios are significantly correlated with CSR in selected companies.

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Declaration of Conflict

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

References

1. Bhattacheryya, D. (2018). A General Analysis of Corporate Social Responsibility and Its Linkage with Financial Performance in Indian Context. *Retrieved from* https://ejournal.lucp.net/index.php/ijrtbt/article/view/746/659
2. Hermawan, M. S., & Mulyawan, S. G. (2014). Profitability and Corporate Social Responsibility: An Analysis of Indonesia's Listed Company. *Asia Pacific Journal of Accounting and Finance, 3*(1), 15-31.
3. Kaur, N., & Singh, V. (2021). Empirically examining the impact of corporate social responsibility on financial performance: Evidence from Indian steel industry. *Asian Journal of Accounting Research*, *6*(2), 134–151. https://doi.org/10.1108/AJAR-07-2020-0061.
4. Resmi, S. I., Begum, N. N., & Hassan, M. (2018). Impact of CSR on Firm's Financial Performance: A Study on Some Selected Agribusiness Industries of Bangladesh. *American Journal of Economics, Finance and Management, 4*(3), 74-85.
5. Sharma, R. B., Sharma, A., Ali, S., & Dadhich, J. (2021). Corporate Social Responsibility and Financial Performance: Evidence from Manufacturing and Service Industry. *Academic Journal of Interdisciplinary Studies*, *10*(3), 301. https://doi.org/10.36941/ajis-2021-0085.