

“Corporate Social Responsibility in India: Analysing its Impact on carbon emissions and environmental disclosure”

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Flow of Presentation

- **Introduction**
- **Research Questions and Hypothesis**
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- **Empirical Results**
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Introduction

- To establish a correlation between CSR expenditures of six major industries and a key welfare factor **Carbon Emissions** from 2015 to 2023.
- Examined the environmental disclosure of these six industries to determine if there is any link between CSR spending and **environmental disclosures** of the industries.

Research Questions



Are companies that engage in substantial CSR spending accurately disclosing their carbon emissions data?



Do companies that invest heavily in CSR activities demonstrate significant reductions in carbon emissions?

Research Hypothesis

H1: Increasing CSR expenditure reduces the Carbon emissions of the country.

H2: Organizations that show a growing emphasis on Corporate Social Responsibility (CSR) generally exhibit strong performance in terms of environmental disclosure.

Research Methodology

Sample and Data Collection

- 6 Industries
- Period - 2015 to 2023
- BSE, CMIE Prowess, CDP Reports

Variables of study -

- **Independent Variable** - CSR
- **Dependent Variables** - Carbon Emissions and Disclosure
- **Control Variable** - Index of Industrial Production, Market size, Market return, GDP, FDI, Industrial Revenue.

Research Methodology

Data Analysis Method

- $CBEMit = \alpha + \beta_1 \times CSRit + \beta_2 \times IIPit + \beta_3 \times INDREVit + \beta_4 \times GDP_Shareit + \beta_5 \times IND_Sizeit + \beta_6 \times FDI_Shareit + \varepsilon$
- $CBDISit = \alpha + \beta_1 \times CSRit + \beta_2 \times IIPit + \beta_3 \times INDREVit + \beta_4 \times GDP_Shareit + \beta_5 \times IND_Sizeit + \beta_6 \times FDI_Shareit + \varepsilon$

Empirical Results

Descriptive Analysis

	Mean	Std. Deviation	Maximum	Minimum
CEBM	0.1250	0.1717	0.5883	0.0000
CBDIS	1.5995	0.9029	4.0000	0.0000
CSR	0.0024	0.0011	0.0060	0.0008
IIP	138.2120	22.9839	191.9000	93.7000
GDP	9.1795	7.9305	23.3300	1.6400
FDI	0.3195	0.9619	4.6315	-0.9068
Market Size	4.9875	0.3505	5.4486	4.3145
Market Return	0.1139	0.1217	0.3283	-0.0145

Empirical Results

Correlation Matrix

	CBEM	CBDIS	CSR	IIP	GDP	Market Size = log(Market Cap)	FDI	Market Return
CBEM	1.0000							
CBDIS	0.1332	1.0000						
CSR	-0.1902	-0.1327	1.0000					
IIP	0.3122	-0.1782	0.3001	1.0000				
GDP	-0.4102	0.2734	0.2686	-0.0986	1.0000			
Market Size = log (Market Cap)	0.1750	0.0477	0.1381	-0.0778	0.3066	1.0000		
FDI	0.0314	0.0146	-0.0561	-0.0283	0.1570	-0.0107	1.0000	
Market Return	0.0000	-0.0122	0.2553	0.0839	-0.0001	0.0000	-0.0154	1.0000

Empirical Results

Panel regression analysis

	CBEM	CBDIS
Constant	-0.9929 (0.2824) **	2.5751 (1.7831) *
CSR	-37.1903 (18.3891) *	1.3561 (1.1157) *
IIP	0.0028 (0.0008) **	-0.0036 (0.0051) **
INDREV	0.0157 (0.0168)	0.4261 (0.5629)
GDP_Share	-0.0096 (0.0024) **	0.0370 (0.0152) *
IND_Size	0.1822 (0.0523) **	0.0854 (0.3305) **
FDI_Share	0.0183 (0.0184)	0.4281 (0.3641)
F – Stat	8.0058**	13.874**
R ² / Adj. R ²	0.582 / 0.561	0.530 / 0.512
DW Stat / VIF	1.990 / 1.151	1.985 / 1.194

*significant at 5%; **significant at 1%

Empirical Results

Test of hypothesis H1:

H1 states that higher CSR spending can lead to a reduction in carbon emissions for a country.

Test of hypothesis H2:

According to the H2 hypothesis, companies that give priority to CSR tend to show greater effectiveness in disclosing their environmental impact.

Conclusion and Limitations

- Industries' CSR spending has a negative impact on carbon emissions.
- Organizations that allocate larger budgets towards CSR initiatives tend to demonstrate greater levels of positive environmental disclosure.

LIMITATIONS

- The COVID-19 pandemic has had an unprecedented impact on companies, affecting their expenditures.
- It is voluntary for companies to disclose their carbon emissions.

THANK YOU!