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Impact of CSR Spending on the Financial Performance of Selected Companies: An Empirical Analysis

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Abstract

Corporate Social Responsibility (CSR) has grown attention over the past few decades because a company's long-term survival and growth depend on how well it benefits society. This study uses appropriate parameters to evaluate how actual CSR spending affects the firm's financial performance. For this study, three variables are considered- dependent variables are Return on Capital (ROC) & Profit after Tax (PAT) and an independent variable is Actual Corporate Social Responsibility (ACSR) spending. The results of Panel Regression (Fixed Effect Model for the First Hypothesis and Random Effect Model for the Second Hypothesis) indicate that in a mandatory CSR regime, actual CSR spending has a positive impact on current ROC and PAT. The study's results also indicate that they play a significant influence in positively impacting financial performance, even in a mandatory setting.

Keywords: *Return on Capital, Corporate Social Responsibility, Profit after Tax, FEM, REM.*

INTRODUCTION

Corporate Social Responsibility involvement has become a crucial component of business operations during the last few decades. There are several reasons behind this development. Nevertheless, the CSR and its various dimensions remain to be a construct that is conceptualized from various perspectives. Companies are currently expanding their scale of operations and expanding beyond their domestic boundaries, and because

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they obtain resources from society, they are no longer expected to fulfill their ancient role of profit-making, but rather to fulfill their responsibility towards their stakeholders by incorporating ethical, social, and environmental concerns into their business operations and ensuring transparency and accountability in their reporting.

According to the Companies Act, 2013 all companies whether it be a public company or private company with a turnover of Rs.1000 crores or more or net worth of Rs.500 crores or more, ora net profit of Rs. 5 crores or more during the former three financial years need spend at least 2 percent of their average net profits on CSR initiatives.

Mandatory CSR is unique regulatory development in India. CSR is viewed as a voluntary initiative in rest of the world. Hence, it is important study the various aspect of CSR after introduction of concept of mandatory spending by the companies for CSR the proposed study is aimed that fulfilling the research needs on the unique aspect. The influence of actual CSR spending on the company's financial performance is examined in this study using the suitable parameters. The Panel Regression results indicate that actual CSR spending has a favorable impact on current ROC and PAT under a mandatory CSR regime. The rest of the paper is organised as follows- Section 2 covers the regulatory framework guiding compulsory CSR spending. Section 3 discusses the literature review. The objectives of the investigation are described in Section 4. Section 5 discusses with sample selection. Section 6 represents the research design, the study's analysis and its interpretations are presented in Section 7. Study findings utilizing in Section 8 and Conclusions in section 9.

Regulatory Framework of CSR in India

In 2009, India's MCA released Voluntary Guidelines on CSR for businesses. While also noting that businesses must demonstrate socially responsible business practices that assure profit distribution and the wellbeing of the communities in which they operate. Apparently, India has become the first country in the world to make corporate social responsibility mandatory for a majority of companies. Corporate India's CSR initiatives have been influenced by the legal system provisions that have been placed on the company. In order to maintain a consistent focus on to ensure that CSR is based on charity, good social practices, and inclusive growth, the Companies Act 2013, states that CSR initiatives should become an inherent component of the corporate policy. Various provisions were enacted in Companies Act, 2013.

Applicability

All companies incorporated in India (Private, Public, Holding/Subsidiary or Foreign) are subject to this regulation and having one or more of the following circumstances.

1. Have a Net Worth of Rs. 500 Crores (Rs. Five Billions) or more.
2. Net Profits of Rs. 5 Crores (Rs. Fifty Millions) or more.
3. Annual Turnover of at least Rs. 1000 Crores (Rs. Ten Billions).

Expenditure

Once the above-mentioned requirement is met, the 2% of average net profits must be spent by the company falling under the purview of mandatory CSR expenditure during each three-year cycle. If they fail to do so, they will be required to provide the reasons for shortfall. Thus any company fulfilling any of the three threshold conditions is required mandatorily to devote 2 percent of average net profit of 3 years.

Activities

According to Schedule VII of the Companies Act of 2013, CSR projects should be categorized into 12 major categories.

a) Elimination of hunger, malnutrition, and poverty while promoting preventative healthcare and ensuring enough drinking water availability;
b) Development in the fields of education, particularly among women, children, the elderly, and the differently abled;
c) Equality of Gender;
d) Taking care of the Environment's long-term viability;
e) Preservation the National heritage;
f) Veterans of the Armed services and War widows;
g) Encourage participation in Rural sports;
h) PM's National Relief Fund with PM CARES;
i) Incubators or R&D projects;
j) Projects for Rural Development;
k) Development of Slum Areas;
l) Management of Natural Disasters.

Implementation

CSR Projects can be implemented by

- Company itself
- Own Foundation

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Volume 7 Issue 1
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- NGOs or Trusts
- Section 8 Companies

The supplementary partner, on the other hand, should have a track record of at least three years.

Surplus of CSR funds

If any surplus results from CSR activities, it must be distributed:

- Spent on the same project that generated the surplus, or
- Transferred to the company's Unspent CSR Account, or
- Transferred to a fund in accordance with Schedule VII of the Act.

Excess CSR spends

Section 135(6) of the Companies Act of2013 has been amended, further to provide that if a firm spends more than the necessary 2 percent on CSR, the surplus can be set off against CSR expenditures in the following three financial years. On the other hand, the board of directors must pass a resolution in order to do so.

LITERATURE REVIEW

There are various perspectives from which CSR related research studies are undertaken. Accordingly confine my Literature review on these studies that deals with different aspect of mandatory CSR expenditure in India and mainly aimed at exploring the relationship between CSR and CFP in the context of India during the mandated CSR expenditure regime. In a questionnaire-based study, Mishra and Suar (2010) noted that organizations that are attentive to the demands of their stakeholders have a favorable perception of themselves, their values, and their overall value. The study's conclusions showed that businesses that priorities CSR enjoy greater stakeholder confidence, which is evident in higher returns, competitive salaries, prompt payments, improved reputations, and goodwill.

Conway (2014) looks into the impact of CSR and CFP. The data suggest that a little positive relationship exists between a company's CSR investment and its financial performance. It is, however, greatly reliant on the size of the firm, the sector in question, and the obligations (both ethical and regulatory) that are placed on that industry.

Cordeiroet al., (2014) discovered the link between CSR and CFP in India is not favourable, but rather negative. They go into great detail about the likely causes and consequences of their findings, as well as future study possibilities. They also present a model of CSR determinants in the Indian context, demonstrating that firm size, slack resources, profitability, and multi-nationality are all important factors in CSR.

In their work, NolletFilis and Mitrokostas (2015) used a CSR proxy, Bloomberg Environmental Social Governance (ESG) score, to investigate the association between CSP and CFP. They inspect linear and non-linear linear connections using Bloomberg's ESG Disclosures score, which covers the S & P 500 companies from 2007 to 2011. The linear model's findings indicate that there are no significant correlations between CSP & ROC, ROA / Ex-Stock Returns. According to their findings, CSR performance and accounting-based CFP have a U-shaped link.

The goal of this study, according to Oware and Mallikarjunappa (2020), is to look into the influence of required CSR reporting on CSR spending and financial performance of selected listed companies in India. They also find a link between CSR spending and financial success [ROA and Tobin's Q] that is both positive and statistically significant. Furthermore, the research demonstrates that mandatory CSR reporting increases CSR spending. Finally, the research finds that mandated CSR reporting moderates the relationship between CSR spending and stock price returns.

OBJECTIVES OF THE STUDY

Mandatory Corporate Social Responsibility spending and prescribed disclosures are relatively new area of research, the study is aimed towards fulfilling the following objectives:

- To know the concept of Corporate Social Responsibility including mandatory CSR,
- To investigate the Corporate Social Responsibility performance (including financials) of sample firms using the appropriate parameters,
- To understand the link between a sample company's CSR practices and its financial performance.

Sample Selection, Sources of Data and Hypotheses Development

For the current study, we have taken 25 companies from the S & P B S E 500 (comprising 500 companies) randomly through a computer random number generator (www.random.org). The study period is limited to 6 years from 2015-16 to 2020-21 & we have used latest available data from Annual Reports accessed through websites of sample companies.

Journal of Marketing and Sales Management
Volume 7 Issue 1
ISSN: 2457-0095

Required CSR expenditure data were hand-picked from the Annual Reports of the concerned company. We also used CMIE Prowess data base for company specific financial performance related data.

Variables

For this study, three variables are considered-

Dependent Variables: Return on Capital (ROC) and Profit after Tax (PAT)

Independent Variable: Actual Corporate Social Responsibility (ACSR) The role of Actual CSR spending in a mandatory setting is analyzed by considering to financial performance variables viz., ROE and PAT separately. According we frame the following hypotheses.

Hypothesis

H1: Actual CSR spending positively affects ROC in a mandatory CSR regime.

H2: Actual CSR spending positively affects PAT in a mandatory CSR regime.

RESEARCH DESIGN

For this study we have consider following two models to understand the role of actual CSR spending influencing the financial performance.

1. $ROC_{it} = \beta_0 + \beta_1 ACSR_{it} + \varepsilon$

Where:

ROC_{it} = Return of Earning of ith sample company in the year t;

$ACSR_{it}$ = Actual CSR spending of ith sample company in the year t;

ε = Error term.

(ii) $PAT_{it} = \beta_0 + \beta_1 ACSR_{it} + \varepsilon$

Where:

PAT_{it} = Return of Capital of ith sample company in the year t;

$ACSR_{it}$ = Actual CSR spending of ith sample company in the year t;

ε = Error term.

Our study period covers six years and panel regression was used for empirical analysis. Hausman Test was used to find out the preference of models (Fixed Effect Model or Random Effect Model). In next section we give empirical results and analysis of findings.

Analysis and Interpretation

This section discusses results of empirical analysis regarding the relationship with the variables related with Mandatory CSR and corporate effectiveness of non-financial Indian companies. I report results of both FEM and REM and thereafter proceed to check the suitability and accordingly report our findings. Here, used two models as I have two dependent variables (viz., ROC and PAT) and run both fixed effect and random effect panel regressions.

I have four models as detailed hereunder:

Model-1: Fixed Effect Panel Regression with ROC as Dependent Variable;

Model-2: Random Effect Panel Regression with ROC as Dependent Variable;

Model-3: Fixed Effect Panel Regression with PAT as Dependent Variable;

Model-4: Random Effect Panel Regression with PAT as Dependent Variable; In the following sections we report the results of panel regression for each model from Model 1 to Model 4.

Fixed Effect Model (FEM) for Regression of ROC as Dependent Variable (Model-1)

The result of panel data analysis under fixed effect regression model is depicted in the Table 1. Overall model is statistically significant (F=0.0000). It signifies FEM is better than pooled regression. FEM results indicate that overall 36.39% variations are explained by the model (R^2=0.3639). The coefficients of ACSR is positive and statistically significant at 1% level (β =112.6845, p<.01).

Table 1 Result of Fixed Effect Model for Regression of Roc as Dependent Variable

FEM (within) regression No. Of observations = 150						
Gr. Vari.: Code No. of groups. = 25						
R^2: within = .3639 Observation per gr.: min.=6						
Between =.8111 avg.=6.0						
overall =.6972max.=6						
F (1, 124)= 70.93						
Correlation (u _ i , Xb) = 0.5947Probability > F = 0.0000						
ROC	**Coefficient**	**S.E.**	**t**	**P>t**	**[95% Conf. inte.]**	
ACSR	112.6845	13.41193	8.42	0.000*	86.40867	139.5006
cons	6.553333	1.849554	3.54	0.001	2.892547	10.21412
Sigma_u 11.241731						
Sigma_e 7.557374						
r ho .68873632						

F test u_i=0 F (24, 124) = 8.58 Probability > F = 0.0000

*1% sig. level.

***Source:** STATA output.*

Random Effect Model (REM) for Regression of ROC as Dependent Variable (Model-2)

The result of panel data analysis under random effect regression model is depicted in the Table 2. Overall model is statistically significant (F=0.0000). It signifies REM is better than pooled regression. REM results indicate that overall 36.39% variations are explained by the model (R^2=0.3639). The coefficient of ACSR is statistically positive and significant at 1% level (β =14.5172, P <.01).

Table 2 Result of Random Effect Model for Regression of ROC as Dependent Variable

REM GLS regression No. of observations = 150						
Gr. Vari.: Code No. of groups. = 25						
R^2: within = .3639Observation per gr: min=6						
Between = .8111avg= 6.0						
Overall = .6972 max = 6						
Rand. eff.u _i ~Gaus.Wald chi^2 (1) = 142.41						
Corre. (u _i, X) = 0Probability > chi^2 = .0000						
ROC	**Coefficient**	**S.E.**	**Z**	**P>z**	**[95% Conf. inter.]**	
ACSR	140.5172	11.77372	11.93	0.000*	117.4366	163.5887
cons	2.970714	2.322378	1.28	0.201	-1.581062	7.52249
Sigma_u 7.7729208						
Sigma_e 7.557374						
r ho .51405741						

Source: STATA output.

Test Results for Model Selection

Table 3 Breusch and Pagan Lagrangian Multiplier Test [ROC]

ROC (Code, t) = X b + u (Code) + e (Code, t)		
	Var.	**SD= Sqrt (Var.)**
ROC	417.6968	20.43763
e	57.1139	7.557374
u	60.4183	7.772941

Test: Var.u=0 chibar2 (1) = 75.19

Probability >chibar2 = .0000

Source: STATA output.

Breusch and Pagan's Lagrangian Multiplier Test is used for determining for FEM or REM over classical Ordinary Least-Square Regression (OLS). Furthermore, there is a formal test developed by Hausman to find out the preference of FEM or REM.

Hausman Test identifies the presence of endogeneity in the explanatory variables. The null hypothesis is that the appropriate model is REM. The null hypothesis is rejected if the Hausman Statistics in bigger than its critical value (< = 0.05). In the following paragraphs results of the LM Test & Hausman Test are reported for variable ROC.

The results of LM Test (Table 3) indicate that statistics is having a high value and REM or FEM is preferred over classical Linear Regression at 1% level of significance ($p<0.01$).

The impact of variables related with mandatory corporate social responsibilities expenditure on Return on Capital have analysed under FEM&REM.

The results of empirical analysis are not same under fixed effect or random effect model. Before selecting the best result, it is better to select the most appropriate model for analysis of the dependent variables that have impact on return on capital (ROC). In this study the Hausman test is applied to select the suitable model between FEM and REM.

Table 4 gives the results of Hausman Test. Under Hausman test p-value is less than 0.05. Hence, the null hypothesis is rejected and appropriate model is not REM. Hence, all hypotheses using ROC as dependent variables are tested on the basis of results of FEM.

Table 4 Hausman Test for Selecting the Best Model for Dependent Variable ROC

	Coeff.		**[b-B]**	**Sqrt {diag (V_b-V_B)}**
	fe [b]	**re [B]**	**Diff.**	**S.E.**
ACSR	112.9546	140.5127	-27.55805	6.423337

Chi2 (1) = (b-B)[(V_b-V_B)^(-1)] (b-B)

= 18.41Prob.>chi2 = .0000

Source: STATA output.

Journal of Marketing and Sales Management
Volume 7 Issue 1
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Fixed Effect Model (FEM) for Regression of PAT as dependent variable (Model-3)

The result of panel data analysis under fixed effect regression model is depicted in the Table 5. Overall model is statistically significant (F=0.0000). FEM results indicate that overall 12.89% variations are explained by the model (R^2=0.1289). The coefficient of ACSR is positive and statistically significant at 1% level (β =118459.4, P <.01).

Table 5 Result of Fixed Effect Model for Regression of PAT as Dependent Variable

FEM (within) regression No. of observations = 150 Gr. Vari: Code No. of groups. = 25 R^2: within = .1289Observation per gr: min.=6 between = .0112avg.=6.0 Overall = .0155 max.=6 F (1, 124)= 18.34 Correlation (u _i, Xb) = -0.0140Probability > F = 0.0000						
PAT	**Coefficient**	**S. E.**	**t**	**P > t**	**[95% Conf. inte.]**	
ACSR	118459.4	27659.71	4.28	0.000*	63713.07	173205.7
cons	31488.42	3814.376	8.26	0.000	23938.7	36038.14
sigma_u 79120.624 sigma_e 15585.737 rho .9626456						

F test u_i=0: F (24, 124) = 154.59 Probability > F = .0000 Source: STATA output.

Random Effect Model (REM) for Regression of PAT as Dependent Variable (Model-4)

Table 6 Result of Random Effect Model for Regression of PAT as Dependent Variable

REM GLS regession No. of observations = 150 Gr. vari: Code No. of groups. = 25 R^2: within = .1288 Observation per gr: min =6 Between = .0112avg = 6.0 Overall =.0155 max = 6 Ran. Eff.u _i ~Gauss.Wald chi2 (1) = 18.75 Corr. (u_ I , X) = 0 Probability > chi2 = 0.0000						
PAT	**Coefficient**	**S. E.**	**Z**	**P > z**	**[95% Conf. inte.]**	
Coefficient	**S. E.**					
ACSR	118170.2	27309.71	4.33	0.000*	64644.18	171696.3
cons	31526.01	16494.61	1.91	0.056	-802.8278	63854.85
Sigma_u 80560.911 Sigma_e 15585.737 rho .96392157						

Source: STATA output.

In the following paragraphs results of the LM Test &Hausman Test are reported for variable PAT.

Journal of Marketing and Sales Management
Volume 7 Issue 1
ISSN: 2457-0095

The result of panel data analysis under random effect regression model is depicted in the Table 6. Overall model is statistically significant (F=0.0000). Results indicate that overall 12.88% variations are explained by the model (R^2=0.1288). The coefficients of ACSR is positive and statistically significant at 1% level (β =118170.2, P <.01).

Breusch and Pagan Lagrangian Multiplier Test [PAT]

The results of LM Test (Table 7) indicate that statistics is having a high value and REM or FEM is preferred over classical Linear Regression at 1% level of significance (p<0.01). The findings of the Hausman Test are listed in Table 8. P-value is more than 0.05 in the Hausman test. As a result, the null hypothesis is accepted, and the proper appropriate model is REM. As a result, REMis used to test all hypotheses that use PAT as a dependent variable.

The findings of the Hausman Test are listed in Table 8. P-value is more than 0.05 in the Hausman test. As a result, the null hypothesis is accepted, and the proper appropriate model is REM. As a result, REMis used to test all hypotheses that use PAT as a dependent variable.

Table7 Breusch and Pagan Lagrangian Multiplier Test [PAT]

PAT (Code, t) = Xb + u (Code) + e (Code, t)		
	Var.	**S.D. = Sqrt (Var.)**
PAT	6.3500	79682.26
e	2.43	15585.5
u	6.49	80560.91

Test: Variance u = 0 chibar2 [01] = 346.42

Probability > chibar2 =.0000

Source: STATA output.

TABLE 8 Hausman Test for Selecting the Best Model for Dependent Variable PAT

	Coef.		**[b-B]**	**Sqrt (diag (V_b-V_B)**
	fe [b]	**Re [B]**	**Diff.**	**S.E.**
ACSR	118459.4	118170.2	289.1574	4386.263

chi2 (1) = (b-B)'[(V_b-V_B)^(-1)] (b-B)

= .000Probability > chi2 = .6474

Source: STATA output.

Journal of Marketing and Sales Management
Volume 7 Issue 1
ISSN: 2457-0095

Findings

In this empirical part of the study we have used panel regression to test the hypotheses. First, I have run both FEM and REM panel regression model. As reported in the previous section, the results of the Hausman Test indicate that FEM is appropriate for 1st hypothesis and REM is appropriate for 2nd hypothesis. Accordingly, results of test of hypotheses are reported on the basis FEM and REM panel regression.

The results of LM Test (Table 3 & 7) also indicate that statistics is having a high value and REM or FEM is preferred over classical Linear Regression at 1% level of significance ($p<0.01$). It is applicable for all the two models with ROC and PAT as dependent variables.

Our first hypothesis is Actual CSR spending positively affects ROC in a mandatory CSR regime. The result of panel regression with FEM indicates that value of the co-efficient of Actual CSR (ACSR) is positive (β =112.6845) with p value 0.000. Hence, the hypothesis is accepted at 1% level of significant and it may be concluded that mandatory CSR expenses has positive effect on ROC.

Actual CSR spending positively affects PAT in a mandatory CSR regime is our second hypothesis. According to the results of panel regression with REM, the coefficient of ACSR is positive and statistically significant at the 1% level (β =118170.2). As a result, the hypothesis is accepted. It is possible to conclude that required CSR expenditures have a favourable impact on PAT.

CONCLUSION

This research is designed to achieve the main objectives of the study that investigate the relationship of Mandatory CSR spending and firm performance. Panel regression is employed covering 150 (25 x 6) firm data to empirically establish the relationship.

I have found that fixed effect model (FEM) is applicable for 1st hypothesis and random effect model (REM) is applicable for 2nd hypothesis. Results of Panel Regression (FEM& REM) indicate that financial performance as measured by two parameters (ROC and PAT) is significantly influenced by ACSR. Overall it may be conclude that CSR activities have important role in influencing financial performance is a positive way even in a mandatory setting.

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