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CORPORATE SOCIAL RESPONSIBILITY VERSUS FINANCIAL PERFORMANCE IN SELECTED CONSTRUCTION COMPANIES IN INDIA

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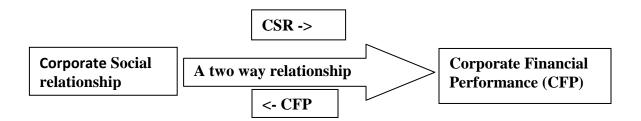
ABSTRACT

CSR is an important route for sustainability of corporates in this era. CSR refers to the responsibility of the corporates towards society. This paper is an attempt to understand the impact of CSR on Financial Performance of the selected two construction companies in India. The main objective of this paper is to analyse the impact of CSR on the Financial Performance analysing CSR from expenditure point of view on the financial performance from Accounting and Market based view in the two selected construction companies listed in BSE. The Accounting-based measures considered include Return on Asset (ROA) and Return on Equity (ROE) and the market-based measure include Price Earnings Ratio (PER). CSR would be measured using the CSR scores computed through content analysis of the Annual reports of the companies. The study would be analysed considering the Secondary data from the two companies Annual report for the period of 2014-15 to 2018-19. The collected data is analysed using Correlation and regression techniques and the researcher would arrived at the conclusion that there is a positive relationship of CSR with respect to market measure EPS and mixed relationship between the CSR and accounting measures ROA, ROE and PAT.

INTRODUCTION

Corporate Social Responsibility hereafter referred as CSR is a moral and ethical responsibility of the corporates towards the society at large. "CSR needs to be integrated with the important activities of the business (Sharma, 2011). In this millennium era, CSR has been considered as a pertinent principle of top management as successful CSR strategies are associated with substantial financial performance (Abd-Mutalib, Jamil & Wan Hussin, 2014). According to (Dahlsrud 2008), "CSR is the concept that integrates Social and environmental concerns into business operations and their integration with their stakeholders on a voluntary basis". It can be demonstrated that CSR and Corporate financial performance- CFP have two-way relationship which can be explained by the following diagram.

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ADAPTED FROM JIAO AND XIE (2013), (VANI 2018)

The above diagram illustrates that CSR can lead to improvement in the CFP and vice versa. There is long history of CSR activities in India dating back to the pre independence era which has been depicted in the following table

Table 1. History Of CSR

Phase	Period	What was considered as CSR
1	1850-1914	Charity by princely states
11	1914-1947	Support to freedom struggle
III	1947-1960	 Supporting new states and also involved launching rural initiatives with regards to basic necessities.
IV	1960-1990	Establishment of Corporate Trusts
		 Diverse Priorities to specially focus and fund cause of social interest
V	1991-2013	Setting up of family trusts, NGOs and launch of National National (NYC)
		Voluntary Guidelines (NVG)
		 Making the corporates accountable for CSR activities
VI	2013 - till	CSR made mandatory by Sec 135 of the Company Act 2013 for
	date	companies with
		 Turnover of more than Rs One thousand crores,
		 Net worth greater than Rs Five Hundred crores and
		Net Profit of Rs Five crores or more
		Set Aside 2% of their average Net profits of the past three years towards CSR activities

Source: Self Compiled (Rammya et al 2020).

Socially responsible firms reap the benefit of higher and increased goodwill which may in turn lead to improvement in the profits for the company. CSR has been made mandatory for companies fulfilling the following criteria as per Sec 135 of the Companies Act 2013

- Companies having a Net worth of Rs 500 crores or more,
- Companies having a turnover of Rs 1000 crores or more,
- Companies having a net profit of Rs 5 crores or more.

Construction Sector plays a very important role in the development of the nation. Infrastructure plays a vital role in overall growth and development. It accounts for nearly 8% of GDP of India. Government focusses on the development of infrastructure through construction sector by framing policies and allocating budgets. India's construction industry is expected to grow at an annual average of 6.6% between 2019 and 2028. The share of urban population is expected to be 50% of the total population by 2050. The share of urban population is expected to be 50% of the total population by 2050. The share of construction in Gross Value Added (GVA) was about 7.3 for India in 2017-18. As of 2017, the construction industry employed 49.8 million people. The construction sector is divided into residential and commercial complexes, infrastructure and real estate.

CORPORATE SOCIAL RESPONSIBILITY IN INDIAN CONSTRUCTION SECTOR

It's a well-known fact that construction industries are known for exploitation of resources in the course of growth and development. (Duman, D 2016). Construction sector companies need to be more sensitive and sensible to the environment and other social issues. "Firms operating in the industry have to tackle a number of CSR issues such as the nature and status of employment, environmental concerns and relationships with communities and ethical business processes." (Barthorpe, 2010). Hence the researcher has made an attempt to analyse the CSR activities of construction sector pertaining to residential and commercial complexes and examine the relationship between CSR and financial performance of selected construction companies in India.

LITERATURE REVIEW

The CSR is one of the most debated and researched topic in the last 2 decades. CSR as defined by Carroll.A.B. (1979) as "the social responsibility of business encompasses the economic, legal, ethical and discretionary expectations that society has of organisations at a given point in time." The CSR is measured using CSR expenditure and CSR scores that are generated using Content Analysis or taken from the index available.

The measure of the CSR is a difficult due to its multidimensional dimensions (Carroll 1979) and due to subjectivity and diverse issues that fall under the purview of CSR (Maqbool, S. and et al 2019). The CSR is measured using CSR expenditure and CSR scores that are generated using Content Analysis or taken from the index available. Shafat Maqbool. (2019) conducted a study on 97 companies from all the sectors that are listed in BSE 100 companies' index. The variables used for the study were CSR measured by CSR Expenditure denoted as CSRE in terms of cost on employee, social and environmental dimensions and Financial performance measured through ROA, ROE, ROCE — Return on Capital Employed, PE- Price Earnings and Stock returns. The control variables used in the study were Size, Risk, Age of firm, Assets age, R&D. Factor Analysis was done preceded by correlation to group ROA, ROE and ROCE as one factor and then regression analysis was carried out. The study revealed a positive relationship and impact of CSR on concurrent profitability and stock returns at present as well as in future.

S, H. B. (2018) conducted a study on 112 listed companies in Colombo Stock Exchange, SriLanka for the period 2011-2015 belonging to various sectors like finance, manufacturing, service, construction and engineering and others. Financial Performance measure ROA was treated as dependent variable and CSR was treated as independent variable. The CSR was divided into Internal CSR and external CSR. Internal CSR included welfare activities relating to employees and managers and External CSR included activities aimed external stakeholders namely customers, suppliers and local community. The study also considered control variables like size, leverage and industry factor. The study indicated that although both types of CSR that is internal and external, impact positively on financial performance, internal CSR is a major determinant of firm performance than the external CSR. Hence it can be inferred that CSR has a positive impact on Financial Performance.

The Construction Industry Environmental Forum (CIEF, 2002) state that: "Over the last five years Corporate Social Responsibility has grown into a powerful agenda. Most definitions of CSR cover combinations of the following themes: treatment of employees, supporting local communities, environmental performance, human rights and ethical conduct with competitors, suppliers and customers. These themes are clearly relevant to the construction industry."

Jiang, Y., & Xue, X. (2018) conducted a study on Chinese Construction sector revealed construction sector accounts for consumption of large amount of resources, noise and pollution to the environment. The study also concluded that the listed firms engage in CER — Corporate Environment Reporting than non-listed firms in the construction sector. Also, the study paved way for further research linking CSR with financial performance which is the theme the researcher has chosen.

A recent study by Se-Yeon Ahn, & Dong-Jun, P. (2018) in Korean construction sector consisting of 8 long lived companies threw light on CSR Principles, Social Capital - Trust and Identification and Legitimacy. The content analysis conducted revealed that the CSR actions by these companies has positive influence on forming social capital with employees classified as primary stakeholders and getting legitimacy from secondary stakeholders - society. This in turn influences the survival of the long-lived companies. CSR is an important strategic tool for sustainable competitive advantage of the firm and CSR activities focusing on primary stakeholders i.e. employees leads to greater results for the business. It can be inferred that CSR activities pertaining to employees is also a key to construction firms' growth and success. This is in line with studies conducted by Chang, C (2009)

A study conducted by Wang, X., Lai, W., Song, X., & Chen, L. (2018) in Chinese construction sector studied about the CSR efficiency scores. The study used three stage data development analysis and T test and the variables used in the study included financial components namely Current ratio, Debt to equity ratio, cost of goods sold and salary expense growth ratio. It was concluded in the study that the companies CSR efficiency scores were high when the companies engaged in CSR whereas the scores reduced when environmental factors effects were eliminated which is one of the important components of CSR activities. This shows that CSR

activities add value to the firm in terms of improvement in efficiency scores and indirectly to reputation and value for the firm.

A study on "Environmental aspects of CSR reporting in polish construction sector" by Hawrysz, L. (2017) comprising of 32 firms revealed that almost 65% of the companies did not declare their environment responsibility in any document available on the website whereas only 10% declare in the written form. The construction sector could be said to be not environmentally responsible.

Most of the studies in Construction sector is restricted to the activities that the companies involve in for CSR and whether the companies are declaring and publicizing the same. It can be concluded that construction sector does have an impact majorly on the environmental aspect.

RESEARCH GAP

The construction sector in India is less explored and there is a scope for exploring the linkage between CSR and CFP in selected companies belonging to construction sector. Hence the researcher has made an attempt to fill this gap through the analysis of the relationship between CSR and Financial Performance in 2 selected construction companies listed in BSE.

OBJECTIVES OF THE STUDY

This paper attempts to understand the CSR activities undertaken by construction companies and to analyse the relationship between CSR in terms of CSR expenditure and Financial Performance of the two selected construction company.



Hypothesis 1: CSR activities of the companies significantly influence its FP. Here CSR is treated as independent variable and the Financial Performance variables are treated as dependent variables

Hypothesis 2: FP of the companies contribute towards the CSR. Here CSR is treated as dependent variable and the Financial Performance variables are treated as independent variables

DATA COLLECTION:

The study is based on secondary data which is mostly collected from concerned company's Annual Report and websites

SCOPE:

This paper attempts to include and compare top 2 construction companies in terms of their CSR and Financial Performance listed in BSE. The companies considered for the study are Dilip Buildcon and NBCC India and the period covered is 5 years starting from 2014-15 to 2018-19, also these companies satisfy the conditions laid down in Sec 135 of the companies Act 2013.

METHODOLOGY:

This study includes top 2 construction companies belong to Residential and Commercial Complexes with data collected for 5 years from 2014-15 to 2018-19. The selected companies are top 2 companies listed in BSE.

In this study the researcher has used both the historical accounting and market-based measures as a proxy of financial performance. The historical accounting-based measures used are return on asset (ROA) and Return on Equity (ROE) and market-based measure used are price earnings ratio (PER)

Table 2 Description Of Variables

Variables	Formulas	Symbols
Accounting based measure		
Return on Assets	Computed by dividing the net Income by Total Assets	ROA
Return on Equity	Computed by dividing the net Income by Shareholders Equity	ROE
Profit After Tax	Extracted from Income statement	PAT
Market Based measure		
EPS	Computed by dividing Profits available to shareholders by the number of equity shares	EPS
CSR	CSR expenditure	CSRE

The Corporate Social responsibility CSR is measured using CSR expenditure incurred by the company in a financial year which is available in the CSR report enclosed in the Annual Report

Hypothesis 1: CSR activities of the companies significantly influence its financial performance; there are five models; every model contains CSR as an independent variable and financial performance as dependent variable. The five models are as follows:

Model 1: ROA = $B_0 + B_1 CSRE + E$

Model 2: ROE = $B_0 + B_1$ CSRE +E

Model 3: PAT = $B_0 + B_1CSRE + E$

Model 4: EPS= B₀ + B₁CSRE +E

We hypothesize the following:

H₁₀: CSR has a significant impact on Financial Performance.

H₁: CSR has a no significant impact on Financial Performance.

Regarding Hypothesis 2: Financial performance of companies significantly contributes towards corporate social responsibility; we hypothesize the following:

H2₀: Financial Performance significantly influences CSR.

H2₁: Financial Performance does not influence CSR.

The model contains financial performance indicator as independent variable and corporate social responsibility as dependent variable

Model 5: $CSR = B_0 + B_1ROA + B_2ROE + B_3PAT + B_4EPS + E$

ANALYSIS AND DISCUSSION

The CSR activities of the companies can be summarised in the form of the following table

Table 2. Csr Activities

Buildcon	NBCC
Road Safety Awareness events	Contributing to protection of national heritage, art and culture
Cleanliness drive – waste disposal, effluents and emissions checking, plantation drives	Contributing to the welfare of the armed forces
Health camps – blood donation, yoga, malaria and filariasis check ups and checking patients of paralysis	Contributing to the cause of education – scholarship for tribal girls
Organising Marathons	Contributing to the cause of sanitation – toilet construction
Rural Development projects	Rural Development – Roads and drains

Promoting Art, Culture and Sports	Sports – Paralympic games promotion
Animal Welfare and Wildlife Sanctuary	Preserving national heritage – conservation and restoration
Education	Contribution to Funds
Orphanage Support	
Eradicating hunger, poverty and malnutrition	
Promoting gender equality and empowering women	
Measures for the benefit of armed forces veterans, war widows and their dependents	
Contribution to the Prime Minister's Relief Fund or any other fund	

Source: Self Compiled from Annual Reports

It can be inferred that the CSR activities of both the companies are in line with Sec135 of the Company Act 2013.

Table 3. Descriptive Statistics

	ROA	ROE	PAT	CSRE	EPS
Mean	5.207	22.504	37583.509	443.945	18.229
Median	5.405	21.885	34235.200	333.550	10.925
Minimum	3.020	18.320	13735.720	5.860	1.850
Maximum	7.010	28.800	76494.070	978.570	55.930
Std. Deviation	1.196	3.106	18536.577	417.098	19.266
Variance	1.430	9.648	343604704.981	173970.932	371.163
Skewness	-0.266	0.706	1.195	0.225	1.129
Std. Error of Skewness	0.687	0.687	0.687	0.687	0.687
Kurtosis	-0.104	0.485	1.288	-2.126	0.120
Std. Error of Kurtosis	1.334	1.334	1.334	1.334	1.334

Table 3 shows the descriptive statistics of all the variables used in the study. The mean value of corporate social responsibility (CSR) is 443.945 with a very high standard deviation of 417.098. The mean values of ROA, ROE, PAT and EPS is respectively 5.207, 22.504, 37583.509 and 18.229 and their standard deviation are 1.196, 3.106, 18536.577, and 19.266 respectively.

CORRELATION ANALYSIS

Table 4: Correlation MATRIX - Buildcon

	ROA	ROE	PAT	EPS	CSRE
ROA	1.000				
ROE	0.800	1.000			
PAT	0.968	0.669	1.000		
EPS	0.945	0.621	0.997	1.000	
CSRE	0.672	0.739	0.710	0.717	1.000

Table 4, the correlation matrix of Buildcon presents the association among all the variables in the study with respect to Buildcon Ltd. The corporate social responsibility has a positive and strong correlation with the variables – ROE, PAT and EPS and moderate positive correlation with ROA. CSR has a high correlation with ROE (73.9%)

Table 5: Correlation Matrix - NBCC Ltd

	ROA	ROE	PAT	EPS	CSRE
ROA	1.000				
ROE	0.019	1.000			
PAT	-0.696	0.525	1.000		
EPS	0.961	-0.072	-0.690	1.000	
CSRE	-0.681	0.196	0.839	-0.526	1.000

Table 5, the correlation matrix presents the association among all the variables in the study with respect to NBCC Ltd. The corporate social responsibility has a positive and strong correlation with the variable – PAT, weak but positive correlation between ROE and moderate negative correlation with ROA and EPS. CSR has a high correlation with PAT (83.9%)

PANEL DATA REGRESSION ANALYSIS

Table 6. Panel Least Square Analysis - Buildcon

COMPANY - BUILDCON		Dependent variable		
	Model 1	Model 2	Model 3	Model 4
	ROA	ROE	PAT	EPS
CONSTANT	1992.029	21.848	26871.659	23.055
T-STAT	2.697	13.539	2.067	2.78
P VALUE	0.074	0.001	0.131	0.069
CSR	-228.846	0.027	196.94	0.128
T-STAT	-1.609	1.9	1.747	1.78
P VALUE	0.206	0.154	0.179	0.173
R^2	0.463	0.546	0.504	0.514
ADJ R^2	0.284	0.395	0.339	0.351
F STAT	2.474	3.611	3.053	3.168
DURBIN WATSON STAT	2.154	1.321	1.587	1.637

Table 6 presents the panel least squares analysis for hypothesis 1. The table presents the coefficient value of the constant and the independent variable CSR with corresponding value of t-statistic and p-value. In the table the R^2 value represents variation in the dependent variables ROA, ROE, PAT AND EPS that is caused by independent variable CSRE. The F value with corresponding significant probability value at 5 % level of significance; indicate that the value of R^2 is not statistically significant for all models and that the independent variable is not a good predictors of the dependent variable. The result of the analysis is as follows:

ROA = 1992.029 - 228.846 CSR

ROE = 21.848+.027 CSR

PAT = 26871.66+196.94 CSR

EPS = 23.055+.128 CSR

Table 7. Panel Least Square Analysis - NBCC

COMPANY - NBCC		Dependent variable		
	model 1	model 2	model 3	model 4
	ROA	ROE	PAT	EPS
CONSTANT	6.803	19.455	20204.769	6.471
T-STAT	6.491	3.974	4.066	2.295
P VALUE	0.007	0.028	0.027	0.105
CSR	-0.002	0.002	15.904	-0.004
T-STAT	-1.609	0.347	2.667	-1.072
P VALUE	0.206	0.751	0.076	0.362
R^2	0.463	0.039	0.703	0.277
ADJ R^2	0.284	-0.282	0.604	0.036
DURBIN WATSON STAT	1.833	2.379	2.553	1.615

Table 7 presents the panel least squares analysis for hypothesis 1 for NBCC. The table presents the coefficient value of the constant and the independent variable CSR with corresponding value of t-statistic and p-value. In the table the R^2 value represents variation in the dependent variables ROA, ROE, PAT AND EPS that is caused by independent variable CSRE. The F value with corresponding significant probability value at 5 % level of significance; indicate that the value of R^2 is not statistically significant for all models and that the independent variable is not a good predictors of the dependent variable. The result of the analysis is as follows:

ROA = 6.803 - 0.002 CSR

ROE = 19.455+.002 CSR

PAT = 20204.769+ 15.904 CSR

EPS = 6.471 - 0.004 CSR

Hypothesis 2: When corporate social responsibility is the dependent variable:

Model 5: CSR = B0 + B1ROA + B2ROE + B3PAT + B4EPS + E

Table 8 Panel Least Square Analysis (CSR Dependent Variable) For BUILDCON

CSR as dependent variable - BUILDCON					
Variable	Coefficient	Beta Coefficients	p value		
constant	-615.742	-			
ROA	-162.865	-2.847	0.000		
ROE	44.08	1.586	0.000		
PAT	-0.005	-1.497	0.000		
EPS	21.923	3.914	0.000		
R Squared			1.000		
Adjusted R Squared			1.000		
Durbin-Watson stat			2.843		

Table 8 presents the panel least squares analysis for hypothesis 2. The table presents the coefficient value of the constant and the independent variables with corresponding value of beta coefficient and p-value. In the table the R2 value represents variation in the dependent variable CSR caused by independent variables ROA, ROE, PAT and EPS. The F value with corresponding significant probability value at 5 % level of significance; indicate that the value of R squared is statistically significant and that the independent variables are good predictors of the dependent variable. The model fit is perfect, and the R squared value is significant at .05 and the result of the analysis is as follows for BUILDCON

CSR = -615.742 -162.865 ROA + 44.08 ROE - .005 PAT + 21.923 EPS

Table 9 Panel Least Square Analysis (CSR Dependent Variable) For NBCC

CSR as dependent variable					
Variable	Coefficient	Beta Coefficients	p value		
constant	1650.001	-			
ROA	-601.941	-1.79	0.000		
ROE	-10.88	-0.113	0.000		
PAT	0.047	0.901	0.000		
EPS	262.298	1.808	0.000		
R Squared			1.000		
Adjusted R Squared			1.000		
Durbin-Watson stat			0.92		

Table 9 presents the panel least squares analysis for hypothesis 2. The table presents the coefficient value of the constant and the independent variables with corresponding value of beta coefficient and p-value. In the table the R2 value represents variation in the dependent variable CSR caused by independent variables ROA, ROE, PAT and EPS. The F value with corresponding significant probability value at 5 % level of significance; indicate that the value of R squared is statistically significant and that the independent variables are good predictors of the dependent variable. The model fit is perfect, and the R squared value is significant at .05 and the result of the analysis is as follows for NBCC

CSR = 1650.001 - 601.941 ROA -10.88 ROE + 0.047 PAT + 262.298 EPS

OVERALL ANALYSIS

The overall empirical results reveal positive coefficient of CSR for ROE AND EPS with respect to Buildcon and for PAT and EPS with respect to NBCC, thus indicating a positive relationship between corporate social responsibility and corporate financial performance with respect to Market measure (EPS) for both the companies. But the result is statistically significant only in case of Model 5. However, CSR has a negative impact on ROA for both the companies and with respect to ROE for NBCC and PAT for Builcon, although the result is not statistically significant. This suggests that CSR has a positive impact on market related performance measure for construction industry. On the other hand, while ROA has a negative impact on CSR. Finally, it

can be inferred that there is a mixed relationship of CSR and Financial Performance both ways treating CSR as independent and dependent variable.

CONCLUSION

The study showed a mixed result. CSR has a positive and constructive influence on market related performance measure EPS for both the companies but mixed relationship with Accounting measures ROA, ROE and PAT. The CSR in construction industry is in the nascent stage and lack of CSR Index in India acts as a major constraint in gauging the relationship. The constraint of the study is that the researcher took only top 2 construction companies and period of the study was only 5 years. There is a scope for future researchers in conducting extensive studies considering more companies and data pertaining to a greater number of years. CSR though researched extensively, still captivates the attention and interest of the researchers worldwide in various new dimensions.

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