

CORPORATE SOCIAL RESPONSIBILITY AND FIRM PERFORMANCE IN THE INDIAN CONTEXT

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ABSTRACT

In this study, we examine the impact of Corporate Social Responsibility (CSR) as a measure of Corporate Governance on firm performance for 348 firms in the NSE 500 Index listed in the National Stock Exchange (NSE) of India for the period 2012-2019. The results show that the total amount spent on CSR by the firms has a negative impact on the firm performance as there is a significant difference between the total amount incurred to be spent on CSR as per amendments in the Companies Act, 2013 and the total amount actually spent on CSR by the firms. It's concluded that the number of CSR meetings held had no significant impact on firm performance. Results also show that firm size moderates the relationship between CSR and firm performance.

KEYWORDS

Corporate Social Responsibility (CSR), Firm Performance, Corporate Governance, Tobin's Q, India.

1. INTRODUCTION

Corporate Social Responsibility (CSR) has gained much attention since it is directed toward the benefit of stakeholders, the community and society as a whole. CSR as a measure of Corporate Governance aims at social issues in management through diverse strategies with the scope of removing existing social problems and transforming society. CSR activities associated with sustainability are a broad and multidimensional concept and couldn't be associated with a short time horizon as business sustainability has been referred to as the main theme of the twenty-first century ([Ng & Rezaee, 2015](#); [Hasan et al, 2021](#)). Managers, Shareholders, and Investors are even more interested in the companies with better sustainability scores and high-sustainability rated portfolios and these companies have performed better overall as compared to low-rated portfolios but not to a significant extent due to the short time horizon ([Velde et. al., 2005](#)). The norms indeed oblige the firms to perform better and hence could be of value to society. Since CSR is of immense importance, its relation to firm performance has ambiguous nature and has not been completely proven by empirical studies ([Scholtens, 2008](#)). Moreover, the association between corporate governance and firm performance has been defined as a paradox of social cost as the shareholders and managers don't opt for it ([Pava & Krausz, 1996](#)). CSR impact on firm performance has been debatable for a long time and in most of the scenes CSR impact has been subjective and financial performance has been through accounting measures ([Galant & Cadez, 2017](#)). Researchers aiming to find out whether CSR activities are value-enhancing or value-destructive for companies, need to look beyond the return-based tests as the social responsibility of the business should be there to increase its profits ([Gregory & Whittaker, 2013](#)).

Corporate social responsibility (CSR) as a measure of corporate governance accounts for spending about 2% of the average net profit over the past three years as CSR and has become mandatory in India since 1st April 2014. India is the first country to have a mandatory disclosure on CSR depicted under the guidelines of corporate governance in the amendments of the Companies Act, 2013. Various amendments have been made and as per Sub Section 1 of Section 135 of the Companies Act, 2013, CSR has been made mandatory for firms having a net worth of 500 crores and more, or a turnover of 1000 crore and more, or a net profit of 5 crores and more during any financial year. Firms are also responsible for setting up a CSR committee which accounts for at least 3 and more directors with 1 independent director on board. The measures adopted are the same for central and state government firms whereas for private, unlisted, and foreign firms these measures are different as they require 2 directors on board with no independent director required. As per the KPMG report (2015), 92% of the top 250 multinational companies disclose their social performance in CSR reports or annual financial reports ([Hasan et. al., 2021](#)). Some researchers think of CSR as a western phenomenon, but

it is much more propagating in developing countries as well. KPMG report (2017) of the survey done for Indian companies reveals that 98 out of the NIFTY 100 Index have a CSR strategy and publish reports related to CSR in their annual reports. Moreover, despite receiving less coverage, small and privately owned firms have also even started to encourage and devote resources to CSR ([Chi et. al., 2020](#); [Hasan et. al., 2021](#)).

CSR's impact on firm performance has an ambiguous nature depicted through earlier studies. In some cases, for instance, CSR has a positive and significant relationship whereas in some cases the relationship is insignificant. Though CSR has been strongly correlated with age, however, still there is a correlation between CSR and Firm Performance ([Cochran & Wood, 1984](#)). CSR impact on financial performance for S & P 500 Firms for the period 1996-2000 reveals that the relationship is positive and statistically significant and could prove to be productive in the future ([Tsoutsoura, 2004](#)). In the Australian context, no significant relationship has been found between CSR and firm performance ([Hackett et. al., 2007](#)). Hence, we aim to determine the CSR impact on firm performance over a period of 8 years i.e., from 2012 to 2019 keeping the firm size in view as a moderating variable and the results also show that the firm size measured through market capitalization of firms moderates the relationship between CSR and firm performance. In India, only a few studies have shown the positive impact of CSR on the profitability of companies and enabling managers to take appropriate decisions in CSR areas ([Kapoor & Sandhu, 2010](#)). The panel regression analysis of the Bombay Stock Exchange - BSE 100 Index, India for a period of 9 years (2010-2018) reveals that CSR has a positive impact on concurrent profitability and stock returns ([Maqbool, 2019](#)). Similarly, CSR influences the future financial performance of companies, and the researchers also state that lagged financial performance has a positive and significant impact on CSR, thus showing that only CSR activities have a positive impact on the financial performance of the companies in the Indian context ([Maqbool & Hurrah, 2020](#)).

Another study from India on the basis of the perceptual data from 150 senior-level Indian managers and data also from secondary sources suggests that responsible business practices towards primary stakeholders can be profitable and beneficial for Indian firms ([Mishra & Suar, 2010](#)). With increased responsibility for all the stakeholders including investors, managers, customers, regulators, NGOs, and society at large, the need for transparent disclosure of CSR information is essential to maintain CSR reports and stay relevant in the business world ([Crane & Glozer, 2016](#); [Hasan et. al., 2021](#)). In the study conducted on a sample of 287 companies from the financial year 2014-2015 to 2018-2019 and applying a panel data regression model using pooled ordinary least squares (OLS), fixed effects and random effects, the industries including consumers goods, services and

manufacturing were found to be positively associated with firm performance while healthcare, energy and utility sector have a negative impact on the firm performance ([Hasan et. al., 2021](#)).

Our research contributes to the previous studies done in many ways. Firstly, this is one of the prior studies focussing on the difference of CSR amount allocated by the companies mainly in the form of the total amount to be spent on CSR as per the Companies Act, 2013 and the total amount actually spend on CSR by the firm. Secondly, it is acknowledged that the CSR amount spent by companies has an impact on firm performance. Given this, a moderating effect of size (market capitalization) is also determined between the relationship between CSR and firm performance. The following sub-sections of the study include Literature Review and hypotheses development, data and methodology, empirical results, conclusion, and references. The tables representing the data, analysis and empirical results are provided at the end of the section.

2. LITERATURE REVIEW

Corporate Social Responsibility (CSR) impact on firm performance has been subjected to various degrees including customers, employees, community, investors, suppliers, and the natural environment. A questionnaire survey of Indian managers including CEOs reflects that the stock exchange listed firms show responsible practices and better firm performance than non-listed firms ([Mishra & Suar, 2010](#)). Moreover, a similar study from U. S. of 289 firms for the period of 1991-2004 states that improved financial performance through CSR leads to social performance eventually ([Scholtens, 2008](#)). Though the term CSR sounds familiar with social performance, but does it really lead to the benefit and upliftment of society? The association between CSR and firm performance has been seen as a paradox of social cost. The CSR cost generated has been socially screened and put to use by the stock investors in generating the highest level of future cash flow. According to Social Investment Forum, 538 institutional investors allocate funds using social screens and Alice Tepper Marlin president of the New York-based Council on Economic Priorities estimated about \$600 billion of funds have been socially screened ([Pava & Krausz, 1996](#)).

In a similar study, the purpose of the research is to have a better understanding of the connection that exists between "green accounting," "Corporate Social Responsibility," "Return on Assets," "Return on Equity," and "Firm Value." A total of thirty publications that have been through the process of peer review were examined and reviewed, which led to a revelation that was made in the literature of the prior work. The findings of this study indicate that green accounting and CSR have a

considerable impact on financial performance, which in turn affects firm value ([Lusiana et. al., 2021](#)). The issue of identifying the impact of CSR on firm performance has been critically examined and stated through primary and secondary data. Though primary data states the condition of stakeholders, shareholders, CEOs, and board of directors, however, still it is subjected to subjectivity and selection biases ([Galant & Cadez, 2017](#)). On the other hand, secondary data reports the financial performance along with the CSR disclosures as per the Indian context. Hence, the amounts incurred to be spent on CSR as per the Companies Act, 2013 and the total amount spent by the firms on CSR are stated by the firms in their Annual CSR Report. Although every public, private and foreign listed or unlisted firm shares its CSR report, still there is relaxation for the different categories of firms on annual basis. The difference lies for example in the independence of members, the number of CSR meetings, etc., but still CSR has been mandatory for the listed firms in India since 1st April 2014 for the listed firms. To summarise, the implementation of CSR is associated with an increase in earnings. One further benefit of lowering insurance and capital expenditures is that doing so can lower overall production costs, which in turn may lead to an increase in profits. When it comes to investors, a firm that has a solid CSR disclosure can invariably generate a favourable image and reputation for itself. Examining investment decisions and actions related to corporate social responsibility forces investors to concentrate on the financial success of the company. In this regard, the approach is to attract the interest of a sizeable number of potential investors who could be interested in contributing part of their financial resources to the growth of the company's earnings. A high profitability rate is an indication that the company is able to generate significant returns for its shareholders. The ability of a company to pay dividends, which affects the value of the company, increases in proportion to the profit that has been achieved ([Lusiana et. al., 2021](#)).

In addition to various stakeholders, CSR impacts on firm performance have been significantly correlated and organizational age has also been highly correlated with social responsibility ranking ([Cochran & Wood, 1984](#); [Sun, 2012](#)). Therefore, in our study, we have used organizational age as a controlling variable. For a dataset of most of the S&P 500 firms for 1996-2000, CSR impact on firm performance is highly positive and significant ([Tsoutsoura, 2004](#)). Moreover, the study considering most of the S&P 500 firms states that CSR activities have a positive impact on the financial performance with a stream of bottom-line benefits thus enhancing the Stakeholder's perspective as well as the Shareholder's Wealth Optimization as compared to Shareholder Wealth Maximization principle ([Tsoutsoura, 2004](#)). CSR plays a strategic role in enhancing business performance, both directly and indirectly, as evidenced by improved green Human Resource Management (HRM) and environmental outcomes. Human resources departments should integrate environmental stewardship

and sustainability into HRM procedures. Green human resource management not only helps these employees feel more committed to their organisations but also paves the way for those organisations to achieve their environmental goals successfully. Meanwhile, CSR is required to use green human resource management in a planned way in order to improve the organization's performance ([Ubeda-Garcia et. al., 2021](#)). Firms with better CSR scores exhibit higher valuation and lower risk in the United States (U.S.). Investments in sin stocks increase a firm's costs of equity whereas firms with high CSR scores depict cheaper equity financing ([El Ghouli et. al., 2011](#)).

From the shareholder's perspective, a positive relationship between CSR and profitability has been justified and the linkage between CSR and the financial performance of companies has also been seen in both developed and developing countries. However, no significant relationship was observed between CSR and financial performance in the case of Polish firms ([Lech, 2013](#)). There is a strong and high degree of correlation between the CSR and financial performance of the companies ([Cochran & Wood, 1984](#)). In Indonesia as well there is a positive relationship between CSR and profitability although it is weak in magnitude ([Oeyono et. al., 2011](#)). However as discussed earlier the missing link between CSR and firm performance has been suggested in the way of a model where the CSR initiative leading to rewards by the stakeholders supports increment in financial performance whereas unsupportive behaviour of the stakeholders leads to reduced firm performance ([Peloza & Papania, 2008](#)). Higher levels of CSR disclosure are mainly associated with the firms having higher share prices and moreover, the CSR disclosures provide more valuable relevant information to investors beyond financial accounting information ([Klerk et. al., 2015](#)). Greek companies also show a strong positive correlation between stock returns and CSR performance and imply that managers implement CSR actions to a greater extent in order to enhance firms' market efficiency ([Karagiorgos, 2010](#)). Similarly, in Nigeria CSR activities has a positive and significant relationship with the firm's financial performance measures ([Uadiale & Fagbemi, 2012](#)). Firms with higher CSR levels in the U.S. have a low rate of Financial Distress Risk (FDR) suggesting that better CSR performance makes the firms more creditworthy and are rewarded with fewer financial defaults ([Boubaker et. al., 2020](#)). CSR in the U.S. is mainly driven by the community, diversity, employee relations and environmental dimensions of CSR and this is prevalent in firms with strong governance mechanisms and high product competition ([Boubaker et. al., 2020](#)). The study strengthens the strand of prior research by complimenting socially responsible firms for being more creditworthy and reducing financial distress ([Boubaker et. al., 2020](#)).

On the contrary, the virtuous circle of CSR and firm performance is explained by the time series fixed effects approach and suggested that CSR impacts on firm performance are much weaker, and CSR is much driven by unobservable firm characteristics than by firm performance ([Nelling & Webb,](#)

2008; [McWilliams & Siegel, 2008](#)). The “virtuous circle” is explained further by the study on the Johannesburg Stock Exchange (JSE) socially responsible investment index indicating that the companies not listed on the Stock Exchange perform better with respect to financial performance as compared to the companies listed on the Stock Exchange on the basis of Total Returns Index (TRI), Return on Assets (ROA), and Net Profit Margin (NPM) ([Nkomani, 2013](#)). The study investigates the relationship between CSR and financial performance by making use of a new CSR proxy, the Bloomberg ESG Disclosure Index ([Nollet et. al., 2016](#)). The results show no significant relationship between Corporate Social Performance (CSP) and ROA, ROC, and stock returns. Corporate Social Performance (CSP) has a negative significant impact on Return on Capital however, the U-shaped relationship between CSP and Corporate Financial Performance (CFP) in the long run suggests CSP effects are positive ([Nollet et. al., 2016](#)). In Australia, CSR showed no significant impact on firm performance (Brine et. al., 2007). In Istanbul also no relationship was observed between CSR and a firm’s profitability, but the firm size was having an impact on CSR ([Aras et. al., 2009](#)). However, no obvious significant relationship has been observed between CSR and financial performance in Spanish firms ([Madorran & Garcia, 2014](#)). Therefore, in our study, we examined the impact of CSR on firm performance in the Indian Context and to our surprise, we obtain mixed results for the different segments of the stocks. A distinct approach would be to apply the Ohlson 1995 model for equity valuation which needed the firm’s required rate of returns to calculate the abnormal earnings, but this information was not observable in practice. Moreover, analysts' forecasts could also be used to calculate an implied required rate of return, but this was also not available for the sample under the study. Hence, the company’s current year's financial performance is used in place of abnormal earnings ([Bowerman & Sharma, 2016](#)). CSR activities both directly and indirectly influence the firm’s strategic and financial decisions as firms with high CSR disclosures are more valued by market participants. CSR activities enable the investors, shareholders, and managers to gain more information regarding the Environmental, Social and Governance (ESG) reports and moreover, accountability of firms with better CSR scores is highly acknowledged ([Reverte, 2016](#)). A study on the top 100 firms registered in NSE 500 index examined the impact of CSR on the firm performance Indian context. The findings of the study revealed a positive relationship between CSR and firm performance. They suggest that corporate social responsibility should not be regarded as a voluntary activity but rather as a business policy. In other words, corporate social responsibility can be pursued as one of the main business activities contributing to a long-term improvement in business performance as well as advantages over other competitors in a globalised world. When corporate social responsibility (CSR) practices are linked with the long-term strategy of a company, the company's financial success as well as its social

aims becomes easier to achieve, which ultimately leads to the company achieving better results ([Bag & Omrane, 2020](#)). Earlier studies also suggest that CSR disclosure has the potential to be an effective tool for companies looking to improve their long-term corporate competitiveness and the strength of their operations. In addition to this, social sustainability programmes may be used as a way to transform developing countries into feasible environments that are both more sustainable and more favourable for business development ([Hasan et. al., 2021](#)). Hence, the hypotheses for the research are as follows:

H01: CSR activities do not have an impact on the firm performance in India.

H02: Market Capitalization does not moderate the impact of CSR activities on the firm performance in India.

3. DATA AND METHODOLOGY

In this study, we examine the impact of Corporate Social Responsibility (CSR) as a measure of Corporate Governance on firm performance for 348 firms on the NSE 500 Index listed on the National Stock Exchange of India for the period 1st April 2012- 31st March 2019. Nifty 500 Index is the sample chosen for our research as it covers most of the market capitalization that is it represents about 96.1% of the free float market capitalization of the stocks listed on NSE as of 29th March 2019. Data is collected through the Prowess IQ Database provided by CMIE (Center for Monitoring Indian Economy). Out of 500 firms in NSE 500 Index banking and financial services firms have been opted out due to the difference in laws governing them and central and state government firms have been left as there is a separate mechanism for these in respect to the social obligations and regulations influencing them ([Haldar & Rao, 2011](#)). Therefore, out of 500 firms, the final sample comprises 348 private firms which were classified into the manufacturing and services sectors.

The Corporate Social Responsibility characteristics include the total amount incurred to be spent on CSR as per the Companies Act, 2013 by the firm (TAICSR (Rs million)) ([Mishra & Suar, 2010](#); [Boubaker et. al., 2020](#)), the total amount spent on CSR by the firm (TASCSR (Rs million)) ([Pava & Krausz, 1996](#); [Mishra & Suar, 2010](#); [Boubaker et. al., 2020](#)), number of CSR meetings held (NMCSRC), presence of CSR committee (PCSRC) ([Pava & Krausz, 1996](#)) and presence of Chairman in the CSR committee (PCCSRC) ([Pava & Krausz, 1996](#)). The firm performance was measured by Tobin's Q ([Galant & Cadez, 2017](#); [Jackling & Johl, 2009](#); [Guest, 2009](#)) and ROA (Return on Assets) ([Guest, 2009](#); [Galant & Cadez, 2017](#)) and Ordinary Least Square Regression with Fixed Effect Model was carried out in order to identify the effects of CSR on firm performance. The controlling variables were identified were in respect to corporate governance as Advertising Expenditure/ Total Sales

percentage (A/TS (%)), Research and Development Expenditure/ Total Sales percentage (R&D/TS (%)) (Guest, 2009; Nollet et. al., 2016), log of organizational age (Log (OA)) (Guest, 2009; Cochran & Wood, 1984) and sales growth percentage (SG (%)) (Galant & Cadez, 2017; Nollet et. al., 2016). Market capitalization (MC) (Guest, 2009; Galant & Cadez, 2017; Boubaker et. al., 2020) was also used as a moderating variable and dummies were created for different market cap i.e., for small, medium, and large-cap firms on a percentile basis. For small-cap firms (MCD1) (0-33.33%), for mid-cap firms (MCD2) (33.33-66.67%) and for large-cap firms (MCD3) (66.67-100%) dummies were created respectively. The presence of the CSR committee and chairperson of the Committee was found in all of the firms.

Table 1 shows the variables' descriptions taken into consideration. Table 2 shows the descriptive statistics for the different variables. Table 3 shows the correlation matrix between the different variables and mostly all the variables have a correlation coefficient less than 0.5 except ROA and Tobin's Q, A/TS and Tobin's Q, MC and Tobin's Q and MC and TASCSSR. TASCSSR and TAICSSR were having a strong correlation, therefore, TAICSSR has been dropped and ROA has been dropped.

Table 1: Variable used for study obtained from Prowess IQ Database from 1st April 2012 to 31st March, 2019.

Variable	Variable Description
Tobin's Q	Tobin's Q = $\frac{\text{Equity Market Value (Market Cap)}}{\text{Equity Book Value}} * 100$.
ROA	Return on Assets (ROA).
A/TS (%)	Advertising/Total Assets. (A/TA) * 100.
R&D/TS (%)	R & D expenditure/ Total sales: (R&D/TS) * 100.
Log (OA)	Organizational age: Year – Year of incorporation (OA).
SG (%)	Sales growth (%): $\frac{\text{Sales growth in current year} - \text{Sales growth in previous year}}{\text{Sales growth in previous year}} * 100$
MC	Market capitalization
TASCSSR	Total amount spent on CSR.
TAICSSR	Total amount incurred to be spent on CSR as per Companies Act, 2013 by the firm.
NMCSRC	No of meetings held in the CSR committee.
MCD 1	Market Capitalization Dummy 1 (Companies accounting for 0-33.33% of the MC)
MCD 2	Market Capitalization Dummy 2 (Companies accounting for 33.33-66.67% of the MC)
MCD 3	Market Capitalization Dummy 3 (Companies accounting for 66.67-100% of the MC)

Table 2: Descriptive Statistics.

Variables	Tobin's Q	ROA	TASCSR (million Rs)	NMCSRC	A/TS (%)	SG (%)	R&D/TS (%)	Log (OA)	MC (million Rs)
Mean	4.90	7.57	112.22	2.14	1.87	1993.14	2.16	1.42	199567
Median	3.25	6.61	42.7	2.00	0.74	11.61	0.36	1.45	49809
Maximum	229.6	77.15	1863.00	6	28.20	2335783	341.45	2.06	8641224
Minimum	0.15	-143.0	0.40	1	0.001	0.00	0.00	0.00	232.40
Std. Dev.	7.85	9.49	227.69	1.07	3.04	55846.83	12.64	0.36	527226.70
Observations	2238	2518	527	1050	1267	2500	1100	2729	2075

Table 3: Correlation Matrix for the variables used in the study. (*), (**), and (***) implies the level of significance at 1%, 5% and 10% respectively.

Variables	Tobin's Q	ROA	TASCSR (Million (INR))	NMCSRC	A/TS (%)	SG (%)	R&D/T S (%)	Log (OA)	MC (Rs) (million)
Tobin's Q	1.000 -- --								
ROA	0.648 6.959 0.000*	1.00 -- --							
TASCSR (Million (INR))	0.483 4.519 0.000*	0.402 3.598 0.000*	1.00 -- --						
NMCSRC	0.074 0.615 0.540	0.128 1.057 0.294	0.057 0.475 0.636	1.00 -- --					
A/TS (%)	0.720 8.505 0.000*	0.380 3.364 0.001*	0.360 3.167 0.002*	0.212 1.783 0.079***	1.00 -- --				
SG (%)	-0.029 -0.240 0.810	0.006 0.054 0.956	-0.069 -0.566 0.572	0.041 0.336 0.737	-0.010 -0.089 0.928	1.00 -- --			
R&D/TS (%)	-0.018 -0.150 0.881	0.292 2.500 0.014*	-0.057 -0.473 0.637	-0.197 -1.646 0.104	-0.152 -1.265 0.210	0.101 0.837 0.405	1.00 -- --		
Log (OA)	0.107 0.880 0.377	-0.073 -0.606 0.546	0.063 0.522 0.602	-0.156 -1.294 0.199	0.245 2.073 0.042**	-0.074 -0.615 0.540	-0.058 -0.479 0.633	1.00 -- --	
MC (Rs) (million)	0.667 7.340 0.000*	0.481 4.502 0.000*	0.889 15.947 0.000*	0.046 0.384 0.702	0.496 4.684 0.000*	-0.061 -0.506 0.613	-0.058 -0.475 0.635	0.122 1.008 0.317	1.00 -- --

Moreover, advertising to total sales highly impacts firm performance as can be seen and market cap also has an impact on firm performance. The market cap also has a significant impact on the total amount spent on CSR as is clear from the correlation matrix as firms carrying the CSR activities have high growth potential in the Indian scenario.

4. EMPIRICAL RESULTS

The equation governing the CSR characteristics is as shown:

$$\text{Tobin's } Q_{it} = \alpha + \beta_1 \cdot A/TS_{it} + \beta_2 \cdot \text{Log}OA_{it} + \beta_3 \cdot R\&D/TS_{it} + \beta_4 \cdot SG_{it} + \beta_5 \cdot TASCSCR_{it} + \beta_6 \cdot NMCSRC_{it} + \beta_7 \cdot MC_{it} + \varepsilon \text{ (error term)}. \quad \text{----- (1)}$$

Table 4: Ordinary Least Square (OLS) regression estimates of the impact of CSR and supporting variables on firm performance (Tobin's Q). (*), (**) and (***) implies the level of significance at 1%, 5% and 10% respectively.

Variable	Coefficient	T-Statistic	Probability
C (Coefficient)	7.488	2.284	0.025**
TASCSR	-0.006	-2.106	0.039**
NMCSRC	-0.356	-0.672	0.503
A/TS	1.123	5.856	0.000*
R&D/TS	0.038	0.947	0.347
Log(OA)	-2.210	-1.227	0.224
SG	-0.007	-0.197	0.844
MC	0.000	4.171	0.000**

Table 4 shows the Ordinary Least Square Regression carried out for the 8 years of data structured in the panel form for 348 firms. The regression result shows that the coefficient (C), TASCSR, A/TS and MC were found to be significant while the rest of the variables were found to be insignificant. A/TS and MC are positively significant with Tobin's Q as seen in the correlation matrix as well, as both drive towards firm performance in a positive aspect. TASCSR is negatively significant overall with firm performance measured by Tobin's Q.

Next, we perform the Hausmann test in order to check for the endogeneity in the given data and the probability value for the test came out to be P value =0.0007 indicating that we can use the Fixed Effects Model. Table 5 shows the Fixed Effect Model estimates of CSR on firm performance. TASCSR still shows a negative significant result with firm performance stating that TASCSR has a negative relation overall with firm performance.

Table 5: Fixed Effects Model (FEM) regression estimates of the impact of CSR and supporting variables on firm performance (Tobin's Q). (*), (**) and (***) implies the level of significance at 1%, 5% and 10% respectively.

Variable	Coefficient	T-Statistic	Probability
C (Coefficient)	34.463	1.02	0.371
TASCSR	-0.01	-2.52	0.020**
NMCSRC	-0.55	-0.67	0.506
A/TS	-0.44	-0.45	0.656
R&D/TS	0.06	0.49	0.628
Log(OA)	-14.34	-0.66	0.511
SG	0.01	0.43	0.671
MC	0.000	1.44	0.164

Further, we examined the moderation effect of firm size carrying out the impact of CSR on firm performance and Table 6 shows the interaction effects of firm size with the TASCSR using the following equation:

$$\text{Tobin's } Q_{it} = \alpha + \beta_1 * \text{MCD}_x * \text{TASCSR}_{it} + \varepsilon \text{ (error term)}. \quad \text{----- (2)}$$

Where MCD_x corresponds to the different dummies of firm size i.e., MCD1, MCD2 and MCD3 and TASCSR states the total amount spent on CSR by the firm.

Table 6: Interaction effects of firm size dummies with CSR (*), (**) and (***) implies the level of significance at 1%, 5% and 10% respectively.

Variable	Coefficient	T-Statistics	Probability
TASCSR*MCD1	-0.06	-3.61	0.0003***
TASCSR*MCD2	-0.003	-0.39	0.6929
TASCSR*MCD3	0.003	3.180	0.0016***

As we have seen earlier that TASCSR has a negative significant relationship overall with Tobin's Q and here the classification of small, mid, and large-cap stocks gives the clear scenario that TASCSR is negatively significant for small-cap firms. For mid-cap firms, TASCSR is insignificant whereas for large-cap firms TASCSR is positively significant. The positive relation of CSR with firm performance in the case of large-cap firms states that large-cap firms spending on CSR are in a way beneficial for their firm performance.

Table 7: Difference between TAICSR and TASCOR in the period of study.

Year	(TAICSR-TASCOR) (Rs Million)
2012	Not Applicable
2013	Not Applicable
2014	Not Available
2015	2342.3
2016	546.2
2017	646.2
2018	-3001.9
2019	-3940.7

Table 8: Ordinary Least Square (OLS) regression estimates of the CSR and supporting variables on firm performance (Tobin's Q). (*), (**) and (***) implies the level of significance at 1%, 5% and 10% respectively.

Variable	Coefficient	T-Statistic	Probability
C (Coefficient)	22.551	4.092	0.000***
TAICSR	-0.001	-2.036	0.047**
NMCSRC	1.456	1.629	0.109
A/TS	1.200	3.914	0.000***
R&D/TS	0.152	1.272	0.209
Log(OA)	-12.483	-3.821	0.000***
SG	-0.156	-2.677	0.009***
MC	0.001	2.967	0.005***

Table 9: Fixed Effect Model (FEM) regression estimates of the CSR and supporting variables on the firm performance (Tobin's Q). (*), (**) and (***) implies the level of significance at 1%, 5% and 10% respectively.

Variable	Coefficient	T-Statistic	Probability
C (Coefficient)	-158.936	-1.876	0.078*
TAICSR	-0.001	-2.254	0.038**
NMCSRC	1.098	0.512	0.615
A/TS	-0.383	-0.161	0.874
R&D/TS	0.036	0.117	0.908
Log(OA)	110.410	1.964	0.067*
SG	0.072	0.778	0.447
MC	0.001	0.579	0.570

Lastly, we determined the difference between TAICSR and TASC SR for the subsequent years and found that in the years 2015, 2016 and 2017 less amount was spent on CSR whereas in the following years the spending on CSR by the firms went to a greater extent. Table 7 shows the differences between the amount spent on CSR. Table 8 and Table 9 show the OLS and FEM regression analysis stating the impact of TAICSR on the firm performance measured by Tobin's Q. The results remain the same as above implying CSR activities have a negative significant impact on the firm performance in the Indian context.

5. CONCLUSION

Though the mixed nature of CSR's impact on firm performance is observed, it is clear that CSR indeed aims at performing better for society and different stakeholders. Firstly, we studied the impact of CSR (TASC SR) on firm performance by OLS and subsequently by OLS Fixed Effects Model. In both of the regression techniques, CSR is having a negative significant relationship with firm performance indicating that CSR is having a negative impact on firm performance as observed in some of the earlier studies ([Nollet et. al., 2016](#)).

Further, we examined deeply the interaction effects of the CSR i.e., total amount spent on CSR (TASC SR) with the firm size and to our surprise, only the small-cap firms were found to be significant with the firm size whereas the mid-cap firms were found to be insignificant. The large-cap firms were found to be positively significant with CSR (TASC SR) implying that size moderates the relationship between CSR and firm performance. Large-cap firms spending on CSR in a way adds to their firm value. Therefore, our both hypotheses are rejected as CSR activities have a negative significant impact on the firm performance in India and Market Capitalization also moderates the impact of CSR activities on the firm performance in the Indian scenario.

Lastly, we determined the difference between the amount incurred to be spent on CSR as per the Companies Act, 2013 by the firm and the total amount actually spent by the firm (TAICSR-TASC SR) and found out that during the early period i.e., 2012-2014 CSR was not applicable or data was not available whereas from 2015 to 2017 all the firms spent less on CSR as per government norms as there is a huge difference. However, for the period 2018-2019, all the firms spend on CSR in excess as per government norms implying that there is a huge scope of CSR impacting firm performance in India over a long-time horizon with respect to short-term negative results as observed in the study and serving the society at large, especially by large-cap firms ([Velde et. al., 2005](#)).

DATA AVAILABILITY: Data is provided in the supplementary file.

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