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Is CSR Expenditure Relevant to the Firms in India?

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Abstract. The present study examines the relevance of Corporate Social Responsibility (CSR) expenditure to the firms in the mandatory regime in India. The paper has its theoretical basis from the instrumental aspect of the Stakeholder theory, which assumes a positive influence of CSR over financial performance. Therefore, the study hypothesizes that the firms which fulfil the CSR expenditure requirement will exhibit higher stock returns and lower systematic risk. Since India mandated CSR in the year 2014, the data of four years (2016-2019) for the sample of 426 National Stock Exchange (NSE) listed Indian firms are taken to employ the OLS regression method. The CSR expenditure in the mandatory regime was not found to be relevant to the firms because of an insignificant positive impact of mandatory CSR expenditure on stock returns. Thus, the instrumental aspect is not supported by the findings. However, the findings indicate a decrease in the systematic risk of the firms. Only a few studies in India investigated this phenomenon in the mandatory regime. Further, the contributions of the study to the CSR literature are fairly useful from the perspective of firms, investors, policy-makers, regulators, scholars, and countries that are planning for legislating CSR.

Keywords: CSR expenditure, DuPont equation, financial performance, stakeholder theory, stock returns, systematic risk

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1. Introduction

Several studies from the available literature have examined the relevance of corporate social responsibility (hereafter, CSR) by studying the effect of CSR initiatives of a firm on its financial performance (Luo & Bhattacharya, 2009; Nair & Bhattacharyya; 2019; Rodriguez-Fernandez, 2016). The available studies found diverse results including positive (Harjoto & Laksmana, 2018; Luo & Bhattacharya, 2009; Rodriguez-Fernandez, 2016), negative (Aras et al., 2010; Crisóstomo et al., 2011; Kuntluru, 2019) and insignificant (McWilliams & Siegel, 2000; Soana, 2011; Sydlowski, 2018) relationships between CSR and financial performance. The mixed results indicate that the underlying relationship between the two constructs is not conclusive, and more investigation is required in this regard. Further, different countries vary in CSR policies. In the Indian context, with effect from 1st April 2014, the Government has put down statutory CSR requirements and mandated CSR expenditure per financial year for certain companies which meet the specified criteria.

Since India mandated CSR only a few years ago, a small number of studies have examined the effect of mandatory CSR expenditure in the Indian context. Therefore, it is imperative to examine the relevance of CSR expenditure in the mandatory regime and thus confirm if it contributes to improving the financial performance of the firms. The present study is an attempt in this direction. India is a highly populous country and faces various socio-economic and environmental challenges. To seek increased participation of the business firms in meeting these challenges, the government of India has tried to influence their CSR initiatives by mandating CSR. In India, the relevance of the mandated CSR expenditure may influence the inclination of the firms to spend on CSR initiatives. The findings may offer the suggestions to the policymakers and regulators in India who look for the participation of the corporate sector to meet various challenges being faced by India and its masses on the social, economic and environmental front.

India with a GDP of US \$2.726 trillion in 2018 and an annual growth rate of 7.0 per cent is one of the top 10 economies of the world (World Bank, 2019). Further, India, the second most populated country in the world, faces acute challenges on various fronts as indicated by a low rank on the Human Development Index (130 out of 189 countries), a high infant mortality rate of 34.6 per 1000 births, 68.8 years of low life expectancy at birth, a high illiteracy rate of 30.7%, and a 21.2% percentage of the below poverty population (UNDP, 2018). A major segment of India's population receives inadequate elementary facilities in respect of housing, clean drinking water, food, housing, electricity, health, sanitation, employment, etc. Thus, the Government of India decided to mandate CSR expenditure for companies of a certain size to ensure that they participate fairly in the overall welfare of society. As per Section 135 of the Indian Companies Act (2013), the Indian companies meeting requirements concerning any of the three criteria (net worth of INR 5000 million or more, turnover of INR 10,000 million or more, and net profit of INR 50 million or more) have to comply with the

statutory CSR expenditure requirement of at least 2% of the average net profits (i.e. net profits before tax; www.mca.gov.in/MinistryV2/faq+on+csr+cell.html) of the company made during the three immediately preceding financial years. This compliance has been mandated with effect from 1st April 2014 (www.mca.gov.in/SearchableActs/ Section 135.htm). The other statutory CSR provisions include constitution of the CSR Committee, formulation of CSR policy, public disclosure of CSR policy and mandatory CSR expenditure. However, if a company does not spend the required CSR expenditure per financial year, then such a company is required to specify reasons for the same and carry forward the unspent amount to spend the same in next three financial years. If the firms fail to spend the unspent amount in the following three financial years, then the unspent amount has to be transferred to one of the funds specified in the Act (The Indian Companies Act, 2013). The penal provisions for noncompliance with CSR norms including CSR expenditure compliance were introduced by The Indian Companies Act (2013); in July 2019, noncompliance was deemed a civil liability rather than a criminal offence (PTI, 2019). Treating noncompliance as a criminal offense was backtracked due to the industry concerns over penal provisions for noncompliance with CSR norms (Guha, 2020; PTI, 2019).

The available literature shows that researchers have used various proxies of financial performance while studying the effect of CSR on financial performance. The proxies used in the previous studies include firm value (Kang et al., 2010; Servaes & Tamayo, 2013), firm performance (Kang et al., 2010), market value (Aras et al., 2010; Verschoor, 1998), profitability (Rodriguez-Fernandez; 2016), market value and systematic risk (Albuquerque et al., 2014), shareholder value (Moser & Martin, 2012) and stock market returns (Brammer et al., 2006). To investigate the relevance of mandatory CSR expenditure to the Indian firms, the present study has examined the effect of mandatory CSR expenditure on financial performance in terms of stock returns and systematic risk (beta). The control variables used are financial ratios of the DuPont equation, which captures all the operating and financial activities of firms contributing to the return to the equity shareholders. The necessary data of the firms listed on the National Stock Exchange (hereafter, NSE) in India for the financial years from 2015-16 to 2018-19 are taken from the CMIE (Centre for Monitoring Indian Economy) Prowess Database. The cross-sectional multiple regression models are employed to find the expected results. Mandatory CSR expenditure or spending, and CSR expenditure compliance are used interchangeably in the paper.

This paper contributes to the existing literature in three ways. First, the study examines the relevance of mandatory CSR expenditure to firms in India. This means that the study attempts to investigate whether the market values the mandated CSR in terms of improving stock return and lowering systematic or market risk. In literature, it is characterized as value-relevant, which means "any accounting number of interest in explaining value or returns (over long windows) given other specified variables is typically deemed to be value relevant if its estimated regression coefficient is significantly different from

zero (Holthausen & Watts, 2001)." Besides, the percentage CSR expenditure data was considered in the model instead of actual amount of CSR expenditure data (Bhattacharyya & Rahman, 2020) and CSR proxy scores considered by several previous studies. Second, the study has used a dummy variable by bifurcating the firms into Compliant and non-Compliant firms. Hardly any study investigated the mandatory CSR expenditure by using this methodology. Third, the regression model also includes the variables of well-established DuPont equation as control variables. The inclusion of these DuPont equation variables as control variables in the study happens to be a distinguished attempt.

The paper is organized as follows. The literature review in the context of the present study is described in the immediate section. The next two sections consist of the description of theoretical background and hypotheses formulation and research design. Thereafter, the sections on results and discussion, conclusions, implications, limitations and directions for further research are provided.

2. Literature Review

The concept of CSR has evolved considerably since it first emerged in the 1950s (Carroll, 1999; Freeman, 1984). Business organizations should have social responsibilities in addition to profit-making function (Bowen, 1953). Carroll (1979) advocated CSR as a four-dimensional construct comprising economic, legal, ethical and philanthropic expectations of the society from the business firms. Over a period of time, various definitions of CSR (Margolis & Walsh, 2003; McWilliams & Siegel, 2000; Wood, 1991) have been proposed, which generally indicate that companies must voluntarily develop responsible citizenship by integrating economic, social, and environmental concerns into their activities and relationships with stakeholders. An increasing number of firms are making CSR a priority (Harjoto & Laksmana, 2018).

To study the relationship of CSR-related actions with the firm performance, the previous literature has generally used legitimacy theory, institutional theory, agency theory, resource-based perspective and stakeholder theory or a combination of a few of these theories. According to the legitimacy theory, social and environmental reporting legitimizes the company's behavior to positively influence stakeholders and eventually society's perceptions about the company (Gray et al., 1995; Patten, 1992). The institutional theory links institutional practices with the rules and belief systems prevailing in the environment (Scott, 1995). Institutions are under external pressure (Deegan, 2000) to imitate certain practices (including sustainability initiatives) that key stakeholders perceive as the best practices (Doh & Guay, 2006). The agency theory contends that information asymmetry exists between investors and managers with managers possessing superior information leading to the agency problem. The amount of risk that investors and stakeholders perceive rises significantly in the absence of adequate information (de Klerk & de Villiers, 2012), and sustainability disclosure helps remove this information asymmetry. According to the resource-based perspective, companies

can achieve competitive advantage by efficiently managing their scarce and valuable resources (Lourenço et al., 2012), and a wide group of stakeholders controls institutional access to any of such resources (Laskar & Maji, 2018). Hence, to ensure the accessibility of resources, firms should maintain a relationship with stakeholders through sustainability disclosure (Roberts, 1992). Thus, consideration of stakeholders to achieve firm performance through CSR is central to each one of these theories. However, the present study is based on the stakeholder theory by Freeman (1984), which is the dominant theory to suggest a linkage between CSR and firm performance (McWilliams & Siegel, 2001).

The relevance of CSR activities of the firm has been studied by researchers across the world by examining the influence of these activities on financial performance of the firm. A positive relationship between CSR and corporate financial performance was suggested by researchers (Burnett & Hansen, 2008; Rodriguez-Fernandez, 2016). A positive impact of CSR disclosure on shareholder value was also revealed (de Klerk & de Villiers, 2012; Verbeeten et al., 2016; Verschoor, 1998). Some other studies (Kim et al., 2017; Luo & Bhattacharya, 2009; Oikonomou et al., 2012) show that CSR decreases systematic risk. On the contrary, many researchers (Baird et al., 2012; Peng & Yang, 2014; Wright & Ferris, 1997) found a negative relationship between CSR and financial performance. Further, researchers (Aras et al., 2010; Crisóstomo et al., 2011; Makni et al., 2009) revealed a negative relationship between corporate social performance and market value. Many other studies (McWilliams & Siegel, 2000; Prado-Lorenzo et al., 2008; Soana, 2011) reported an insignificant relationship between CSR and the financial performance of the firms. Further, in the Indian context, the available literature (Bihari & Pradhan, 2011; Dhaliwal et al., 2011; Kapoor & Sandhu, 2010; Mishra & Suar, 2010) generally reported a positive effect of CSR on firm performance before the mandatory CSR regime in India. Post the CSR regulations in India, the available studies reported positive (Bhagawan & Mukhopadhyay, 2018), negative (Kuntluru, 2019) and insignificant (Dharmapala & Khanna, 2016; Nair & Bhattacharyya, 2019; Sydlowski, 2018) effect of CSR initiatives on financial performance.

The previous review shows that many studies examined the relationship of CSR with financial performance across various contexts including India and reported a variety of results. However, while studying the effect of CSR on financial performance, very few studies explored CSR expenditure, whereas the majority of the existing studies in India and abroad only examined CSR disclosure or initiatives in the CSR domain. The examination of the CSR expenditure to study the effect of CSR on the financial performance of the firms is important in the Indian context as Indian firms meeting the requisite criteria have been mandated to spend a stipulated amount on CSR activities. CSR expenditure for India's firms was legislated only six years ago. Hence, it seems that very few studies in India investigated that fulfilling CSR expenditure requirement by the firms positively affects financial performance and is thus relevant to the firms in India. This paper is an effort in this direction.

3. Theoretical Background and Hypotheses Formulation

The existing literature presents that the idea of CSR was advanced in line with the Stakeholder Theory propounded by Freeman (1984). The Stakeholder Theory by Freeman (1984) suggests that a firm should not only be concerned about profit maximization for its shareholders but also strive to create value for its stakeholders, who include shareholders, employees, vendors, customers, governmental agencies, and environmental groups. A stakeholder can affect or is affected by the achievement of the organisation's objectives. Donaldson and Preston (1995) distinguished three aspects (descriptive, instrumental and normative) of the Stakeholder Theory. The descriptive aspect reflects past, present, and future states of affairs of corporations, and describes specific corporate behaviours that are observed and predicted by the stakeholders. This aspect indicates that initiatives considered important by the stakeholders should be undertaken by the firms. The normative aspect advises on the moral obligations of the firms towards their stakeholders. This aspect explains underlying ethical reflections by the firms that guide corporate actions. The instrumental aspect connects the corporate practices of stakeholder management with the achievement of traditional corporate objectives related to profitability, stability, growth, etc., and indicates that firms that take into consideration stakeholders' interests will have better firm performance. Thus, the instrumental aspect under the Stakeholder Theory suggests that social initiatives positively impact the firm performance. On similar lines, the available studies of Freeman (1984) and Donaldson and Preston (1995) on the stakeholder theory have a central premise that a firm will be more successful in creating value and improving firm performance by managing the interests of its stakeholders in a better manner. Therefore, as hypothesized by the instrumental aspect under the stakeholder theory, it may be assumed that the mandatory CSR expenditure positively affects financial performance and is thus relevant to the firms in India.

The available studies across Indian and other contexts have found positive, negative and insignificant effects of CSR on financial performance. However, a positive relationship of CSR with a firm's financial performance is more commonly confirmed than any other forms of relationships by the meta-analysis of the previously published empirical studies (Margolis et al., 2009; Orlitzky et al., 2003). Further, in agreement with the instrumental aspect under the Stakeholder theory, most of the studies (Bihari & Pradhan, 2011; Kapoor & Sandhu, 2010; Mishra & Suar, 2010) in the Indian context have generally reported a positive effect of CSR initiatives on the financial performance.

Moser and Martin (2012) argued that socially responsible investments should have a positive effect on the shareholder value, which can be maximized when a visible social program is pursued by the companies (De Klerk & De Villers, 2012; Verschoor, 1998). Hence, investors are willing to take into consideration the CSR initiatives of the firms before making their investment decisions (Solomon & Solomon, 2006). The

previous literature also exhibits the impact of CSR initiatives positively in the form of enhanced brand image and customer loyalty (Gardberg & Fombrun, 2006; Pérez et al., 2013) leading to increased firm earnings and stock returns. As per the valuation theory also, an increase in firm earnings should increase the value of the firm stock (Beisland, 2009). Hence, it can be assumed that the CSR expenditure requirement for India's firms has positive implications on stock returns. This assumption is theorized by the instrumental aspect under the Stakeholder theory (Donald & Preston, 1995). Therefore, the following is hypothesized:

Hypothesis (H1): The firms which fulfil the CSR expenditure requirement will exhibit higher stock returns.

An investor looks forward to optimizing his portfolio by maximizing stock returns and minimizing risk (Markowitz, 1952). Hence, while examining the relevance of the mandatory CSR expenditure in respect of stock returns, it is important to explore the market riskiness (systematic risk) of the firm stock. Black (1972) also argued that investors value systematic risk while taking investment decisions. Many available studies (Kim et al., 2017; Luo & Bhattacharya, 2009; Oikonomou et al., 2012) reveal that CSR decreases systematic risk. Albuquerque et al. (2014) further opined that increased firm earning and customer loyalty due to CSR initiatives by the firm results in higher profit margins, reduced operating leverage and less sensitivity of profits to aggregate economic conditions. Further, if a firm faces a more loyal demand, then it exhibits lower systematic risk with high value. Therefore, mandatory CSR expenditure is expected to reduce the systematic risk of India's firms. Hence, the following is hypothesized:

Hypothesis (H2): The firms which fulfil the CSR expenditure requirement will exhibit lower systematic risk.

4. Research Design

4.1 Sample and Data

This study examines the relevance of mandatory CSR expenditure to firms in India. This means that the study attempts to investigate whether the market values the mandated CSR in terms of improving stock return and lowering market risk. For this purpose, the firms which are listed on the NSE in India and fulfil one of the criteria of stipulated net worth or turnover or net profit before tax for complying with the CSR provisions with effect from 1st April 2014 are included. The data for the four financial years from 2015-16 to 2018-19, post the mandatory regime (with effect from April 2014) in India, have been included in the study. In India, a financial year starts on 1st April of the year and ends on 31st March next year. Since the data of the financial year 2014-15 for several companies are not found in the select database, therefore the data of the year 2014-15 was excluded. The incomplete or missing data values of any variables for the select

financial year are ignored; thus, they were excluded from the sample. Hence, the final sample consists of 426 firms listed on the NSE of India.

The required data were taken from the CMIE Prowess Database, which is considered as one of the most extensive databases used by many previous empirical studies (Bertrand et al., 2002; Bhullar et al., 2018; Gupta, 2017; Gupta et al., 2016a; Gupta et al., 2016b) on the Indian corporate sector. For the selected firms, the required data variables as on 31st March of every financial year include the amount of CSR expenditure, beta value, annual stock returns, net profits after tax, profits before tax from 2012-13 to 2018-19, net sales, total assets, and book value of equity as on 31st March of every selected financial year. Further, to estimate the CSR expenditure by a firm in a given financial year, the percentage of the average net profits before tax in the last three immediately preceding financial years is considered. For example, to estimate %CSR expenditure by a firm in 2015-2016, the three immediately preceding financial years are 2012-2013, 2013-2014, and 2014-2015.

4.2 Measures

The variables (dependent, independent and control) in respect of the select sample of 426 firms are measured as follows:

4.2.1 Dependent Variable (Financial Performance)

The effect of mandatory CSR expenditure on financial performance is examined by using stock returns and systematic risk (beta) as the proxies of the financial performance of the listed firms. The stock returns of a firm (mSR) are calculated as a mean of annual stock returns of the firm over the study period. Further, the systematic risk of a firm (mSysR) is estimated as a mean of the annual systematic risk of the firm over the study period. The logarithms of the estimated variables are taken to normalize the variables across the firms. The firm-wise estimations of normalized stock returns [Ln(mSR)] and systematic risk [Ln(mSysR)] are represented in the following equations (1 and 2).

```
1. Ln (mSR) = Ln [(\Sigma SR_t)/4]

2. mSysR = [(\Sigma SysR_t)/4]

where

t = 2015-2016, 2016-2017, 2017-2018, 2018-2019

SR<sub>t</sub> = Stock return at year t

SysR<sub>t</sub> = Systematic risk Value at year t.
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4.2.2. Independent Variable (%CSR expenditure)

As per the specified CSR provisions, the %CSR expenditure incurred by a firm in a particular financial year was estimated in Equation 3. Further, the %CSR expenditure for a firm over the study period (m%CSRE) is estimated as a mean of the yearly %CSR

expenditure of the firm over the study period. The logarithm of the firm-wise estimated %CSR expenditure over the study period was applied to normalize this variable across the firms. The firm-wise estimation of normalized estimated %CSR expenditure [Ln (m%CSRE)] is represented in Equation 4.

- 3. % CSR expenditure = (CSR expenditure in year $t \times 100$) divided by the Net Profit before tax of the immediately preceding three financial years.
- 4. Ln (m%CSRE) = Ln [(Σ %CSR expenditure $_{t}$)/4] where

t = 2015-2016, 2016-2017, 2017-2018, 2018-2019.

4.2.3 Control Variables (Du-Pont Model Components)

5. Ln (mNPMR) = Ln $[(\Sigma NPMR_{\star})/4]$

Since financial performance may also be influenced by profits and sales of the firms, it is important to consider other financial variables as control variables while examining the effect of mandatory CSR expenditure on financial performance. The present study uses financial ratios of the DuPont Model as control variables that include net profit margin ratio (hereafter, NPMR), asset turnover ratio (hereafter, ATR), and financial leverage (hereafter, FL). The DuPont Model is a familiar form of financial statement analysis (Soliman, 2008) that covers operating (profitability and turnover) and financial (leverage) activities of the firms. The three financial ratios of the DuPont model are used as control variables as they are well-accepted in the literature to measure the financial performance of a firm. The three control variables, viz., NPMR, ATR and FL for a firm, are estimated by calculating the means of the yearly values of the respective variables for the firm over the study period. The logarithms of the firm-wise estimated control variables were taken to normalize these variables across the firms. The firm-wise estimations of normalized NPMR [Ln(mSR)], ATR [Ln(mATR)] and FL [Ln (mFL)] are represented in equations 5, 6 and 7.

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6. Ln (mATR) = Ln [(\Sigma ATR_t)/4]

7. Ln (mFL) = Ln [(\Sigma FL_t)/4]

where t = 2015-2016, 2016-2017, 2017-2018, 2018-2019

NPMR<sub>t</sub> = NPMR at year t = Net Profit at year t × 100 / Net Sales at year t ATR<sub>t</sub> = ATR at year t = Net Sales at year t / Total Assets at year t FL<sub>t</sub> = FL at year t = Total Assets at year t / Book Value of Equity at year t.
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4.3 Model and Method

Four cross-sectional regression models are developed to test the hypotheses for the data set of 426 firms. Model 1 and Model 2 test hypothesis H1, and Model 3 and Model 4 test hypothesis H2.

Model 1 considers stock returns [Ln (mSR)] as a dependent variable, %CSR expenditure [Ln (%mCSRE)] as an independent variable, and NPMR [Ln (mNPMR)], ATR [Ln (mATR)] and FL [Ln (mFL)] as control variables. To ascertain whether mandatory CSR compliance will result in higher stock returns as per hypothesis H1, a dummy variable (D) indicating CSR compliance of the firm is made to interact with the variable Ln(m%CSRE) in Model 2. This interaction of dummy variable with the variable m%CSRE is represented as Ln (m%CSRE) x D. The dummy variable (D) is equal to 1 for a compliant firm and it is equal to 0 for a non-compliant firm. If %CSR expenditure of a firm is equal to or more than the specified CSR expenditure of 2% for all the years over the study period, it is considered as a compliant firm. Otherwise, the firm is considered as a non-compliant firm. Further, Model 2 uses stock returns [Ln (mSR)] as a dependent variable, and NPMR [Ln (mNPMR)], ATR [Ln (mATR)] and FL [Ln (mFL)] as control variables. Similarly, Models 3 and 4 with systematic risk [Ln (mSysR)] as a dependent variable are formed to examine if mandatory CSR compliance will result in lower systematic risk as per hypothesis H2. The four models, viz., Model 1, Model 2, Model 3 and Model 4, are expressed as follows:

```
Model 1:
                         Ln(mSR)_i = \mu_0 + \mu_1 Ln(m\%CSRE)_i + \mu_2 Ln(mNPMR)_i + \mu_3 Ln(mATR)_i +
                                                                                                                              \mu_4 \operatorname{Ln(mFL)}_i + \xi_i
                         Model 2:
                         Ln(mSR)_i = \phi_0 + \phi_1 Ln(m\%CSRE)_i \times D + \phi_2 Ln(mNPMR)_i + \phi_3 Ln(mATR)_i + \phi_4 Ln(mATR)_i + \phi_5 Ln(mATR)_
                                                                                                                              \phi_4 \operatorname{Ln(mFL)}_i + \chi_i
                         Model 3:
                         Ln(mSysR)_{j} = \alpha_{0} + \alpha_{1} Ln(m\%CSRE)_{j} + \alpha_{2} Ln(mNPMR)_{j} + \alpha_{3} Ln(mATR)_{j} + \alpha_{4} Ln(mFL)_{i} + \Upsilon_{i}
                         Model 4:
                         Ln(mSysR)_i = \theta_0 + \theta_1 Ln(m\%CSRE)_i \times D + \theta_2 Ln(mNPMR)_i + \theta_3 Ln(mATR)_i + \theta_3 Ln(mATR
                                                                                                                              \theta_{\perp} Ln(mFL)<sub>i</sub> + \Psi_{i}
where
                         j = 1, ..., 426 firms in the sample;
                           Ln(mSR) = Normalized mean stock returns in the case of a firm;
                           Ln (mSysR) = Normalized mean systematic risk of a firm;
                           Ln (m%CSRE) = Normalized mean % CSR expenditure by a firm;
                           D = Dummy variable (=1 for a complaint firm; = 0 for a non-compliant firm);
```

Ln $(m\%CSRE) \times D$ = Interaction of dummy variable with Normalized mean % CSR Expenditure by a firm;

Ln (mNPMR) = Normalized mean value of NPMR of a firm;

Ln (mATR) = Normalized mean value of ATR of a firm;

Ln (mFL) = Normalized mean value of FL of a firm;

 μ_{0} , ϕ_{0} , α_{0} , θ_{0} = Intercepts in Model 1, 2, 3 and 4;

- μ_{1} , μ_{2} , μ_{3} , μ_{4} = parameter estimates (coefficients) that relate %CSR expenditure, NPMR, ATR and FL to the stock returns in Model 1;
- ϕ_{1} , ϕ_{2} , ϕ_{3} , ϕ_{4} = parameter estimates (coefficients) that relate %CSR expenditure of compliant firms, NPMR, ATR and FL to the stock returns in Model 2;
- $\alpha_{1,}$ $\alpha_{2,}$ $\alpha_{3,}$ α_{4} = parameter estimates (coefficients) that relate %CSR expenditure, NPMR, ATR and FL to the systematic risk in Model 3;
- θ_{1} , θ_{2} , θ_{3} , θ_{4} = parameter estimates (coefficients) that relate %CSR expenditure of compliant firms, NPMR, ATR and FL to the systematic risk in Model 4;
- ξ , χ , Υ , Ψ = Error terms in Model 1, 2, 3 and 4.

The ordinary least squares (OLS) method is employed on the sample data to evaluate Models 1, 2, 3 and 4. To test hypothesis H1, the parameter estimate ϕ_1 , which relates %CSR expenditure of the compliant firms to the stock returns in Model 2, is compared with the parameter estimate μ_1 , which relates %CSR expenditure to the stock returns in Model 1. For hypothesis H1 to hold, ϕ_1 in Model 2 is expected to be (statistically) significantly positive and higher than μ_1 in Model 1. Further, to test hypothesis H2, the parameter estimate θ_1 , which relates %CSR expenditure of the compliant firms to the systematic risk in Model 2, is compared with the parameter estimate μ_1 , which relates %CSR expenditure to the stock returns in Model 1. For hypothesis H2 to hold, θ_1 in Model 2 is expected to be (statistically) significantly negative and lower than α_1 in Model 1.

5. Results and Discussion

The ordinary least squares (OLS) regression method is used on the sample data to evaluate Models 1, 2, 3 and 4. The results in respect of the four models are presented in Table 1. Table 1 shows that Model 1 (F = 3.57, p < 0.01) and Model 2 (F = 3.97, p < 0.01), which test hypothesis H1, significantly predict the dependent variable, stock returns, as indicated by values of F-statistic. Further, the R square value for Model 1 indicates that 3.3% variation in the dependent variable, stock returns, can be explained by the selected independent variables in Model 1. In the case of Model 2, the selected independent variables explain slightly more variation (3.6%) in the stock returns.

Table 1 further reveals that in Model 1, the estimate for the coefficient of the variable Ln (m%CSRE) is positive and statistically insignificant (μ_1 = 0.050; p-value = .480). This suggests an insignificantly positive impact of CSR expenditure on stock returns in respect of the firms in India. The results of Model 2 further show that the estimate

for the coefficient of the variable $Ln(m\%CSRE) \times D$ is also positive and statistically insignificant ($\varphi_1 = 0.143$; p-value = .155), which indicates an insignificantly positive impact of mandatory CSR expenditure on stock returns in the case of India's firms. The comparison of values of coefficient of Ln(m%CSRE) in Model 1 and coefficient of $Ln(mCSRE) \times D$ in Model 2 show that the impact of CSR expenditure on stock returns is marginally higher in respect of firms fulfilling the CSR expenditure compliance. Since, statistically, the estimate for the coefficient of the variable $Ln(m\%CSRE) \times D$ is not significantly positive, the firms which fulfil the CSR expenditure requirement do not confirm higher stock returns thus rejecting the null hypothesis H1.

For the control variables, Table 1 reveals that, statistically, NPMR has an insignificantly positive contribution to Model 1 (μ_2 = 0.005; p-value = .108) and Model 2 (φ_2 = 0.005; p-value = .107). However, statistically, ATR contributes significantly to Model 1 (μ_3 = 0.211; p-value = .001) and Model 2 (μ_4 = 0.110; p-value = .010) in a positive direction. Further, statistically, FL also has a significantly positive contribution to Model 1 (φ_3 = 0.211; p-value = .001) and Model 2 (φ_4 = 0.108; p-value = .011). This indicates an insignificant contribution of NPMR and significant contributions of ATR and FL in improving financial performance of the firms in respect of stock returns. These results have a consistency with the findings of a study by Gupta (2017).

The results of Model 3 and Model 4, which test hypothesis H2, are also presented in Table 1. The values of F-statistic for regression Models 3 (F= 38.74, p <.01) and 4 (F = 37.74, p < .01) reveal that, statistically, the two regression models significantly predict the dependent variable, systematic risk. Further, the R square value for Model 3 shows that 26.9% variation in the dependent variable, systematic risk, can be explained by the selected independent variables in Model 3. The selected independent variables in the case of Model 4 explain slightly lower variation (26.5%) in systematic risk. Table 1 further indicates that in Model 3, the estimate for the coefficient of the variable Ln (m%CSRE) is negative and statistically significant ($\alpha_1 = -0.055$; p-value = .082). This suggests that CSR expenditure significantly (at 10% level) contributes to lowering systematic risk in respect of Indian firms. Further, the results of the regression Model 4 show that the estimate for the coefficient of the variable Ln (m%CSRE)×D is positive and statistically insignificant ($\theta_1 = 0.014$; p-value = .761). This indicates that mandatory CSR expenditure has an insignificant contribution to increasing the systematic risk of India's firms. Thus, the firms which fulfil the CSR expenditure requirement do not exhibit lower systematic risk. Hence, hypothesis H2 is rejected.

For the control variables, Table 1 indicates that, statistically, NPMR significantly reduces systematic risk in Model 3 (α_2 = -0.003; p-value = .013) as well as Model 4 (θ_2 = -0.003; p-value = .023). Statistically, ATR is also found to significantly reduce systematic risk in Model 3 (α_3 = -0.063; p-value = .023) as well as Model 4 (θ_3 = -0.061; p-value = .030). Thus, NPMR and ATR have a significant contribution in reducing the systematic risk of the firms in India. Further, it is found from Table 1 that, statistically, FL has a significant contribution in increasing systematic risk in the case of Model 3 (α_4 = 0.180;

p-value = .000) as well as Model 4 (θ_4 = 0.108; p-value = .011). These results are consistent with the previous studies (Gupta et al., 2016a; Mandelker & Rhee, 1984).

TABLE 1. Results from Regression Models

Dependent Variables:

Model 1 and Model 2: Stock returns
Model 3 and Model 4: Systematic risk

Variable	Coefficient Estimate (t-statistic)			
	Model 1	Model 2	Model 3	Model 4
Intercept	0.600* (10.47)	0.567* (9.29)	0.084* (3.30)	0.054** (1.97)
Ln(m%CSRE)	0.050(0.70)		-0.055*** (-1.74)	
$Ln(m\%CSRE) \times D$		0.143 (1.42)		0.014 (-1.74)
Ln(mNPMR)	0.005 (1.61)	0.005 (1.61)	-0.003** (-2.48)	-0.003** (-2.28)
Ln(mATR)	0.211* (3.36)	0.211* (3.38)	-0.063** (-2.28)	-0.061** (-2.17)
Ln(mFL)	0.110** (2.58)	0.108** (2.54)	0.180* (9.48)	0.178* (9.33)
Coefficient of determination (R ²)	.033	.036	.269	.264
F-statistic	3.57	3.97	38.74	37.74
p-value (F-statistic)	< .01	< .01	< .01	<.01
Sample size	426	426	426	426

Significance levels: p < .01; p < .05; p < .05; p < .10; p < .10; p = .10;

The discussion on the results presented in the previous paragraphs indicates that the firms fulfilling the CSR expenditure compliance do not exhibit improved stock returns (insignificant positive regression coefficient in Model 1 and Model 2) to the listed firms under study. However, it lowers the systematic or market risk (significant negative regression coefficient in Model 3). Thus, the mandatory CSR expenditure is not relevant to Indian firms in the mandatory regime as the findings do not support to the instrumental aspect, which suggests that socially beneficial activities by firms enhance their financial performance. The viewpoint of opponents of CSR, who argue that CSR represents costs that the firm bears without commensurate returns (Friedman, 1970), is partially confirmed by the findings of this paper. The results of the study further suggest that the insignificant impact of CSR expenditure on stock returns is marginally higher in the case of firms fulfilling the CSR expenditure compliance as indicated by the comparison of coefficient of Ln(m%CSRE) \times D in Model 2 (ϕ_1 = 0.143) with the coefficient of Ln(m%CSRE) in Model 1 ($\mu_1 = 0.050$). Further, comparison of values of coefficient of variable Ln (m%CSRE) in Model 3 ($\alpha_1 = -0.055$) and coefficient of $Ln(m\%CSRE) \times D$ in Model 4 ($\theta_1 = 0.014$) reveals that firms complying with the CSR expenditure requirement are exposed to relatively higher systematic risk. This means

that mandatory CSR expenditure has an insignificant contribution to lowering the systematic risk in Model 4. The reason is that the market rewards slightly higher stock returns with increased market risk (Model 2 and Model 4) to those firms who comply with the CSR expenditure requirement. This means both stock return and market risk move in tandem to a positive direction. This also follows the principle 'the higher the risk, the higher the possibility of earning return' (Gupta et al., 2016b). However, both stock return and market risk are statistically insignificant.

The insignificant impact of mandatory CSR spending on financial performance is supported by several previous empirical studies (McWilliams & Siegel, 2000; Prado-Lorenzo et al., 2008; Soana, 2011). However, in the Indian context, the available studies (Bihari & Pradhan, 2011; Kapoor & Sandhu, 2010; Mishra & Suar, 2010) generally revealed a positive contribution of voluntary CSR initiatives to financial performance before implementing the CSR provisions. Bansal and Roth (2000) reported that in the voluntary scenario, CSR expenditure is undertaken by firms if they believe that such spending will enhance their bottom line. Post the CSR mandate in India, the previous studies indicated diverse results, viz. positive (Bhagawan & Mukhopadhyayy, 2018; Gaurav, 2020), negative (Kuntluru, 2019; Bhattacharyya & Rahman, 2020) and insignificant (Dharmapala & Khanna, 2016; Nair & Bhattacharyya; 2019; Sydlowski, 2018) while examining the impact of CSR initiatives on financial performance. However, the available studies (Dharmapala & Khanna, 2016; Nair & Bhattacharyya; 2019; Sydlowski, 2018) that used CSR expenditure as a construct of CSR to examine the relationship of CSR with financial performance revealed an insignificant impact of CSR spending on financial performance. Hence, these studies support the results of the present study. However, insignificant impact does not mean a negative perception of the market, rather, the market considers it positively as reflected by the positive regression coefficients in both regression models, Model 1 and Model 2. However, the market does not value it significantly because the market believes that such CSR spending is diversion of firm resources to non-remunerative activities. Therefore, the firm's obligation to CSR might not be viewed positively by the market. Similar findings were reported by Campbell and Slack (2008) in the voluntary CSR regime. In the mandatory regime, the markets have to accept the CSR activities and expenditure by the firms even though they might perceive it as sub-optimal use of firm resources. Hence, the acceptance of CSR activities and expenditure by the markets would always exist as the firms are complying with the statute.

This study shows that mandatory CSR spending is not significantly rewarded by the market in terms of higher stock returns and lower systematic risk. Hence, the firms need to reach a wider audience to communicate about how the CSR expenditure is linked with their existing business models and can directly or indirectly benefit their businesses. The available studies (McWilliams & Siegel 2000, 2001) also reveal that the impact of CSR activities on the value of the firm is positively related to advertising intensity, which could lead to increased market awareness regarding CSR activities by the firm.

In theory, an optimal level of CSR spending is required to achieve profitability (Lantos, 2001). Therefore, it can be presumed that the market would not value overspending on CSR by the firms (Bhuyian & Nguyen, 2019).

6. Conclusions

The present paper studies the relevance of CSR compliance in terms of mandatory expenditure to India's firms during the period from 2014-15 to 2018-19. For the purpose, a sample of 426 listed firms on the NSE in India and fulfilling the criteria to comply with the established CSR provisions is investigated. The financial performance is examined in terms of stock returns and systematic risk (beta). The finding reveals that mandatory CSR expenditure is not relevant to India's firms as revealed by the insignificantly positive contribution of mandatory CSR spending in influencing stock returns. Thus, the market does not significantly value the mandatory CSR expenditure by the listed firms and views such spending as against the interests of the shareholders. The instrumental aspect, which suggests that socially beneficial activities by firms enhance their financial performance, is not supported by the findings. However, CSR expenditure compliance reduces the systematic or market risk of the listed firms as revealed by the statistically significant negative regression coefficient of mandatory CSR spending in lowering systematic risk. As a result, the listed firms treat the CSR expenditure requirement as a compliance tick rather than treating this compliance as a motivational mechanism for the benefits of society. Moreover, if the firms do not find value in CSR expenditure, they may limit their CSR responsibilities to the specified CSR spending only and the government of India may not be able to solicit a wilful involvement of the listed firms in the CSR activities.

7. Implications

The findings have a few implications for the concerned participants of CSR activities in India. Since the reward in terms of the stock returns is found insignificant, therefore the market may not significantly value mandatory CSR expenditure for the listed firms in India. However, meeting CSR expenditure compliance by the listed firms in India helps reduce the market risk for these firms. To ensure that the market accepts the firms' commitment to CSR and values mandatory CSR expenditure compliance, the listed firms should align CSR initiatives with their core activities. In this regard, the prudent planning and selection of CSR initiatives by the listed firms are vital. Further, the socially relevant efforts of businesses build goodwill (Lantos, 2001), and information intensity is a key element in the CSR–value relation (Schuler & Cording, 2006). Hence, the market should be thoroughly aware of these activities by the firm (Servaes & Tamayo, 2013). It is suggested that firms should ensure comprehensive media coverage (McWilliams & Siegel, 2000, 2001) to highlight their CSR actions. Further, increased

self-discipline concerning CSR compliance by the firms will reduce the cost of regulatory supervision (Hsu & Chen, 2015). The investors could also include the stocks of CSR-oriented firms in their portfolio as these stocks may significantly reduce the overall portfolio risk due to the reduced market risk as revealed by the findings of the study.

The findings of the study further suggest that the listed firms may not be inclined to meet mandatory CSR expenditure compliance as the market does not significantly generate value for the firms undertaking stipulated CSR spending. Therefore, it is suggested that government agencies should promote CSR spending by offering tax rebates, rewards and incentives to the firms. Further, the regulators and policy-makers should also be mindful of the nature of the industry to which the firm belongs, the firm size, and the products of the firm while prescribing mandatory CSR spending for the listed firms. In this regard, viewpoints of experts and industry bodies can be taken to revisit the current mandatory CSR expenditure requirement. This enables the government to assume an optimal level of spending on CSR and environmental responsibility, as businesses are expected to continuously balance conflicting stakeholder interests for longterm sustainability (Orlitzky et al., 2011, Camilleri, 2017). Since the literature does not provide any established definition of 'optimum CSR spending', it can be considered as that level of minimum CSR spending by a firm that can generate market value for the firm so that shareholder interest is not compromised while meeting other stakeholders' interests. It may also help to seek an enthusiastic and sustained CSR participation of firms in India. The contribution of the study to the CSR literature is fairly useful from the perspective of firms, investors, policy-makers, regulators, scholars, and countries that are planning for legislating CSR.

8. Limitations and Directions for Further Research

Only four years' data set of 426 firms was taken by the study. Since CSR was made mandatory in respect of certain Indian firms in the year 2014, the required data for more than four years are not available. In the future, with the availability of several years of data on mandatory CSR spending, the studies may report more conclusive results by using the regression models which are formed on the panel data set. The studies may also undertake longitudinal studies to observe the relevance of CSR expenditure compliance across sectors. Moreover, there is a scope to ascertain relevance of CSR activities and expenditure across various geographies. Future studies should research to examine this optimum CSR spending by the firms. Historical data will have to be used to see if there is any U-shaped or inverted U-shaped relationship between CSR spending and market value. Further, since advertising intensity influences the market value of CSR compliance, further research may be conducted on the effectiveness of various media and promotional tools in this regard.

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