Minnesota Journal of Business Law and Entrepreneurship
Volume 2026, No. 1
ISSN: 1540-3270

Does Agency Conflict Explain the Relationship between Corporate Social Responsibility Expenditures and Firm Performance? Evidence from India

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Declaration of conflict of interest

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding statement

The author(s) received no financial support for the research, authorship, and/or publication of this article.

Abstract

Purpose—This study explores the moderating impact of agency conflicts (free cash flow and cash holdings) on the nexus between CSR expenditure and firm performance.

Design/methodology/approach— A fixed-effects regression model is used to analyse the above description. This investigation utilises secondary data collected from the Prowess database. The study uses NSE-listed Indian firms for the F.Y. 2014-15 to 2024-25.

Findings—The study finds that CSR expenditure negatively influences the firm's accounting performance, and excess cash holdings strongly moderate this negative relationship. However, free cash flow does not significantly moderate this negative link, suggesting that retained cash creates stronger agency conflicts than flow liquidity. Thus, the study unpacks the context and conditions that catalyse the CSR-performance relationship.

Originality/value—This paper provides a valuable contribution to the relationship between CSR expenditure and firm performance in the Indian context, from an agency-cost perspective, revealing liquidity-based agency conflicts, particularly regarding cash holdings.

Keywords: Agency conflicts, corporate social responsibility, CSR expenditure, firm performance, free cash flow, and cash holdings.

1 Introduction

Different national models of capitalism present varying perspectives on whether corporate social responsibility enhances shareholder wealth and social welfare. This debate is central in the CSR-CFP literature. Few studies state that a firm's primary responsibility is profit maximisation for shareholders (Friedman, 1970). While other studies argue that companies also create value for stakeholders (Freeman, 1998). By investing in CSR activities, corporations can strengthen their reputation and long-term profitability (Cho et al., 2019; Du et al., 2010; Księżak & Fischbach, 2018). Henceforth, CSR's impact on firm performance remains conflicted and has become an important topic in discussions on corporate purpose, social welfare, and firm value over the last few years.

India provides a unique natural environment for this debate. Section 135 of the Companies Act 2013 mandates CSR spending and specifies the required qualifying limits for all listed companies to spend at least 2 per cent of their average net profits over the preceding three years on CSR activities as prescribed in Schedule VII. This regulation finds CSR as a direct cash outflow rather than a voluntary choice. Firms must approve CSR at the board level, disclose it, report expenditure, and explain any unspent amounts under the comply-or-explain framework

(Government of India, 2013). It raises a practical question for corporate firms and policymakers: does CSR expenditure affect firm value, and under what conditions does it create costs or benefits for shareholders?

Studies from India provide inconsistent answers. Some studies report positive effects on market value (Bhagawan & Mukhopadhyay, 2025; D. Dharmapala & Khanna, 2018; Jadiyappa et al., 2021; Narayanan & Singh, 2024; Sharma & Aggarwal, 2022), whereas Mangalagiri & Bhasa (2022) and Nair & Bhattacharyya (2019) found a positive but statistically insignificant relationship. In contrast, several studies documented a substantial negative influence of CSR outlay on the firm value of affected firms (Dharmapala & Khanna, 2018; Manchiraju & Rajgopal, 2017; Mazumdar et al., 2025; Panwar et al., 2023; Rajgopal & Tantri, 2022; Sharma & Aggarwal, 2022). These conflicting results suggest that the effect of CSR spending on firm performance may depend on the firm's specific conditions D'Amato & Falivena (2020). A study by Bhattacharyya & Rahman (2019) shows that mandatory CSR legislation is not the sole determinant of CSR expenditures because CSR spending varies with firm characteristics such as size, cash holdings, and operating cash flows. This led to calls for a contingency view that reveals the black box of the CSR-CFP nexus under mandatory CSR regulation.

In this study, we argue that agency conflicts based on capital liquidity provide a clear and testable contingency condition. CSR budgets are cash allocations made by managers, and stakeholders cannot easily assess their efficiency or strategic value (Feng et al., 2017). Jensen's (1986) agency cost of free cash flow hypothesis posits that agency conflicts over payout, monitoring, and investment choices intensify because managers may prefer retaining cash rather than distributing it to shareholders when firms generate excess cash that is not needed for positive NPV projects. This weakens payout discipline and can reduce external monitoring, which increases agency friction (Jensen, 1986). Richardson (2006) connects retained free cash flow to overinvestment and weaker future performance, suggesting that excess cash can make discretionary spending more value-destroying. In the CSR context, CSR expenditure becomes a mechanism that reduces financial returns, especially when monitoring is weak (Masulis & Reza, 2015; Liang & Renneboog, 2018). A study consistent with this mechanism, also conducted in Bangladesh, shows that higher free cash flow is associated with greater CSR spending due to agency frictions (Islam et al., 2021). Prior literature utilises the same liquidity variables as slack resources that enable CSR. In non-regulatory environments, studies argue that Slack supports CSR initiatives and strengthens the relationship between CSR and firm performance (Alshorman et al., 2024; Lin et al., 2019; Waddock & Graves, 1997). Notably, Lin et al. (2019) also note that slack can generate agency problems. This creates a clear research gap for India's mandatory CSR regime, where CSR is mandated by law, but firms still differ in their liquidity conditions. These differences influence whether CSR expenditure is implemented as a disciplined commitment or becomes another tool for agency conflicts.

Direct evidence on the moderation of liquidity-based agency conflicts is limited in India. Existing studies commonly analyse the moderating role of governance (Mondal & Sahu, 2025) or focus on CSR reporting mechanism (Oware & Mallikarjunappa, 2022; Tang et al., 2012). Doan et al. (2023) examine the mediating role of agency problems in the effect of CSR reporting on firm performance and highlights that CSR reporting improves firm performance by reducing agency problems, but their study uses the operating expense ratio as a proxy for agency frictions. Findings from Liang & Renneboog (2018) argues that CSR ratings are higher in financially disciplined firms, but does not find evidence to support the claim that CSR is an agency problem. Yet, their framework remains relevant because it places capital liquidity at the centre of the agency debate and utilises free cash flow and cash holdings as observable indicators of investment discipline. Under India's mandate, the central question is therefore not whether CSR is an agency problem in general, but whether agency frictions change the effect of CSR spending on firm performance.

Against this background, this study examines two research questions. First, does CSR expenditure affect subsequent firm performance? Second, do liquidity-based agency conflicts explain this relationship under India's mandatory CSR regime? This study tests these questions using a sample of 526 NSE-listed Indian firms over the period from the financial year 2014-15 to 2024-25 and estimates firm-fixed-effects regressions with lagged CSR expenditure and interaction terms for liquidity proxies. Our study finds that the negative association between CSR and firm performance is stronger among firms with higher cash holdings, whereas free cash flow does not significantly moderate this association.

The study makes valuable contributions to the current literature on CSR and firm performance in three ways. First, this study examines the moderating role of agency conflicts in explaining the black box of the CSR-CFP link. Second, it provides an agency-cost view of capital liquidity measures that are often treated only as slack resources in CSR literature. Third, it applies firm-fixed effects with lagged CSR expenditure, which strengthens the identification by reducing concerns about time-invariant unobserved heterogeneity and simultaneity.

The paper is organised as follows. The literature review and hypothesis development section provides an overview of CSR expenditure and firm performance and then discusses how agency conflicts could moderate the relationship. The methodology section discusses the sample selection, the data, the measurement of variables, and the empirical findings. The last sections consist of the results and a conclusion.

2 Literature review and hypothesis development

2.1 CSR and firm performance

CSR is a multidimensional concept; both theoretical and empirical evidence offer mixed predictions about its effect on firm performance. In a meta-analysis of 223 studies, Li et al. (2025) finds that some studies document a positive CSR-performance association, while others show a negative or non-linear relationship when firm's financial performance (either accounting or market-based) is regressed on CSR. Although the average impact is a small positive. Furthermore, they demonstrate that results vary depending on how CSR and performance are measured, as well as on whether studies address endogeneity and differences in firm characteristics, countries, industries, and macroeconomic environments. Importantly, they find that the association is more positive in voluntary settings, whereas it is negative in mandatory CSR environments.

Theoretical explanations that structure these mixed findings can be categorised under four broad perspectives: First, the "shareholder expense" view, advocated by Friedman (1970), asserts that "businesses only have one social responsibility, which is to earn a profit while building benefits. CSR expansion pointlessly increases their expenses and lessens their accounting profits (Lin et al., 2019; Mishra Damodar, 2010). This argument becomes relevant in the Indian market because CSR spending is mandated. Several Indian studies document that CSR spending under Section 135 is associated with lower firm profitability and operates as a compliance cost (Bhattacharyya & Rahman, 2019; Manchiraju & Rajgopal, 2017; Rajgopal & Tantri, 2022; Sharma & Aggarwal, 2022).

Second, the "stakeholder value maximisation" view holds that CSR spending is value-increasing when it strengthens relationships with employees, customers, regulators, and communities, thereby supporting reputation, trust, and long-run competitiveness (Freeman, 2010; Yoon & Chung, 2018). In the voluntary CSR literature, it is evident that CSR is a business case that improves firm profitability, following the "doing well by doing good" theory. A study by Servaes & Tamayo (2013) shows that CSR is associated with higher firm value when stakeholder awareness is high. Additionally, Barnett & Salomon (2012) argue that CSR-related social capital can support performance during economic stress. Similarly, Ahamed & Tripathi (2023) report that higher lagged CSR expenditure is positively associated with ROA and ROE when CSR strengthens reputation and customer demand. This result supports the theory of good corporate citizenship.

Third, the institutional perspective shows CSR as a legitimacy and compliance response rather than a shareholder value maximisation tool (DiMaggio & Powell, 1983). This view is closely aligned with the enactment of the Mandatory CSR Rule, 2014, in India, where studies show that CSR spending is driven by government regulatory pressure, which negatively affects firm performance after the implementation of the CSR regulation. (Kulkarni & Aggarwal, 2024; Nair & Bhattacharyya, 2019; Panwar et al., 2023; Rajgopal & Tantri, 2022).

Fourth, the resource-based view posits that firms achieve superior financial performance and sustainable competitive advantage when it is supported by the firm's valuable resource capabilities and complementary investments, including innovation and marketing-related resources (Mahoney & Pandian, 1992; Wernerfelt, 1984). Studies often connect CSR payoffs to such resource capital, including R&D and advertising expenses, which convert CSR into a competitive advantage (Grant, 1991; Nair & Bhattacharyya, 2019; Padgett & Galan,

2010) Consistent with these competing views, Indian studies provide mixed results after its implementation. Some studies document a positive association (Bhagawan & Mukhopadhyay, 2025; Mangalagiri & Bhasa, 2022; Sharma & Aggarwal, 2022), while others observed negative effects depending on performance measures, sample period, and empirical design (Aswani et al., 2021; Dharmapala & Khanna, 2018). Collectively, this literature suggests that the CSR-firm performance relationship is not uniform; it may depend on firm-specific characteristics. This motivates the first objective of the present study, which examines whether a one-year lagged CSR expenditure impacts a firm's subsequent accounting performance. Therefore, we expect:

H1: CSR expenditure is negatively associated with firm performance (ROA/ROE).

Several reviews claim that the mixed associations between the CSR and CFP are better understood through a contingency approach, where the sign and magnitude of the CSR effects depend on conditions that impact how CSR is financed, monitored, and implemented (Coelho et al., 2023; Grassmann, 2021; Wang et al., 2016).

To address the theoretical voids, several scholars ask for a focus on the contingent conditions that may influence the relationship (Kong et al., 2020; Wang & Gao, 2016). Unlike the existing literature, which only emphasises the association between CSR and firm performance. The present study argues that agency conflicts are a key contingent condition in India's mandatory CSR regime.

2.2 The moderating role of agency conflicts

Corporate social responsibility, because of its nature of caring about stakeholders in addition to shareholders, is often considered to be a cash diversion and hence an agency problem. Agency conflicts arise when ownership and control are separated, creating frictions between the firm's shareholders and managers (Jensen et al., 1976). A recent study by Doan et al. (2023) finds that CSR reporting improves firm performance mainly by reducing agency problems, suggesting that CSR activities can affect firm performance by altering agency frictions.

This mechanism is particularly relevant in India, where CSR spending is mandatory for qualifying firms; therefore, CSR expenditure is treated as a direct cash outflow. The mandate notes that it does not eliminate frictions in the allocation and monitoring of the CSR budget. Agency theory predicts that these frictions become more important as firms' liquidity increases. Jensen's (1986) free cash flow hypothesis advocates that agency costs arise when firms generate cash beyond what is needed to achieve positive net present value projects, thereby weakening payout discipline and reducing capital market monitoring. Richardson (2006) extends this logic by linking retained free cash flow to overinvestment that negatively impacts future performance. Corporate finance evidence also shows that high cash holdings and high free cash flow are associated with lower value and weaker outcomes when agency costs are expected to be high (Dittmar & Mahrt-Smith, 2007; Lang et al., 1991; Opler et al., 2001). In the CSR context, Liang & Renneboog (2018) and Masulis & Reza (2015) state that high liquidity creates the potential for agency problems, as CSR outflows decrease firm value. Prior CSR studies also use the same liquidity variables but view them as slack resources, suggesting that free cash flow and cash holdings enable CSR activities that strengthen the positive impact of CSR on firm performance. For example, Lin et al. (2019) report that financial slack strengthens the CSR-firm performance relationship, and Alshorman et al. (2024) present a similar pattern in an emerging market where CSR disclosure alone does not raise firm value, but the association becomes stronger when firms have excess slack. These studies are relevant here because they establish that liquidity conditions moderate CSR payoffs, even though they primarily utilise liquidity as a slack facilitator rather than agency risk. Lin et al. (2019) also note that Slack can create agency problems, and Islam et al. (2021) explicitly use this statement in Bangladesh and interpret that higher free cash flow increases CSR expenditure in a way that is viewed as evidence of agency problems.

This discussion is central to India's mandatory CSR regime. CSR is required, but firms still differ in their liquidity. These differences can determine whether CSR spending is a disciplined stakeholder investment or a value-reducing instrument linked to agency conflicts. Hence, the present study applies free cash flow and cash holdings proxies for agency conflicts and examines whether these conditions intensify any value-reducing effect of CSR expenditure on subsequent accounting performance under the mandate.

Accordingly, we propose:

H2: The negative impact of CSR expenditure on firm performance is stronger when free cash flow (FCF) is high.

H3: The negative impact of CSR expenditure on firm performance is stronger when cash holdings are high.

3 Research methodology

3.1 Sample and data

This study examines the relationship between CSR expenditure and the firm performance of NSE-listed Indian companies over the financial years 2014-15 to 2024-25. Our initial sample comprised 1,426 companies. First, we excluded financial institutions due to their unique regulatory frameworks and reporting structures. This resulted in 1,266 non-financial firms. Second, we excluded 740 firms with missing CSR expenditure values because CSR expenditure is the key independent variable and these firms could not be included in the estimations. The final sample consists of 526 non-financial firms over 10 years, resulting in 5,260 firm-year observations.

The sample period began in FY 2014-15 because CSR expenditure data was accessible from FY 2014-15 onwards, following the CSR Rule, 2014 under the Companies Act, 2013. This study sourced all data from the Prowess database, a comprehensive platform providing data on Indian companies. (Ahamed & Tripathi, 2023; Iqbal et al., 2024; Manchiraju & Rajgopal, 2017).

3.2 Variable Measurement

Table 1 summarises all variables. The following sections introduce the variables applied in the study.

3.2.1 Dependent variable

To empirically analyse the impact of CSR expenditure on firm performance we measure firm performance using two accounting-based indicators including return on assets (ROA) and return on equity (ROE). ROA indicates overall asset efficiency while, ROE reflects returns from shareholders' perspectives (Ahamed & Tripathi, 2023; Bhattacharyya & Rahman, 2019). Study compute ROA as adjusted profit after tax divided by average total assets, and ROE scales profits by average net-worth. Both accounting ratios can be affected from extreme values. To mitigate the impact of these outliers, ROA and ROE winsorised at the 1% and 99% levels (Manchiraju & Rajgopal, 2017; Sharma & Aggarwal, 2022). In the next section, the study explains the key explanatory variables.

3.2.2 Independent variable

CSR expenditure (CSRE) used as an independent variable in the study. CSRE measured by using the total amount spent on the CSR activities (Sharma & Aggarwal, 2022)scale (Sharma & Aggarwal, 2022). The natural log of CSRE amount reduces skewness and extreme influence of a small number of very large spenders. Align with the existing literature, we state CSR expenditure with a one-year lag ($CSRE_{it-1}$), so that CSR expenditure leads firm profitability and reduce the simultaneity concerns (Kotchen & Moon, 2011; Lins et al., 2017; Servaes & Tamayo, 2013). The following section discusses the proxies utilised to test the moderating impact of agency conflicts on the CSR-firm performance nexus.

3.2.3 Moderating variable

Agency theory claims that frictions between agents and principals brings an agency conflict. Thus, agency conflict is considered as a moderating variable that has a significant role in the moderating effect on the relationship between CSR expenditure and firm performance.

Previous studies computed agency conflicts by free cash flow, cash holdings, operating expense ratio, working capital ratio, asset utilisation ratio and capital expenditure (Ahmed et al., 2023; Doan et al., 2023; Liang & Renneboog, 2018; Masulis & Reza, 2015). In our study we applied free cash flow, and cash holdings to measure agency conflicts. Free cash flow captures the cash available after accounting for capital expenditures and net changes in working capital (Lehn & Poulsen, 1989)**.** Cash holdings indicate unrestricted cash held by the firms (Dittmar & Mahrt-Smith, 2007; Martínez-Sola et al., 2013) Since both FCF and cash holdings were skewed and included zero or negative values in the sample, the study applied the inverse hyperbolic sine (IHS) transformation to these variables (Lin, 2024). This transformation reduces the influence of extreme values and improves distributional properties. As presented in Table 1, these proxies included in the moderation models through interaction terms with lagged CSR expenditure. This allowed the study to estimate whether the association between CSR-firm performance varied across agency-conflict levels.

3.2.4 Control variables

Similar to earlier studies, this study included firm size, leverage, profit margin (PM), and asset turnover ratio (ATR) as control variables (Bhattacharyya & Rahman, 2019, 2020). These control variables helped reduce omitted-variable bias in the estimation of CSR-firm performance relationship (Iqbal et al., 2024). The natural logarithm of total assets (i.e., Size) was used to determine the company size because larger firms are subjected to mandatory CSR requirements, face more social pressure, and have excess resource availability for CSR investment (McWilliams & Siegel, 2001; Udayasankar, 2008; Waddock & Graves, 1997). The debt-equity ratio was utilised to measure leverage because low leverage represented the firm's financial flexibility to spend on CSR activities (Bhattacharyya & Rahman, 2019, 2020; Mazumdar et al., 2025; Orlitzky & Benjamin, 2001). Finally, PM and ATR were included to control for operating efficiency and profitability, respectively, as both were associated with CSR spending and firm performance (Bhattacharyya & Rahman, 2019, 2020; Lys et al., 2015). Table 1 summarises all the variables included in the empirical analysis.

3.3 Estimation model

This study estimated fixed-effect panel regressions to examine the moderating role of agency conflicts on the association between CSR and firm performance. First, to test the baseline CSR-performance nexus. The analysis regressed firm performance (ROA_{it} and ROE_{it}) on one-year lagged CSR expenditure while controlling for the contemporaneous firm characteristics. The use of lag structure mitigated simultaneity concerns following the literature (Kotchen & Moon, 2011; Lins et al., 2017; Servaes & Tamayo, 2013). Equation (1) expresses the baseline specification:

$$Y_{it} = \beta_0 + \beta_1 CSRE_{it-1} + \gamma X_{it} + \mu_i + \lambda_t + \epsilon_{it} \qquad (1)$$

Where the Y_{it} denotes firm performance (ROA or ROE) at time t for firm i; β_0 represents the intercept; $CSRE_{it-1}$ presents CSR expenditure at one-year lag; X_{it} refers to a vector of control variables (size, leverage, PM, and ATR); μ_i and λ_t indicate the firm and year fixed effects, respectively; ϵ_{it} captures the error terms.

Further, to estimate whether agency conflicts moderate the CSR-performance relationship, the study extended Eq. (1) by adding interaction terms between lagged CSR expenditure and each agency conflict proxy, including free cash flow and cash holdings. These interaction terms allowed for a direct test of moderation. This study follows Equation (2) for the moderation specification:

$$Y_{it} = \beta_0 + \beta_1 CSRE_{it-1} + \beta_2 \mathrm{M}_{it-1} + \beta_3 CSRE_{it-1} \times \mathrm{M}_{it-1} + \gamma X_{it} + \mu_i + \lambda_t + \epsilon_{it} \quad (2)$$

Where M_{it-1} defines one of the proxy variables for the moderating variable. The interaction term with $CSRE_{it-1}$*M_{it-1} captures the moderating effect.

To estimate all models, our study uses the fixed effects estimator with year fixed effects and robust standard errors clustered at the firm level. A three-step specification-testing procedure was used to select the appropriate panel estimator. First, the Breusch–Pagan Lagrange Multiplier test rejected the pooled OLS specification in favour of a panel estimator (Breusch & Pagan, 1980). Second, the F-test selected the fixed-effects model over the pooled OLS model. Third, the Hausman test preferred fixed effects over random effects, indicating correlation between unobserved firm-specific factors and the regressors. Table 2 summarises these specification tests for both ROA and ROE models, supporting the use of the fixed-effects estimator in the main analysis. To guide inference and address key panel data assumptions, the study conducted standard diagnostics.

Table 3 presents the tests for serial correlation (Wooldridge test), heteroskedasticity (Modified Wald test), cross-sectional dependence (Pesaran CD test), multicollinearity (variance inflation factors), and normality (skewness and kurtosis). Given these diagnostics, firm-clustered standard errors were used to account for within-firm serial correlation and heteroskedasticity across years (Petersen, 2009). Firm fixed effects absorbed time-invariant unobserved heterogeneity, while year fixed effects controlled for time-varying shocks common across firms (Wooldridge, 2010). Collectively, this estimation strategy improved identification of the CSR–performance relationship by mitigating unobserved heterogeneity and addressing key features of the panel error structure (Abadie et al., 2022; Moody & Marvell, 2020).

4 Results

4.1 Descriptive statistics and correlation matrix

Table 4 presents the descriptive statistics of all variables. The average ROA is 8.21 per cent (SD = 6.46), ranged from -4.87% to 30.43% indicating a large heterogeneity in profitability among NSE-listed firms. ROE exhibits heterogeneity in shareholder returns, with a 75% deviation from the mean. The average CSR expenditure (CSRE) is 3.27, ranging from -2.30 to 10.83, with a standard deviation of 1.86, suggesting that CSR investment is uneven across firms. The average total assets of the companies (size) is 10.083, while the average debt-to-equity ratio (0.45) indicates that firms employ ₹0.45 of debt for every ₹1 of equity. Average asset turnover ratio is close to one (98%). Standard deviation of the leverage and ATR are 0.59 and 0.57, respectively, suggesting that our sample is homogeneous with respect to leverage and ATR. Average profit margin (PM) is 14.27. This variable has the highest standard deviation (13.00), indicating the highest volatility among all control variables.

Agency conflicts also varied significantly. The average FCF is 5.57 (SD = 6.028), and cash holdings are 6.90 (SD = 3.12) with high variations across firms. The negative skewness (–1.49 and -1.56) for FCF and cash holdings shows the presence of relatively large negative values for some firms-years, while the high kurtosis (21.7) for cash holdings indicates that extreme values are more common than in a normal distribution.

As we move to Table 5, it reports pairwise correlations. The firm performance variables (ROA and ROE) were highly correlated (r = 0.87), indicating that ROA and ROE convey accounting aspects of firm performance. Firm performance variables were not highly correlated with explanatory variables. Only moderate correlations were found between ROA and leverage (-0.43) and between ROA and PM (0.53). The bivariate correlation between ROA and CSREs was positive (r = 0.22, p-value < 0.001). CSR expenditure was positively correlated with firm size (r = 0.84, p-value = 0.001). This was consistent with India's mandatory CSR regime and prior evidence showing that larger firms spend more on CSR (Bhattacharyya & Rahman, 2019; Manchiraju & Rajgopal, 2017; Waddock & Graves, 1997). CSR expenditure was also moderately correlated with cash holdings (r = 0.55) and weakly correlated with free cash flow (r = 0.27), consistent with the notion that cash-rich firms allocated more to CSR investment. However, CSR expenditure is a function of a firm's profit. Additionally, CSRE's correlation with PM is statistically significant (r = 0.28; P-value = 0.000), and negatively correlated with the ATR (r = -0.15; p-value = 0.04). Among the control variables, size shows a positive correlation with PM (0.14) and a negative correlation with ATR (-0.23). Leverage has negative correlations with ROA (-0.427), ROE (-0.182), and PM (-0.36). Profit margin (PM) is negatively correlated with ATR (r = -0.39).

Most correlations were below 0.80, indicating no serious collinearity concerns at the bivariate level Hair et al. (2010), except for the size variable. The high correlation (0.83) between size and CSR expenditure raised concerns about multicollinearity. We orthogonalized it with respect to CSR expenditure to mitigate multicollinearity arising from the size variable, following the literature (Bhattacharyya & Rahman, 2019; Servaes & Tamayo, 2013). Specifically, the study regressed size on lagged CSR expenditure, and the residuals indicated the component of size uncorrelated with CSR. Then, study used the orthogonalized size variable as the control variable in subsequent estimations. This procedure effectively reduced multicollinearity. Table 6 presents the post-orthogonalized variance inflation factors (VIFs). The VIF values (5.74 for CSR and 4.29 for size) declined to below 3.5 after orthogonalisation, and all VIFs remained below the conventional threshold of 5 (Senaviratna & A. Cooray, 2019). These results indicated that we mitigated multicollinearity concerns.

4.2 Regression results & Discussion

Table 7 reports the results of fixed-effects (FE) regressions. Two results stand out. First, Columns (1)-(2) describe the baseline models estimated without moderators. The results showed a significant negative effect of CSR expenditure on firm performance, as measured by ROA and ROE. This estimate rejects the null hypothesis that CSR spending is unrelated to firm performance. and it is consistent with the evidence that CSR spending is a compliance cost that decreases the firm's accounting profitability in the India. (Bhattacharyya & Rahman, 2019; Garg & Gupta, 2020; Manchiraju & Rajgopal, 2017).

Second, Columns (3)-(8) present the moderation results of agency conflict on this estimated relationship using free cash flow and cash holdings proxies. Columns (3)-(4) add the FCF as a moderator through the interaction

between CSR expenditure and free cash flow. The interaction coefficient is negative and insignificant for both ROA (β = –0.005, p > 0.10) and ROE (β = -0.007, p > 0.10). These results indicated that free cash flow did not significantly moderate the negative relationship between CSR and firm performance. Columns (5)-(6) introduce cash holdings as a moderator. The interaction between CSRE and cash holdings is negative for both performance measures and is statistically significant for ROA (Coeff. = -0.060, p-value < 0.001). This indicates that the negative association between CSR spending and ROA is stronger when firms retain excess cash, consistent with the agency-cost interpretation of stock liquidity. This finding aligns with Kim et al. (1998), who argues that agency frictions are exacerbated when liquidity is retained as cash on the balance sheet rather than reflected solely in cash generation.

The corresponding interaction in the ROE model is insignificant and negative (Coeff. = -0.039, p-value > 0.10). This difference is plausible because ROE is equity-based, while ROA is asset-based, and cash holdings affect the denominator of these variables in different ways (Ahmed et al., 2023). Columns (7)–(8) present the joint moderation models that simultaneously include both liquidity proxies. The results remain similar to the cash holdings moderation estimates. Collectively, the moderation results suggest that the relevant agency channel operates more through the cash holding than the cash generation. These findings are consistent with studies that show agency frictions are more severe when liquidity is held as cash on the balance sheet (Liang & Renneboog, 2018; Opler et al., 2001). As our study interprets cash holding as a statistically meaningful moderator, we further examine the marginal effects. Table 8 presents the marginal effects estimates, and Figure 1 illustrates the interaction following (Aiken et al., 1991) method, providing a clearer visual interpretation of how the CSR-ROA relationship varies across low and high cash-holding levels.

Specifically, the marginal effect of CSR expenditure on ROA was evaluated at low and high levels of cash holdings, defined as one standard deviation below and above the mean (Mean − SD and Mean + SD), respectively. The margins analysis showed that for firms with low cash holdings, increasing CSR from low to high levels reduced predicted ROA only slightly (from 8.61 to 8.25). In contrast, for firms with high cash holdings, the same increase in CSR was associated with a sharp decline in predicted ROA (from 8.75 to 6.37). Figure 1 confirms that the negative association between CSR expenditure and ROA become stronger as cash holdings rise among firms. This result is consistent with Jensen's agency-cost view, in which excess cash weakens payout discipline and increases conflicts over cash use by managers (Jensen, 1986). Under mandatory CSR regulation, cash holdings therefore intensify the negative impact of CSR expenditure on firm performance by allocating CSR funds to less efficient investments that reduce short-run firm profitability.

As a robustness test, we employ ROE as an alternative measure of firm performance (Ahamed & Tripathi, 2023). The results show that the negative effect of CSR spending on ROE (Model 4 and 5, Table 7) is strengthened in the presence of principal-agent conflict. Overall, our results are largely robust with alternative measures of firm performance.

5 Discussion

This study examines the moderating role of agency conflict in the nexus of CSR expenditure and firm performance under India's mandatory CSR regime. Using firm fixed-effects on a panel dataset of 526 NSE-listed Indian firms over F.Y. 2014-15 to 2024-25. Overall, this study finds a significant negative influence of CSR expenditure on the firm's performance. This result is consistent with the studies (Aswani et al., 2021; Bhattacharyya & Rahman, 2020; Manchiraju & Rajgopal, 2017; Mazumdar et al., 2025). However, our results also show that agency conflicts moderate the relationship between CSR expenditure and firm performance. This suggests that agency conflicts through the cash holdings do play a significant role in determining the degree to which a firm reduces accounting performance from CSR expenditures in India. While free cash flow does not significantly moderate the CSR-performance link. The findings provide empirical support for the claim that CSR expenditure declines financial performance under certain agency-based liquidity conditions. Accordingly, our findings support the view that CSR spending decreases firm financial performance only when firms have higher cash holdings. This could be because cash holdings allocate mandatory CSR expenditure to inefficient prescribed activities, thereby diverting resources that could otherwise be paid out to shareholders and discouraging firms' accounting profitability (Dittmar &

Mahrt-Smith, 2007; Jensen, 1986). Thus, agency conflicts through cash holdings open the black box of the mixed results in the CSR-firm performance relationship in India.

Our findings have direct practical implications. For managers, the findings indicate that CSR initiatives should not be viewed merely as a compliance cost during periods of high cash reserves. Instead, organisations ought to invest in strategic CSR efforts and enhance internal corporate governance when selecting CSR initiatives. This approach will eliminate agency conflicts by ensuring that CSR expenditures increase financial results. For policymakers, the results suggest that the current design of the legislation may not fully achieve its objective for both society and firms. This calls for a review of the mandatory CSR regulation to increase transparency in CSR allocation and implementation so that CSR expenditure enhances social welfare without imposing compliance costs on corporations.

This study has limitations. First, with regard to the accounting performance that captures the short-run profitability rather than the long-run market or reputational effects of CSR expenditure. Second, our proxies for agency conflicts, which are theoretically consistent with Jensen's theory and rely on the liquidity condition across firms, do not capture governance characteristics. Third, it also does not evaluate CSR's effect on social welfare. Future studies can examine the relationships between CSR and firm performance by combining financial and social performance and testing the effects of ownership structures and governance quality. Despite these limitations, the study contributes to the corporate social responsibility literature by identifying a stronger negative moderating effect of agency conflicts (excess cash) on the association between CSR expenditure and firm performance under the mandatory CSR regime.

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Tables and Figures

Table 1: Summary of variables

Symbol	Variable Description	Proxy
Firm performance measures: dependent variable		
ROA	Adjusted profit after tax divided by the average of total assets at the end of financial year t	Return on Assets
ROE	Adjusted profit after tax divided by the average of the net worth at the end of the year t	Return on Equity
CSR expenditure: Independent variable		

CSREs $_{t-1}$	Natural logarithm of the total amount spent on CSR activities at the end of the financial year t-1	Corporate Social Responsibility Expenditure
	Moderating variable	
FCF	NOPAT + non-cash charges +/- Change in working capital - Capex	Free cash flow
Cash	Cash and cash equivalents plus short-term investment	Cash holdings
	Firm-specific control variables	
LnTA	Natural log of total assets at the end of financial year t	Size
LVRG	Total debt divided by the shareholders' equity	Leverage
ATR	Sales divided by total assets at the end of financial year t	Asset turn-over- ratio
PM	Profit before tax from continuing operations divided by sales for the financial year t	Profit margins

Table 2: Selection of Appropriate Panel Data Model Type

Tests ⇒	LM- test	F-test	Hausman- Test
Model 1	4171.37***	11.93***	566.50***
Model 2	3424.11***	9.11***	304.07***
Interpretation	Rejected pooled-OLS, in favour of panel models	Favor of fixed effect over OLS	Preferred FE over RE

Significant at the *0.1, **0.05, and ***0.01 levels, respectively.

Table 3: Panel data assumptions and tests

Tests⇒		Wooldridge Test	Modified Wald Test	VIF	Skewness, Kurtosis	Pesaran Test
Results	M1	P < 0.05	P < 0.05	VIF < 5	-	P < 0.05
	M2	P < 0.05	P < 0.05	-	-	P < 0.05
Assumptions		Autocorrelation	Heteroscedasticity	Multicollinearity	Normality	Cross-sectional dependence
Interpretation		Autocorrelation exist	Heteroskedasticity present	No	Not critical for large N	Cross-sectional dependence exists among firms
Solution		FE + vce(cluster id)	FE + vce(robust)	-	-	FE + Firm-clustered standard errors

Table 4: Descriptive statistics

Variables	Obs	Mean	Std. Dev.	Min	Max	p1	p99	Skew.	Kurt.
ROA	5260	8.209	6.455	-4.871	30.433	-4.871	30.433	.974	4.274
ROE	5246	14.949	11.19	-11.447	58.536	-11.447	58.536	1.037	5.518
CSRE	5260	3.268	1.863	-2.303	10.83	-.916	8.091	.238	3.205
FCF	5260	5.566	6.028	-13.745	14.148	-9.961	13.023	-1.487	3.856
Cash	5260	6.899	3.117	-9.938	14.894	-6.942	12.696	-1.562	8.547
lnTA	5260	10.083	1.603	5.984	16.09	7.141	14.654	.653	3.406
LVRG	5247	.446	.59	0	3.134	0	3.134	2.146	8.377
PM	5259	14.263	13.005	-10.315	68.673	-10.315	68.673	1.714	7.127
ATR	5260	.974	.572	.109	3.117	.109	3.117	1.222	5.03

Table 5: Pairwise correlations

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) ROA	1.000								
(2) ROE	0.868***	1.000							
(3) $CSRE_{t-1}$	0.218***	0.162***	1.000						
(4) FCF	0.228***	0.172***	0.269***	1.000					
(5) Cash	0.191***	0.118***	0.552***	0.273***	1.000				
(6) lnTA	-0.037***	-0.021	0.839***	0.242***	0.551***	1.000			
(7) LVRG	-0.427***	-0.182***	-0.204***	-0.195***	-0.234***	0.013	1.000		
(8) PM	0.525***	0.364***	0.267***	0.237***	0.235***	0.137***	-0.355***	1.000	
(9) ATR	0.211***	0.324***	-0.147***	-0.040***	-0.138***	-0.228***	0.076***	-0.383***	1.000

Note: Due to the high correlation between CSR expenditure and firm size (r = 0.893), the size variable was orthogonalized with respect to CSR expenditure. The residualized size variable, uncorrelated with CSR, was used as the control in the regression models.

Table 6: VIF with the orthogonalized Size variable

Variables	**VIF**	**1/VIF**
$CSRE_{t-1}$	3.30	0.303
Size_orth	1.48	0.675
$Cash_{t-1}$	1.56	0.643
PM	1.52	0.667

LVRG	1.43	0.698
ATR	1.33	0.750
FCF_{t-1}	1.17	0.856
Mean VIF	2.457	

Table 7: Result of regression analysis for moderating impact of agency-conflict on CSR expenditure and financial performance (ROA and ROE)

Models⇒	**Main effect**		**Moderation effects**					
			Free cash flow		**Cash holding**		**Joint Moderation**	
Dependent	ROA	ROE	ROA	ROE	ROA	ROE	ROA	ROE
Variable⇒	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
$CSRE_{t-1}$	-0.191**	-0.874***	-0.153*	-0.821***	0.205	-0.588*	0.233*	-0.546
	(0.087)	(0.2027)	(0.088)	(0.203)	(0.136)	(0.336)	(0.137)	(0.332)
Size	0.413	1.339	0.436	1.365	0.376	1.460*	0.412	1.506*
	(0.399)	(0.857)	(0.401)	(0.859)	(0.396)	(0.858)	(0.399)	(0.862)
LVRG	-1.276***	0.199	-1.229***	0.260	-1.25***	0.180	-1.203***	0.242
	(0.275)	(0.808)	(0.273)	(0.813)	(0.271)	(0.797)	(0.270)	(0.802)
PM	0.271**	0.482***	0.269***	0.480***	0.272***	0.485***	0.270***	0.483***
	(0.026)	(0.047)	(0.026)	(0.047)	(0.026)	(0.048)	(0.026)	(0.048)
ATR	6.540**	14.435***	6.539***	14.434***	6.541***	14.398***	6.540***	14.396***
	(0.529)	(1.076)	(0.530)	(1.075)	(0.526)	(1.068)	(0.526)	(1.067)
FCF_{t-1}			0.036**	0.048			0.029*	0.044
			(0.017)	(0.039)			(0.017)	(0.040)
$CSRE_{t-1}$*FCF_{t-1}			-0.005	-0.007			-0.002	-0.004
			(0.004)	(0.010)			(0.004)	(0.011)
Cash $holding_{t-1}$					0.164**	-0.050	0.158**	-0.059
					(0.066)	(0.159)	(0.065)	(0.160)
$CSRE_{t-1}$*$cash\_h_{t-1}$					-0.06***	-0.039	-0.060***	-0.039
					(0.018)	(0.041)	(0.018)	(0.041)
Constant			-5.767	-17.63**	-5.910	-17.85**	-6.394	-18.49**
			(4.035)	(8.530)	(3.988)	(8.434)	(4.033)	(8.492)
Observations	4720	4718	4720	4718	4720	4718	4720	4718
R-squared (within)	0.428	0.359	0.429	0.359	0.430	0.360	0.431	0.361

F-statistics	0.4725	0.3555	0.4726	0.3526	0.4667	0.3517	0.4674	0.3525
Year FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Firm FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Standard errors in parentheses: * $p < 0.10$, ** $p < 0.05$, *** $p < 0$

Table 8: Marginal effect

Estimation _at	Margin	std. err.	z	P>z	[95% conf.	interval]
1	8.612538	0.1274908	67.55	0	8.362661	8.862416
2	8.749691	0.1722992	50.78	0	8.411991	9.087391
3	8.431235	0.2669611	31.58	0	7.908001	8.954469
4	7.561328	0.2327473	32.49	0	7.105152	8.017504
5	8.249932	0.5415678	15.23	0	7.188479	9.311385
6	6.372965	0.5612317	11.36	0	5.272971	7.472959

Figure 1: Effects of CSR expenditure on ROA: contingent on agency conflicts (cash holdings)