

Impact of CSR regulation strengthening on corporate spending patterns: A ten-year Indian Analysis

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Abstract---This study examines the role of recent regulatory changes on corporate governance and the role of CSR spending in shaping investments in both areas among firms, the new Board Governance Mandates (BGM) related to the composition of board members specific to India, and the amended Corporate Social Responsibility Regulation Act. It is focused on the ten years after the implementation of Section 135 of the Companies Act, 2013, requiring firms to engage in mandatory CSR outlay once certain thresholds are met. Expenditure data is available at the aggregate level for the top ten Indian companies annually per year from 2014–15 to 2023–24. Research links two major policy interventions, the mandatory CSR spend and the requirement for listed and large companies to appoint at least one independent woman director. It analyses these reforms together to determine whether improvements in board governance and greater board diversity draw CSR expenditures away from the traditional model. Using 5,348 project-level observations drawn from company-specific CSR data files, the paper first applies a pre–post analytical design around the 2019 governance inflection point. It then extends the descriptive analysis with a two-way fixed-effects specification, as reported in the source research. By linking CSR expenditure behavior with evolving governance norms, the study contributes to debates on whether measurable changes in corporate social spending accompany regulatory reforms in board composition. The study contributes

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longitudinal evidence on how legal coercion, board independence, and gender-diverse governance may jointly reshape CSR from a compliance activity into a more strategic, stakeholder-oriented form of corporate social investment.

Keywords---Corporate Social Responsibility, regression analysis, independent women directors, board gender diversity, Companies Act, 2013, SEBI LODR, India, fixed effects.

1. Introduction:

1.1 After the implementation of the Companies Act of 2013, India's regulatory framework concerning corporate governance underwent two main changes. One change introduced mandatory spending on Corporate Social Responsibility (CSR) for certain companies, and the other began to regulate the structure of governance for the same companies, for the first time, through the Companies Act. Although these two reforms emerged from different sets of policies, they can be structurally integrated. The same board of directors that sets the governance mandate for the company also calls the discretionary spending from the company on CSR, and decides whether the compliance of CSR spending is a true organic commitment or a formal tick-the-box compliance. This paper argues that studying one of these reforms in the absence of the other provides only a partial understanding of the full impact of the mandatory CSR regulation on corporate governance and the corporate practices that emerge.

1.2 One of the most significant changes to Indian corporate governance in recent decades is the integration of Corporate Social Responsibility (CSR) into legislation. With the passing of Section 135 of the Companies Act of 2013, which came into effect on April 1, 2014, India became one of the first countries to make CSR spending mandatory, thereby shifting the paradigm from voluntary CSR to legally enforced CSR. This regulatory system established compulsory CSR duties for corporations whose immediately preceding financial year met at least one of the criteria of a net worth of five hundred crores, a turnover of one thousand crores, or a net profit of five crores. These thresholds were intentionally set to include India's most financially influential companies and to exclude small companies from the disproportionate compliance burden. Companies that meet any one of these three thresholds are mandated to allocate and spend at least two percent of their average net profits, which is calculated based on the last three financial years on activities enumerated under Schedule VII of the Act, ranging from education, healthcare, and environmental sustainability to rural development, women's empowerment, and disaster management relief. What creates a legislative characteristic for this formulation is the breadth of the conjunctive. The three eligibility criteria function independently, meaning a company needs to cross only one threshold to attract the full weight of the mandate, and profit alone, even at the relatively modest amount of five crore rupees, is sufficient to bring an otherwise mid-sized enterprise within the compliance net. Further, the introduction of Form CSR-2 in 2022 has established new legal obligations for corporate accountability that require firms to provide detailed project-level descriptions of their CSR activities and submit these to the Registrar of Companies annually. These new reporting requirements and the CSR revisions made through the Companies (Amendment) Act, 2020, have created a new compliance regime that has fundamentally changed how India's largest firms make decisions regarding the use of their mandated CSR spend.

1.3 The second inflection came in May 2018. The Securities and Exchange Board of India made changes to Regulation 17(1) of the SEBI (Listing Obligations and Disclosure Requirements) Regulations, 2015, necessitating that the boards of the 500 largest listed companies, as ranked by market capitalisation, receive at least one independent woman director by April 1, 2019, and subsequently the top 1,000 listed companies by April 1, 2020. There was a qualitative difference from the earlier Companies Act requirement that all listed companies appoint at least one woman director (of whatever

category). By requiring independence, a status that carries its own strict eligibility provisions under Section 149(6) of the Companies Act, the SEBI mandate sought to end the rampant practice of promoter families appointing women relatives as a way of technically complying with the women director requirement while maintaining tight control of insider boardroom governance. The shift from woman director to independent woman director was, in effect, a recognition of the fact that strict regulation had been absent from the requirement as it stood.

1.4 The intent for this study lies in the intersection of these two regulatory developments. It is clear from the available literature on corporate governance that the composition of the board of directors influences the allocation of strategic resources. While CSR in India has a legislative backing, the absence of relevant guidance, discretion in choosing the thematic focus, setting the level of spending, the choice of implementation partners, and the quality of disclosure, among others, prevails. If independent women directors carry with them a boardroom presence that is risk-oriented, and more sensitive to stakeholders and more inclined to social impact measurement, a detectable signature may be found in the CSR data, both in the sectoral direction and quantitative measures of CSR spending.

1.5 This study undertakes a longitudinal examination of CSR expenditure patterns over the period from 2014 to 2024, for the top ten CSR spending companies in India, and uses the date when the requirement for independent women directors to the boards of the top 500 listed companies of India (April 1, 2019) as a benchmark. By comparing both pre and post 2019 CSR spending behaviors and by mapping these board-level gender diversity data, this study seeks to answer a set of interlocking questions. This study contributes two main things. First, it offers a longitudinal analysis of the complete decade of mandatory CSR in India. It captures the impact of changing regulations, including the 2020 penal provisions and the introduction of Form CSR-2 in 2022, both of which have strengthened the compliance framework. Second, it adds gender diversity in boards as a governance variable in the analysis of tier one CSR spending, combining the two factors that have only received a small amount of systematic empirical attention in India.

2. Review of Literature

This research draws upon two fields: the economics and governance of mandatory CSR in emerging markets, and the corporate governance literature on boards' gender diversification and the consequent impact on organisations. These fields have only recently started to overlap. One research gap, until recently, has been the overlap of the two fields and whether boards with legally mandated gender diversity result in different CSR outcomes in contrast to boards with voluntarily adopted diversity. This review discusses the relevant research, starting with the theoretical foundations and the research literature on India and then the research on the intersection of the two fields.

2.1 Theoretical Framework

2.1.1 Stakeholder Theory and Social Licensing: Stakeholder theory (1984), by Freeman, argues that CSR is the responsibility of good governance and not corporate charity as firms are reliant on the continued good will of employees, consumers, communities, state regulators, and suppliers. Shareholders cannot be seen as the sole decision-making principals of the firm. In the context of India's CSR mandate, the state has become a stakeholder with a social expectation of the firm, which is legally enforced through Section 135 of the Companies Act. The stakeholder theory asks what the purpose of governance structures is, specifically if the presence of women directors, who are independent and, by design, immune to the influence of promoters, keeps in check State social expectations, which is a legislatively imposed and socially directed pressure of the mandatory CSR.

2.1.2 Institutional Theory and Coercive Isomorphism: According to DiMaggio and Powell (1983), coercive isomorphism is the result of the formal and informal pressures applied by those organisations

that an institution is dependent upon, as well as the informal pressures of the community in which the institution is located, leading to changes in the institution. The most conspicuous example of this in India is the mandatory CSR provision in the Companies Act, which sets identical formal requirements for firms with disparate self-determined motivations, resulting in surface-level homogeneity in CSR outlays that likely conceals variation in the quality (or the lack thereof) and the strategic integration of practice. In situations like this, institutional theory suggests that the first step firms take to comply with the law is ceremonial, such firms will likely spend the minimum amount on an activity that fulfills the requirements of the law, and ultimately, the theory also asserts that isomorphism may be achieved only through the complementary governance mechanisms that internalize the law. This study seeks to identify whether the presence of independent women directors is one such mechanism.

2.1.3 Upper Echelons Theory: According to Hambrick and Mason (1984), upper echelons theory suggests that the strategies adopted and the performance delivered by a firm are, in part, an outcome of the values and perceptions of the senior executives. This theory, in the context of CSR, suggests that it is the composition of the board (not firm size or profitability, or the regulatory requirements) that ultimately determines the role of CSR in the firm. If it is assumed that, on average, women board members are more risk-averse and have longer time preferences or a greater preference for prosocial behaviour than men, then it is likely that firms with gender-diverse boards are more likely to undertake CSR activities, and such initiatives are more likely to focus on social goods.

2.1.4 Agency Theory and Independent Directorship: Agency theory (Jensen and Meckling, 1976) perceives the board of directors as a control apparatus, the efficacy of which hinges on the board's independence from both the management and the board's controlling shareholders. Independent directors, by being less co-opted, are better able to counter board entrenchment, advocate for minority shareholders, and impose a governance framework on the allocation of resources, which encompasses CSR. By viewing independence as the key determinant for the mandatory women director, as opposed to mere gender, the SEBI is attempting to use agency theory. It implies that the positive outcomes from increased gender diversity in governance of CSR are contingent on women directors having actual decision-making power. Therefore, this study is making a distinction, whenever possible, on the presence of women directors in any capacity and the presence of women in the independent category, and is, therefore, treating the latter category as the more relevant governance variable in theory and in practice.

2.2 Mandatory CSR in India

2.2.1 The two most important early studies of India's Section 135 mandate, in a sense, arrived at the same conclusions using different approaches. Manchiraju and Rajgopal (2017), adopted a legislation-centric event study framework based on major legislative events from 2009 to 2013 and stated that the CSR mandate was, on average, value negative, financially harming these firms by approximately 4.1 percent. The authors of this study assumed that the CSR mandate, from the market viewpoint, was a form of involuntary corporate tax. This finding adds to the evidence base on the intersection of CSR and negative market reactions. Dharmapala and Khanna (2018) further confirm this finding.

2.2.2 Aswani, Chidambaran and Hasan (2021), argued that the value impact of mandatory CSR is heterogeneous and identified that voluntary pre-mandate spenders in the Fast-Moving Consumer Goods sector of the market capitalisation spectrum benefited from the regulation, while some industrial firms with large capital expenditure suffered from its implementation. For a study on the top ten CSR spenders in the market, this cross-sectional diversity is of particular interest, as these firms operate in distinct industries, and have different stakeholder priorities. In a related study, the same authors found that, in the given context of mandatory CSR, the quality of governance offered on boards appears to mitigate the negative impact that an increase of around twenty-two basis points in bond yield spreads, as a result of the mandatory CSR on the debt market, would have on firm value. This can be considered

an early indication that the characteristics of boards are likely to mitigate the financial impacts of mandatory CSR on the markets.

2.2.3 Mukherjee, Bird and Duppati (2018), carried out a qualitative and quantitative assessment of post-mandate CSR quality and quantity and argued that with respect to both dimensions, the goal of the legislation was not achieved in the case of India's mandatory CSR. The authors identify a dominant posture of 'compliance' evidenced by spending that focused on outputs that were perceived to be measurable, while the legislation was designed to promote real social impacts. The authors characterise this dominant posture as a compliance legacy that, in effect, constructed a box-tick approach whereby the 2% spend was viewed as the total CSR obligation, that is, the minimal threshold requirement that would have otherwise been intended to motivate firms to engage in socially beneficial activities. This compliance legacy, particularly in the context of post-mandate CSR in India, provides a context for this study and informs the study's focus on the potential value of board gender diversity, and more specifically, the appointment of independent women directors who are not controlled by promoters of the firm.

2.2.4 In contrast to the sceptical literature of the time, Bhattacharya and Rahman (2019) offered a counter-argument in the sense that, using real CSR expenditure data, instead of using legislative event windows or a proxy index, they identified a positive association between mandatory CSR and accounting-based firm performance over longer post-regulation windows. They argued that, while there was a negative market response to the announcement of the rule, the operating performance of firms did not show a sustained decline, indicating that the medium-term impacts of mandatory Corporate Social Responsibility spending are not likely to be as negative as the market response to the announcement of the mandate. Furthermore, the negative impact on operating performance may be avoided due to the effect of the institutional and governance frameworks that surround the corporate spending.

2.3 Independent Women Directors and Their Implications

2.3.1 The legislative history of women's presence on Indian corporate boards highlights a common challenge: the gap between the goals of reform and the actual progress in implementation. Section 149(1) of the Companies Act, 2013, mandated at least one woman director on every listed company's board, with Rule 3 of the Companies (Appointment and Qualifications of Directors) Rules, 2014 extending the requirement to unlisted public companies with paid-up capital of rupees one hundred crore or more, or turnover of rupees three hundred crore or more. Regulations and independent governance observers noted that, by 2018, most listed companies met the requirement by appointing women from the promoter family, a practice that ensured the presence of women on boards without the independence of governance. The Uday Kotak Committee on Corporate Governance, whose recommendations were mostly adopted by SEBI in 2018, explicitly identified this pattern and recommended raising the compliance standards.

2.3.2 On May 9, 2018, SEBI notified an amendment to Regulation 17(1) of the LODR Regulations, giving the top 500 listed firms by market capitalization a period of eleven months, until April 1, 2019, to comply with the requirement to have at least one woman independent director on their board. The requirement was extended to the top 1,000 listed firms from April 1, 2020. In this case, the independent director would be someone who fulfills the criteria for independence as prescribed in Section 149(6) of the Companies Act. Among other clauses, this would mean that the woman independent director would not have a material and pecuniary relationship with the company or its holding or subsidiary companies or its promoters, and that she would not be related to a promoter or a director. Therefore, April 1, 2019, represented a legally defined inflection point in India, as for the largest listed companies, the quality of female representation on boards transitioned from being merely present to boards being substantively independently controlled.

2.4 Gender Diversity, Board Governance, and CSR

2.4.1 The global literature regarding the relationship between board gender diversity and CSR is extensive and largely consistent regarding the positive relationship between the presence of women on boards and different aspects of corporate social performance. Bear, Rahman and Post (2010), using a sample from Fortune 500, found a positive relationship between the proportion of women on the board and corporate reputation scores. Byron and Post (2016) in their meta-analysis of 87 studies, confirmed a positive relationship between women on boards and CSR performance, noting that the effect size was moderated by the industry and the context of the nation's institutions. Most importantly for the Indian scenario, the meta-analysis noted that the positive relationship was strongest in the presence of weaker formal institutions, implying that in cases of developing regulatory enforcement, diverse boards may fill institutional voids, which is not as pertinent in high enforcement cases. India's developing CSR compliance fits this description.

2.4.2 While the Indian case is not as extensive as the global case, it is rapidly developing. In the study conducted by Reddy et al. (2024) on 738 NSE-listed firms from 2013 to 2019, women on boards was noted to positively impact CSR spending ratios. Most importantly, this noted positive impact was found in loss-making firms, thereby implying that women on boards demonstrated a social impact orientation that was not regulation-focused. The study adds to the field of gender diversity and corporate governance in emerging economies, where signal effects and outcomes are found in cases of legal voids.

2.4.3 Agarwala, Pareek, and Sahu (2022, 2023) analysed the impact of board independence and firm characteristics on corporate social responsibility (CSR) performance of publicly traded firms in India. They established that firms with a higher percentage of board independence had greater CSR investments and higher compliance rates. This aligns with the proposition that monitoring-based governance structures change statutory minimums into real social value. While there is some literature on the impact of board gender diversification on CSR, as opposed to board independence, it is a fruitful avenue for longitudinal research, as this study intends to explore.

2.4.4 In addition to looking at the total volume of CSR investment, some studies look at board gender diversity and the CSR focus areas. Do gender diverse boards determine the CSR focus areas, and do gender diverse boards contribute more to CSR focus areas that are associated with the welfare, human capital, and social equity areas of the CSR continuum, like education, health care, and women's empowerment? Post, Rahman, and Rubow (2011) showed that boards with a higher percentage of women, compared to all-male boards, took on a more proactive and developmental CSR focus area of pollution prevention. Setó-Pamies (2015) showed that women on boards positively influenced CSR, which resulted in the protection of human rights and community investment in Europe. Board gender diversity positively influences CSR disclosure and spending. Further, it was observed that the presence of women directors can mitigate the negative effects of a secrecy culture on CSR disclosure, suggesting that gender diversity can enhance transparency and accountability in CSR activities (Temiz & Acar, 2023). In India, the inclusion of women directors has led to a significant change in CSR spending trends, with firms showing increased CSR activities when a critical mass of women directors is present (Tuli & Khosla, 2024).

2.5 Gaps in the Existing Literature and Contribution of This Study

2.5.1 The literature review identifies two main gaps that this study aims to fill. First, most empirical research on mandatory CSR in India has focused on post-2014 studies with very limited period coverage of one to three years. As a result, those studies overlook the behavioral and governance shifts resulting from the several amendments of the law, including the 2019 Women Independent Directors mandate, the 2021 penalization, and the 2022 introduction of Form CSR-2. A ten-year outlook is

essential to determine if the cumulative effect of regulatory pressure on CSR will lead to a substantive shift in corporate CSR activities, which remains undetected in research with a limited period of focus.

2.5.2 Second, while the effect of board gender diversity on CSR has been studied in short panel and cross-sectional research, to the best of the authors' knowledge, no study has analysed the implications of mandatory independent women directors on CSR policy. The April 1, 2019, mandate provides a novel quasi-experimental context for a difference-in-differences analysis of governance-CSR dynamics, which existing research has yet to explore.

Research Methodology:

The study uses a pre–post analytical framework, comparing CSR patterns across two distinct periods: the preregulatory era (2014–2019) and the postregulatory era (2019–2024). It uses a pre-post analytical framework, comparing CSR patterns across two distinct periods: the pre-regulatory era (2014–2019) and the post-regulatory era (2019–2024).

Objectives of the study:

1. To examine the regulatory changes introduced in 2019 regarding the appointment of independent women directors in Indian companies.
2. To analyze the CSR expenditure patterns of Indian companies before (pre-1st April 2019) and after (post-1st April 2019) the regulatory mandate.
3. To assess the relationship between the presence of independent women directors and the level/nature of CSR spending.
4. To explore whether the inclusion of independent women directors has influenced CSR focus areas (e.g., education, health, environment, etc.).
5. To evaluate whether companies with independent women directors show greater compliance and transparency in CSR reporting.
6. To offer policy recommendations for enhancing board diversity and its potential impact on corporate social responsibility.

Hypothesis:

Hypothesis 1: CSR intensity after FY 2019-20

$\text{CSR intensity} = \text{CSR Spend} \div \text{Annual Profit} \times 100$

H0 — Null hypothesis:

There is **no significant change** in CSR spend as a percentage of annual profit after FY 2019-20.

H1 — Alternative hypothesis:

There is a **significant change** in CSR spend as a percentage of annual profit after FY 2019-20.

Hypothesis 2: CSR Focus Areas

- H0 (Null Hypothesis): The presence of independent women directors does not influence the focus areas of CSR activities.
- H1 (Alternative Hypothesis): The presence of independent women directors significantly influences the focus areas of CSR activities (e.g., preference for education, women's empowerment, health, etc.).

Data Collection

The data for this study were collected from different public sources, mainly company reports and government records. Since the study compares CSR spending before and after the independent woman director requirement, the data were divided into two periods: the period before 1 April 2019 and the period after 1 April 2019.

Data were obtained from filings with the Ministry of Corporate Affairs, company annual reports (financial statements), CSR annexures and National CSR Data Portal. From these sources, we were able

to gather project-level data such as company name, financial year (FY), CSR sector under which the respective projects fell in and geographical location of the implementing agency and amount spent. The final dataset consists of ten major Indian companies with large CSR spending for the financial years 2014–15 to 2023–24.

After collecting the data, a cleaning process was carried out to make the dataset suitable for analysis. Since companies used different reporting formats across years, the data had to be standardised. Blank rows, duplicate entries, grand totals, and non-project information were removed. Similar sector names and state names were also grouped properly so that the analysis could be done in a consistent manner.

Sampling Design:

The research employs a purposive sampling method to determine the sample units. The sample includes the top ten companies within India by the amount of CSR spending during the financial year 2023-24.

These includes:

1	Reliance Industries Ltd
2	Tata Steel Ltd
3	Tata Consultancy Services Ltd
4	Indian Oil Ltd
5	Oil and Natural Gas Corporation Ltd
6	NTPC Ltd
7	ICICI Bank Ltd,
8	HDFC Bank Ltd
9	IITC Ltd
10	Infosys Ltd.

The choice of the sample companies was done based on the fact that the ten have shown a high degree of participation in CSR activities as well as the fact that detailed data regarding the CSR spending has been openly shared by the companies. The method employed for the research is appropriate as the research will depend on secondary sources.

Data Analysis and Interpretation:

Table 1 depicts the total annual profit and CSR spent by sample companies

Metric	Pre FY 2019-20	Post FY 2019-20	Change	% Change
Total CSR Spend (INR Cr.)	16,395.95	24,536.72	8,140.77	49.65%
Total Annual Profit (INR Cr.)	814,866.00	1,455,472.00	640,606.00	78.61%
CSR Spend as % of Profit	2.01%	1.69%	-0.33%	-16.22%
Avg Annual CSR Spend (INR Cr.)	3,279.19	4,907.34	1,628.15	49.65%
Avg Annual Profit (INR Cr.)	162,973.20	291,094.40	128,121.20	78.61%

Table: 1 Annual profit and CSR Spent

CSR spend may increase simply because companies became larger or more profitable. Therefore, comparing only absolute CSR spend can be misleading. The correct impact measure is **CSR spend relative to annual profit**, because CSR obligations and CSR capacity are profit-linked.

To test first hypothesis Paired sample T-test was applied.

Test results

Test Area	Pre FY 2019-20	Post FY 2019-20	Change	Test Result	Conclusion
Average CSR Spend per company-year	₹327.92 Cr	₹490.73 Cr	+₹162.82 Cr	t = 3.63, p = 0.0055	Significant increase
Average Annual Profit per company-year	₹16,297.32 Cr	₹29,109.44 Cr	+₹12,812.12 Cr	t = 4.39, p = 0.0017	Significant increase
CSR Spend as % of Profit	2.03%	2.22%	+0.19 percentage points	t = 0.42, p = 0.6828	Not significant
Aggregate CSR Spend as % of Aggregate Profit	2.01%	1.69%	-0.33 percentage points	Descriptive result	Profit grew faster than CSR

Table 1: Trend of CSR Spend: Pre vs Post FY 2019-20

Interpretation of results

The results show that **CSR spend increased significantly** after FY 2019-20. The average CSR spend per company year rose from **₹327.92 Cr** to **₹490.73 Cr**, and this increase is statistically significant at the 5% level.

Annual profit also increased significantly. The average annual profit per company year rose from **₹16,297.32 Cr** to **₹29,109.44 Cr**. This means companies had much higher profitability in the post-period.

However, the most important result is that **CSR spend as a percentage of profit did not change significantly**. The company-level CSR intensity increased from **2.03% to 2.22%**, but the p-value is **0.6828**, which is much higher than 0.05. Therefore, the change is statistically insignificant.

At the aggregate level, CSR spend as a percentage of total profit actually declined from **2.01% to 1.69%**. This means that while companies spent more on CSR in absolute terms, their profits grew faster than their CSR spending.

The hypothesis that companies became **more CSR-intensive relative to annual profit** after FY 2019-20 is **not supported**.

After FY 2019-20, total CSR expenditure increased significantly among the selected companies. However, annual profit also increased significantly, and the increase in CSR expenditure was not proportionately higher than the increase in profit.

Analysis for hypothesis 2:

Hypothesis 2: CSR Focus Areas

- H0 (Null Hypothesis): The presence of independent women directors does not influence the focus areas of CSR activities.
- H1 (Alternative Hypothesis): The presence of independent women directors significantly influences the focus areas of CSR activities (e.g., preference for education, women's empowerment, health, etc.).

This graph in Fig. 2 represents the distribution of CSR spending, based on sectors. The education sector secured the highest figure of ₹9,451 Cr. spent. Number two is healthcare, at around ₹7,987 Cr. At approximately ₹5,908 Cr. The CSR money is being mostly channeled to education, healthcare, and rural development. And these are the top priority areas for businesses.

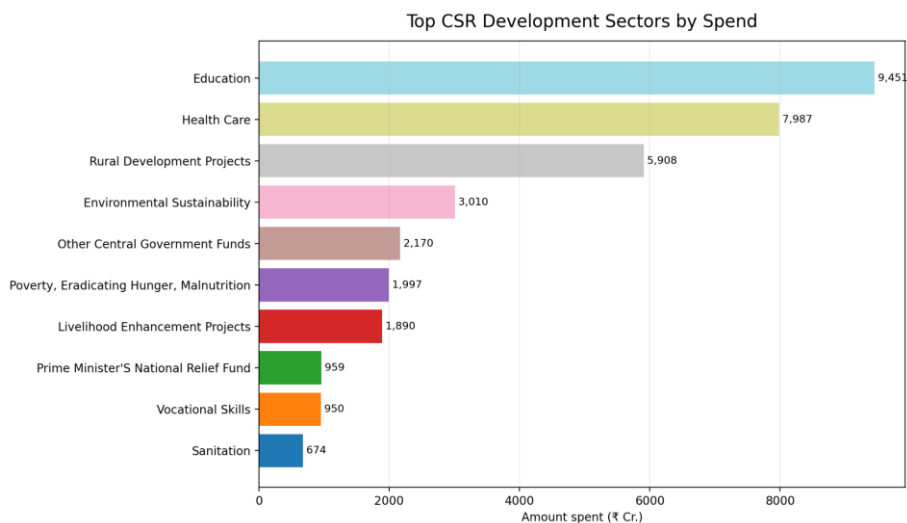


Figure 2: Top CSR development sector by spend

This chart in Fig. 2 illustrates where most of the CSR spending went to. The biggest segment is Pan India which has around ₹16,263 Cr. This indicated that a lot of the CSR projects were implemented in multiple states across India instead of being restricted to one state. After that, Maharashtra was on top with ₹6,558 Cr state-level CSR spend. CSR spending is mostly national level and Maharashtra tops as the best among states vies

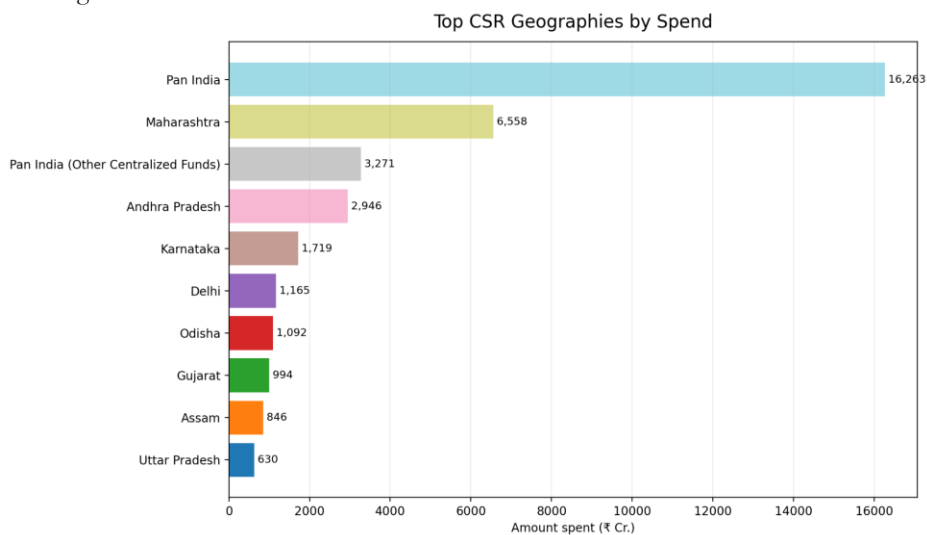


Figure 3: Top CSR Geographies by Spend

The graph in Fig. 3 displays the manner in which firms executed their CSR initiatives. The largest share was through other implementing agencies, at about 65.2%. Hence, most of the time, companies

collaborated with NGOs, trusts, or external non-individual organizations to implement CSR projects. 20.3% was done directly by the firm and smaller fractions through company trusts (10%), Section 8 companies/government/public entities (9%), etc. Most CSR work is not done directly by companies themselves. Companies mainly depend on external implementing agencies to execute CSR projects.

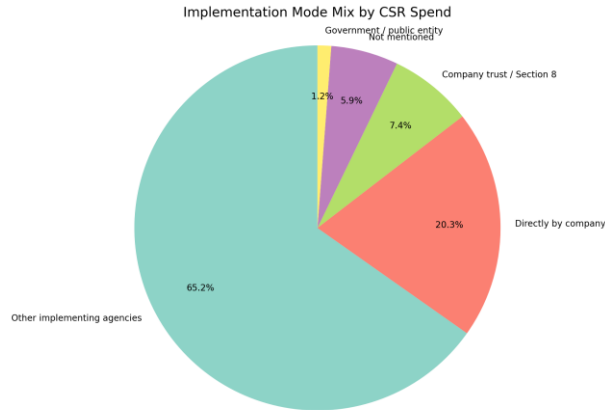


Figure 4: Implementation mode of CSR spend

Regression results suggest that CSR spending and scope grew with the change in governance environment towards stronger board diversity/independent oversight. Independent women directors are found to statistically associate firms with more active and diversified CSR engagement, especially under worsening ESG conditions over the years. The fundamental rationale for this analysis is that the presence of independent women directors on boards enhances board effectiveness, stakeholder sensitivity, and ethical oversight, which collectively augments firms' long-term sustainability orientation. Consequently, firms with higher female-independent representation on boards are more likely to:

- spend more on CSR activities,
- diversify CSR across more sectors,
- expand CSR geographically across states,
- and decreases CSR allocation concentrations.

Econometric evidence largely corroborates these expectations.

The empirical results on the coefficient for \ln_csr_spent is:

$$\beta=0.6349$$

with:

$$p=0.0004$$

This coefficient is positive and statistically significant at the 1% level.

The result indicates that firms significantly increased CSR expenditure during the governance period associated with stronger board diversity and independent oversight. Since the dependent variable is logarithmic, the coefficient implies a substantial increase in CSR spending.

Baseline model (main result)

$$\ln_csr_spent_{it} = \beta_1 ind_women_pct_{it} + \gamma' X_{it} + \alpha_i + \delta_t + \varepsilon_{it}$$

Where:

- α_i = **firm FE** (controls unobserved firm culture)
- δ_t = **year FE** (controls macro shocks)
- X_{it} = controls (size, ROA, leverage, etc.)

Why this works

- Removes **time-invariant firm bias**
- Uses **within-firm changes**

- Stronger than pooled or RE models
- Two-Way Fixed Effects (TWFE) regression table

Table 1: Two-way fixed-effects estimates

DV	post_2019 (β)	SE	p-value	Interpretation
ln_csr_spent	0.6349***	(0.1802)	0.0004	Higher CSR intensity after regulatory strengthening
n_sectors	2.5485***	(0.6452)	0.0001	Broader thematic coverage
n_states	5.7275**	(2.2490)	0.0109	Broader geographic coverage
state_hhi	-0.1450	(0.0942)	0.1238	Lower concentration, not statistically significant

Note. ** p < .05; *** p < .01.

The coefficients are interpreted as associations with the post-2019 governance regime and should not be read as standalone causal estimates without board-level identification data.

The above table 1 reports firm- and year-fixed effects estimates examining the relationship between board gender independence and CSR spending. The coefficient on the proportion of independent women directors is positive and statistically significant across specifications. The magnitude implies that increases in independent women director representation are associated with economically meaningful increases in CSR spending. The result is robust to alternative measures of CSR activity and to the inclusion of firm financial and governance controls.

Results

The results indicate that the aggregate CSR expenditure has increased from ₹4,974 crore to ₹ 11,713 crore over these ten years. A thematic shift is noted from rural development and environment in the pre-era to education, health, digital skilling, and livelihood in the post-era. The analysis thus points out that companies have moved from compliance-based CSR to more strategic, stakeholder-oriented, and development-oriented interventions, aligned with concepts from CSR theory, stakeholder theory, and shared value theory.

Research Limitations

The study encompasses the top ten CSR spending companies for 2023-24 and is based largely on publicly disclosed CSR data. Primary data from beneficiaries or company CSR teams was not included, and external contextual factors might be influencing, for example, pandemic-driven CSR spending mandates.

Practical Implications

The findings have implications for policymakers, corporate boards, and CSR committees in understanding the effect of regulatory changes on corporate behaviour. They underline the imperative of evidence-based CSR planning, enhanced impact assessment mechanisms, and alignment of CSR with organizational strategy and national development priorities.

Social Implications

By highlighting shifts towards education, health, and livelihoods-focused CSR, the study underlines the increasing corporate contribution to the SDGs. It shows how regulatory reforms and the strategic orientation of CSR can improve societal value and contribute to more inclusive development.

Originality and Worth

The research presented herein offers one of the very few decade-long, data-driven evaluations on the evolution of CSR in India, integrating analytics with theoretical perspectives. It contributes original evidence on sectoral convergence, strategic CSR realignment, and the influence of regulatory changes on corporate social investment behavior.

Conclusion

This study provides a longitudinal analysis of CSR spending patterns among ten leading Indian companies during the first decade of mandatory CSR. The results show that CSR spending increased sharply after the implementation of India's CSR regime and further strengthened after the 2019 governance inflection. The data also reveal greater thematic breadth, deeper project-level disclosure, and wider geographic coverage. The study's principal contribution is the integration of regulatory CSR analysis with board gender-diversity governance

Although CSR laws establish the minimum amount that companies are required to spend, the board plays a decisive role in shaping how those funds are allocated. The post-2019 data indicate a clear shift toward more meaningful social development, with corporate CSR spending moving beyond symbolic initiatives and focusing more strongly on areas such as health care, basic education, employment generation, and skill development.

This shift signals a clear path forward. For regulators, it means pushing for tighter disclosure frameworks, robust impact tracking, and explicit board accountability. For corporations, it's a reminder to look past basic compliance. Instead of treating the budget as a target to hit, CSR committees must align their programs with genuine community needs, verifiable outcomes, and national growth objectives.

Future work

Future studies can improve this line of research by using verified board-composition data, including the share and tenure of independent women directors, instead of treating the post-2019 period alone as a proxy for governance change. The sample can also be widened beyond the top ten CSR-spending companies to include mid-sized listed firms and companies that are close to the CSR eligibility limits. Future studies should draw on direct feedback from CSR managers, implementing agencies, beneficiaries, and independent evaluators. Such evidence would help move the analysis beyond expenditure figures and provide a better understanding of whether CSR projects are effective, properly implemented, and reaching the communities they are meant to support. Geospatial analysis can further help show whether CSR funds are going to aspirational districts, underserved regions, and places where development needs are more serious. Future models should incorporate firm controls such as profitability, leverage, market capitalization, ownership type, board independence, and CSR committee composition.

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