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Diversity Without Power? Assessing the Limits of Corporate Social Responsibility in Advancing Gender Diversity in Leadership Positions

RÔMULO ALVES SOARES
UNIVERSIDADE DE FORTALEZA - UNIFOR

ANA RITA PINHEIRO DE FREITAS
UNIVERSIDADE DE FORTALEZA (UNIFOR)

THAYANNE LIMA DUARTE PONTES
UNIVERSIDADE DE FORTALEZA (UNIFOR)

SÍLVIA MARIA DIAS PEDRO REBOUÇAS
INSTITUTO SUPERIOR MANUEL TEIXEIRA GOMES

NATALINA SOARES FERREIRA OLIVEIRA
UNIVERSIDADE DE FORTALEZA (UNIFOR)

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1 Introduction

Despite recent progress toward gender equality, women remain significantly underrepresented in leadership positions across organizations. According to the World Economic Forum (WEF, 2025), no country has yet achieved full gender parity, and the pace of change remains slow, and at the current rate, it could take over 130 years to close the gender gap worldwide. One of the main factors behind this persistent inequality is the limited access women have to political and economic decision-making roles (Milazzo & Goldstein, 2019).

In the corporate world, these disparities are even more pronounced at the top of the organizational hierarchy. Data from the Organisation for Economic Co-operation and Development (OECD) show that women held only around 25% of board seats in the largest publicly traded companies in OECD countries in 2021, up from 20% in 2016, progress that remains uneven across jurisdictions, with several countries still falling below 20% representation despite improvements (OECD, 2022).

In this context, the concept of the "glass ceiling" refers to the invisible barriers that limit the upward mobility of women and other historically underrepresented groups, even when they possess similar qualifications and performance. These barriers tend to be subtle and structural, unlike explicit discrimination, as they operate silently within decision-making and promotion processes (Kulik & Rae, 2019). The literature on the glass ceiling has examined these mechanisms, highlighting implicit biases, exclusive social networks, and subjective performance evaluations as major obstacles to career advancement (Cotter et al., 2001; Maume, 2004). Although diversity policies have become increasingly common in corporate discourse, they do not always lead to meaningful changes in leadership composition.

Given the persistence of these structural barriers, scholars have become increasingly interested in whether corporate social responsibility (CSR) initiatives can serve as a mechanism to foster equity and mitigate the effects of the glass ceiling. CSR practices are often used to develop internal policies on diversity, equity, and inclusion, aligning institutional rhetoric with fairer organizational practices (Grosser & Moon, 2005). Several studies have found that firms committed to social responsibility tend to display greater gender and racial diversity in their leadership structures (Cook & Glass, 2017; Fitzsimmons et al., 2014; Trkulja et al., 2024). In this sense, CSR can act as a driver of organizational transformation by incorporating inclusive values into corporate strategies.

Still, the positive association between CSR and diversity is not consistent across all hierarchical levels. Lin, Lee, and Ahlstrom (2023), analyzing firms in Taiwan, showed that internationalization and exposure to global CSR norms promoted the advancement of women into management positions, especially in organizations supported by professional groups that endorsed these norms. In contrast, Mun and Jung (2017) found that, in Japan, diversity gains were concentrated in high-level roles, such as board seats and executive positions, with limited progress in entry-level and mid-level leadership roles. These findings highlight the need for research that disaggregates the effects of CSR by hierarchical level, taking into account the institutional and organizational dynamics that shape its effectiveness.

We aim to build on this debate by examining whether employee-related CSR practices affect the likelihood that women and minorities will attain leadership roles in Brazilian firms. Our research is situated in a unique institutional setting. Starting in 2023, Brazilian public companies became subject to *Comissão de Valores Mobiliários* (CVM, the Brazilian equivalent to SEC) Resolution No. 59 (CVM, 2021), which mandates standardized disclosure of gender,

racial, age, and geographic diversity data across corporate boards, executive management, and employees, segmented by leadership level. This new regulation represents a significant step forward in terms of transparency, enabling the production of better and comparable empirical analyses. It also reinforces the role of regulation as a driver of change in corporate governance, signaling that diversity is a strategic asset.

This regulatory shift is particularly relevant in light of Brazil's weak performance on international gender equity indicators. According to the 2025 Global Gender Gap Report (WEF, 2025), Brazil ranks 92nd out of 146 countries in the global gender parity index, with a score of 0.709, below the Latin American average of 0.741. In dimensions directly tied to the corporate world, such as "economic participation and opportunity," Brazil also ranks 92nd, and in "political empowerment," it stands at 107th. These figures reflect ongoing inequalities in the labor market, particularly in women's access to leadership positions, and underscore the need for empirical studies that explore the organizational and institutional factors shaping this dynamic.

By investigating the effects of employee-related CSR practices on the inclusion of women and minorities in leadership roles, our study contributes to a better understanding of the organizational conditions that facilitate (or hinder) diversity in corporate leadership. Our findings are relevant for managers, policymakers, and investors committed to promoting equitable and inclusive business practices.

2 Literature Review

Gender inequality in the corporate environment remains one of the most persistent expressions of structural inequality in contemporary societies. Although women's participation in the labor market has increased significantly over recent decades, this quantitative growth has not translated proportionally into qualitative gains in leadership, compensation, visibility, or decision-making power. Multiple studies have shown that women are often concentrated in support functions, operational roles, or middle management, while strategic positions continue to be largely dominated by men (Ramos et al. 2021).

Data from the Organisation for Economic Co-operation and Development (OECD, 2024) show that, on average, only 32.5% of board seats in the largest publicly traded companies are held by women. Although this share has grown over the past decade, rising from 21% in 2015, the pace of progress remains slow and uneven across sectors and countries.

The underrepresentation of women in strategic roles cannot be explained solely by individual factors such as career choices or working hours (Nazrul, 2024). Studies have demonstrated that even when controlling for education, experience, and tenure, men are still promoted more rapidly and reach higher-level positions more frequently than women (Avolio et al., 2023; Hideg & Shen, 2019). Additionally, there is strong evidence that women face specific barriers related to gender stereotypes, exclusionary influence networks, masculinized leadership standards, and subjective performance evaluations (Kulik & Rae, 2019; Schein, 2001).

In this context, researchers have sought to understand not only the root causes of gender inequality in organizations but also the mechanisms that reproduce and legitimize these disparities. Initiatives such as diversity programs, unconscious bias training, and salary equity pledges have been widely adopted by corporations. However, empirical evidence shows that such measures often fail to trigger meaningful changes in organizational power structures (Onyeador et al., 2021; Williamson & Foley, 2018). In many cases, they function more as tools for institutional marketing than as transformative policies (Mun & Jung, 2017). It is in this

context that the concept of the glass ceiling becomes particularly relevant for analyzing the persistence of inequalities at the top of organizational hierarchies.

The term "glass ceiling" has become central to describing the invisible barriers that prevent women and minorities from reaching positions of prestige and power within organizations. According to Cotter et al. (2001), the glass ceiling effect is not merely a descriptive metaphor, but an empirical condition observable through systematic patterns of inequality across professional hierarchies.

These authors define four key characteristics of the glass ceiling: (1) inequality that persists even after controlling for relevant qualifications such as education, experience, and working hours; (2) inequality that becomes more severe in the upper levels of the hierarchy; (3) inequality in the chances of advancement into higher levels, not merely the proportions of each gender or race currently at those higher levels; and (4) inequality that increases over the course of a career (Cotter et al., 2001).

These four elements allow us to distinguish the glass ceiling from other forms of labor inequality. While some disparities can be explained by occupational segregation or differences in human capital, the glass ceiling stems from institutional and cultural barriers, often implicit and difficult to detect, that limit the upward mobility of certain groups, even when they hold similar credentials to those traditionally in power (Maheshwari & Lenka, 2022).

The literature also highlights the role of implicit bias in reinforcing these barriers. Schein (2001), for instance, demonstrated how the stereotype "think manager, think male" is widespread across different cultures and organizational settings, perpetuating the notion that desirable leadership traits are inherently masculine. This gendered bias contributes to the symbolic exclusion of women and minorities from leadership roles.

Kulik and Rae (2019) further explore how "inequality regimes" are maintained within organizations through practices that normalize disparities. Organizational logic, combined with entrenched power structures and a lack of effective accountability mechanisms, reinforces obstacles to career advancement for underrepresented groups.

The notion of intersectionality adds another layer of complexity. Espinosa and Ferreira (2022) modeled the cumulative effects of implicit bias, showing how small asymmetries in evaluation, promotion, and selection processes can produce persistent exclusion patterns, even in organizations that claim to operate on meritocratic principles.

In this scenario, CSR emerges as a potential organizational mechanism for promoting equal opportunity. Grosser and Moon (2005) proposed linking CSR to diversity strategies, suggesting that socially responsible practices can include affirmative actions aimed at increasing the inclusion of women and minorities in corporate spaces.

However, the relationship between CSR and diversity remains contested. Cook and Glass (2017) found that women's presence on corporate boards can positively influence the adoption of CSR policies, including environmental, diversity, and human rights initiatives, particularly when there is a critical mass of women directors. The organizational impact of female representation, however, depends not only on numerical presence but also on institutional context. Lin, Lee, and Ahlstrom (2023) provided evidence that firms exposed to international CSR norm, through globalization and external stakeholder pressure, are more likely to promote women into managerial roles.

Similarly, Mun and Jung (2017), studying Japanese firms, found that gains in diversity were concentrated at top-tier positions such as boards and executive teams. These changes were driven by CSR managers responding to international investor pressure, whereas internal resistance, especially from human resource departments, curtailed reforms in lower-level positions.

This dynamic reveals a selective adoption of diversity measures: while highly visible roles may show progress, intermediate and entry-level positions often remain marked by

inequality. This suggests that CSR can be instrumentalized as a legitimacy tool without necessarily reshaping internal power structures.

Kirsch (2018) highlights that although the numerical representation of women on corporate boards has increased over recent decades, their actual influence within these bodies remains limited. Women directors frequently encounter marginalization, constrained access to informal networks, and persistent gendered expectations that diminish their strategic impact. This disconnect between visibility and authority reflects a broader organizational tendency to treat diversity as symbolic rather than transformative. Thus, increasing diversity statistics alone does not guarantee organizational transformation. It is essential to understand how CSR policies are internalized in everyday organizational practices and whether they lead to structural change.

True commitment to diversity must extend beyond compliance. Cook and Glass (2013), for example, argued that the inclusion of women and minorities in strategic roles requires a reconfiguration of organizational culture, governance systems, and performance evaluation criteria. Nonetheless, many CSR initiatives remain symbolic, confined to reports and formal commitments. Ali, Frynas, and Mahmood (2017) showed that in developing countries, CSR disclosure is often driven more by external pressures than by a genuine commitment to equity.

In Brazil, Resolution No. 59 from the Securities and Exchange Commission (CVM, 2021) marks an important regulatory milestone. As of 2023, the resolution mandates the disclosure of detailed diversity data for public companies, covering both boards and the broader employee base. This change may shift corporate incentives and foster more effective diversity strategies.

Several studies suggest that CSR practices, particularly those aimed at employee well-being and development, can help reduce structural inequalities in the workplace. Initiatives such as fair pay, training programs, diversity promotion, and inclusive policies are often cited as tools that expand career opportunities for historically marginalized groups, including women and racial minorities (Cook & Glass, 2017; Grosser & Moon, 2005). However, the effectiveness of these initiatives depends on how they are implemented, the level of organizational commitment to equity, and the degree of external pressure from stakeholders, regulators, and global institutions (Lin et al., 2023; Mun & Jung, 2017).

Given Brazil's high levels of gender inequality and the recent regulatory shift mandating diversity disclosure (CVM, 2021), it is particularly important to examine whether CSR practices aimed at employees translate into greater inclusion of women and minorities in leadership. Considering that the glass ceiling operates selectively across organizational levels (Cotter et al., 2001), we must investigate not only overall representation but also how these groups are distributed across hierarchical tiers. The literature suggests that CSR effects may vary between middle management and executive levels, with more visible tiers being more responsive to external pressure. This differentiation underscores the need for stratified analysis and multiple indicators of hierarchical position.

Thus, we aim to analyze whether, and to what extent, employee-focused CSR practices are associated with a reduction in the glass ceiling within Brazilian firms. We hypothesize that fair pay, diversity, training, and good working conditions can create a more favorable environment for the advancement of women and minorities into leadership roles. However, as past studies suggest, we also need to assess whether these effects are uniform across hierarchical levels or, as Mun and Jung (2017) observed, concentrated only in the most externally visible segments of the corporate structure.

3 Methodology

3.1 Sample and Variables

We constructed a balanced panel of 130 Brazilian publicly traded companies over the 2022–2024 period, totaling 390 observations. Our sample includes firms that disclosed detailed workforce data in their Reference Forms, in compliance with CVM Resolution No. 59, which has been mandatory since 2023. These disclosures were merged with CSR scores data sourced from CSRHub. We present our sampling process and our final sample in Table 1. The full dataset is available at: https://tinyurl.com/ArtigoSemead.

Table 1
Sampling process

Number of Brazilian companies with items 7.1D and 10.1 completed in the Reference Form for 2023, 2024, and 2025	**626**
(-) Companies without available data on the CSRHub platform from 2022 to 2024	*496*
(=) Number of companies in the final sample	**130**
Total number of observations (2022 to 2024)	**390**

Source: Research data (2025).

We grouped the study variables into three analytical blocks: dependent variables (leadership access metrics), independent variables (employee-oriented CSR practices), and control variables (organizational characteristics). The dependent variables are expressed as odds ratios. Specifically, the odds of women and non-binary individuals occupying leadership (OR_LEAD) and executive board positions (OR_EXEC), relative to men, starting from non-leadership roles.

We followed Cotter et al. (2001) in disaggregating the analysis by hierarchical level. Their framework posits that the glass ceiling effect becomes more severe at higher levels of the organizational ladder. This stratification allows us to examine whether organizational practices affect the advancement of underrepresented groups uniformly across different tiers of power.

This approach was made possible by the regulatory shift introduced by CVM Resolution No. 59, which mandates the standardized disclosure of diversity metrics in both corporate boards and employee-level data. This change enabled the construction of granular indicators of hierarchical equity and opened new avenues for empirically analyzing the dynamics surrounding the glass ceiling in Brazil.

Our independent variables comprise four indicators from CSRHub: (a) EMP: an aggregated "Employees" score capturing overall treatment of employees; (b) CPB: "Compensation and Benefits," measuring pay fairness and employee benefits; (c) DLR: "Diversity and Labor Rights," assessing organizational commitment to inclusion and labor equity; and (d) THS: "Training, Health, and Safety," capturing investment in employee development, safety, and well-being.

We included a comprehensive set of firm-level variables as controls. These are: (i) N_LEAD, the log of the number of women and non-binary individuals in non-leadership roles, serving as a proxy for the internal promotion pool; (ii) SIZE, the natural log of total assets, as a proxy for firm size; (iii) LEV, financial leverage, measured as the ratio of total liabilities to total assets; (iv) NETMAR, net margin, calculated as net income divided by net revenue; (v) AGE, the log of firm age in years; (vi) STATE, a dummy variable indicating whether the firm is state-owned; (vii) IND, a set of industry dummies based on CSRHub's classification; and

(viii) YEAR, treated as fixed effects to control for unobserved temporal variation. These controls help isolate the effect of CSR practices on leadership odds while accounting for contextual organizational factors.

Table 2
Research variables

Type	Code	Description	Cálculo/Medida
Dependent	OR_LEAD	Odds ratio for female and non-binary individuals moving from non-leadership to leadership positions compared to men	$\frac{\frac{Women\ and\ Non-binary\ in\ leadership}{Women\ and\ Non-binary\ in\ Non-leadership}}{\frac{Men\ in\ leadership}{Men\ in\ Non-leadership}}$
	OR_EXEC	Odds ratio for female and non-binary individuals moving from non-leadership to executive positions compared to men	$\frac{\frac{Women\ and\ Non-binary\ in\ Exec\ Board}{Women\ and\ Non-binary\ in\ Non-leadership}}{\frac{Men\ in\ Exec\ Board}{Men\ in\ Non-leadership}}$
Independent	EMP	Includes the disclosure of policies, programs, and actions related to diversity, labor relations and rights, compensation, benefits, and employee training, as well as health and safety practices.	Score from 0 to 100. Higher values indicate better practices
	CPB	Measures a company's ability to increase employee loyalty and the productivity of its workforce through fair and equitable compensation and financial benefits.	
	DLR	Covers workplace policies and practices, including fair and non-discriminatory treatment of employees and diversity policies.	
	THS	Includes accident and safety performance, job training, safety standards and training, employee safety management teams, and programs to support the health, well-being, and productivity of all employees.	
Control	N_LEAD	Natural log of the number of female and non-binary individuals in non-leadership positions	$ln\ (Women\ and\ Non-binary\ in\ leadership)$
	SIZE	Natural log of total assets in thousands of BRL	$ln\ (Total\ Assets)$
	LEV	Ratio between total liabilities and total assets	$\frac{Total\ Liabilities}{Total\ Assets}$
	NETMAR	Ratio between net income and net revenue	$\frac{Net\ Income}{Net\ Revenue}$
	AGE	Natural log of company age in years	$ln\ (Company\ age\ in\ years)$
	STATE	Dummy variable indicating if the company is state-owned (1 = yes, 0 = no)	Dummy variable: 1 = state-owned, 0 = otherwise
	IND	Dummy variables indicating the industry sector the company belongs to, based on CSRHub classification	Set of dummy variables: 1 = belongs to the industry sector, 0 = otherwise

Source: Research data (2025).

3.2 Statistical Analysis

We employed a three-step empirical strategy: descriptive analysis, fixed-effects regressions with robust standard errors, and instrumental variable (IV) regressions as robustness checks. All analyses were conducted in R.

In the first step, we performed descriptive statistics across the three analytical blocks: (i) dependent variables (OR_LEAD and OR_EXEC); (ii) independent variables (EMP, CPB, DLR, and THS). We computed measures of central tendency (mean and median), dispersion

(standard deviation and interquartile range), and created column plots with confidence intervals for annual averages, allowing us to explore temporal trends.

In the second step, we estimated multiple linear regressions using the *feols* function from the *fixest* package (Berge, 2018), including fixed effects for industry and year and clustering standard errors at the firm level. This method accounts for unobserved heterogeneity related to sectoral and temporal dimensions while adjusting for within-firm correlation in repeated observations. We estimated separate models for each CSR variable, resulting in eight regressions, four for OR_LEAD and four for OR_EXEC.

In the third step, we implemented two-stage least squares (2SLS) models using the *ivreg* function from the *AER* package (Kleiber & Zeileis, 2008). We used lagged values of the main CSR variables and their control lags as instruments. Instrument validity was assessed using standard diagnostics, including the Hausman test, instrument relevance tests, and first-stage F-statistics.

All models incorporated the same control variables and clustered standard errors by firm to ensure consistent inference. Results were presented in comparative tables that distinguish between leadership and executive-level outcomes. This stratified approach allowed us to test the hypothesis that employee-focused CSR practices help reduce glass ceiling barriers and promote the inclusion of women and minorities in higher-level corporate roles.

4 Results

4.1 Descriptive Analysis

We present descriptive statistics for the dependent and independent variables in Table 3. The average odds ratio for women and non-binary individuals accessing leadership positions (OR_LEAD) is 1.0009, with a standard deviation of 0.6056. The lower median (0.8204) suggests a right-skewed distribution. This indicates that although some firms show relative gender parity, on most companies still present odds below one. In practical terms, an odds ratio of one implies equal access between groups; values below one indicate a disadvantage for women and non-binary individuals, and values above one indicate relative advantage. Therefore, a median below the mean reflects that more than half of the firms in the sample still exhibit lower odds for underrepresented groups in leadership.

Table 3
Análise descritiva das variáveis dependentes e independentes

Variable	Average	S.D.	Q1	Median	Q3	IQR
OR_LEAD	1.0009	0.6056	0.5831	0.8204	1.2196	0.6365
OR_EXEC	0.3895	0.6515	0.0000	0.0728	0.4593	0.4593
EMP	57.9920	9.2162	52.1525	59.2134	64.0117	11.8592
CPB	57.4700	9.2389	51.9200	57.5100	62.9875	11.0675
DLR	58.1697	10.1161	52.7650	59.9700	64.8725	12.1075
THS	58.3363	10.2974	51.1650	59.7150	65.6375	14.4725

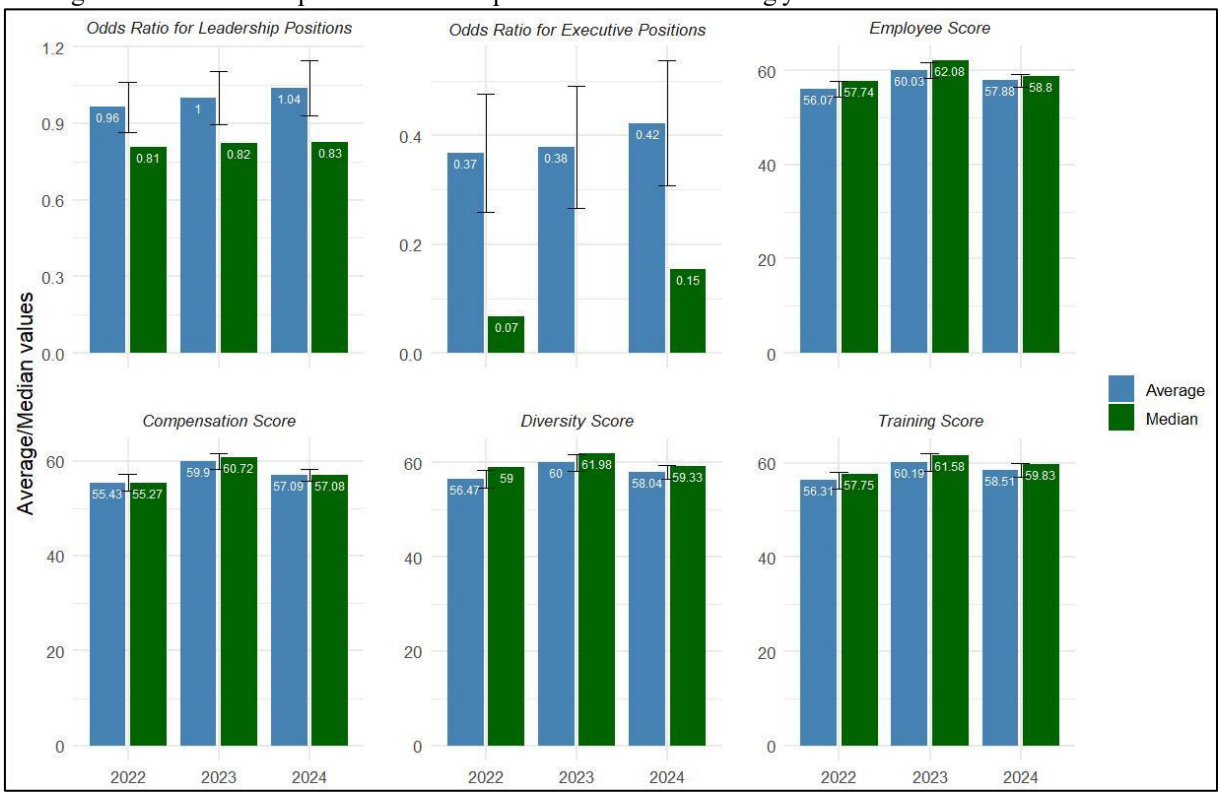
Source: Research data (2025).

The picture is more concerning when we analyze OR_EXEC, the odds ratio for access to executive board positions. The average is 0.3895, and the median drops to just 0.0728, with a high standard deviation (0.6515), indicating a highly skewed distribution with values clustered near zero. Moreover, the first quartile (Q1) equals zero, meaning that at least 25% of the firms in our sample have no women or non-binary individuals in executive roles. These findings underscore the presence of rigid structural barriers at higher hierarchical levels.

Regarding the independent variables, the CSR scores across the four dimensions (EMP, CPB, DLR, and THS) are relatively consistent, averaging around 58 points with moderate dispersion. THS shows the highest interquartile range (14.47), suggesting greater variability among firms in health, safety, and training practices.

Figure 1 illustrates the annual means and medians of the key variables. We observe relative stability in the CSR indicators from 2022 to 2024, with slight upward trends. OR_LEAD remains above one on average across the years, while OR_EXEC shows a median consistently close to zero, highlighting the persistent gap in gender equity at the executive level.

Figure 1
Average and median of dependent and independent variables among years



Source: Research data (2025).

The stability of CSR practices over time, along with the distribution asymmetry between mean and median values for OR_LEAD and OR_EXEC, reinforces the idea that gains in a few firms have yet to translate into widespread structural improvements. These descriptive findings point to the persistence of inequality in leadership access within Brazilian corporate settings and justify a more rigorous empirical investigation.

4.2 Regression Analysis

Table 4 reports the results of fixed-effects regressions using OR_LEAD as the dependent variable. We estimated four separate models, each including a different CSR dimension: EMP (Model I), CPB (Model II), DLR (Model III), and THS (Model IV). All models control for firm-level characteristics, year, and industry, with standard errors clustered at the firm level.

Table 4
Regression results (Dependent variable: OR_LEAD)

Variable	Model I - EMP		Model II - CPB		Model III - DLR		Model IV - THS	
	β	p-value	*β*	p-value	*β*	p-value	*β*	p-value
Intercept	-0.6925	0.2122	-0.9650	0.1048	-0.6101	0.2617	-0.4524	0.4139
EMP	0.0147	0.0023						
CPB			0.0150	0.0004				
DLR					0.0145	0.0010		
THS							0.0088	0.0805
LEV	0.0000	0.9260	0.0000	0.8795	0.0000	0.9846	0.0000	0.9463
AGE	-0.0545	0.5229	-0.0547	0.5176	-0.0450	0.5926	-0.0592	0.5014
N_LEAD	-0.0786	0.0640	-0.0716	0.0929	-0.0837	0.0498	-0.0780	0.0696
NETMAR	0.0601	0.3185	0.0665	0.3018	0.0557	0.3293	0.0586	0.3568
SIZE	0.0843	0.0184	0.0963	0.0084	0.0795	0.0244	0.0892	0.0172
STATE	-0.3068	0.0599	-0.3179	0.0441	-0.2922	0.0734	-0.2876	0.0866
Industry fixed effects	Yes		Yes		Yes		Yes	
Year fixed effects	Yes		Yes		Yes		Yes	
F Test (p-value)	4.434 (< 0.0001)		5.1320 (< 0.0001)		5.0545 (< 0.0001)		4.3899 (< 0.0001)	
Adj-R^2	0.1891		0.1963		0.1934		0.1670	
AIC	659.0204		655.5100		656.9486		669.5110	
VIF	< 1.4227		< 1.4219		< 1.4281		< 1.4237	

Source: Research data (2025).

The results show that EMP, CPB, and DLR are positively and significantly associated with higher odds of women and non-binary individuals accessing leadership positions. The general employee score (EMP) has a positive coefficient ($\beta = 0.0147$; $p = 0.0023$), indicating that firms with better employee-related CSR practices are more inclusive at the leadership level. CPB, which reflects compensation fairness, also shows a significant positive effect ($\beta = 0.0150$; $p = 0.0004$), reinforcing the role of equitable pay policies in promoting inclusion. DLR, which captures efforts toward diversity and labor rights, is likewise significant ($\beta = 0.0145$; $p = 0.0010$), suggesting that fairness-oriented practices can reshape organizational power structures. Although THS shows a positive coefficient ($\beta = 0.0088$), it is not statistically significant ($p = 0.0805$).

Adjusted R^2 values range from 0.1670 to 0.1934, suggesting that 17% to 19% of the variation in OR_LEAD is explained by the models. The F-tests confirm joint significance ($p < 0.0001$), and VIF values below 1.5 rule out concerns about multicollinearity.

Table 5 presents analogous regressions using OR_EXEC as the dependent variable. In contrast to the findings for leadership roles, none of the CSR dimensions exhibit statistically significant effects on the odds of women and non-binary individuals accessing executive board positions. The CPB variable comes closest to statistical significance ($p = 0.0899$), hinting at a potential positive effect of compensation fairness, though the evidence remains inconclusive. The other CSR dimensions, EMP, DLR, and THS, do not show significant associations.

Table 5
Regression results (Dependent variable: OR_EXEC)

Variable	Model I - EMP		Model II - CPB		Model III - DLR		Model IV - THS	
	β	p-value	*β*	p-value	*β*	p-value	*β*	p-value
Intercept	-0.9505	0.0223	-1.1535	0.0061	-0.9383	0.0227	-0.8426	0.0485
EMP	0.0044	0.4204						
CPB			0.0075	0.0899				
DLR					0.0050	0.2683		
THS							-0.0010	0.8683
LEV	0.0000	0.9765	0.0000	0.8851	0.0000	0.9788	0.0000	0.9000

AGE	0.1065	0.1924	0.1060	0.1919	0.1097	0.1745	0.1079	0.1954
N_LEAD	-0.0593	0.0287	-0.0566	0.0331	-0.0613	0.0249	-0.0578	0.0370
NETMAR	-0.0182	0.3450	-0.0148	0.4392	-0.0197	0.3274	-0.0184	0.3020
SIZE	0.0626	0.0239	0.0640	0.0150	0.0598	0.0318	0.0713	0.0129
STATE	-0.2549	0.2688	-0.2715	0.2443	-0.2526	0.2758	-0.2348	0.3034
Industry fixed effects	Yes		Yes		Yes		Yes	
Year fixed effects	Yes		Yes		Yes		Yes	
F Test (p-value)	4.7475 (< 0.0001)		4.9241 (< 0.0001)		4.7856 (< 0.0001)		4.6780 (< 0.0001)	
Adj-R^2	0.1814		0.1883		0.1829		0.1786	
AIC	719.6859		716.3655		718.9677		720.9996	
VIF	< 1.4227		< 1.4219		< 1.4281		< 1.4237	

Source: Research data (2025).

The models in Table 5 also demonstrate similar explanatory power, with adjusted R^2 values between 0.1786 and 0.1883. All models are statistically significant as a whole (F-tests, $p < 0.0001$), and multicollinearity remains negligible (VIF < 1.5).

Taken together, the results from Tables 4 and 5 suggest that employee-oriented CSR practices have different effects depending on the hierarchical level. While compensation equity, diversity, and fair labor practices are positively associated with access to mid-level leadership, they show little to no effect on executive-level inclusion. This contrast indicates that although CSR may support progress at lower managerial levels, its ability to mitigate the glass ceiling effect in Brazilian corporations is still limited. Structural and symbolic rigidity at the top may restrict the reach of CSR-based interventions, pointing to the need for deeper organizational reforms.

4.3 Robustness Check

To ensure the robustness of our regression results, we estimated instrumental variable models (2SLS), using lagged values of the CSR variables (EMP, CPB, DLR, and THS) as instruments. This strategy seeks to address potential endogeneity between CSR practices and gender inclusion outcomes.

Table 6
Instrumental variable regression results (Dependent variable: OR_LEAD)

Variable	Model I - EMP		Model II - CPB		Model III - DLR		Model IV - THS	
	β	p-value	β	p-value	β	p-value	β	p-value
Intercept	-0.7917	0.1452	-1.1537	0.0531	-0.6820	0.1940	-0.4793	0.3714
EMP	0.0191	0.0042						
CPB			0.0198	0.0008				
DLR					0.0187	0.0031		
THS							0.0114	0.0819
LEV	0.0001	0.8223	0.0001	0.7582	0.0000	0.8980	0.0000	0.9894
AGE	-0.0551	0.5048	-0.0554	0.4978	-0.0429	0.5963	-0.0613	0.4757
N_LEAD	-0.0798	0.0508	-0.0707	0.0887	-0.0863	0.0353	-0.0790	0.0561
NETMAR	0.0603	0.2781	0.0687	0.2561	0.0547	0.2949	0.0584	0.3283
SIZE	0.0775	0.0284	0.0930	0.0093	0.0715	0.0422	0.0838	0.0232
STATE	-0.3232	0.0439	-0.3384	0.0290	-0.3038	0.0574	-0.2982	0.0717
Industry fixed effects	Yes		Yes		Yes		Yes	
Year fixed effects	Yes		Yes		Yes		Yes	

Wald Test (p-value)	4.9726 (< 0.0001)	5.2134 (< 0.0001)	5.0077 (< 0.0001)	4.3849 (< 0.0001)
Adj-R^2	0.1856	0.1918	0.1898	0.1655
Weak instruments Test (p-value)	624.1932 (< 0. 0001)	681.1570 (< 0.0001)	511.4148 (< 0.0001)	540.2773 (< 0.0001)
Wu-Hausman Test (p-value)	2.6966 (0.1014)	3.8380 (0.0509)	2.3025 (0.1300)	0.9620 (0.3273)

Source: Research data (2025).

Table 7
Instrumental variable regression results (Dependent variable: OR_EXEC)

Variable	Model I - EMP		Model II - CPB		Model III - DLR		Model IV - THS	
	β	p-value	β	p-value	β	p-value	β	p-value
Intercept	-1.0108	0.0109	-1.3023	0.0019	-0.9795	0.0123	-0.8518	0.0359
EMP	0.0071	0.3228						
CPB			0.0112	0.0467				
DLR					0.0075	0.2605		
THS							-0.0001	0.9924
LEV	0.0000	0.9148	0.0001	0.7927	0.0000	0.9299	0.0000	0.9215
AGE	0.1061	0.1803	0.1054	0.1805	0.1109	0.1564	0.1072	0.1877
N_LEAD	-0.0600	0.0221	-0.0559	0.0281	-0.0628	0.0194	-0.0581	0.0303
NETMAR	-0.0181	0.3615	-0.0130	0.5039	-0.0202	0.3360	-0.0184	0.2901
SIZE	0.0584	0.0416	0.0614	0.0190	0.0552	0.0605	0.0695	0.0226
STATE	-0.2649	0.2413	-0.2877	0.2120	-0.2592	0.2519	-0.2385	0.2839
Industry fixed effects	Yes		Yes		Yes		Yes	
Year fixed effects	Yes		Yes		Yes		Yes	
Wald Test (p-value)	4.7778 (< 0.0001)		4.9969 (< 0.0001)		4.8035 (< 0.0001)		4.6737 (< 0.0001)	
Adj-R^2	0.1803		0.1859		0.1819		0.1785	
Weak instruments Test (p-value)	624.1932 (< 0. 0001)		681.1570 (< 0.0001)		511.4148 (< 0.0001)		540.2773 (< 0.0001)	
Wu-Hausman Test (p-value)	0.8483 (0.3576)		2.0310 (0.1550)		0.6409 (0.4239)		0.0991 (0.7531)	

Source: Research data (2025).

Diagnostic tests support the validity of our instruments. In all models, the weak instrument tests reject the null hypothesis of weak instruments ($p < 0.0001$), confirming the relevance of the lags. Moreover, the Wu-Hausman tests fail to reject the null hypothesis of exogeneity in all models ($p > 0.10$), suggesting that our OLS estimates are not severely biased by endogeneity.

The consistency in coefficients and significance levels across both OLS and 2SLS models reinforces the credibility of our main findings: employee-oriented CSR practices are positively associated with leadership access for women and non-binary individuals, while their impact on executive board inclusion remains marginal.

5 Discussion

Our empirical findings show that employee-focused corporate social responsibility (CSR) practices exert uneven influence on the inclusion of women and non-binary individuals across organizational hierarchies. We found a positive and statistically significant association between specific CSR dimensions, particularly those related to compensation equity (CPB) and

diversity and labor rights (DLR), and higher odds of representation in mid-level leadership roles. However, these associations weaken or disappear altogether when examining access to executive board positions. This suggests that while CSR practices may reduce inequality at managerial levels, their effect on the upper echelons of corporate power remains limited.

These results are consistent with Grosser and Moon's (2005) argument that CSR can serve as an institutional lever for gender equality, provided it is integrated strategically into organizational policy. When CSR is adopted only symbolically or in isolation, its potential to drive structural change diminishes. Our findings reinforce this idea by highlighting that CSR's effectiveness depends on the depth of implementation and the degree of institutional commitment to equity.

Mun and Jung (2017), analyzing the implementation of global CSR norms in Japan, found that diversity gains were concentrated in highly visible roles, such as board positions., due to pressure from international investors. Entry-level and mid-level roles, however, remained largely unchanged. The authors argue that internal power struggles between CSR professionals and human resource departments shaped a selective strategy that prioritized symbolic change while preserving traditional corporate structures.

This contrast between Brazil and Japan may be partially explained by the differing corporate governance systems in each country. In Japan, the keiretsu model, composed of tightly connected networks of banks and corporations, promotes hierarchical rigidity and limited transparency, making structural change more difficult (Gilson & Roe, 1993). In Brazil, particularly among publicly listed firms, governance structures tend to be more diverse and exposed to both regulatory and international pressures (Black et al., 2010). These dynamics may have made mid-level leadership in Brazilian firms more susceptible to the effects of CSR, where institutional flexibility and political resistance are comparatively lower.

Still, our findings align with critiques that many CSR actions operate more as instruments of external legitimacy than as true internal commitments to transformation (Fitzsimmons et al., 2014; Mun & Jung, 2017). The inclusion of women in symbolic positions with limited decision-making authority may serve to meet external expectations without dismantling the structural forces sustaining male dominance in top leadership. This reflects the "paradox of presence" described by Fitzsimmons et al. (2014), where statistical gains in diversity fail to translate into actual power redistribution. Our results suggest that this paradox also applies to the Brazilian context.

Taken together, these findings suggest that while employee-focused CSR practices can facilitate progress for underrepresented groups in mid-level leadership, their capacity to dismantle the glass ceiling in Brazilian corporations is still limited. Addressing this barrier will require strategies that go beyond conventional CSR initiatives, such as binding diversity targets, transparent promotion criteria, and institutional accountability mechanisms. Achieving gender and racial equity at the upper levels of corporate power will ultimately demand deeper and more systemic organizational change.

6 Conclusion

This study aimed to assess whether employee-oriented corporate social responsibility (CSR) practices influence the inclusion of women and non-binary individuals in leadership positions within Brazilian publicly listed companies. To this end, we analyzed a balanced panel of 130 firms between 2022 and 2024, combining data from regulatory filings (Formulários de Referência) and CSR scores obtained from CSRHub.

Our results show that employee-focused CSR is positively associated with greater odds of women and non-binary individuals attaining mid-level leadership positions. However, these

effects did not extend with the same strength to executive board positions, suggesting that CSR may promote inclusion at managerial levels but struggles to impact the uppermost tiers of organizational hierarchies.

Theoretically, these findings contribute to scholarship that questions the structural effectiveness of CSR as a mechanism for change. Our results echo the work of Grosser and Moon (2005) and Mun and Jung (2017), who argue that CSR's influence is often concentrated in highly visible domains with limited internal resistance. By analyzing CSR effects across hierarchical levels, this study advances our understanding of how diversity policies operate selectively within firms.

Practically, our results suggest that CSR practices alone may be insufficient to break through the glass ceiling. While they can support incremental progress, real transformation will likely require structural policies, such as diversity quotas, revised promotion frameworks, and formal accountability mechanisms. Managers and policymakers seeking to drive meaningful change must adopt broader, more binding strategies.

Our research has some limitations. First, the observation window is relatively short, covering only three years of data following the implementation of Brazil's regulatory requirement for diversity disclosures. Second, our CSR measures rely on aggregated CSRHub scores, which may obscure internal variations across firms or industries. Third, the odds ratio approach depends on the existence of a minimum number of individuals in each category, which can distort results for small or homogenous firms.

Future research could deepen the investigation of CSR and diversity using qualitative methods and case studies to uncover internal implementation dynamics and barriers. Longitudinal designs covering a broader time frame would enhance external validity. Expanding the analysis to include additional diversity markers, such as race or age, and governance bodies like fiscal councils would offer a more complete picture. Finally, comparative studies across countries with varying institutional settings would help identify the regulatory and cultural conditions that enhance CSR's capacity to advance equity in organizations.

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