

**CORPORATE GOVERNANCE AND ITS IMPACT ON ESG DISCLOSURE DECISIONS****GOVERNANÇA CORPORATIVA E SEU IMPACTO NAS DECISÕES DE DIVULGAÇÃO ESG**

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<https://orcid.org/0000-0001-7287-7221>**Abstract**

We proposed an investigation based on agency and signaling theories to understand which factors of corporate governance are associated with the probability of the disclosure of social and environmental information. To do that, we employed a logit model on Brazilian public firms traded on B3, with data from 2010 to 2021. Following previous studies, we employ the publication of sustainability reports or similar as a proxy for disclosure. Findings indicate that higher ownership concentration decreases the likelihood of ESG disclosure, while the presence of female CEOs, greater educational attainment, and higher executive compensation are positively associated with disclosure.

Palavras-chave: ESG. Disclosure. Corporate Governance.

Resumo

Este estudo investiga, com base nas teorias da agência e da sinalização, quais fatores de governança corporativa estão associados à probabilidade de divulgação de informações sociais e ambientais. Para isso, foi estimado um modelo logit com empresas brasileiras de capital aberto listadas na B3 entre 2010 e 2021. Seguindo a literatura, a publicação de relatórios de sustentabilidade ou similares foi utilizada como proxy para divulgação ESG. Os resultados indicam que maior concentração acionária reduz a probabilidade de divulgação, enquanto a presença de CEOs mulheres, maior escolaridade e maior remuneração executiva estão positivamente associadas à divulgação ESG.

Keywords: ESG. Relato voluntário. Governança corporativa.

Introduction

Social and Environmental concerns have been gathering traction with regulatory bodies, market participants, and researchers (Chase, 2022; Fitzpatrick, Neilan, & Reilly, 2020; Global, 2019, 2020; T.-T. Li, Wang, Sueyoshi, & Wang, 2021). The attention given to the topic has driven some discussion and change in corporate practices, with the Environmental, Social, and Governance (ESG) development being one of those discussions (T.-T. Li et al., 2021).

We argue ESG debate has become more prominent due to the two roles it may adopt. First, the role of an agency tool (Roberts, 2005), a device whose function is to reduce the information asymmetry (Akerlof, 1970) within an agency problem (Jensen & Meckling, 1976), that is, between the owner of the capital, the principal, and the manager, the agent, acting on his behalf. Second, our interpretation acknowledges ESG tools as devices capable of providing signals to the market (Spence, 1973). Namely, it does so by becoming an instrument used by management to provide and direct attention to certain conducts, supplying the market with information regarding decisions taken.

As ESG information disclosure goes beyond accounting information (Y. Li, Gong, Zhang, & Koh, 2018), furnishing the market with information about the production, social and community ties, regulatory body relationships, and even technology surrounding an entity (Van Duuren, Plantinga, & Scholtens, 2016). This information allows market participants to assess better how a company may fare in the long term while allowing investors engaged in social and environmental concerns to make more accurate decisions based upon information they may value.

Following the previous literature and understanding, while also expanding on the ESG role of information disclosure, we propose this study to investigate which corporate governance factors are associated with the probability of social and environmental information disclosure. While previous literature has researched ESG disclosure in various contexts (Camilleri, 2015; Minutolo, Kristjanpoller, & Stakeley, 2019; Wasiuzzaman & Wan Mohammad, 2020; Yu, Van Luu, & Chen, 2020), even within the Latin America reality (Husted & de Sousa-Filho, 2019). We present a different approach by a logit model designed to provide a new understanding of how governance factors may be associated with ESG disclosure.

We believe the vast literature recently produced on the topics provides our research with a timely research issue, while the method chosen supplies a novelty factor to our research, leading us to provide new and valid information to the ongoing debate of ESG disclosure.

Recent literature has introduced the concept of “greendeflecting,” in which firms, especially those in high-polluting industries, intentionally increase social disclosures to compensate for reputational damage from poor environmental performance (Sebastianelli et al., 2024). This strategy, different from greenwashing, involves genuine social participation, but serves as a reputational buffer. Incorporating this perspective enriches our understanding of ESG disclosure as not only a governance or signaling mechanism but also a strategic response to stakeholder pressure and legitimacy concerns.

Our results indicated that corporate governance is associated with the probability of disclosure of social and environmental information in different ways. We found a negative association between ownership concentration and information disclosure. We also found a positive association between diversity, CEO education, CEO compensation, and the probability of socio-environmental information divulgation. Nevertheless, our results suggest a positive relationship between CEO ownership and social and environmental disclosure. Additionally, the fact that the CEO is also one of the largest shareholders can lessen the severity of the type I agency conflict (Qa'dan & Suwaidan, 2018). On the other hand, we can consider that the CEO can willingly subjugate his (or her) interests to enact protection of others' long-term welfare, in line with the Stewardship Theory (Kota & Charumathi, 2018).

Agency, Signaling and Governance

Disclosure policies, such as governance, are known to be pursued by companies to appease investors and regulators (Baldini, Maso, Liberatore, Mazzi, & Terzani, 2018). Yet, as we study how disclosure may be related to CEOs' choices, a reasonable understanding of the driver underneath said pursuit is required, requiring us to turn to agency and signaling theories.

As introduced by Jensen and Meckling (1976) and expanded by Eisenhardt (1989), agency theory develops on how companies with mixed capital structures make decisions. One of the issues brought up by this theory is the principal-agent problem, a situation caused by a misalignment of interests between the principal, shareholders, and the agent, the CEO, whose role would be to protect their (the principal's) interests. This theory allows us to present how particular policies or practices may deliver the principal information about the actions performed by the agent. This interpretation of how some policies or instruments concede data regarding the agent decisions works to reduce the agent-principal problem and introduces us to the agency tools' concept.

Although agency theory entitles governance as an agency tool, it is signaling theory's understanding of how choices made by a CEO regarding this instrument may lead market participants to understand the decisions. Introduced by Spence (1973), signaling theory presents how information availability by one entity may affect the decision-making in other entities. This knowledge allows for an aggregated effect upon governance, expanding on the discussed agency tool role by making the agent conscious about how decisions lead to information to market participants.

Building on agency and signaling theories, recent studies have emphasized the mediating role of environmental disclosure in the relationship between governance and social transparency (Sebastianelli et al, 2024). Moreover, Mahran and Elamer (2024) highlight that CEO characteristics, particularly gender, education, and psychological traits, play a critical role in shaping environmental sustainability strategies. However, qualitative aspects of disclosure, such as tone and specificity, remain underexplored, especially in emerging markets.

Based upon previously introduced theories, we study how governance choices affect the disclosure presented by companies. As previously developed, this makes governance an agency tool, and the choices made by the agent act as signals to the market. Assuming the agent commits to changes to meet demand by both market and regulatory agencies, we are interested in one of the most recent developments in this field, the concept of environmental and social governance (ESG) (Aureli, Gigli, Medei, & Supino, 2020).

Environmental Social Governance

Following our previous theoretical background, literature links governance tools with a signaling role to the market (Badru, Ahmad-Zaluki, & Wan-Hussin, 2019), and the same link is present with ESG literature (Carnini Pulino et al., 2022; Fu, Boehe, & Orlitzky, 2022; Jang et al., 2020; Lee, Raschke, & Krishen, 2022). ESG literature derives from the attention devised by investors and regulatory bodies to social and environmental aspects, leading companies to adhere to said interests (Reverte, 2009).

As the social interest in the theme accrued, research increased in the field. Some studies have focused on the financial return aspects of the increased disclosure, finding negative and positive results (Aureli et al., 2020; Kim & Li, 2021; Prol & Kim, 2022; Shanaev & Ghimire, 2022). Other studies focused on the role ESG has as a disclosure tool, with no definitive answer (Chen & Xie, 2022; Luffarelli & Alwaysheh, 2018; Yadav, Han, & Rho, 2016).

The lack of consensus in recent research allows our study to have two main contributions. Firstly, it provides more evidence of a developing and research-intensive field. Secondly, we present a focus on

an emerging country as we conduct the research with Brazil's stock exchange, B3. ESG, part of a social disclosure as presented by Brooks and Oikonomou (2018), has gathered traction in both social and research fields, and our research has the intended effect of continuing the discussion by presenting the Brazilian reality.

Sample Selection and research design

Sample Selection

Our empirical data derives from openly traded Brazilian companies with shares traded on B3, with our data frame ranging from 2010 to 2021. The initial period follows Brazil's mandatory adoption of the International Financial Reporting Standard (IFRS) in 2010. The adoption implies significant changes in the information disclosed by companies. Therefore, increasing the time frame to include previous years may affect the economic and financial data we are interested in and compromises the subsequent analysis.

After sample selection, we proceeded to data collection to identify the elements that make up the corporate governance structure. We gathered data from a multitude of sources. We used the reference forms of the listed companies on B3 (Brazil's stock exchange), the CVM (Brazil's Security Exchange) website, the bylaws, and the financial statements. Additionally, through the Thomson Reuters Refinitiv Eikon® database, we collected the required data to estimate other economic and financial variables included in the model.

We made two decisions regarding the data. First, companies in the financial sector (banks, financial institutions, and insurance companies) were excluded from the sample because they have a different equity and operational structure, which may distort the definition of some variables, biasing the estimated results (Costa, Correia, Paulo, & Lucena, 2018). Second, companies that perhaps did not present the necessary data for estimations, missing a variable included in the econometric model, were also excluded.

As companies were not required to present data for all years analyzed, this led to an unbalanced panel. To maximize available data, we exclude observations for the period where data is incomplete. Yet, we chose to keep the company in the sample for the periods where information is available, totaling 1,845 observations. Table 1 presents the resulting data.

Table 1
Sample Selection Procedure

	Companies
Total of openly traded Brazilian companies	412
(-) Financial companies	(78)
(-) Lacking data for the market-to-book calculation	(60)
(-) Lacking data	(83)
Final Sample	191

Note: Research data, 2026.

Research design

To investigate the factors of corporate governance associated with the probability of social and environmental information disclosure, we estimated the model presented in Equation 1 using a logit regression model. As introduced in equation 1, Disclosure is a binary variable of 1 if the company *i* has disclosed a sustainability report or similar during period *t*, and 0 if it has not. In Table 2, we detail the included variables in our model and how previous studies measured them.

$$Dis_{i,t} = \beta_0 + \beta_1 BS + \beta_2 SC + \beta_3 PL + \beta_4 CEOD + \beta_5 Div + \beta_6 CEOE + \beta_7 CEOT + \beta_8 CEOO + \beta_9 CEOC + \beta_{10} P_{15j=12} \text{ Controls} + \epsilon_{i,t}$$

Where:

- *Dis* is the Disclosure
- *BS* is Board size
- *SC* is Share concentration
- *PL* is Premium Listing
- *CEOD* is CEO Duality
- *Div* is Diversity
- *CEOE* is CEO Education
- *CEOT* is CEO Tenure
- *CEOO* is CEO Ownership
- *CEOC* is CEO Compensation

Adams, Almeida, and Ferreira (2005) suggest that larger boards, with a greater diversity of experiences and opinions, favor the ability to monitor and improve company decisions. Hidalgo, García-Meca, and Martínez (2011) highlights how larger board sizes increase the skill set and resources. The sum of those factors leads to “great” boards, according to Vitolla, Raimo, Rubino, and Garzoni (2019). Those “great” boards become required if a company expects to perform supervisory functions and encourage greater transparency successfully. Additionally, larger panels of advisers can offer an improved range of solutions and more perspectives, allowing the realization of the objectives of the related parties and the disclosure of information that goes beyond financial data.

Agency theory predicts a divergence of interest between agents and principals due to the separation of ownership and controls (Jensen & Meckling, 1976). This divergence can happen in two ways, type I agency conflicts, between shareholders (principal) and managers (agents), or type II agency conflicts, between controlling and minority shareholders (Qa'dan & Suwaidan, 2018). This concept of ownership leads us to add the Share Concentration variable, as a broader ownership structure corroborates with greater transparency and accountability (Agyei-Mensah, 2016).

The magnitude of monitoring costs in a publicly traded company is greater than that of a privately held company (Vitolla et al., 2019). Consequently, publicly traded companies with dispersed capital are more likely to provide more information to signal they act in the best interests of related parties (Said Mokhtar & Mellett, 2013).

Companies listed in segments with better governance practices tend to be better evaluated by the market (Marquiori, 2019), as they highlight the pillars of corporate governance – concerning the equal treatment of investors, legal compliance, a responsible presentation of accounts, and transparency in information and accounting demonstrations (Azevedo, Gomes, & Nakao, 2021). The Premium Listing variable considers companies listed at the highest levels of B3's corporate governance, segments whose objective is to create a safer environment for shareholders, users, and other related parties.

Concerning the CEO Duality, the literature argues that the status of the CEO has a direct impact on corporate governance. The position of the CEO must be independent of the board director to allow balance and avoid misuse of power (Palaniappan, 2017). Agency theory supports this and suggests the board's president must be free of conflict of interest to formulate the strategies, be responsible for

implementing them and increase transparency.

There is considerable debate and mixed evidence about the implications of female representation on the board (Yang, Riepe, Moser, Pull, & Terjesen, 2019). Post, Rahman, and Rubow (2011) highlights how board diversity increases the likelihood that different perspectives, contexts, and ideas are allowed in the decision-making process.

According to Alsos and Ljunggren (2017), gender can influence how quality and legitimacy signals are issued and perceived. The position of a woman in a CEO position, prominently, can theoretically indicate that a company has a high level of corporate governance and greater diversity (Badru et al., 2019). The reasoning behind this higher level of corporate governance and diversity is that a female director can provide several benefits, such as competitive advantage, team diversity by decision-making diversity, and other areas of strategy (McGuinness, 2018).

Research suggests that the educational background of an executive can be associated with the behaviors and outcomes of a company. This interaction appears to arise from both selection and training, leading executives with higher degrees to make different decisions and differently perceive requests to disclose the entities' environmental and social information as a strategic opportunity than other business executives (Lewis, Walls, & Dowell, 2014; Lin, Lin, & Lei, 2020).

Research on CEO tenure and related corporate aspects has consistently demonstrated an inverse relationship between time in office and organizational change. The literature argues that newly appointed executives are more willing to experiment and pursue innovative strategies as longer-tenured executives are more resistant to strategic change such as investment and social and environmental disclosure (Lewis et al., 2014; Malik, Wang, Naseem, Ikram, & Ali, 2020). One of the possible explanations may be the quiet life perspective, that is, the understanding that powerful CEOs tend to avoid adopting some strategies to evade increased monitoring levels, which may interrupt their peaceful lives (Azevedo, Schwarz, Gomes, & Ambrozini, 2022).

Similarly, available evidence reports a negative association between managerial ownership and social and environmental disclosure. According to Lagasio and Cucari (2019), CEO ownership concentration leads to dominated strategic decisions, leading firms to ignore the need for accountability. This decision derives from the assumption that costs do not outweigh the benefits of investing and disclosing such information.

Previous studies demonstrate a positive relationship between CEO compensation and information disclosure. Following this, Luo, Wu, and Zhang (2021) argue that voluntary disclosure propensity and the quality and comprehensiveness of the disclosure are greater when managers' compensation arrangements align with stakeholder interests. This misalignment indicates the stakeholder agency problem; one social and environmental information disclosure can address through executive incentives. It does so by ensuring that the interests of both managers and stakeholders are aligned.

Concerning the control variables, in line with the studies that investigated the relationship between corporate governance and the disclosure of social and environmental information, we include the control variables that have a significant influence on the proxy used (firm size, performance, leverage, and growth opportunities), as shown in Table 2. We also include controls for year and sector.

Table 2
Variables description

Variable	Description	Previous Studies	Expected Sign
<i>Disclosure</i>	Binary variable, with 1 being for companies that have disclosed social and environmental information, 0 for companies which are not.		Dependent Variable
<i>Board Size</i>	Number of members in the company's administrative board.	Azevedo et al. (2021); Azevedo et al. (2022).	-
<i>Share Concentration</i>	Accumulated percentage of shares with voting rights held by the largest shareholder in relation to all shares with voting rights.	Azevedo et al. (2021); Azevedo et al. (2022).	-
<i>Premium Listing</i>	Binary variable, with 1 being for companies listed in the New Market and Level 2, 0 for companies which are not.	Zoboli Dalmácio, José Rezende, and dos Santos (2020); Azevedo et al. (2021); Azevedo et al. (2022).	+
<i>CEO Duality</i>	Binary variable, with 1 being for CEO who is also chairman of the board, 0 who is not.	Palaniappan (2017); Kieschnick and Moussawi (2018); Azevedo et al. (2022).	-
<i>Diversity</i>	Binary variable, with 1 being for CEO who is a woman, 0 who is not.	Azevedo et al. (2022).	+
<i>CEO Education</i>	Binary variables level of education of the CEO: Bachelor, Master or PhD	Azevedo et al. (2022).	+
<i>CEO Tenure</i>	Period in office.	Azevedo et al. (2022).	-
<i>CEO Ownership</i>	Binary variable, with 1 being for CEO who is among the top three shareholders, 0 who is not.	Malik et al. (2020); Lagasio and Cucari (2019).	-
<i>Executive Remuneration</i>	Sum of fixed and variable remuneration and stock options received by managers.	Al Dah, Michael, and Dixon (2017); Azevedo et al. (2021).	+
<i>Firm Size</i>	Natural logarithm of the company's total assets.	Lys, Naughton, and Wang (2015); Y. Li et al. (2018).	-
<i>Performance</i>	Ratio between net profits and equity.	Lys et al. (2015); Y. Li et al. (2018).	-
<i>Leverage</i>	Ratio between debts and total assets.	Lys et al. (2015); Y. Li et al. (2018).	+
<i>Growth Opportunities</i>	Ratio between the market value and total equity.	Lys et al. (2015); Y. Li et al. (2018).	+

Note: Research data, 2026.

Results

Descriptive analysis

Table 3 reports the summary statistics. In the descriptive analysis, we can see that approximately 40% of the sample companies disclosed social and environmental information. This subpar disclosure rate may indicate how entities use corporate sustainability disclosure to communicate with different stakeholders, mainly for its potential to create value, as sustainability disclosure conveys the short and long-term vision and strategies for organizations to interested stakeholders.

Table 3

Descriptive analysis

	Obs.	Avg	Std. Dev.	Min.	Max.
<i>Disclosure</i>	1845	0.402	0.490	0	1
<i>Board Size</i>	1845	7.647	3.284	3	18
<i>Share Concentration</i>	1845	47.995	25.490	6.767	99.999
<i>Premium Listing</i>	1845	0.664	0.4723	0	1
<i>CEO Duality</i>	1845	0.125	0.331	0	1
<i>Diversity</i>	1845	0.095	0.293	0	1
<i>Bachelor</i>	1845	0.481	0.499	0	1
<i>Master</i>	1845	0.145	0.352	0	1
<i>PhD</i>	1845	0.016	0.124	0	1
<i>CEO Tenure</i>	1845	2.609	1.019	1	5
<i>CEO Ownership</i>	1845	0.113	0.317	0	1
<i>CEO Compensation*</i>	1845	13.297	13.747	0.000	89.881
<i>Firm Size*</i>	1845	14.567	2.334	5.345	19.661
<i>Performance</i>	1845	0.094	0.480	-1.338	1.679
<i>Leverage</i>	1845	0.504	0.404	0.112	5.884
<i>Growth Opportunities</i>	1845	4.050	10.289	-0.492	89.932

Note: Research data, 2026.

It is relevant to make some notes about governance proxies. We can say that the boards of directors have an average size of approximately eight directors. Additionally, the companies in the sample maintain, on average, 47.99% of their capital concentrated on a single shareholder, which may imply a higher information asymmetry with other shareholders or potential investors.

The percentage of companies listed in the higher listing classes (New Market and Level 2) follows previous research. Approximately 66.4% of openly traded non-financial companies in the B3 have sought after voluntarily listing themselves in a higher level of corporate governance (Azevedo et al., 2021). Despite this, 12.5% of companies still keep CEOs in a dual role, and roughly only 9.5% have women in this top management position. Other variables are shown in 3.

Econometric model

To investigate which corporate governance factors are associated with the probability of social and environmental information disclosure, we used the logit model, keeping in mind the binary nature of the dependent variable. In a complementary manner, as we seek to qualify the goodness of fit, we performed the Hosmer-Lemeshow test, which has a null hypothesis that the observed and expected frequencies are equal. The results presented at the end of table 5 indicate that we did not reject the null hypothesis in the estimated values (p-values > 5%). Additionally, we verified that the estimated model does not present problems concerning the goodness of fit.

Also, regarding the fitness, we verified that the Count R2, which tells the probability of the correct classification of the models, indicates that the model is classified correctly approximately 61.6% of the time. And McFadden's Adjusted R2 implies that the model explains 32% of the total variability in the dependent variable.

Lastly, we verified that the estimated model does not present signs of multicollinearity. This conclusion is due to the absence of a strong correlation between the independent variables inserted in the econometric model, as demonstrated by the correlation matrix presented in 4. Considering that the variables examined did not show normality, according to the Shapiro-Wilk test, Spearman correlations between continuous quantitative variables were tested, in addition to the Phi correlation in situations of

two binary variables.

Table 4
Correlation Matrix

	1	2	3	4	5	6	7	8	9	10	11	12
<i>Disclosure</i>	1											
<i>Board Size</i>	0.003	1										
<i>Share Concentration</i>	-0.038*	0.026	1									
<i>Premium Listing</i>	0.068	0.282*	-0.3441*	1								
<i>CEO Duality</i>	-0.469	-0.2098*	0.104*	0.297*	1							
<i>Diversity</i>	0.479*	-0.232	0.024	-0.032	0.0732*	1						
<i>Bachelor</i>	0.043*	0.014	-0.102*	0.169*	-0.170*	-0.0486*	1					
<i>Master</i>	0.039*	0.0185	0.032	0.051*	0.091*	-0.049*	-0.395*	1				
<i>PhD</i>	0.032*	0.052	0.015	-0.394	-0.035	0.078*	-0.122*	-0.052*	1			
<i>CEO Tenure</i>	-0.038*	0.036	-0.054*	-0.071*	0.017	-0.021	0.084	-0.022	0.091	1		
<i>CEO Ownership</i>	0.063*	-0.202	-0.072*	-0.093	-0.016	0.091	-0.006*	0.084	-0.030	-0.017	1	
<i>CEO Compensation*</i>	0.557	0.563	0.448	0.546	0.345	0.124	0.036	0.265	0.109	0.4432	0.221	1

Note: Research data, 2026.

Based on Table 5, we can verify that there is a negative association between shareholding concentration and disclosure of social and environmental information. As previously discussed, our results corroborate the view that more concentrated capital structures are related to a reduction in the disclosure probability and imply an increase in type II agency conflicts dynamic described by Jensen and Meckling (1976) and developed by Qa'dan and Suwaidan (2018), in which controlling shareholders may suppress disclosure to limit scrutiny of their decisions by minority shareholders. In a market context such as Brazil's, where the average shareholding concentration in our sample reaches nearly 48% of voting capital in a single shareholder (as can be seen in Table 3), this mechanism is particularly consequential: concentrated ownership structures reduce the pressure on management to provide transparent information, as the dominant shareholder already has preferential access to internal information and has less need to use public disclosure as a governance instrument. From a signaling theory perspective (Spence, 1973), this suggests that firms with concentrated ownership are less motivated to send costly signals to the market, given that the principal-agent relationship is more direct and less mediated by public information channels. Our finding thus provides empirical support, in the Brazilian context, for the view that ownership dispersion is a structural precondition for effective ESG disclosure.

Our results also reveal a positive and significant association between the female CEOs and the probability of disclosing socio-environmental information. Following the Signaling theory lens: in a market where women occupy only 9.5% of CEO positions, as evidenced by our own descriptive statistics, the appointment of a female executive constitutes a rare and therefore highly informative signal (Spence, 1973; Alsos & Ljunggren, 2017). The signaling value of female leadership is amplified in concentrated-ownership markets, where board-level diversity in itself is uncommon, making it a credible indicator of a broader organizational commitment to transparency and stakeholder engagement. This is consistent with the argument advanced by Badru et al. (2019) and McGuinness (2018) that female leadership signals a higher level of corporate governance quality. Changing to the agency theory lens corroborates this result, as a more diverse decision-making environment reduces the

likelihood that the agent's interests become entrenched, thereby increasing the propensity to disclose information that goes beyond financial data (Post, Rahman, & Rubow, 2011). Taken together, our theoretical framework, signaling and agency theories, converge in predicting, and our data confirm, that gender diversity at the CEO level is a meaningful driver of ESG disclosure in the Brazilian market.

Regarding the educational level of the CEO, results indicate a positive and significant association with disclosure probability across all three educational levels tested, with the coefficient growing in magnitude from Bachelor (0.343) to PhD (0.854). This gradient supports Lewis et al.'s (2014) argument that higher education does not merely correlate with disclosure decisions but shapes the cognitive framework through which executives perceive environmental and social reporting, not as a compliance burden, but as a strategic opportunity. From an agency theory standpoint, more educated CEOs may be better aware of the information asymmetry between the firm and external stakeholders, recognizing disclosure as a mechanism to reduce monitoring costs and build long-term credibility (Jensen & Meckling, 1976). The signaling logic goes follows the same lines, assuming educational credentials function as a pre-existing quality signal (Spence, 1973), and executives who have already invested in such credentials may be more predisposed to use further signaling instruments, such as ESG reports, as part of a coherent reputation-building strategy.

However, contrary to the negative association predicted by agency theory, our results indicate a positive and significant relationship between CEO ownership and the probability of ESG disclosure. Standard agency theory would predict that managerial ownership concentration leads to entrenchment, suppressing accountability and reducing disclosure incentives (Lagasio & Cucari, 2019). However, two alternative theoretical mechanisms help account for our finding. First, Qa'dan and Suwaidan (2018) argue that when CEOs hold a meaningful equity stake, their interests become more closely aligned with those of shareholders, reducing the type I agency conflict and increasing the motivation to disclose information that enhances corporate reputation and, by extension, firm value. Second, this result is consistent with stewardship theory (Kota & Charumathi, 2018), which assumes that certain executives are intrinsically motivated to act as stewards of the organization's long-term welfare, voluntarily pursuing transparency even when it is not strictly required by external governance pressures. Additionally, as Sebastianelli et al. (2024) propose through the concept of greendeflecting, CEO-owners in high-visibility firms may strategically increase social disclosures to reinforce reputational legitimacy, a motive that is fully compatible with significant ownership stakes. The convergence of these mechanisms suggests that, in concentrated-ownership emerging markets, the relationship between managerial ownership and disclosure is conditioned on the governance culture and the individual characteristics of the CEO, an issue that merits further investigation in future research.

Second, in this sense, the fact that the CEO is also one of the largest shareholders can make the core agency conflict to be less severe between principals (shareholders) and agents (managers), reducing the type I agency conflict (Qa'dan & Suwaidan, 2018). On the other hand, we can consider that the CEO can willingly subjugate his (or her) interests to enact protection of the long-term welfare of others, in line with the Stewardship Theory (Kota & Charumathi, 2018).

The positive association between CEO ownership and ESG disclosure, while counterintuitive, may reflect a stewardship-oriented leadership style in the Brazilian context. As suggested by Mahran and Elamer (2024), CEOs with significant ownership stakes may feel a stronger sense of responsibility toward long-term sustainability. Additionally, Sebastianelli et al. (2024) propose that firms may strategically increase social disclosures to deflect attention from environmental shortcomings, a behavior consistent with greendeflecting.

Our results also confirm a positive and statistically significant association between CEO compensation and the likelihood of ESG disclosure. From an agency perspective, we are able to derive that executive compensation structured to align managerial incentives with stakeholder interests reduces the agency cost associated with voluntary disclosure: when compensation is tied to long-term performance or

reputational outcomes, the agent has a direct financial interest in pursuing disclosure strategies that enhance the firm's standing with investors and regulators (Luo, Wu, & Zhang, 2021). From a signaling standpoint, higher compensation may attract executives who are more attentive to market perception and more experienced in using voluntary disclosure as a reputational instrument (Spence, 1973). It is also worth noting that, in our sample, CEO compensation is highly correlated with firm size ($r = 0.563$), which may partly reflect the tendency of larger firms, and by consequence, broader stakeholder audiences, to both pay and disclose more.

Reading the significant results collectively we can understand that disclosure in Brazilian firms is driven primarily by CEO-level characteristics, such as gender, education, ownership, and compensation, rather than by board-level governance structures such as board size, CEO duality, or premium listing, none of which reached statistical significance. This finding is theoretically informative. Agency theory assigns a central monitoring role to the board of directors (Jensen & Meckling, 1976; Eisenhardt, 1989), yet our results suggest that in the Brazilian context, where ownership is highly concentrated and board composition may reflect the preferences of controlling shareholders, the board is a less effective disciplining mechanism than the individual attributes of the CEO. This shifts the theoretical emphasis toward the CEO as the primary unit of analysis for ESG disclosure decisions, consistent with CEO-characteristics literature (Lewis et al., 2014; Mahran & Elamer, 2024).

Table 5
Econometric Model

Model 1 Dependent Variable: Disclosure	Logit
<i>Board Size</i>	0.011 (0.019)
<i>Share Concentration</i>	-0.006*** (0.002)
<i>Premium Listing</i>	0.166 (0.125)
<i>CEO Duality</i>	-0.043 (0.164)
<i>Diversity</i>	0.267* (0.161)
<i>Bachelor</i>	0.343*** (0.112)
<i>Master</i>	0.230* (0.153)
<i>PhD</i>	0.854** (0.455)
<i>CEO Tenure</i>	-0.046 (0.052)
<i>CEO Ownership</i>	0.456*** (0.168)
<i>CEO Compensation*</i>	0.011*** (0.004)
<i>Firm Size*</i>	-0.056** (0.027)
<i>Performance</i>	0.000 (0.001)
<i>Leverage</i>	-0.001 (0.001)
<i>Growth Opportunities</i>	-0.000 (0.001)
<i>Constant</i>	0.789 (0.504)
<i>Year</i>	Included

<i>Sector</i>	<i>Included</i>
<i>LR chi2</i>	580.46***
<i>Goodness-of-fit</i>	1202.68
<i>Count R2</i>	0.616
<i>McFadden's Adjusted R2</i>	0.320

Note: Research data, 2026. Logit link coefficients presented as odds ratios. Standard errors are reported between parentheses. ***, **, * indicate significance at levels of 1%, 5% and 10% respectively.

Conclusions

Our research examined the relationship between corporate governance mechanisms and the likelihood of ESG disclosure among Brazilian firms listed on B3 from 2010 to 2021. Using a logit model, we found that ownership concentration reduces the probability of disclosure, while female leadership, higher CEO education, and greater executive compensation increase it. Unexpectedly, CEO ownership was also positively associated with disclosure, a result that, rather than contradicting agency theory, points to its limitations in concentrated-ownership emerging markets, where stewardship-oriented behavior and reputational incentives may be better suited.

We explored a rapidly developing field using a research design devised to introduce new evidence in the background of an emerging country with a reasonable number of observations. The evidence presented allows us to contribute to a heated research field with uncommon data by both method and context. As previously explored by Baldini et al. (2018), different countries present distinct ESG disclosure by policy or market demand. In Brazil, per our findings, the common associations were attested, except those concerning CEO ownership and ESG disclosure. We believe our findings are directly related to the arguments raised by Baldini et al. (2018).

Our findings indicated that corporate governance is associated with the probability of disclosure of social and environmental information, with a pattern worth noting: all statistically significant variables are CEO-level characteristics (gender, education, ownership, and compensation) while board-level variables such as board size, CEO duality, and premium listing were not significant. This suggests that, in the Brazilian context, the CEO is the primary locus of ESG disclosure decisions, a finding consistent with the CEO-characteristics literature (Mahran & Elamer, 2024; Lewis et al., 2014). Our findings lead to a negative association between ownership concentration and information disclosure and a positive association between diversity, CEO education and CEO compensation, and the probability of socio-environmental information publication. Contrary to theory, we also found a positive relationship between CEO ownership and social and environmental disclosure. Yet, although it goes beyond our employed scope on agency and signaling theories, this may be due to factors explored by stewardship theory. Our findings contribute to the literature by offering evidence from a developing economy and by integrating emerging theoretical perspectives such as stewardship theory and greendeflecting.

Despite its contributions, this research is subject to some limitations that must be acknowledged, each of which also represents an opportunity for future investigation. First, the dependent variable does not distinguish between the quality, depth, or accuracy of the social and environmental information disclosed. It is possible that some companies issue comprehensive reports with substantive information, while others may engage in superficial greenwashing. Second, it is plausible that unobserved variables or endogeneity, such as organizational culture or unmeasured stakeholder pressure, may simultaneously influence both governance structures and the decision to disclose.

By integrating empirical findings with emerging theoretical perspectives such as greendeflecting and stewardship, this study advances the understanding of the mechanisms driving ESG disclosure in emerging markets. The results underscore that governance and leadership characteristics not only directly influence disclosure practices but also interact with reputational and industry specific factors, such as a company’s pollution level, as demonstrated by Sebastianelli et al. (2024) and Mahran and

Elamer (2024). In sum, our evidence suggests that fostering ESG disclosure in Brazil may depend less on board-level governance reforms and more on the individual characteristics and incentive structures of those who lead firms, and such distinction may possess practical implications for regulators and investors alike.

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