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AN EAGLE'S EYE VIEW: UNCOVERING THE IMPACT OF STAKEHOLDER PRESSURES ON SDG DISCLOSURE

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1 INTRODUCTION

In 2015, the United Nations General Assembly adopted the Agenda 2030, which is a blueprint for sustainable development with a focus on people, planet, and prosperity. As part of the Agenda 2030, there are the Sustainable Development Goals (SDGs), which are 17 goals and 169 targets to combat climate change, balance economic, social and environmental development, as well as reduce poverty and gender inequality, among others aspects (Toukabri & Mohamed Youssef, 2023). This endeavor has significant geographical participation, as it covers more than 130 countries and has the moral legitimacy of 193 UN member states, which have committed to encourage sustainable development among their companies (Nonet et al., 2022).

Faced with this panorama, companies from several countries have acted to reduce their impacts on the environment and report these actions in their official reports (Arena et al., 2023). Therefore, SDG disclosure is an attitude of acting transparently toward all stakeholders by disclosing information on tha actions that the company has taken to achieve the 17 SDGs or some of them. According to Silva (2021), SDG disclosure is a possibility for the company to guarantee its legitimacy, communicate its environmental and social performance, respond to external pressures, and improve its corporate reputation.

Given the importance of this topic for the United Nations and other supranational and national institutions and governments, several studies have explored which factors can affect SDG disclosure. Several previous studies (Curtó-Pagès et al., 2021; Martínez-Ferrero & García-Meca, 2020; Pizzi et al., 2021; Rosati & Faria, 2019c) have shown that factors internal to organizations are crucial for better disclosure of the SDGs. For example, Rosati and Faria (2019) showed that company size and company financial performance positively affect SDG disclosure. This is because larger companies have more financial and intellectual resources to invest in environmental and social issues, as well as because they suffer greater external pressure from stakeholders (El Alfy et al., 2020).

On the other hand, institutional factors, that is, those external to organizations, also shape their behavior in relation to the SDGs. The study by Rosati and Faria (2019a) indicates that in countries with greater economic freedom and greater investment in education, companies have better SDG disclosure. The work of Glass and Newig (2019) signals that national governance can shape the achievement of the SDGs. In countries with more democratic institutions, companies have a greater institutional incentive to act in SDG disclosure. Pizzi et al. (2022) found that the country's culture can interfere with SDG disclosure, indicating that countries with greater long-term orientation tend to have companies that are more engaged with the SDGs.

Although previous studies have already revealed some factors that affect the disclosure of the SDGs, there is still a gap that pertains to the relationships between stakeholders' pressures, from a macroeconomic point of view, and the disclosure of the SDGs. Stakeholders can shape the behavior of organizations in relation to the SDGs, as each of them has specific interests in the company's activities (Shubham et al., 2018a). The media, for example, can mobilize public opinion for or against a given corporation (Clarkson, 1995). Despite their importance in the performance of companies, the role of stakeholders (especially the secondary ones) on SDG disclosure has not yet been explored in the literature (D'Souza et al., 2022).

Therefore, this study aims to examine the impact of secondary stakeholder pressures on SDG disclosure. In this vein, the stakeholder theory forms the basis of our argument. To achieve the research objective, this research examined the SDG disclosure of 1831 companies based in the highest carbon emitting economies. We focus on the following four types of secondary stakeholders: government, society, labor unions and media.

The results are not entirely straightforward regarding the pressure exerted by government, society, and the media in terms of their importance for companies in environmentally sensitive sectors to have better disclosure of SDGs. Our evidence presents significant theoretical and practical contributions. Notwithstanding, our findings offer insights that prove the importance of dialogue between companies and stakeholders. Stakeholders can work as a complement to the actions of companies in relation to social and environmental issues. On a practical level, managers must develop strategies to achieve the interests of their secondary stakeholders.

2 STAKEHOLDER THEORY

The literature suggests that businesses are facing increasing pressures to become socially responsible (Tura et al., 2019). Stakeholder pressure has been identified as one of the key factors contributing to the adoption of sustainability practices by companies (Barnett et al., 2018; Jakhar et al., 2020). These studies highlight the growing importance of social responsibility and sustainability in the business world, emphasizing the need for companies to address the concerns and expectations of their stakeholders in order to remain competitive and gain societal acceptance.

The fundamental questions of why firms exist and what are their functions, along with the roles of managers, have sparked an enduring debate that has been explored through various Theories of the Firm. These theories aim to explore the workings of companies by offering distinct perspectives and frameworks for analyzing organizational objectives. Among the diverse theories examined by Lozano et al. (2015), it was concluded that the Stakeholder Theory provides the most suitable approach to investigate sustainability-related themes within organizations. This theory emphasizes the management and balance of the company's relationships with both social and nonsocial stakeholders, defined as "any group or individual who can affect or be affected by the achievement of the organizational objectives" (Freeman, 1984, p.25). Stakeholder Theory brings attention to the importance of considering the interests and concerns of stakeholders in the management and operations of the company, thereby contributing to its long-term success and societal impact.

Freeman (1984) emphasized the Stakeholder Theory, stating that corporations have responsibilities towards multiple stakeholders. Stakeholders can be classified into internal and external groups. Internal stakeholders include, among others, employees, managers, and business owners, while external stakeholders consist of suppliers, banks, governments, environmentalists, and other groups. Stockholders are unique as they can be considered both internal and external stakeholders (Freeman et al., 2004).

Stakeholders can also be categorized as primary or secondary based on the extent to which they influence or are influenced by the company (Castka & Prajogo, 2013). The relationship between companies and primary stakeholders plays a crucial role in shaping environmental policies, as these stakeholders maintain direct and reciprocal transactional relationships, often mediated by secondary stakeholders (Shubham et al., 2018b).

According to Sarkis et al., (2010) companies' reactions to external practices can be proactive, driven by primary stakeholders' push to adopt and implement environmental practices (Obel & Gurkov, 2023). Conversely, reactions can be reactive, as secondary stakeholders may threaten or compel firms to adhere to green practices (Sarkis et al., 2010). These statements align with the observation made by Clarkson (1995) that corporate social performance can be best analyzed and evaluated based on the relationship of a corporation and its stakeholders.

In sum, companies' responsibilities have moved beyond profit generation and job creation. The rise of sustainability has highlighted the need for firms to consider a broader range of stakeholders (Freeman et al., 2004; Hill et al., 2014). Without pressure from external groups, environmental interests may be overlooked, as indicated by Fadeeva (2005) and exemplified by D'Souza and Taghian's (2018) study on government regulations. Stakeholder pressures, reputational risks, and legal considerations serve as driving forces for the implementation of standards and codes of conduct, according to Seuring and Gold (2013). Ultimately, stakeholder theorists argue that organizations must acknowledge and cultivate relationships with stakeholders to attain legitimacy within the external environment, as stated by Shubham et al. (2018a) and supported by Freeman et al.'s (2010) definition of stakeholder engagement. These insights underscore the significance of stakeholder management in achieving sustainable and responsible business practices.

There is not a consensual classification of stakeholders as secondary or primary. For example, whilst Clarkson (1995 and Shubham et al. (2018) consider the government as a primary stakeholder, Lozano et al. (2015) and D'Souza et al. (2022) present it as a secondary one. In this study, we consider the government and the media as secondary stakeholders, as Lozano et al. (2015) do. To these two we add society and labor unions. Whilst we recognize that labor unions "occupy a distinctive position" in the stakeholders' landscape (Harvey et al., 2017, p. 45), we consider they should be distinguished from the employees themselves, who are the primary stakeholder.

2.1 Hypotheses Development

First, we hypothesize about the positive effect between government and companies' disclosure of the SDG. Preliminary studies point out that the government regulations are seen as an efficient way of repressing environmental degradation (Castka & Prajogo, 2013; D'Souza et al., 2022; D'Souza & Taghian, 2018). Coercive pressure is used by the government to ensure that companies reshape the supply chain on a large scale, mitigating environmental and social risks (Castka & Prajogo, 2013). This force may be stronger if is seen as a norm, is in this space that the government acts: forming legislation, regulations, and public policies (Guler et al., 2002). We can cite examples as the creating of purchasing policy or "only certified firms are allowed to bid for governmental contracts" (Castka & Prajogo, 2013, p.246). The results of the study by Haji et al. (2023) showed that regulatory quality improves the environmental performance of companies and prevents them from committing greenwashing. Based on these arguments, we hypothesize that:

H1: In countries with better regulatory quality, companies have more complete disclosure of the SDG.

Second, the literature suggests a positive effect when the society involved with the SDG disclosure (Espinosa & Rangel, 2022; Gellers, 2016; Sénit, 2020). According to Sénit (2020),

the civil society participation has multiplied since the 1992 Earth Summit, because of that, studies are recognizing the influence in informal and exclusive participatory space, at international and national level (Espinosa & Rangel, 2022; Sénit, 2020). In a practical way, in one hand, the civil society can voice their opinion inside negotiating hubs throw oral or written interventions, in formal or informal settings (Saner et al., 2020). In another hand, mass protests and campaigning may be used by civil society actors to pressure and influence the intergovernmental policymaking in favor of the environment (Sénit, 2020). According to Almeida and García-Sánchez (2017), in a democratic system, there is more openness in relations between the government and citizens, which favors company managers to pay attention to collective problems, such as environmental issues. Therefore, we hypothesize that:

H2: In countries with greater society participation, companies have more complete disclosure of the SDG.

Third, unions may represent a collective voice of employees and in countries with government and laws weak, unions exert greater pressure to the organizational disclosure of the SDG (Boodoo, 2020; Rosati & Faria, 2019b). The previous studies highlighted the importance of proactive role by unions while constructs bargaining process and ensuring the granting of rights to employees and response to social demands (Boodoo, 2020; Colombo et al., 2019; Rosati & Faria, 2019b). When the company assumes the SDGs, the unions must monitor and follow up on the reports, to report the success or failure of the implementation of sustainable practices. Consequently, the union ensure that organizations are accountable for their practices (Rosati & Faria, 2019b). Indeed, they have been significant advocates of the responsibility from the companies to environmental and social issues. Thus, we argue that:

H3: In countries with a higher density of unions, companies have more complete disclosure of the SDG.

Finally, the fourth hypothesis argues that media plays a fundamental role in disclosure of the SDG (Alam & Ali Shah, 2013; Ike et al., 2022). When the media convince and mobilize a discuss, representative mass of people can demand actions from the companies (Espinosa & Rangel, 2022; Sénit, 2020). In fact, the articulation of media and the stakeholders previously cited may result in a strategic alliance to raise awareness and influence the public (Clarkson, 1995). But for this it is necessary that countries provide freedom for the press (Alam & Ali Shah, 2013; Ike et al., 2022). The literature emerges that "economy suffers when press freedom deteriorates" (Espinosa & Rangel, 2022; Ike et al., 2022, p.2). El Ghoul et al. (2019) noted that the speed of distribution of information and public awareness by the media increases the interest of companies to engage in social and environmental issues in order to maintain their reputation. We argue that freedom of the press guarantees that reliable information about the SDGs and reality reach the government and society. Therefore, our hypothesis is that:

H4: In countries with greater freedom of the press, companies have more complete disclosure of the SDG.

3 RESEARCH DESIGN

3.1 Sample description

Our initial sample consists of all companies with information available in the Thomson Reuters Eikon database for the period 2016 to 2019. The Agenda 2030 was signed in 2015 by

193 UN member states that committed to encouraging sustainable development (Orzes et al., 2020). Therefore, 2016 was the following year after the signing of the Global Compact and with that, companies began to disclose information regarding the SDGs. 2019 was a year before the start of the Covid-19 pandemic and according to Botzen et al. (2021), the Covid-19 crisis changed the relationship of companies with climate change. Therefore, these facts justify the analysis period of our study.

After excluding companies that did not have information available on SDG disclosure, the final sample consisted of 1831 companies from four industry sectors: basic materials, energy, industrial and utilities. This study examines these four sectors because they are considered environmentally sensitive sectors, that is, they generate negative environmental impacts because they deal directly with natural resources. According to García-Meca & Martínez-Ferrero (2021), firms operating in these sectors receive more pressure from their stakeholders to minimize the use of raw materials, reduce waste and carbon emissions into the atmosphere. Table 1 shows how companies are segmented by sectors and countries.

Table 1. Number of sample companies in each sector and country

Country/Sector	Basic materials	Energy	Industrials	Utilities	Total
Brazil	12	7	17	18	54
China	153	53	194	33	433
Germany	23	8	61	7	99
India	148	17	121	24	310
Indonesia	10	8	5	2	25
Japan	14	1	31	1	47
S. Korea	15	5	34	3	57
Russia	13	10	1	6	30
United States	138	186	370	82	776
Total	526	295	834	176	1831

As can be seen, the industrial sector has the highest representation in the sample with 834 companies, followed by the basic materials sector with 526 companies. Together these sectors represent 74% of the total number of companies analyzed in this study. On the other hand, the utilities sector has the lowest participation in the sample, with 176 companies, corresponding to 9.61% of the total sample.

Our research examined companies based in 9 economies: Brazil, China, Germany, India, Indonesia, Japan, South Korea, Russia, and United States. The choice of these countries was based on the study by Akadiri and Adebayo (2022), which identified the countries that emitted the most carbon in the period from 1991 to 2019. According to Akadiri and Adebayo (2022), the governments of these countries need to understand which factors motivate their companies to engage with the SDGs to create public policies to reduce carbon emissions.

Table 1 shows that the United States is the country with the highest representation with 776 companies, followed by China with 433 companies and India with 310 companies. In contrast, Indonesia has only 25 companies in the sample, followed by Russia with 30 companies and Japan with 47 companies. Our sample has companies headquartered in the American, European, and Asian continents.

3.2 Variables' definitions and features

Our dependent variable is the disclosure of the UN Sustainable Development Goals, labelled SDG. Each company discloses its strategies for the 17 SDGs. Therefore, this variable is the sum of the SDGs that were disclosed by the company in the respective year. In this sense, if the company disclosed strategies and actions for the 17 SDGs, it obtains a maximum score of 17 points. Table 2 reports the variables used in this study and their respective sources.

Table 2. Variable definitions, measurements, and data sources

Variables	Description	Source
SDG	Sustainable Development Goals: This variable is the sum of the 17 SDGs, ranging from 0 (if the company has not disclosed any SDGs) to 17 (if the company has disclosed all SDGs).	Thomson Reuters Eikon
GOVERN	Regulatory Quality: This variable reflects perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development. Regulatory quality ranges from approximately -2.5 (weak) to 2.5 (strong).	The Worldwide Governance Indicators, World Bank
SOCIE	Society's participation: This variable indicates if the various segments of the society (including ethnic, racial, religious, gender, LGBT+) have full political rights, voice and electoral opportunities.	Freedom House
UNIONS	Trade union density rate (%): This variable conveys the number of union members who are employees as a percentage of the total number of employees.	International Labour Organization
MEDIA	Press Freedom Index: This variable reflets the ability of journalists to select, produce, and disseminate news in the public interest independent of political, economic, legal, and social interference and in the absence of threats to their physical and mental safety. It ranges from 0 (less press freedom) to 100 (greater press freedom).	Reporters without borders
MKTCAP	Market Capitalization: refers to the total dollar market value of a company's outstanding shares.	Thomson Reuters Eikon
ROA	Return on Assets: Net Income/Total Assets.	Thomson Reuters Eikon
TAMEMP	Company Size: Natural log of total assets.	Thomson Reuters Eikon
LEVER	Financial leverage: Total Liabilities/Total Assets.	Thomson Reuters Eikon
GLOBALCOM	Adoption of the UN Global Compact: 1 = if the company adopts the Global Compact; 0 = otherwise.	Thomson Reuters Eikon
HDI	Human Development Index: It is a composite index ranging from 0 to 1 based on 3 dimensions of human development: a long and healthy life, access to knowledge, and a decent standard of living.	United Nations Development Programme

The independent variables represent the secondary stakeholders according as defined above. Government is represented by regulatory quality, which measures the government's ability to formulate and implement sound policies and regulations that enable and promote private sector development. Society is represented by the political participation and voice of the various segments of society, which includes minorities. The third secondary stakeholder is unions, measured by the percentage of employees who are members of unions. Finally, the last group of stakeholders is the media, measured by the press freedom index.

Independent variables were collected from international databases, which provide secondary data by country and by year. The following databases were used: The Worldwide Governance Indicators (World Bank), Freedom House, International Labour Organization (United Nations Organization) and Reporters without borders.

We control for several company attributes that may affect SDG disclosure: market capitalization, return on assets, company size, financial leverage, and adoption of the Global Compact. According to Șerban et al. (2022), market capitalization represents the value of the company and companies with greater value tend to include sustainability in their routines, because they have greater pressure from stakeholders. Previous studies (DasGupta et al., 2022; Toukabri & Mohamed Youssef, 2023) indicate that return on assets can affect the disclosure of climate change.

Additionally, there is a consensus in the literature that larger companies are subject to scrutiny by different groups in society and therefore need to legitimize their actions by being more transparent (Toukabri & Mohamed Youssef, 2023). Regarding financial leverage, previous studies (Arena et al., 2023; DasGupta et al., 2022) have found conflicting results, indicating that debt can have both a positive and negative effect on SDG disclosure.

According to Orzes et al. (2020), companies that adhered to the United Nations Global Compact tend to have better environmental performance because it is one of the most important sustainable development initiatives that aims to align the strategies and operations of companies with principles that involve human rights, work, the environment and combating the corruption. Finally, we also control for the human development index, as we are working with an international sample.

3.3 Econometric approach

Employing panel data analysis with fixed effects, we analyze the impact of secondary stakeholder pressures on SDG disclosure. Panel data with fixed effects is suitable because this technique allows you to analyze how variables change over time (Hair Jr et al., 2019). The fixed effects model is used to determine the relationship between independent and dependent variables at the firm or country level. Additionally, the panel data is suitable because it uses a combination of time series and cross-sectional data. In our case, we have an unbalanced data panel, as not all companies have all the information for all years of analysis. To test our hypotheses, we run the following model:

$$SDG_{it} = \beta_{it} + \beta_1 GOVERN_{it} + SOCIE_{it} + UNIONS_{it} + MEDIA_{it} + MKTCAP_{it} + ROA_{it} + FIRMSIZE_{it} + LEVERAGE_{it} + GLOBALCOM_{it} + HDI_{it} + \theta_i + \varepsilon_{it}$$

Where the subscript “i” refers to the firm, “t” represents the time, “ß” represents the estimated parameter, “θ” refers to the unobservable time-invariant, and “ε” is the error. In addition to the main tests, we operationalized additional tests, such as the Breusch-Pagan test, VIF (Value Inflation Factor) and GMM (Generalized Method of Moments) regression, in order to verify if the data presented heteroscedasticity, multicollinearity and endogenous regressors.

4 RESULTS AND DISCUSSION

4.1 Descriptive Analysis

Table 3 presents the descriptive statistics of the variables used in the econometric models. As can be seen, not all variables have the same number of observations. This is justified

because some variables had no information available, such as companies that did not have financial information or countries without information on the percentage of employees that are union members. The dependent variable has a mean of 3.52, a minimum of 0 and a maximum of 17. This means that the sample has companies that disclosed all information regarding the 17 SDGs and companies that did not disclose any SDG.

Table 3. Summary of descriptive statistics

Variables	Obs.	Mean	Std. Dev.	Min.	Max.
SDG	4866	3.52	5.54	0.00	17.0
GOVERN	4866	0.80	0.86	-0.55	1.81
SOCIE	4866	10.59	5.93	0.00	16.0
UNIONS	3838	15.74	10.39	9.9	44.6
MEDIA	4866	59.56	23.33	19.04	85.61
MKTCAP	4823	9.43	0.71	6.32	11.66
ROA	3019	0.05	0.08	-1.14	0.64
FIRMSIZE	4324	9.61	0.70	6.80	11.60
LEVERAGE	3055	0.28	0.18	0.00	2.02
GLOBALCOM	4866	0.09	0.29	0.00	1.00
HDI	4866	0.84	0.10	0.63	0.94

Regulatory efficiency of governments averages 0.80, while society's participation averages 10.59 with a maximum of 16. Unions has an average of 15.74 and the country with the highest percentage of unionized employees has 44.6% of employees who are members of unions. The mean value of press freedom index is 59.56. Regarding the control variables, the mean values of market capitalization, ROA, firm size, and financial leverage are 9.43%, 0.05%, 9.61% and 0.28% respectively. Additionally, 9% of the companies in the sample signed the UN Global Compact. Most countries in the sample have a high HDI.

4.2 Multivariate Data Analysis

Table 4 provides the results of panel data regression with fixed effects. We operationalize individual models for each independent variable and then a complete model with all variables. This technique can help confirm the signals obtained by the variables.

Table 4. Panel data regression results

Variables	Model 1	Model 2	Model 3	Model 4	Model 5
GOVERN	-0.38				-6.51***
SOCIE		0.17***			0.71***
UNIONS			0.06**		0.22***
MEDIA				0.04***	0.06***
MKTCAP	-0.36	-0.27	-1.00***	-0.27	0.01
ROA	-1.63	-1.70	-0.60	-1.74	-1.38
FIRMSIZE	3.08***	3.20***	3.56***	3.20***	2.57***
LEVERAGE	-2.03***	-1.94***	-2.03***	-2.03***	-1.59**
GLOBALCOM	3.78***	3.49***	3.72***	3.54***	2.41***
HDI	-7.19***	-12.99***	-9.34***	-15.91***	27.26***

Obs.	2134	2134	1750	2134	1750
R^2	0.1790	0.1934	0.2019	0.1910	0.2614
Breusch-Pagan test	79.45	72.13	45.08	68.70	78.52
VIF	3.31	1.76	1.93	1.95	4.68
F (Prob>F)	66.12***	72.72***	62.85***	71.62***	61.43***
Endogenous regressors	No	No	No	No	No

Note: ***p<0.01. **p<0.05. *p<0.10.

Our findings allow us to identify that society's participation is a motivating factor for companies to disclose more information about the SDGs. Thus, in countries where society has a greater voice, which includes minority groups, companies are more likely to be under more pressure to perform better in terms of the SDGs.

Furthermore, our evidence shows that in economies where employees are unionized, companies have greater disclosure of the SDGs. In fact, companies with higher levels of unionization can invest in more programs aimed at external public, such as social and environmental issues. Our results also allow us to identify that the media stakeholder positively influences the disclosure of the SDGs by companies. Therefore, in countries where the media has greater freedom to elaborate news free of the interests of private groups, companies make greater dissemination of the SDGs.

Regarding the control variables, the size of the company has a positive effect on the disclosure of the SDGs, indicating that larger companies have greater social responsibility. This confirms the assumptions of the Stakeholder Theory, which states that larger companies have more stakeholders and, consequently, greater pressure from them for the company to have more responsible attitudes. Financial leverage has a negative effect on SDG disclosure. Companies with more debt may see SDG disclosure as an additional cost. The signing of the Global Compact has a positive effect on the dissemination of the SDGs. In fact, companies that have signed the Global Compact are more likely to include sustainability issues in their corporate strategies. In addition, in countries with a higher HDI, companies have less disclosure of the SDGs.

4.3 Robustness Analysis: Replacing the dependent variable and excluding US companies

We conducted additional tests to examine whether the results are stable. First, we modified the technique employed. Instead of using panel data analysis, as in the previous models, we employed logistic regression. We replaced the dependent variable with a dummy variable: companies that performed above 9 points were assigned a value of 1, otherwise 0. In other words, companies that disclosed more than 50% of the 17 SDGs assigned the value 1.

Table 5. Robustness test results: Replacing the dependent variable

Variables	Model 6	Model 7	Model 8	Model 9	Model 10
GOVERN	0.59***				0.08***
SOCIE		1.02***			1.28***
UNIONS			0.98		1.01
MEDIA				1.00***	1.00*
MKTCAP	0.74*	0.70**	0.44***	0.70***	0.70**
ROA	2.29	3.22*	7.70**	3.14*	3.05
FIRMSIZE	3.44***	3.81***	5.86***	3.79***	3.89***

LEVERAGE	0.36***	0.39***	0.26***	0.38**	0.28***
GLOBALCOM	2.36***	2.19***	2.45***	2.23***	1.81***
HDI	0.67	0.00***	0.00***	0.00***	13.83***
Obs.	2134	2134	1750	2134	1750
Pseudo R^2	0.1066	0.1045	0.1201	0.1034	0.1619
LR chi2	280.96***	275.58***	254.94***	272.57***	343.64***
Log likelihood	-1177.83	-1180.52	-933.80	-1182.02	-889.45

Note: ***p<0.01. **p<0.05. *p<0.10.

The regulatory quality variable had a positive effect on SDG disclosure. This result differs from the previous model, which may indicate that the role of regulatory quality in the disclosure of the SDGs is still unclear. The signs of the coefficients concerning the other independent variables remained the same. However, in the case of the variable UNIONS the relationship is not statistically significant. Hence, results reveal that in countries with greater regulatory quality, greater participation of society and greater media freedom companies are more likely to disclose more information on SDGs.

Market value had a positive effect on ODS, as well as ROA in some models. Company size positively influences the disclosure of the SDGs in all models and financial leverage has a positive effect in models 8, 9 and 10. Finally, the findings confirm that companies that sign the Global Compact carry out more actions for the SDGs.

Table 6 presents the results of the additional test to test the hypotheses. In these new econometric models, we excluded US companies, as they represented a large part of the sample, and this could bias the findings.

Table 6. Robustness test results: Excluding US companies from the sample

Variables	Model 11	Model 12	Model 13	Model 14	Model 15
GOVERN	2.46***				-3.04***
SOCIE		0.31***			0.25
UNIONS			-0.14		-0.25*
MEDIA				0.09***	-0.14**
MKTCAP	0.94*	1.67**	0.77***	1.74***	0.97
ROA	0.39	-0.27	2.04	-0.49	0.30
FIRMSIZE	2.93***	2.66***	3.13***	2.65***	2.51***
LEVERAGE	0.67	0.79	0.61***	0.51	-0.58
GLOBALCOM	1.31***	0.56***	0.45	0.60	0.70
HDI	-16.02***	-3.33**	-2.98	-9.18***	25.62***
Obs.	1022	1022	638	1022	638
R^2	0.1525	0.2073	0.1994	0.2034	0.2393
F (Prob>F)	26.00***	37.77***	22.31***	36.88***	19.63***
Endogenous regressors	No	No	No	No	No

Note: ***p<0.01. **p<0.05. *p<0.10.

As can be seen above, the results reveal that only in the case of the variable GOVERN the result is similar. In the case of the other variables whose relationships with disclosure are statistically significant, the signs are the opposite compared to the main analysis. When excluding the US companies, GOVERN still presents a negative relationship with disclosure,

but UNIONS and MEDIA present a negative relationship with the dependent variable. This could be explained by China and India, which are among the countries with companies included in the sample with lower levels of press freedom and higher levels of unionization, represent the majority of the companies in the sample without the US companies.

4.3. Discussion

Our results suggest that only hypothesis 2 and hypothesis 4 seem to be supported. The overall findings show that society's participation and freedom of the press, are antecedents of greater disclosure of SDGs by companies in environmentally sensitive sectors. However, when excluding the US firms, the freedom of the press and the level of unionization seem to have a negative impact on SDG disclosure. This may well be related to the weight of China and India in the sample, given that they have very lower levels of press freedom and higher levels of unionization, represent the majority of the companies in the sample without the US companies. Regarding hypothesis 1, our results are no coherent with those of Haji et al. (2023), who claim that regulatory quality can encourage companies to have greater social and environmental responsibility.

According to Hartmann and Uhlenbruck (2015), companies headquartered in countries with better national governance tend to have better environmental performance, because they suffer greater institutional pressures to achieve the interests not only of shareholders, but of all other stakeholders. This unexpected finding regarding the role of the government may be related to the type of countries included in the sample. It may be the case that in these countries the CSR may play a role of substitute for institutional weaknesses pertaining to limitations of the government limitations which require firms to step up top the plate and act as a substitute for formal regulation (e.g., Jackson & Apostolakou, 2010; Matten & Moon, 2008).

Regarding hypothesis 2, our findings can reinforce previous studies, by showing that in more democratic societies, companies do more for the SDGs. According to Almeida and García-Sánchez (2017), in systems where society has a voice, it is more likely that the principles of environmental preservation are ensured. In practice, this means that in governments that listen to their citizens, which includes minority groups, companies improve concern for the SDGs, likely due to the participation of citizens and organizations that engage with ecological issues.

In more inclusive societies for blacks, women, the LGBT public, and other minorities tend to have greater civic engagement (Rosati & Faria, 2019b), which encourages society to pressure organizations for more ethical behavior. From this perspective, the study by Izugbara et al. (2022) indicated that the lack of inclusion of women and LGBT in society is a barrier to achieving the SDGs in several African countries. Public policy makers in these countries frown on SDG policies that attempt to include minority groups in society.

We confirm hypothesis 4 by showing that in countries where journalists can produce news regardless of political interference and with greater physical and mental security, companies have greater disclosure of SDGs. This reinforces the finding of El Ghoul et al. (2019), who claim that the media encourages companies to have a better environmental performance and avoid news that could negatively affect their reputation.

The media is an important stakeholder that can shape the company's relationship with environmental issues. In cases of environmental disasters and spills, the media can affect society's perception of the brand, which can take years for the company to rebuild its reputation

(Kanso et al., 2020). In this sense, the media shapes public opinion and can encourage people to put pressure on organizations to achieve the SDGs.

6 CONCLUSIONS

Framed under the stakeholder approach, this research aimed to examine the impact of pressures from secondary stakeholders on SDG disclosure. To achieve this purpose, we analyzed 1831 companies based in the most carbon-emitting economies. We investigated the influence of four secondary stakeholders (government, society, unions, and media) that may influence companies' disclosure of the SDGs.

Our evidence indicates that the government, through its regulatory quality, has a negative influence on SDG disclosure. Furthermore, in societies where people have greater participation, companies are more engaged with the SDGs. Our study also reveals that in economies where the media is freer from political and economic interference, companies have greater disclosure of SDGs. Therefore, from an eagle's eye view, this study concludes that stakeholders are important keys to business decisions and actions on the SDGs. Based on these findings, this study has important academic and practical implications.

In terms of theoretical contributions, this article advances Stakeholder Theory by examining the impacts of secondary stakeholder pressures on SDG disclosure. It corroborates the assumptions of Stakeholder Theory by showing that the pressure exerted by society, governments, unions, and the media is crucial for companies in environmentally sensitive sectors, influencing them to better disclose their actions towards the SDGs. The findings suggest that it is important for companies to maintain an open line of dialogue with its stakeholders, which goes along with the principles of Stakeholder Theory. The article also emphasizes the importance of considering the interests and concerns of stakeholders in the management and operations of the company, which is another key aspect of Stakeholder Theory.

Regarding practical contributions, the article elucidates for managers that it is necessary for the organization to engage deeply and effectively with the SDGs. For this, it is necessary to be attentive and in tune with external changes, which imply changes in the sustainability strategies of organizations. Managers must be aware that government, society, and the media can play a crucial role in pressuring their companies to perform better on SDGs. This research suggests that managers should not only satisfy primary stakeholders, since secondary stakeholders also play an important role for companies to design more effective environmental policies.

In terms of contribution for political decision makers, our research casts some doubts on the regulatory power of the State to encourage companies to have a higher performance in SDGs. This suggests that probably governments must act more effectively, such as drafting a law for mandatory disclosure of SDGs by companies in environmentally sensitive sectors. As a social contribution, our study pointed out the importance of society's participation in the dissemination of the SDGs. We reiterate that the participation and voice of civil society is fundamental for organizations to develop strategies to achieve the SDGs, as the results confirm that it can exert pressure for organizational changes.

This work has some limitations that can be overcome in future research. We analyzed only four stakeholder groups, as well as a specific period (2016-2019). In addition, our dependent variable reflects the disclosure of the SDGs and not the concrete actions of

companies to achieve sustainable development. The results found cannot be generalized to all sectors, since only basic materials, energy, industrial and utilities companies were analyzed.

Therefore, future studies should examine other stakeholder groups, such as non-government organizations and local community. The article invites further research to analyze this relationship between stakeholder pressure and SGD in times of crisis, such as the Covid-19 pandemic. Likewise, the inclusion of other sectors and other countries can contribute to more generalizable results.

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