Thematic manipulation in Corporate Social Responsibility reporting: A multi-method analysis in the oil and gas sector

AUTHORS: Miguel Pombinho, Ana Fialho and Andreia Dionisio

# Corporate Social Responsibility reporting

1. The disclosure of information focused on sustainability, the environment, climate change and human rights has grown exponentially in recent years (Bose & Khan, 2022; Pizzi, Rosati, et al., 2021).

2. Although more companies disclose information on CSR, there is no evidence that the number of cases of unaccountability is decreasing (Reitmaier et al., 2024).

3. **CSR reporting should reflect a company's commitment to sustainability.**

12 RESPONSIBLE CONSUMPTION AND PRODUCTION
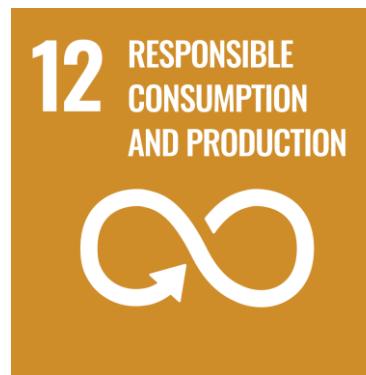
12.6. encourage companies, especially large and trans-national companies, to adopt sustainable practices and to integrate sustainability information into their reporting cycle

Oil and gas industry

1. While CSR reporting is essential across all sectors, the unique environmental and social impacts of the oil and gas industry presents an important case for studying how companies may selectively present information.

2. Oil and gas companies have **environmentally sensitive and controversial activities** (Hackston & Milne, 1996; Reverte, 2009) with significant impacts on the global sustainable development, climate change, environment, society, health and safety (Comyns & Figge, 2015; Doni et al., 2022; Pizzi, Moggi, et al., 2021).

3. These companies are notorious for exhibiting **biased behaviors**, engaging in **unscrupulous activities**, and committing **irregularities and fraud in their CSR reporting** and practices (Du & Vieira, 2012; Kwarto et al., 2024).
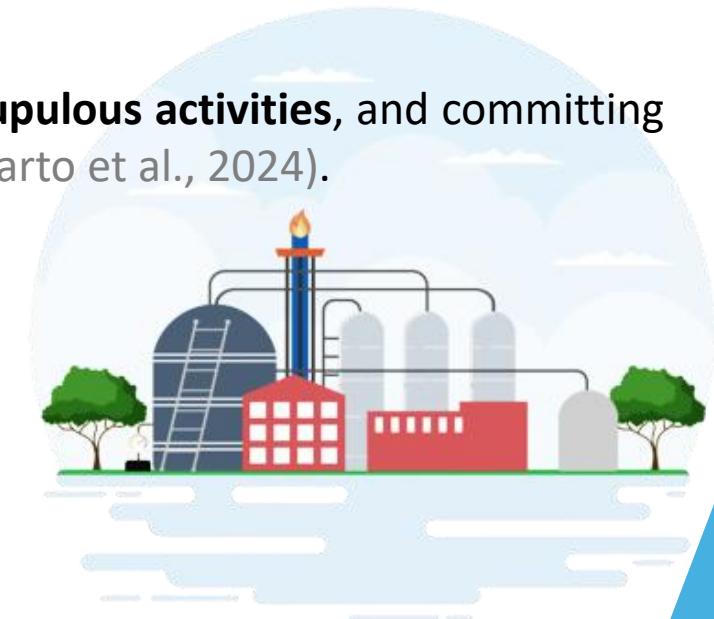
Impression management: Thematic manipulation

1. **Impression management (IM) occurs when management convey their specification of reality through narrative, quantitative and visual disclosures and presents it in such a way as to influence readers' impressions and perceptions of the company** (Cho et al., 2012; Cooper & Slack, 2015; Merkl-Davies & Brennan, 2011; Sandberg & Holmlund, 2015).

2. Analyzing the textual elements of CSR reporting, is essential to determine if managers are truly committed to accountability (Fisher et al., 2020) and transparency (Du & Yu, 2021) or if they engage in IM techniques to shape the messages according to their own motivations (Merkl-Davies & Brennan, 2007, 2011; Sandberg & Holmlund, 2015).

3. Thematic manipulation is considered an outcome of the **Pollyanna hypothesis** (Hildebrandt & Snyder, 1981) and an **IM technique**, which focuses on **emphasizing positive news by manipulating the dissemination of information** (Merkl-Davies & Brennan, 2007).

Tone and hypothesis development

1. Tone has been defined in several ways (Patelli & Pedrini, 2015). In a broader sense, tone is described as the **affect or feeling of a communication** (Henry, 2008). The main approach used to measure the tone of a text is based on the **word's frequency of a predetermined wordlist** (Loughran & McDonald, 2015).

2. The tone of CSR disclosure is a **very recent topic** and needs further development (Albitar et al., 2023; Arena et al., 2015; Cho et al., 2010; Du & Yu, 2021; Fisher et al., 2020; García-Sánchez et al., 2019; Lu & Jagoda, 2023). **Sociological theories** are one of the most researched theoretical frameworks in the field of IM (Merkl-Davies & Brennan, 2011).
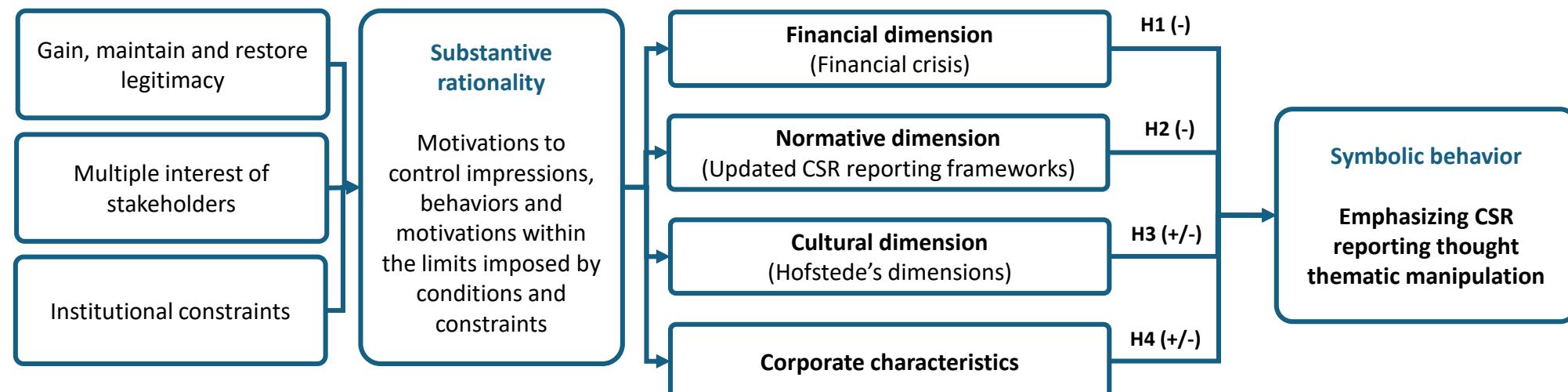
Sample selection

1. To test our hypotheses, the initial sample of this study consists of 100 companies ranked in the World Benchmarking Alliance's Oil and Gas Benchmark 2023.

2. The growth in CSR disclosure has not been accompanied by an increase in quality, credibility, accuracy, and transparency (Albitar et al., 2023; Cho et al., 2015; Du & Yu, 2021; Fisher et al., 2020; Hamza & Jarboui, 2022; Lock & Seele, 2016; Milne & Gray, 2013).

Table I. Sample composition and exclusion criteria

Data sample/exclusion criterion	Number of companies	Number of reports
Stand-alone CSR reports published	77	692
Stand-alone CSR reports obtained	77	688
Stand-alone CSR reports written in English	77	674
Stand-alone CSR reports of countries with data for the cultural dimension	**74**	**656**
Source. Own elaboration		

Objective and research design

Table II. Research design

Objective	Hypothesis	Methodological procedures
Investigate the internal and external determinants that influence oil and gas companies to manipulate and emphasize CSR disclosure	**Hypothesis H1:** The language of CSR reporting is more neutral during a financial crisis	1. Extraction/download of CSR reports
	Hypothesis H2: The language of CSR reporting that adopted more updated CSR reporting frameworks is more neutral	2. Selection of positive and negative wordlists 3. Nvivo processing procedure 4. Calculation of tone 5. Definition of the independent and control variables 6. Descriptive analysis of data 7. Inferential analysis using ANOVA, the Kruskal-Wallis's test, and hypothesis tests for differences between means
	Hypothesis H3: There are significant differences in the tone of CSR reporting from different cultural contexts	8. Regression analysis using panel data estimations (tobit random effects, random effects and mixed effects)
	Hypothesis H4: There are significant corporate characteristics that influence the tone of CSR reporting	9. Robustness tests (retests for balanced panel data, tone alternative measurements, Heckman test)

Source. Own elaboration

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Descriptive analysis of data

1. The general trend towards a **positive tone** suggests that the oil and gas companies were focused on conveying **optimistic messages**, proving the Pollyanna hypothesis (Hildebrandt & Snyder, 1981).

2. The language in the CSR reports can be understood as a **symbolic behavior to manage the legitimacy** of companies, to obtain favorable perceptions from stakeholders (García-Sánchez et al., 2019; Hamza & Jarboui, 2022; Sun et al., 2024).

3. The results highlight the importance of **carefully choosing the methodology** for analyzing the tone of accounting narratives, otherwise unreliable results could be obtained.

Table III. Main descriptive statistics for tone

Tone	Mean	Min Mean (2021)	Max Mean (2011)	% CSR reports with tone ≤ 0.00	% CSR reports with tone ≥ 0.50
TONE_H	0.4861	0.3991	0.5679	0.46%	50.30%
TONE_LM	0.1303	0.0833	0.1851	22.87%	2.29%

Source. Own elaboration

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Inferential and regression analysis

1. The inferential analysis showed that **during the financial crisis in the beginning of the 21st century CSR reporting was more optimistic**. According to the regression analysis, the **COVID-19 pandemic was associated with a more neutral language.**

2. The GFC and SDC reflect symbolic behavior towards changing or manipulating stakeholder perceptions and expectations during adverse macroeconomic conditions.

H1 ☒ ☑

3. The **SDGs-related disclosures**, the **SASB_TCFD recommendations** and the **GRI Standards** adoption resulted in CSR reporting with **more neutral language**.

4. The adoption of updated CSR reporting frameworks suggests that oil and gas companies have engaged in substantive communication strategies and have decreased the need for additionally persuasive and optimistic communication.

H2 ☑

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Inferential and regression analysis

1. CSR reporting was more positive in oil and gas companies based in countries with less power distance (lower PDI) and with individuals more individualist (higher IDV), more oriented towards achievements and objectives (higher MTA), less averse to uncertainty (lower UAI) and long-term oriented (higher LTO).

2. The **tone of accounting narrative**, such as CSR reporting, **is strongly influenced by the culture** of the societies in which the companies are based, as indicated in previous literature.

H3 ☑

3. Concerning the control variables, the results show that there are **internal characteristics** of oil and gas companies that have an **impact on the tone of CSR reporting**. Hypothesis H4 was verified for the variables REP_LENGHT, ROA, WBA2023 and GENDER_DIV.

H4 ☑

Regression analysis

1. **Shorter CSR reports** can prioritize essential and strategic information to manage legitimacy, which can lead to a greater emphasis on **positive aspects** in oil and gas companies.

2. Companies that are leaders in **financial performance** had incentives to use a **more positive tone** to signal more confidence, optimism and leadership in CSR practices.

3. Companies with the **worst CSR performance** tend to use a **more positive tone** to bias the messages of their narratives, emphasize their capacity to engage in CSR and try to improve their reputation and legitimacy.

4. The evidence in the oil and gas sector seems to follow the assumption that the **presence of female leaders** is associated with greater sensitivity to CSR activities, reflected in a greater propensity to **hyping the tone** of its disclosures.

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Robustness tests

1. The inferential analysis and regression techniques were retested using a **balanced data panel**. The results of the balanced data panel show a high degree of qualitative similarity with the results previously obtained, confirming the **robustness of our results**.

2. Previous literature as considered an **abnormal component of tone**, which reflects the strategic choice of tone to inform or disinform stakeholders (Hamza & Jarboui, 2022; Huang et al., 2014; Lee & Park, 2019). The inferential analysis was retested while considering the abnormal tone as the dependent variable. The results show a high degree of qualitative similarity, demonstrating the **high robustness of our results**.

3. The **two-stage Heckman procedure** (Heckman, 1979) was tested to consider the endogenous nature of oil and gas companies' decision to publish a stand-alone CSR report or not. The Inverse Mill Ratio (IMR) is not statistically significant in any of the models, demonstrating the **absence of endogeneity and selection bias**.

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Conclusions, contributions and limitations

1. Analysis of CSR disclosure is useful to determine whether organizations are using language to provide balanced information or if they are employing IM techniques to manipulate messages for their own benefit, distorting public perception, particularly in the oil and gas sector.

2. The high incidence of positive language in CSR reports highlights the need to present a true, authentic and balanced perspective of the company's CSR performance. Overall, this study confirms that the motivation to highlight positive CSR information is strongly influenced by the contexts in which they operate.

3. **Contributions:** To the best of the authors' knowledge, this is the first study to analyze the integrated impact of external conditions on CSR reporting. This research has fundamental theoretical and practical implications for researchers, investors, organizations, regulators and other stakeholders.

4. **Limitations:** Focus on other sectors, on other tools to communicate their CSR activities to stakeholders and in others IM strategies and tactics.

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THANK YOU!

d53137@alunos.uevora.pt