

47th Annual Congress of the European Accounting Association

Are CEOs enhancing corporate social responsibility reporting in the oil and gas sector? A multi-method analysis on thematic manipulation

AUTHORS: Miguel Pombinho, Ana Fialho and Andreia Dionisio



Corporate Social Responsibility (CSR) reporting

In recent years, there has been a greater global emphasis on sustainability, climate change and corporate responsibility (Dienes et al., 2016; Omran & Yaaqbeh, 2023).

CSR reporting is vital across all industries. However, the oil and gas sector offer a compelling case for examining how companies may strategically disclose information.



The oil and gas sector continues to display several biased behaviors, unscrupulous activities, and irregularities and fraud in the practice of CSR (Du & Vieira, 2012; Kwarto et al., 2024).

Analyzing companies' CSR reports is essential to understand if they are an impression management (IM) tool for shaping messages according to certain motivations (Merkl-Davies & Brennan, 2007, 2011).

Impression management: Thematic manipulation

IM is a research field in social psychology that arises from social interactions (Goffman, 1959; Hooghiemstra, 2000; Talbot & Boiral, 2018; Yang & Liu, 2017) and is considered as an attempt to distort or affect the public's perceptions of companies' results (Aerts & Cormier, 2009; Hooghiemstra, 2000; Merkl-Davies & Brennan, 2011; Tata & Prasad, 2015).

Thematic (tone) manipulation in CSR reporting can lead to biased representations that emphasize the positive aspects of a company's performance and compromise the transparent and complete disclosure of true environmental and social impacts (Du & Yu, 2021; Fisher et al., 2020; Hamza & Jarboui, 2022).

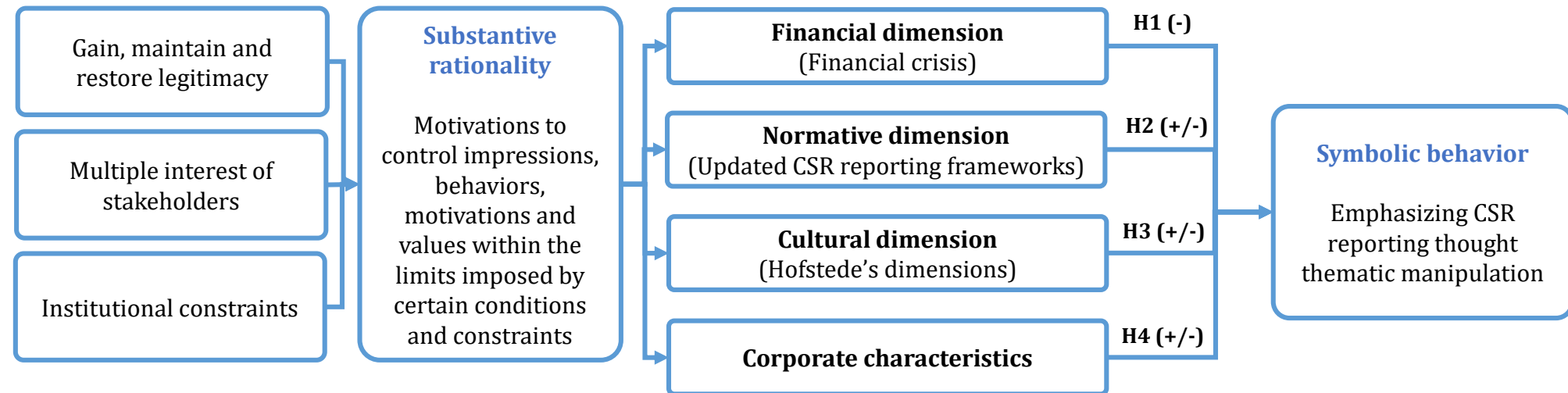


Thematic manipulation is considered a result of the Pollyanna hypothesis and an IM technique, which focuses on emphasizing positive news by manipulating the disclosure of information (Merkl-Davies & Brennan, 2007).

Tone as an Impression Management technique

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).

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

The oil and gas sector has grown significantly over the last decade and is one of the largest in the world (Elhuni & Ahmad, 2017). Although the oil industry has enormous resources and capacities, this does not necessarily make it successful in terms of sustainability-related performance (Schneider et al., 2011).



Final sample composition (336 company-year observations)

Research design

Objective	Hypothesis	Methodological procedures
Understand how internal and external determinants influence the motivations of oil and gas companies' CEOs to emphasize CSR disclosure.	Hypothesis H1: The language of CEO letters is more neutral in periods of financial crisis.	<ol style="list-style-type: none"> 1. Extraction of CEO letters and selection of positive and negative wordlists; 2. Nvivo processing procedure; 3. Calculation of tone; 4. Definition of the independent and control variables; 5. Inferential analysis using ANOVA, the Kruskal-Wallis's test, and hypothesis tests for differences between means; 6. Regression analysis using panel data estimations (basic linear models of unobserved effects); 7. Calculation of abnormal tone.
	Hypothesis H2: There are significant differences in the tone between CEO letters written by companies that follow different CSR reporting frameworks.	
	Hypothesis H3: There are significant differences in the tone of CEO letters from different cultural contexts.	
	Hypothesis H4: : There are significant corporate characteristics that influence the tone of CEO letters.	

Research design

Descriptive statistics: mean values, standard deviations, kurtosis, number of observations and maximum and minimum values.

Inferential analysis: ANOVA, Kruskal-Wallis's test and hypothesis tests for differences between means.

Regression analysis: RE, ME and RE tobit models (OLS for variable significance, Hausman Test, Breusch-Pagan Test, Wooldridge Test, Company and Year RE,...).

$$TONE_LM_{it} = \beta_0 + \beta_1 FINANCIALD_{it} + \beta_2 IPIECA_{it} + \beta_3 CAUTONOMY_{it} + \beta_4 LETTER_LENGHT_{it} + \beta_5 REPORT_TYPE_{it} + \beta_6 GENDER_DIV_{it} + \beta_7 NONEXEC_DIV_{it} + \beta_8 ROA_{it} + \beta_9 CSR_{it} + (\alpha_i + \mu_{it})$$

$$TONE_LM_{it} = \begin{cases} TONE_LM^*_{it} & \text{if } -1 \leq TONE_LM^*_{it} \leq 1 \\ -1 & \text{if } TONE_LM^*_{it} < -1 \\ 1 & \text{if } TONE_LM^*_{it} > 1 \end{cases}$$

$$TONE_H_{it} = \beta_0 + \beta_1 FINANCIALD_{it} + \beta_2 IPIECA_{it} + \beta_3 AHORIZON_{it} + \beta_4 LETTER_LENGHT_{it} + \beta_5 REPORT_TYPE_{it} + \beta_6 GENDER_DIV_{it} + \beta_7 NONEXEC_DIV_{it} + \beta_8 ROA_{it} + \beta_9 CSR_{it} + (\alpha_i + \mu_{it})$$

$$TONE_H_{it} = \begin{cases} TONE_H^*_{it} & \text{if } -1 \leq TONE_H^*_{it} \leq 1 \\ -1 & \text{if } TONE_H^*_{it} < -1 \\ 1 & \text{if } TONE_H^*_{it} > 1 \end{cases}$$

Descriptive results

Descriptive statistics of tone					
Tone	Mean	Min Mean	Max Mean	% CEO letters with tone ≤ 0.00	% CEO letters with tone ≥ 0.50
TONE measured by Henry's (2008) wordlists	0.663	0.575 (2020)	0.735 (2010)	0.002%	81.25%
TONE measured by Loughran & McDonald's (2011) wordlists	0.453	0.304 (2009)	0.580 (2018)	0.095%	47.32%

- 1 The results obtained by applying the different wordlists have a similar tendency but capture CEOs' linguistic styles differently. Researchers must carefully choose the methodology for analyzing the tone of accounting narratives.
- 2 The general trend towards a positive tone in the letters suggests that the CEOs were focused on conveying optimistic messages, proving the Pollyanna hypothesis.
- 3 Our results confirm the evidence reported by previous research: **CSR disclosure is written in mostly positive language** (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).

Inferential and regression results

Financial Dimension
Hypothesis H1 is confirmed
with mixed evidence.

The inferential analysis shows that during adverse macroeconomic conditions, companies were under greater pressure to use a more neutral tone and CEOs had more incentive to reflect the true impact of these conditions.

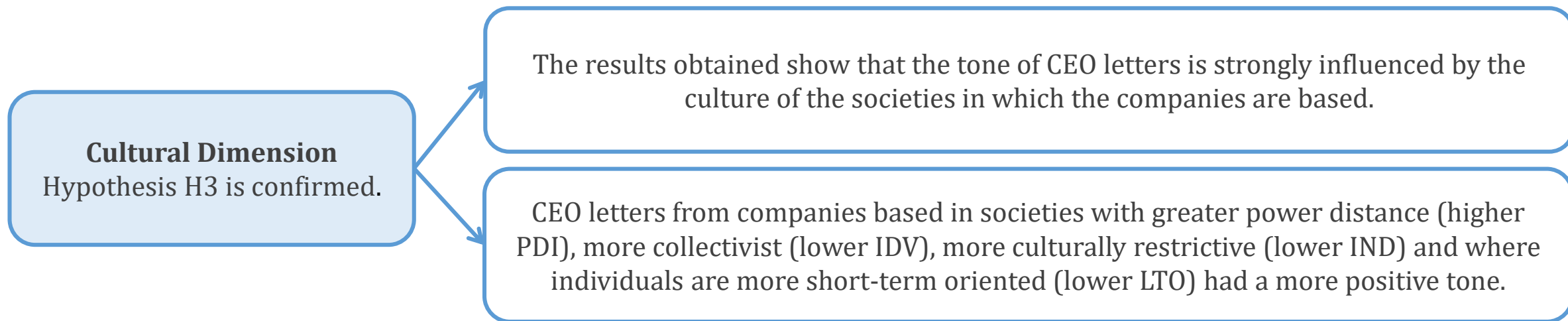
The panel data regression analysis suggest that the more positive tone and abnormal tone during the COVID-19 pandemic may have been used to narrate how companies survived this crisis.

Normative Dimension
Hypothesis H2 is confirmed.

The transition from the GRI G3 standard to the GRI SDG and the SASB-TCFD recommendations was associated with an increase in the tone, and can be understood as the result of regulatory, market and stakeholder pressures (García-Sánchez et al., 2020; Talbot & Boiral, 2018; Wagner & Seele, 2017).

The adoption of the IPIECA standard was associated with a more neutral tone, suggesting that managers engaged in substantive communication strategies (Hahn & Lülfs, 2014; Lodhia et al., 2020) by disclosing information specific to the oil and gas sector to legitimize their activities.

Inferential and regression results



Concerning the control variables, the results show that there are internal characteristics of oil and gas companies that have an impact on the thematic manipulation of CEO letters.

Hypothesis H4 was verified for the variables REPORT_TYPE, NONEXEC_DIV and CSR. In addition, the length of the CEO's letters (LETTER_LENGTH) proved to have a significant but practically neutral impact.

Inferential and regression results

Report type

The results show that the CEO letters in the integrated reports have a **higher** tone. Therefore, when business aspects other than CSR issues are included in CEO letters, such as financial and quantitative information, the tone of these letters tends to be broader, more positive and proactive.

Non-Executive directors' representation

The results obtained suggest that a greater the representation of non-executive directors on the board of directors, lead to a **more neutral** tone of CEO letters, as Albitar et al. (2023), Bassyouny et al. (2020) and Fisher et al. (2020) reported.

CSR performance

As found by Albitar et al. (2023) and Cho et al. (2010), the results obtained suggest that the CEOs of companies with the worst CSR performance tend to use a **more positive** tone to bias the messages of their narratives, to improve the reputation of the companies.

Conclusions

- 1 Analysis of CSR disclosure is useful to determine whether CEOs 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 CEO letters highlights the need to present a true, authentic and balanced perspective of the company's CSR performance. Overall, this study confirms that CEOs' 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 narratives. 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.

THANK YOU!

d53137@alunos.uevora.pt

Acknowledgments: This study was conducted at the Research Center on Accounting and Taxation/IPCA (UIDB/04043/2020 and UIDP/04043/2020) and at the CEFAGE Research Center/University of Évora (UIDB/04007/2020 and 2024.00382.BD) and was funded by the Portuguese Foundation for Science and Technology through national funds.