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# Essays on the readability of Corporate Social Responsibility reporting in the oil and gas sector

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# Corporate Social Responsibility 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 whether they are an impression management (IM) tool to shape messages according to certain motivations (Merkl-Davies & Brennan, 2007, 2011).

# Impression management

IM techniques can lead to biased representations that obfuscate the negative aspects of a company's performance and compromises the transparent and complete disclosure of true environmental and social impacts (Du & Yu, 2021; Nazari et al., 2017; Z. Wang et al., 2018).

**IM it 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). **Concerning the preparer's motives, Merkl-Davies & Brennan (2007, pp. 13-14) categorize managerial IM behavior into two main categories: concealment and attribution. The authors identify six concealment techniques.**

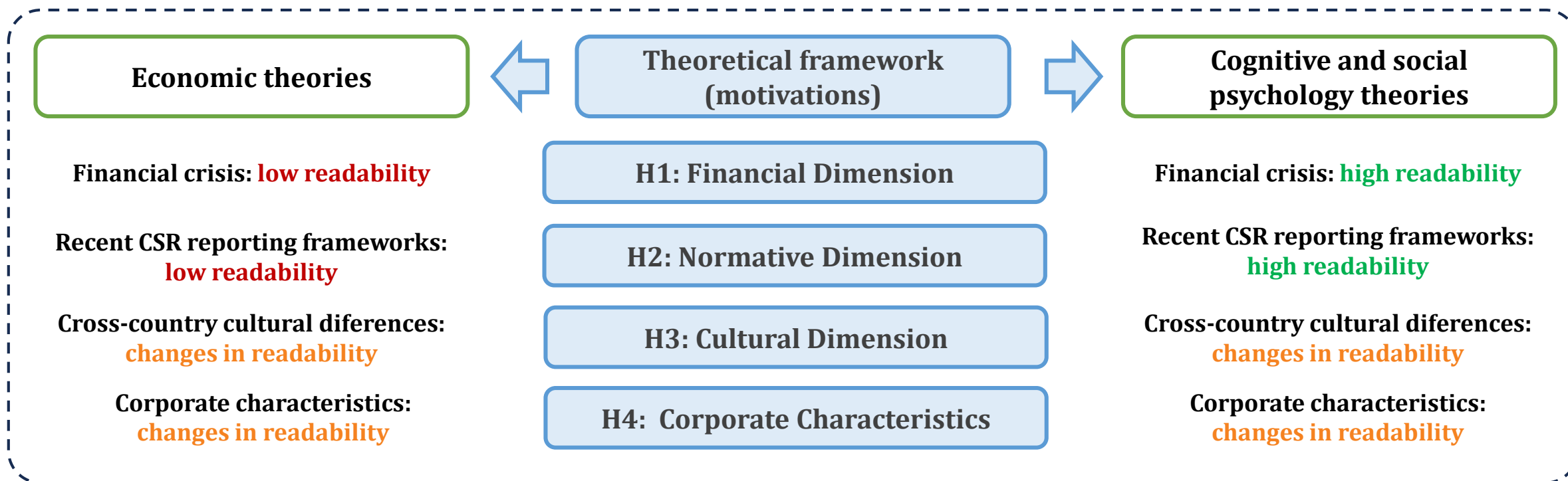


**Obfuscation** is *“a narrative writing technique that obscures the intended message, or confuses, distracts or perplexes readers, leaving them bewildered or muddled”* (Courtis, 2004, p. 292).

# Reading ease manipulation

Reading ease manipulation is an IM technique for companies to create a desired image, obfuscate inferior information, and conceal environmental and social damage caused (Adhariani & du Toit, 2020; Mnif & Kchaou, 2021; Nazari et al., 2017; Nilipour et al., 2020; Smeuninx et al., 2020; Wang et al., 2018).

CSR reporting present a low level of readability (Adhariani & du Toit, 2020; Smeuninx et al., 2020).



# 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 CEOs of oil and gas companies to obfuscate CSR disclosure.	<b>Hypothesis H1:</b> There are significant differences in the level of readability between CEO letters written in different financial contexts.	<ol style="list-style-type: none"> <li>1. Extraction of CEO letters and pre-processing process;</li> <li>2. Calculation of the readability indexes using the ReadablePro software;</li> <li>3. Definition of the Average Grade Level (AGL);</li> <li>4. Definition of the independent and control variables;</li> <li>5. Inferential analysis using ANOVA, the Kruskal-Wallis's test, and hypothesis tests for differences between means;</li> <li>6. Regression analysis using panel data estimations (basic linear models of unobserved effects).</li> </ol>
	<b>Hypothesis H2:</b> There are significant differences in the level of readability between CEO letters written by companies that follow different CSR reporting frameworks.	
	<b>Hypothesis H3:</b> There are significant differences in the level of readability between CEO letters of companies from different cultural contexts.	
	<b>Hypothesis H4:</b> There are corporate characteristics that influence the level of readability of CEO letters.	

# Descriptive results

Descriptive statistics of readability indexes				
Readability index	Mean	Min Mean	Max Mean	% letters very difficult to read
Flesch-Kincaid Grade Level	15.21	14.80 (2008)	15.62 (2013)	45.83% ( $\geq 15.00$ )
Gunning-Fog	18.29	17.85 (2011)	18.72 (2010)	72.32% ( $\geq 17.00$ )
Coleman-Liau	15.36	14.92 (2008)	15.87 (2010)	90.02% ( $\geq 11.00$ )
Simple Measure of Gobbledygook	17.12	16.81 (2011)	17.57 (2010)	31.84% ( $\geq 18.00$ )
Automated Readability	15.10	14.52 (2011)	15.66 (2013)	74.70% ( $\geq 14.00$ )
Average Grade Level	16.22	15.84 (2008)	16.64 (2010/13)	77.98% ( $\geq 15.00$ )



The easiest CEO letters to read were released by UK companies, BP Plc. and Shell Plc.

Companies based in China (China National Petroleum Corporation, China Petroleum & Chemical Corporation Ltd. and China National Offshore Oil Corporation) released the most difficult CEO letters to read.



# Inferential and regression results

## Financial Dimension

The macroeconomic conditions caused by the COVID-19 pandemic resulted in a deterioration in the readability of CEO letters (more conservative and defensive behaviors). **Economic motivations are validated.**

During periods of financial crisis, CEOs disclosed information on CSR that was easier to read, to clarify the true impact of the crisis on performance. **Cognitive and social psychology motivations are validated.**

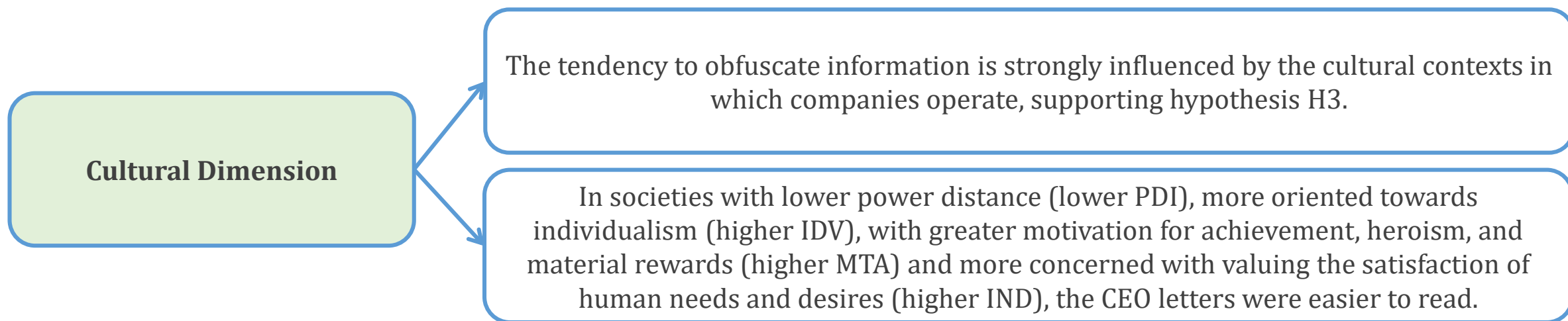
## Normative Dimension

CEO letters became more difficult to read with the transition from GRI G3 to G4. There is evidence that updating this standard was an attempt to camouflage signals. **Economic motivations are validated.**

Companies that adopted the IPIECA standard and SASB-TCFD recommendations published letters that were easier to read. CSR disclosure was mostly a substantive strategy. **Cognitive and social psychology motivations are validated.**



# Inferential and regression results



Regarding the control variables, the results obtained prove the statistically significant impact of the variables **LETTER\_LENGTH**, **LOG\_ASSETS**, **LOG\_REVENUE**, **CEO\_AGE** and **GENDER\_DIV** on the reading ease manipulation of CEO letters. Hypothesis H4 was also verified.

# Inferential and regression results

## Length of the CEO letters

**Positive** impact on reading ease manipulation.  
Longer CEO letters (more complex) are more difficult to read.

## Company's size

**LOG\_ASSETS** and **LOG\_REVENUE** have a **negative** impact on reading ease manipulation.  
Largest companies are subject to greater pressure from stakeholders and have more resources to participate in CSR activities. Thus, CEOs produced easier-to-read information to improve reputation and image (Abu Bakar & Ameer, 2011; Rutherford, 2003; Uddin & Chakraborty, 2022).

## CEOs' age

**Negative** impact on reading ease manipulation.  
Younger CEOs prepare CSR information that is more difficult to read. Older CEOs are more committed to CSR, which may result in communications that are easier to read (Fabrizi et al., 2014; Mnif & Kchaou, 2021).

## Gender diversity on boards

**Negative** impact on reading ease manipulation.  
Boards with a higher representation of female members are associated with CEO letters that are easier to read. Harjoto et al. (2020) and Velte (2018) also suggest evidence that the presence of female leaders is associated with greater readability of accounting narratives.

# Conclusions

- 1** Textual characteristics of CSR communications, such as reading ease, play a vital role in conveying information effectively and ensuring transparency, particularly in the oil and gas sector.
- 2** There is a great need to simplify language to promote greater trust and responsibility among oil and gas companies. Overall, this study highlights the importance of considering external contexts and internal determinants when analyzing the readability of CEO letters in the oil and gas sector.
- 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 tools to communicate their CSR activities to stakeholders; perform an exhaustive content analysis to analyze the CEOs' underlying messages in depth.



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# THANK YOU!

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