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# POTENTIAL TO IMPROVE DECISION-MAKING CAPACITY USING SUSTAINABILITY REPORTS: GRI AND REFINITIV REPORTS

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## POTENCIAL PARA MELHORIA DA CAPACIDADE DE DECISÃO COM A UTILIZAÇÃO DE RELATÓRIOS DE SUSTENTABILIDADE: RELATÓRIOS GRI E REFINITIV

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## ABSTRACT

This study aims to compare the improvement of the capacity for decision of reports prepared according to Global Reporting Initiative (GRI) standards and Refinitiv ESG scores. An applied, qualitative and descriptive methodology was used to analyze the information contained in sustainability reports prepared according to Global Reporting Initiative (GRI) standards and Refinitiv ESG scores. The originality of the work lies in comparing two corporate social responsibility reports for a company and examining and comparing the essence of its informational content. As a result, it was observed that both reports have a relative potential for reducing informational asymmetry, it is also noted that the GRI report and ESG scores allow complementary information to assist the decision-making process, in which the GRI report provides a reflection about the description of the organization's sustainable projects and the ESG scores help in producing organizational benchmarking results in relation to competitors. It was possible to observe that only the proactive information in the GRI report has the potential to produce an increase in informational asymmetry in the relationship between manager and investor. The results contributed to identify the similarities and differences between two types of corporate social responsibility report and will potentially serve for users to discriminate against these types of reports.

**Keywords:** Accounting; GRI; ESG; Informational asymmetry; Decision-making.

## RESUMO

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*O principal objetivo deste estudo foi comparar a melhoria da capacidade de decisão dos relatórios elaborados de acordo com os padrões da Global Reporting Initiative (GRI) e os escores do Refinitiv ESG. Utilizou-se uma metodologia aplicada, qualitativa e descritiva para analisar as informações contidas nos relatórios de sustentabilidade elaborados de acordo com os padrões da Global Reporting Initiative (GRI) e as pontuações no Refinitiv ESG. A originalidade do trabalho consiste em comparar dois relatórios de responsabilidade social corporativa de uma empresa e examinar e comparar a essência de seu conteúdo informativo. Como resultados, observou-se que ambos os relatórios têm um potencial relativo para reduzir a assimetria informacional; observou-se também que o relatório GRI e as pontuações ESG permitem informações complementares para auxiliar o processo de tomada de decisão, no qual o relatório GRI fornece uma reflexão sobre a descrição dos projetos sustentáveis da organização e as pontuações ESG ajudam a produzir resultados de benchmarking organizacional em relação aos concorrentes. Foi possível observar que apenas as informações proativas no relatório GRI têm o potencial de produzir um aumento na assimetria informacional no relacionamento entre gerente e investidor. Os resultados contribuíram para identificar as semelhanças e diferenças entre dois tipos de relatório de responsabilidade social corporativa e servirão potencialmente para os usuários discriminarem esses tipos de relatório.*

**Palavras-chave:** Contabilidade. GRI. ESG. Assimetria informacional. Tomada de decisão.

## 1 INTRODUÇÃO

Since its beginning, humanity has used and changed the environment with activities aimed at its survival and development. However, until the period of the industrial revolution there was a certain balance in this use and change in the environment. From the further development of society in the 18th century, there was a greater need to explore natural resources due to an expansion of the consumption base of goods and services, which caused an imbalance in the relationship between man and the environment. Since the 1980s, with the publication of the Brundtland Report (a report that addresses development without compromising future generations in meeting their needs), there has been a growing concern about environmental phenomena, such as growth in the global economy, and the introduction of the concept of sustainable development (CABRAL, 2009). This new paradigm has implications for organizational management by determining a focus on economic, social, and environmental development.

Under this context, for decision-making by internal and external users, in addition to financial information, social and environmental information with a focus on organizational efficiency is required. Financial or managerial accounting has the function of measuring and disclosing information that will assist in the decision-making process. Thus, the accountant, according to Cintra (2011), can contribute to the analysis of sustainability because he or she is a professional who has the ability to be accountable. According to the author, there is a positive relationship between the participation of the controllership and the elaboration of evolved sustainability reports that can help in reducing informational asymmetry.

According to Rahdari and Rostamy (2015), there are a variety of methodologies for measuring indicators for the preparation of sustainability reports, as well as several sustainable performance indexes published by agencies. Examples are the Global Reporting Initiative (GRI) guide and the Refinitiv ESG scores. Thus, it is important to assess the differences and similarities between sustainability indicators and indices, in order to verify the informative quality of support for the decision-making process.

According to the conceptual framework for the preparation and presentation of the financial statements contained in the Basic Conceptual Pronouncement, CPC-00, of the Accounting Pronouncements Committee (CPC), of 2011, it is fundamental for the accounting information to be useful to the decision-making process, presenting characteristics of relevance and information of predictive or confirmatory value and faithfully representing the economic reality. However, because there is

informational asymmetry in the relationship between agent and principal, according to agency theory as proposed by Jensen and Meckling (1976), accounting has an important task in reducing this asymmetry (IUDÍCIBUS; MARTINS; CARVALHO, 2005).

Thus, this study seeks to answer the following research question:

What is the information capacity for investor decision-making of the GRI guide and Refinitiv ESG scores?

In view of the research question, the main objective of comparing information capacity arises as a way of supporting decision-making for the investor provided by the GRI and ESG scores as provided in the sustainability report. As a complement to the main objective, the study has as a secondary objective the identification of similarities and differences in the composition of the GRI and ESG scores in the sustainability report of the company *Petróleo Brasileiro S.A. (Petrobrás)*.

It is considered that this research has relevance—albeit in a restricted way to the stated objectives—for the academic and business environment because, through a qualitative applied method of descriptive bibliography, it analyzes the informative quality of two sets of indexes that can be used for making decisions by the external user. The research focuses on the use of information on sustainable performance as an aid to investor decision-making.

According to Nossa, Rodrigues and Nossa (2017), research in the area of sustainability disclosure focuses on the quality of disclosure of sustainability reports and the relationship between sustainability practices and financial performance. According to the authors, given the various results found in the literature, there are still many gaps for the advancement of scientific research in the area.

The following topics are presented below: theoretical framework, research methodology, data analysis, and final considerations.

## **2 THEORETICAL FRAMEWORK**

### **2.1 Accounting and Informational Asymmetry**

Accounting, like any other scientific model, seeks to be a representation of reality and presents an interpretive framework that allows the collection of information that will assist in the decision-making process. This representation of reality, in turn, has divided accounting into two areas, according to the use of information by different users: financial accounting and managerial accounting (MARTIN, 2002).

Financial accounting aims to provide financial information about an organization, so that external users (shareholders, government, creditors) can assess the economic situation of that organization and make decisions, for example, about investing or not, or providing credit or not. Management accounting, aimed at the internal user, produces comprehensive and detailed information for managers that will assist the decision-making process so that the organization can achieve its strategic objectives (FREZATTI; AGUIAR; GUERREIRO, 2007). According to Padoveze (2010), management accounting is based on the process of monitoring the generation of value in an organization, as a way of supporting operational activities, through the management accounting information system.

According to Frezatti, Aguiar and Guerreiro (2007), who carried out a study on the differences between financial and managerial accounting in several countries, the two types have several elements that distance them: financial accounting has a normative character while management accounting has greater flexibility in the adoption of elements, metrics, and methods.

However, according to Taipaleenmäki and Ikäheimob (2013), over the past few years, management accounting and financial accounting have gone through a process of transformation to convergence, through the advancement of information technology, as well as behavioral and organizational aspects, aligning the functions and processes of the two systems. According to Dani and Beuren (2014), this convergence of managerial and financial accounting originates with the

implementation of the International Financial Reporting Standards (IFRS), which, based on principles, concepts, and criteria for measurement, provide an integration of the two accounting systems.

The convergence of accounting systems has had several implications in the organizational context, for the function of financial accounting and management accounting. For example, the controllership area has undergone a process of change based on the preparation of management reports in accordance with certain IFRS standards, as well as the use of an integrated database with information from both systems (DANI; BEUREN, 2014).

According to Weißenberger and Angelkort (2011), who carried out an empirical study of German companies, the increase in the level of integration of the managerial and financial accounting system caused a consistency in the financial language that brought a significant and positive impact on the effectiveness of the function of controllership. Dani and Beuren (2014), when replicating the Weißenberger and Angelkort (2011) model in the Brazilian context with 32 companies, found that the integration of accounting systems due to the adoption of IFRS in Brazil fostered consistency of the financial language of controllership, as well as a greater influence on management decisions.

Controllership can be defined as “a set of knowledge that constitutes theoretical and conceptual bases of operational, economic, financial and patrimonial orders, related to the control of the organizational management process” (BORINELLI, 2006, p. 105). Nascimento and Reginato (2013) defined controllership as an area that supports the decision-making process by promoting efficiency, through monitoring, investigation, diagnosis, and communication of the results obtained in relation to the expected.

Borinelli (2006), when addressing the basic conceptual structure of controllership from the perspective of activities, functions, and artifacts, stated that controllership materializes in the organizational environment through different functions: accounting, managerial-strategic, costs, tax, protection and control of assets, internal control, risk control, and information management. According to the author, controllership plays a role in providing information to aid the decision-making process, having, among its different attributions, the function of internal control, with the purpose of achieving compliance with legislation and promoting organizational efficiency.

According to Lay, Santos e Silva. (2017), who analyzed aspects of the basic conceptual structure included in 67 articles in Brazilian journals based on Borinelli’s definitions (2006), there is a tendency for homogeneity in the activities and functions of controllership, with the accounting and planning activity of the managerial-strategic function presented in most of the analyzed articles.

Therefore, through the accounting integration process, the controller took on new functions, aimed at serving external users, providing information to financial accountants in accordance with the regulatory requirements brought by IFRS (DANI; BEUREN, 2014). Also, as long as management accounting information is consistent with financial accounting, according to Weißenberger and Angelkort (2011), there is a means for the expression of confidence in management accounting information.

According to pronouncement CPC-00 of the CPC, which deals with the conceptual framework for the preparation and disclosure of financial-accounting reports, financial statements aimed at providing information to the external user must be prepared aiming at information that is useful to users in general, for example, for making economic decisions. It is essential that this information presents characteristics of relevance because it has a predictive value in the projection of future results or confirmatory value for previous evaluations, and that it represents the economic reality with reliability. Also, the information useful for decision-making can have characteristics of improvement: comparability (possibility of using accounting information for comparison in the choice of investment alternatives); verifiability (ensuring reliable representation by different independent observers); timeliness (information available in time to assist in decision making); and understandability (accounting reports that are clear and concise).

It is important to highlight that when certain agents have a greater amount of information than others, there is an information asymmetry in the relationship between these agents. This informational asymmetry is notably the topic of agency theory, in which, according to Jensen and Meckling (1976), the agent (manager) has a greater amount of information than the principal (shareholder). As a result, the agent may not act in the principal's best interest. According to Iudícibus, Martins and Carvalho (2005), the reduction of this informational asymmetry is an important task of accounting.

Cormier et al. (2010), in analyzing the impact of voluntary disclosure of information on information asymmetry between managers and shareholders in Canada, clarified that voluntary disclosure of information provides additional clarification on how a company creates value. The authors concluded that voluntary disclosure influences investors who participate in the capital market. Thus, the organization can, as a means of reducing information asymmetry, voluntarily disclose information about sustainability.

## 2.2 Sustainability Indicators

Sustainability in the business environment is based on the principle that organizations have an efficient form of management through three dimensions: economic, social, and environmental. Bearing in mind the concept of sustainability, an organization must be economically viable, giving a return on the investment made, and must also provide working conditions, cultural diversity, and sociocultural activities for the surrounding community. Under the environmental approach, an organization must be ecologically efficient in its processes, adopting an attitude of environmental responsibility (DIAS, 2011).

These three approaches correspond to the concept of the triple bottom line, which represents the creation of value through sustainable development through obtaining economic results, but also referring to natural capital and human capital (DIAS, 2011). According to Milne and Gray (2013), there is an incomplete notion about the concept of the triple bottom line in organizations, which causes the practice of incomplete sustainability reports through palliative measures that can lead to higher levels of a lack of sustainability.

According to Gray (2010), sustainable development has greatly influenced the accounting literature, as it is necessary to understand what the term sustainability means for the accounting area, as well as criticisms in relation to reports, because accounting is not capable of answering questions related to sustainability. According to Dias (2011), accounting has a history of disclosing financial results. However, over the past few years, as a result of the requirement to incorporate new indicators to measure results in environmental and social terms, accounting has begun to adopt corporate sustainability reports to provide this type of information.

Thus, the branch of accounting that seeks to contemplate the pillars of the triple bottom line can adopt four main focuses: external disclosure related to social and environmental issues, control of social and environmental factors for organizational efficiency, monitoring of organizational objectives in relation to potential risks, and integration of social and environmental information with the traditional information system (CINTRA, 2011; GRAY; ADAMS; OWEN, 2014).

At seeks to provide this type of information is environmental accounting, through the definition and measurement of environmental costs, expenses, and liabilities, in addition to the disclosure of sustainability reports and the use of environmental performance indicators. Environmental accounting allows for necessary information both for external users, reporting significant environmental issues that can affect their decision-making process, and for internal users, by providing information that helps in decision-making to increase organizational eco-efficiency (TINOCO; KRAEMER, 2009).

According to Pfitscher (2004), measuring environmental performance provides benefits to the organization, in the short and long term, by reducing costs through the analysis and correction of the environmental impact caused by inefficiencies in the management process. According to Bond, Morrison-Saunders and Pope (2012), the sustainability assessment directed to decision-making must

address sustainability imperatives from the point of view that the minimization of negative effects is not sufficient for sustainable development; it is necessary to adopt mechanisms for managing trade-offs by optimizing sustainability results.

According to Callado and Fensterseifer (2009), sustainability indicators are measures that express organizational performance in relation to the economic, social, and environmental dimension to identify points of improvement for the organization's efficiency. Thus, sustainability indicators must be related to critical, representative, and easily understood factors that allow comparability and can be periodically reassessed for continuous improvement of the indicator.

Sustainability indicators are disseminated through reports that present the organization's practices and results in sustainable development and the organization's impact on its surroundings. As Rahdari and Rostamy (2015), pointed out, there is a diversity of sustainability indicators with different methodologies, such as the indicators present in the GRI guide.

The GRI organization emerged in 1997 with the objective of creating a standard with indicators for the dissemination of organizational information on sustainability, in order to allow the identification and management of risks and opportunities aimed at increasing organizational performance, in addition to providing an improvement in the relationship with stakeholders when indicating organizational practices that affect the company's reputation (GRI, 2018).

Also, as a way of assessing sustainability, several agencies publish indexes of sustainable performance of organizations; these include the Dow Jones Sustainability Index (DJSI), Bloomberg ESG Data, and Refinitiv ESG scores. Sustainable performance indexes can be constructed in two forms, a normative or descriptive classification. Also, certain indexes use the possibility of excluding "non-compliant" companies, for example, depending on the sector in which the organization operates (RAHDARI; ROSTAMY, 2015).

In Brazil, as a way of stimulating ethical responsibility and sustainable development in organizations present on the stock exchange, the Brazilian stock exchange (B3) created in 2005 the Corporate Sustainability Index (ISE), composed of a theoretical portfolio of organizations considered sustainable according to a questionnaire answered by the candidate companies to participate in the index (B3, 2019). In a study applying regression models with data from companies in the electric energy sector present on the Brazilian stock exchange, Oliveira and Cardoso (2015), concluded that the electric energy companies that participate in the ISE have greater performance and corporate value than companies in the electricity sector that are not in ISE's theoretical portfolio.

Thus, organizations have shown an interest in adopting sustainability practices, measuring results for management purposes, and disseminating results in sustainability reports. Morioka and Carvalho (2017) carried out a case study with two organizations on the evaluation of elements related to sustainable performance. According to the authors, there is a need for the adoption of multidisciplinary teams for the integration of organizational departments and for the promotion of knowledge about sustainability in the organizational context.

According to Cintra (2011), who analyzed the integration of sustainability with the management control practices of controllership in Brazil, there is a positive relationship between the disclosure of sustainability reports and the integration of sustainability practices in management control, even in cases of organizations that release institutional reports with little relevance to the company's sustainable practice. Thus, according to the author, the accountant can contribute to the analysis of sustainability because he or she is a professional who has the ability to be accountable. However, it is necessary that there is an accounting education that provides the engaged accountant with a long-term view beyond the traditional view of accounting. Cintra (2011) also maintained that the controllership acts in the dissemination of sustainability reports, and that because there is a perspective to increase the participation of the controllership in sustainability control, it is necessary to improve the ability of controllership professionals to exercise this activity.

According to Martínez-Ferrero, Ruiz-Cano and García-Sánchez (2016), organizations have released information on sustainable aspects as a way of increasing transparency to improve the relationship of trust with investors, in reducing information asymmetry. The authors, when carrying out a study of 575 companies from 17 countries, found that the reduction of informational asymmetry through the voluntary disclosure of information on sustainability is relevant in environments with greater orientation for stakeholders, and that through this disclosure there is an increase in the confidence of the financial markets in that organization.

Bomfim, Teixeira and Monte (2015) carried out a study in Brazil to analyze the relationship between the disclosure of information on sustainability and corporate governance, that is, the set of practices that guide the organization's relationship with its stakeholders. The authors used information from 76 publicly traded companies in Brazil as a basis, concluding that the age of the company, community influence, size, and performance, among other aspects, have a positive effect on the dissemination of information on corporate sustainability.

### **3 METHODOLOGY**

This study uses an applied, qualitative, descriptive, and bibliographic methodology to compare the indicators in the sustainability report—the GRI and Refinitiv ESG scores. Applied research, according to Silva and Menezes (2005), seeks to generate knowledge to solve problems aiming at a practical application of the solution found. Therefore, the study can be classified as applied research when it seeks to answer a practical research problem. From the point of view of the problem, this study is classified as qualitative as it uses the interpretation of phenomena and the attribution of meanings in its research steps without the use of statistical tools and techniques (SILVA; MENEZES, 2005).

Regarding its objectives, the research can be classified as descriptive because it aims to describe the indicators of the sustainability report—the GRI and Refinitiv ESG scores. According to Gil (2002), descriptive research seeks to study a certain phenomenon by establishing relationships. This study is bibliographic from the point of view of technical procedures, because it uses the published documents on the methodologies used to prepare the sustainability report. The study also uses data from the GRI and Refinitiv ESG scores for the company *Petróleo Brasileiro S.A.*

### **4 ANALYSIS**

#### **4.1 Refinitiv ESG Scores**

Refinitiv is a company that proposes, among other activities, to provide news, information, and analysis on organizations from different sectors through its database, Refinitiv Eikon. In this database, the company prepares and publishes the Refinitiv ESG indexes, which, according to the company, can be used to analyze information on the environmental, social, and governance performance of several companies around the world.

For the development of the ESG score index, data collection is done through the use of several sources: annual reports released by companies, information from the companies' websites, stock exchange documents, news about companies, and information released by nongovernmental organizations about companies. The ESG score index, as shown in Table 1, consists of a collection of 400 metrics that are compressed into 178 measures used to evaluate companies. These measures are divided into 10 categories in the analysis of environmental, governance, and social performance, so that the formulation of the final score of the index is weighted according to the number of measures within each category (REFINITIV, 2018).

The company also calculates the ESG controversies category index, using 23 measures in which events (e.g., scandals) involving the company are evaluated and which have been released by global

media sources. For example, the company’s controversies are verified in relation to anticompetitive behavior, intellectual property violations, consumer complaints about the company’s products and services, environmental impact of the use of natural resources, and noncompliance with accounting standards, among other aspects. To provide more comprehensive information about a company’s performance, the ESG score and ESG controversies category indexes are combined with a weighted average of the scores in a single index: the ESGC score. If the company has controversies, there is a decrease in the business performance score, but if the company does not have any controversies, the ESGC score will be equal to the ESG score (REFINITIV, 2018).

For the qualitative indicators, the answers used are “Yes (1),” “No (0.5),” and “Not Available (0).” For example, in the “Emissions Policy” indicator, if the company has an emission reduction policy, the indicator will be “Yes (1),” otherwise “No (0.5).”

Quantitative indicators have a numerical value (or “Not Available”). In both qualitative and quantitative indicators, there is polarity indicating whether the highest value is positive or negative (REFINITIV, 2018).

Table 1 – ESG SCORE categories

Pillar	Category	Indicators	Weight
Environmental	Resource Use	20	11%
	Emissions	22	12%
	Innovation	19	11%
Social	Workforce	29	16%
	Human Rights	8	5%
	Community	14	8%
	Product Responsibility	12	7%
Governance	Management	34	19%
	Shareholders	12	7%
	Corporate Social Responsibility	8	5%
Total		178	100%

Source: Authors (2018); Adapted from Refinitiv.

To calculate the score for each indicator and each category of the ESG score and the ESG controversies category, three factors of the company are adopted, as shown in Equation 1. The environmental and social indicators are compared to companies in the same sector, while the governance indicators use companies in the country of headquarters as a comparative assessment. The indicator is punctuated by a methodology that uses the percentiles based on the company’s classification by comparative evaluation. As an example, for the calculation of an indicator, if a company operates in a segment with 15 companies, and this company has the best overall result, its percentile score will be calculated as presented in Equation 2 (REFINITIV, 2018):

$$Punctuation = \frac{n^{\circ} \text{ companies with lower value} + \frac{n^{\circ} \text{ companies with the same value}}{2}}{n^{\circ} \text{ companies with value}} \quad (1)$$

$$Punctuation = \frac{14 + \frac{1}{2}}{15} = 0,9666667 \quad (2)$$

The values for the ESG score and ESG controversies category can be viewed by percentile as well as by the degree of the company according to the score ranges present in Table 2. Thus, the indicator calculated in Equation 2 would have the grade A + according to the score ranges (REFINITIV, 2018).

Table 2 – Scoring Range

Score	Grade
$0.0 \leq \text{score} \leq 0.083333$	D -
$0.083333 < \text{score} \leq 0.166666$	D
$0.166666 < \text{score} \leq 0.250000$	D +
$0.250000 < \text{score} \leq 0.333333$	C -
$0.333333 < \text{score} \leq 0.416666$	C
$0.416666 < \text{score} \leq 0.500000$	C +
$0.500000 < \text{score} \leq 0.583333$	B -
$0.583333 < \text{score} \leq 0.666666$	B
$0.666666 < \text{score} \leq 0.750000$	B +
$0.750000 < \text{score} \leq 0.833333$	A -
$0.833333 < \text{score} \leq 0.916666$	A
$0.916666 < \text{score} \leq 1$	A +

Source: Authors (2019); Adapted from Refinitiv.

#### 4.2 Global Reporting Initiative G4

The GRI Sustainability Report, in model G4, is intended to be a model for organizations to disseminate reports on their sustainable practices in the social, environmental, and economic spheres. According to the guidelines for the preparation of the report, the act of reporting sustainable aspects of the organization assists management in establishing sustainable goals, assessing performance, and managing sustainable development by making concrete issues that are abstract (GRI, 2015).

The GRI standards are based on certain principles that guide the preparation of the report in relation to the content to be addressed. When adopting the standards, the company must identify its stakeholders and include their interests and expectations in the decision-making and reporting process. The organization should discuss and describe sustainable performance under a broad concept of sustainability, contextualizing the local, regional, or global contribution of sustainable business practices. Companies must prepare the report with materiality and completeness so that the content covered is sufficient to reflect the economic, social, and environmental impact (GRI, 2015).

Principles are also defined to ensure the quality of the sustainability report. The report should expose a balance between positive and negative aspects of organizational performance for an impartial presentation on the organizational result. The information must be comparable to the performance of other organizations. The organization must regularly prepare and publish the report with accurate, detailed, clear, and reliable information (GRI, 2015). The GRI-compliant sustainability report is divided into two types of content: “general standard” and “specific standard.”

The “general standard” content is divided into seven parts (GRI, 2015):

- Strategy and Analysis: strategic vision of the organization’s sustainability. It includes a statement by the organization’s main decision-maker on the sustainability strategy and a description of the main impacts, risks, and opportunities.
- Organizational Profile: creates the context about the main organizational characteristics. The organization must report its main products, the location of its headquarters and countries where it operates, the legal form of the organization, the organizational size in terms of sales, capitalization of shareholders’ equity, a description of the workforce, the supply chain, and other general information about the organization.
- Identified Material Aspects and Limits: at this point the organization must list and explain the definitions of the aspects used to define the report’s content.
- Stakeholder Engagement: the organization provides content about the stakeholder group and how the organization takes an approach to engage stakeholders in the preparation of the report.

- Report Profile: general information about the report such as the period covered, the cycle for issuing the report, and contact information.
- Governance: information on the governance structure and its composition, including the role of the highest governance body in defining values, strategy, risk management, performance evaluation, remuneration, and incentives.
- Ethics and Integrity: a declaration about the organization’s values and principles, internal and external mechanisms on ethical behavior, and compliance with the law.

The specific standard content of the sustainability report is divided into the categories of the triple bottom line, that is, economic, social, and environmental. Aspects are defined within each of these categories, as shown in Table 3.

Table 3 – Specific Standard Contents

<b>CATEGORY</b>	<b>Economic</b>		<b>Environmental</b>	
<b>Aspects</b>	<ul style="list-style-type: none"> <li>- Economic performance</li> <li>- Market presence</li> <li>- Indirect economic impacts</li> <li>- Purchasing practices</li> </ul>		<ul style="list-style-type: none"> <li>- Materials</li> <li>- Energy</li> <li>- Water</li> <li>- Biodiversity</li> <li>- Emissions</li> <li>- Effluents and waste</li> <li>- Products and services</li> <li>- Conformity</li> <li>- Transportation</li> <li>- General</li> <li>- Environmental assessment of suppliers</li> <li>- Complaint mechanisms (environmental impacts)</li> </ul>	
<b>CATEGORY</b>	<b>Social</b>			
<b>Subcategory</b>	<b>Labor Practices</b>	<b>Human Rights</b>	<b>Society</b>	<b>Product Responsibility</b>
<b>Aspects</b>	<ul style="list-style-type: none"> <li>- Employment</li> <li>- Relations between workers and employers</li> <li>- Health and safety at work</li> <li>- Training and education</li> <li>- Diversity and equal opportunities</li> <li>- Equal remuneration for women and men</li> <li>- Evaluation of Fornec. in labor practices</li> <li>- Mechanisms for complaints (labor practices)</li> </ul>	<ul style="list-style-type: none"> <li>- Investments</li> <li>- Nondiscrimination</li> <li>- Freedom of association and collective bargaining</li> <li>- Child labor</li> <li>- Forced labor</li> <li>- Security practices</li> <li>- Indigenous rights</li> <li>- Evaluation</li> <li>- Evaluation of Fornec. in Dir. Hum.</li> <li>- Mechanisms for complaints (human rights)</li> </ul>	<ul style="list-style-type: none"> <li>-Local Communities</li> <li>- Fight against corruption</li> <li>- Public policy</li> <li>- Competition</li> <li>- Unfair</li> <li>- Conformity</li> <li>- Evaluation of Fornec. on impacts on society</li> <li>- Mechanisms for complaints (impacts on society)</li> </ul>	<ul style="list-style-type: none"> <li>- Customer safety</li> <li>- Product labeling</li> <li>- Marketing communications</li> <li>- Customer privacy</li> <li>- Conformity</li> </ul>

Source: Authors (2019); Adapted from GRI.

Each aspect has indicators to provide information about that aspect. For example, in the “Energy” aspect of the “Environmental” category, the organization must disclose the indicators: energy consumption within the organization, energy consumption outside the organization, energy intensity, reduction of energy consumption, and reductions in energy requirements related to products and services. The organization can choose to prepare the report in two ways: essential or comprehensive. In the essential report are only the main elements of the report, while in the comprehensive model there is a disclosure of additional information. If the company does not meet all the guidelines for preparing the

report, the company must declare that the report is not prepared in accordance with all the guidelines. It is recommended that the report undergo an external verification process; however, this is not a requirement for it to be considered in accordance with the guidelines (GRI, 2015).

### 4.3 Petrobras Case

As a point of comparison and to complement the description of the GRI and ESG score reports, we used the sustainability report released by the company Petrobrás for the year 2016 and data from the company's sustainability indicators in the Refinitiv Eikon database.

The company's report was prepared according to the GRI G4 model, to describe the company's performance in 2016 with a focus on sustainable aspects. The company used the comprehensive model that includes a greater amount of information. The report underwent external verification through an audit firm. In the first section (general standard content), initial aspects of the report are present, such as a statement by the company president about the materiality of the report, the external context, an overview of the organization, its business model, and aspects on governance and compliance (PETROBRAS, 2016).

Regarding this first section, it is important to highlight that the company describes in the topics on governance and compliance that it has transformed its corporate compliance policies through a corruption prevention program in accordance with market requirements and current anti-corruption legislation, nationally and internationally. The report states that the company has been conducting training with employees as part of this program, in addition to internal campaigns on the principles of the code of ethics. Still at this point, the company highlights a topic called "Operation Lava Jato" that describes the investigation operation carried out by the Brazilian federal police to investigate money laundering that revealed irregularities in contracts between Petrobrás and some suppliers. The company discloses the reimbursement amount it obtained through the investigations and actions it has carried out, which are an internal investigation by independent offices, precautionary blocks to certain companies to prevent participation in tenders with Petrobrás, and insertion of public actions for administrative impropriety. The company points out that other information about "Operation Lava Jato" is present in explanatory notes complementary to the financial statements (PETROBRAS, 2016).

Regarding the specific standard content, the company divides the report into two parts: "results" and "perspectives and challenges." Under results, the company describes the programs it has adopted in the social, economic, and environmental dimensions, and some indicators or data to present the results obtained (PETROBRAS, 2016):

- Social dimension: the company had a greater focus on describing employee health and accident prevention programs; it provided data on the number of employees and the profile of the company's staff, as well as training and performance evaluation programs. There is little quantitative data in this dimension.
- Environmental dimension: dissemination of data on emissions, water management, waste management, and description of some environmental projects and investments. In this dimension, there is a greater focus on quantitative data to present the results of the company's environmental projects.
- Economic dimension: the company publishes some financial results and the evolution of its share price throughout the year. The company also released some operational results of production and market share.

Under perspectives and challenges, the company describes research and development projects that are being carried out, a change of policies in supplier management, and social programs in the relationship with communities. The company did not use the structure provided by the GRI preparation manual, so, at the end of the report, the company presents the location of each GRI indicator

(PETROBRAS, 2016). Regarding the ESG scores index, Table 4 presents a summary of the results of the Petrobrás index released by the Refinitiv Eikon database:

Table 4 – ESG Scores, Petrobras Results

Petrobrás		2016	2015	2014
ESGC Score		C-	C-	C
ESG Score		B	B-	B+
ESG Controversies Category		D-	D-	D-
Environmental	Use of Resources	A	A-	A
	Emissions	A	A-	A-
	Innovation	D-	D-	D-
Social	Workforce	B	A-	A+
	Human Rights	A+	A+	A+
	Community	A	A+	A-
	Product responsibility	A+	A+	A+
Governance	Management	C-	D-	B-
	Shareholders	D+	D+	B-
	Corporate Social Responsibility	A	A	A

Source: Authors (2019); Based on Refinitiv Eikon database.

According to Table 4, the company has had a high environmental performance in relation to competitors in the sector in which it operates, with regard to the use of resources and emissions, which was a focus of the data in its report. The innovation category, which concerns environmental projects and investment in research and development for environmental projects, had the lowest comparative degree, which shows the need of the company to improve this aspect.

Regarding the social pillar, the company claimed significant results, compared to the sector, in all indicators. The vast majority of the indicators in this pillar are qualitative in nature, indicating whether the company has social and political policies in relation to employees.

The governance pillar indicators have had an interesting result on corporate social responsibility, but the company performed poorly in the management and shareholder categories in relation to its competitors. This result occurred because the company had several indicators with poor results on aspects regarding the board of directors, such as independence and diversity.

Petrobras presented a result of B in the ESG score indicator, based on the three dimensions presented above, but due to a negative result of the ESG controversies category index, the combined ESGC index is C-. The company has had several controversies over the past few years, which has brought worse results for the company compared to the sector. For example, in the “Business Ethics Controversies” indicator, the company presented 24 disputes in 2016.

#### 4.4 Comparative Analysis

We aimed to compare the information capacity—as a way of supporting decision-making—provided by the GRI sustainability indicators and ESG scores. Thus, we described the methodology used to prepare the GRI report and the ESG scores index, in addition to the description of the Petrobras results.

From the presentation presented above, it is possible to see that both indicators are similar in terms of qualitative aspects in the social dimension and have a greater focus on quantifying emissions and the use of environmental resources. However, in the GRI report Petrobrás has described the projects executed in these dimensions, while in the ESG scores index this information is only binary, that is, whether or not the company has projects or policies in the social and environmental dimensions.

The ESG scores index is calculated outside the scope of the company, which allows an independent view of the organization’s sustainable performance. The result of this index also depends on benchmarking obtained by comparing it with the results of companies in the same sector. In the case

of the GRI report, the focus is only on the internal aspects of the organization. As the company prepares and disseminates the report, there is a tendency to present only the positive results on sustainable performance, even regarding controversial issues. An example is the case of Petrobras, which in the GRI report describes what the company has done in accordance with legislation, while in the ESG controversies category index, its result was the worst in the market.

Therefore, the GRI sustainability report and the ESG scores index have similarities and differences; this provides information that is complementary to assist investors in the decision-making process. The preparation of the GRI report provides for reflection and interpretation of the sustainable projects it has adopted, and their results. This reflection generated through the disclosure of information on sustainable performance was observed by Cintra (2011), in the positive relationship between the disclosure of sustainability reports and the integration of sustainability practices in management control, as previously mentioned. It is also in line with the report's objective in helping to manage sustainable development by making concrete issues that are abstract (GRI, 2015).

However, only the proactive disclosure of information in the GRI report can produce a reduction in information asymmetry between the manager and the investor. In the case of the ESG scores index, the investor can obtain independent information on the organization's sustainable performance. Thus, in the case of ESG scores, there is information that can help the decision-making process by allowing a comparative analysis of the organization with its competitors, and investors can reflect on whether the sustainable projects carried out by the organization and disclosed in the GRI report have provided higher or lower performance than competitors' results.

## 5 CONCLUSION

Accounting has gone through a process of convergence between managerial and financial accounting, in which controllership has a role also aimed at the external user, which provides information to financial accountants (DANI; BEUREN, 2014). According to Cintra (2011), the controllership acts in the dissemination of sustainability reports, and the controllership is more active in companies in which the reports are more evolved, which can help in reducing information asymmetry. Currently there is a diversity of sustainability indicators and reports that apply different measurement methodologies, requiring the assessment of differences and similarities to verify the informative quality of support to the decision-making process.

This article aimed to compare the informative capacity as a way to support the decision-making provided by GRI-compliant indicators in the sustainability report and Refinitiv ESG scores. Through an analysis of the methodologies of the sustainability report and the ESG scores index, as well as a description of the results of Petrobras in these reports, it was observed that both reports have a relative potential for reducing informational asymmetry and that the GRI-compliant report and the ESG scores index provide complementary information to aid the decision-making process of the investor, as the GRI report provides a reflection on the description of the organization's sustainable projects and the ESG scores index helps in the benchmarking of organizational results in relation to its competitors. However, it is important to highlight that only the proactive disclosure of information in the GRI report can affect the information asymmetry between the manager and the investor.

Therefore, this research achieves the proposed objective and makes it possible to conclude that the investor can use the GRI report and the ESG scores as auxiliary information for the decision-making process. However, the ESG scores index provides information independent of the organization. As a proposal for further studies, it should be possible to conduct an empirical survey with investors, through interviews or questionnaires, to analyze the perception about the use of the GRI report and the ESG scores in investor decision-making, validating investors' perception about informational asymmetry in terms of sustainability.

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