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**Evidence of sustainable development goals disclosure in publicly traded Brazilian companies**

**Evidencia de divulgación de objetivos de desarrollo sostenible en empresas brasileñas que cotizan en bolsa**

**Evidências da divulgação dos objetivos de desenvolvimento sustentável em empresas brasileiras de capital aberto**

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### **Abstract**

**Purpose:** This article examines if publicly traded Brazilian companies listed on the Brazil 50 Index (IBrX50) and the Corporate Sustainability Index (ISE) use Sustainable Development Goals to guide their environmental, social, and governance practices (ESG).

**Methodology:** The evaluation is carried out through the descriptive content analysis of companies listed on the IBrX50. We highlight that they were also listed on the ISE B3 in the year 2022. Data was gathered from the companies' sustainability reports and on websites specialized in ESG assessments.

**Results:** The research presents analogies between the ISE B3 and the IBrX50 theoretical portfolios while analyzing the assets in their portfolios and ESG scores. We additionally look into the proximity of the assets in relation to the disclosure of the Sustainable Development Goals in their sustainability reports. We found that, although most companies publish sustainability reports and mention the SDGs, few disclose the goals and initiatives aimed at sustainable development practically.

**Contributions of the Study:** The article contributes to the field of research on the voluntary disclosure of information on sustainability. It presents an initial overview on SDGs disclosure in sustainability reports within the Brazilian context. Future studies may explore analyzes which include ESG practices in companies.

**Keywords:** ESG. Corporate sustainability. Sustainable Development Goals.

### **Resumen**

**Objetivo:** Este artículo busca identificar si las empresas brasileñas que cotizan en bolsa, listadas en el Índice Brasil 50 (IBrX50) y en el Índice de Sostenibilidad Corporativa (ISE), utilizan los Objetivos de Desarrollo Sostenible para orientar sus prácticas ambientales, sociales y de gobierno (ESG).

**Metodología:** La evaluación se realiza a través del análisis de contenido descriptivo de las empresas listadas en el IBrX50, destacando que también cotizaron en el ISE B3, en el año 2022. La recolección de datos recopiló información, principalmente en los informes de sustentabilidad de las empresas de la muestra y en sitios web especializados en evaluación ESG.

**Resultados:** La investigación presenta analogías entre las carteras teóricas del ISE B3 y el IBrX50 y efectúa análisis de los activos presentes en ambas carteras y puntuaciones ESG, así como la proximidad de los activos en relación con la divulgación de los Objetivos de Desarrollo Sostenible en sus Informes de sostenibilidad. A través del análisis se encontró que, aunque la mayoría de las empresas publican informes de sostenibilidad y mencionan los ODS, pocas empresas divulgan metas e iniciativas orientadas al desarrollo sostenible de forma práctica.

**Contribuciones del Estudio:** El artículo contribuye el campo de investigación relacionado con la divulgación voluntaria de información sobre sostenibilidad, presentando un panorama inicial de las evidencias sobre la divulgación de los ODS en los informes de sostenibilidad en el contexto brasileño. Los estudios futuros pueden explorar análisis que incorporen prácticas ESG en las empresas.

**Palabras clave:** ESG. Sostenibilidad corporativa. Objetivos de Desarrollo Sostenible.

### Resumo

**Objetivo:** O presente artigo busca identificar se as empresas brasileiras de capital aberto, listadas no Índice Brasil 50 (IBrX50) e no Índice de Sustentabilidade Empresarial (ISE), utilizam os Objetivos do Desenvolvimento Sustentável para nortear suas práticas ambientais, sociais e de governança (ESG)

**Metodologia:** A avaliação se dá, pela análise descritiva de conteúdo, de empresas listadas no IBrX50, com destaque para que também eram listadas no ISE B3, no ano de 2022. A coleta de dados coletou informações, principalmente nos relatórios de sustentabilidade das empresas da amostra e em sites especializados na avaliação ESG.

**Resultados:** A pesquisa apresenta analogias entre as carteiras teóricas do ISE B3 e do IBrX50 e conduz análises dos ativos presentes em ambas as carteiras e pontuações ESG, bem como, a proximidade dos ativos em relação a evidenciação dos Objetivos do Desenvolvimento Sustentável em seus relatórios de sustentabilidade. Pelas análises verificou-se que, apesar de grande parte das empresas divulgarem relatórios de sustentabilidade e citarem os ODS, poucas delas divulgam metas e iniciativas voltadas ao desenvolvimento sustentável de maneira prática.

**Contribuições do Estudo:** O artigo contribui com o campo de pesquisas relacionadas à divulgação voluntária de informações sobre sustentabilidade, apresentando um panorama inicial das evidências acerca da divulgação dos ODS em relatórios de sustentabilidade no contexto brasileiro. Estudos futuros podem explorar análises que incorporem as práticas ESG nas empresas.

**Palavras-chave:** ESG. Sustentabilidade corporativa. Objetivos do Desenvolvimento Sustentável.

## 1 Introduction

In terms of responsibility for the elaboration of strategies that address environmental, social, economic, and governmental problems, both the State and the private sector must jointly define goals that benefit broad categories of the workforce, human rights, and community. This comes in addition to preserving resources by ensuring the reduction of gas emissions and environmental innovation (Soschinski, Brandt, & Klann, 2019). From the perspective of the private sector in contributing to global sustainable development (Elkington, 1997), disclosing sustainability depends on the ability to help changes between financial markets, investors, and consumers in emerging economies and developing nations.

In a scenario of high visibility and demand for transparency, companies gained a lot of strength in dictating trends through the dissemination of sustainable practices (Marcus, Kurucz, & Colbert, 2010). As such, the disclosure of socially responsible practices by companies has become a great source of demand from stakeholders in markets in developed countries, such as North America and Europe (Soschinski et al., 2019). One of the aspects that contributed to this change was technological advances, which caused an intensification of information flow and internationalization of markets. Regarding environmental and social issues, companies seek to maintain or gain reputation with their stakeholders, and thus, there is growing concern about ethical and socially acceptable behavior (Machado Filho, 2006).

With the emergence of new social and environmental challenges, the UN Millennium Development Agenda was adopted by 193 Member States of the Organization of Nations between 2000 and 2015. In September 2015, this initiative developed into the 2030 Agenda, where new topics related to environmental, social, economic, and institutional challenges began to receive greater attention. It is made up of 17 Sustainable Development Goals (SDGs) which are represented by 169 objectives and 232 indicators.

By aligning corporate practices with Sustainable Development Goals, company executives are able to redirect strategies, goals, and investment flows in order to provide better opportunities for value creation. As such, companies can reduce risks and identify new opportunities through innovative solutions within the SDG framework, thus aligning strategy with corporate social responsibility and advancing towards the macroeconomic realities of sustained superior financial performance (ElAlfy, Palaschuk, El-Bassiouny, Wilson, & Weber, 2020).

Despite companies being more concerned with the legitimacy of their actions, transparency in relation to their impacts, and showing how their organizations address SDGs through sustainability reports, there is still little clarity regarding their strategies. Additionally, this practice still does not have wide adherence by publicly traded companies (Izzo, Ciaburri, & Tiscini, 2020; Schramade, 2017).

According to (Degenhart, Vogt, & Hein, 2018), only 13 companies among 100 presented the necessary data belonging to B3's IBrX-100 index in 2012 and 2014. The study indicates that both internal social benefits and the external social benefits have a positive correlation with companies' economic-financial indicators, with internal benefits having a greater correlation.

Izzo et al. (2020), for example, investigated the extent of this type of voluntary disclosure among Italian companies listed on the stock exchange and highlighted that adherence, knowledge, and disclosure of data on SDGs are greater among large Italian companies with high liquidity and capitalization. The adoption of specific targets and KPIs

aimed at these objectives are not clear despite the widespread adoption of SDGs, especially in companies with high market values and liquidity ratios.

Within the Brazilian context, Da Silva, De Queiroz, Da Silva, & Francisco (2021) analyzed the 2017 and 2018 sustainability reports in a sample of 44 companies with the aim of investigating actions complying with the 17 SDGs. The authors highlighted the existence of actions in line with the Social Objectives of Human Development, although these initiatives often only contemplate internal actions, such as campaigns among employees, neglecting the external impact.

We explore the following research problem within the structure proposed by Da Silva et al. (2021) and Izzo et al. (2020): **is it possible to clearly verify the level of information disclosure on Sustainable Development Goals in publicly traded Brazilian companies?** Our purpose is to identify whether publicly traded Brazilian companies listed in the Brazil 50 Index (IBrX50) and in the Corporate Sustainability Index (ISE) used the Sustainable Development Goals to guide their environmental, social, and governance (ESG) practices.

As such, the relevance of the topic resides in the impacts that the proposed SDGs in the 2030 Agenda have on sustainable development. This is done by analyzing SDGs adoption by publicly traded companies in their financial or non-financial reports and in their organizational strategies. Such information is assessed in a way to assume a socially responsible corporate posture that can be considered aligned with ESG pillars (Schramade, 2017).

## 2 Literature review

### 2.1 The Disclosure Theory

Companies are looking for better governance practices and transparency when disclosing performance in both financial and environmental aspects (Berthelot & Magnan, 2003; Rover, Tomazzia, Murcia, & Borba, 2012). Thus, the disclosed information such as financial statements can be considered mandatory, or even voluntary — such as sustainability reports in Brazil (Rover et al., 2012)

Disclosure of corporate sustainability can play a strategic role, as some companies may use this strategy as a way to gain legitimacy and manage their reputation (Li, Jia, & Chapple, 2023). The Disclosure Theory emerges in this scenario. It is based on practical evidence and models of economic analysis with the main objective of understanding the phenomenon of disclosure of financial information (Rover et al., 2012).

Verrecchia (2001) suggests three categories of research on disclosure in accounting — association-based disclosure, disclosure based on discretion, and efficiency-based disclosure. The first category aims to understand how external disclosure is related to investor activities. The second is related to the discretion of managers when disclosing corporate information that they may have knowledge of. Finally, the last category relates to the preferred disclosure modalities in a lack of prior knowledge context (Verrecchia, 2001).

Hummel & Schlick (2016) explains that under sustainability, the Theory of Voluntary Disclosure should be redirected to quality, as only then it would be possible to verify the empirical relationship between corporate sustainability performance and disclosure of sustainability information in a reliable and transparent manner.

### 2.2 Environmental, Social, and Governance

There has been a change in recent decades with the measurement and dissemination of environmental data, such as carbon emissions, water consumption, and waste generation. This

gave rise to the dissemination of data on Environmental, Social, and Governance (ESG). In addition to environmental aspects, companies are considering social and governance data such as employee health, the impact of their products and services on society, and their relationship with customers. This operates from both a social perspective, while diversity, corruption rates, and political involvement operate from a governance point of view (Amel-Zadeh & Serafeim, 2017).

The term ESG was mentioned for the first time in 2004 in the United Nations report “Who Cares Wins: Connecting Financial Markets to a Changing World”, which aimed to convince the private sector that adopting environmental, social, and governance factors would strengthen investment markets while contributing to sustainable development (UN, 2004).

Concerns about environmental issues such as pollution and environmental degradation have intensified since the beginning of the environmental movements in the 1960s (Szabo & Webster, 2021). According to Amel-Zadeh & Serafeim (2017), just under 20 companies disclosed data related to environmental, social, and governance practices in the early 1990s. This number has increased to approximately, 9000 companies by 2016. The authors also indicate studies reporting that the disclosure of ESGs is associated with significant effects on economic and financial indicators, such as lower capital restrictions, lower incidence of errors in relation to cash predictability, and stock price volatility.

The significant increase in the number of companies that have started to publish their sustainability reports is in large part due to the internal voluntary initiatives of each organization. The disclosure of reports intending to attract investments disseminated sustainability ratings called ESG scores in the business sector. Rating agencies collect and score the performance of companies in the environmental, social, and governance (ESG) aspects, thus providing subsidies for investors to evaluate potential investments in companies with high sustainability (Drempetic, Klein, & Zwergel, 2020; Jyoti & Khanna, 2021).

One way to evaluate the disclosure of environmental, social, and governance initiatives is to analyze whether such information is priced in the company's assets, as the relevance and reliability of these accounting data are fundamental for investors and stakeholders (Amel-Zadeh, 2018).

In an analysis on the influence of data disclosure and ESG criteria on the 50 largest global economies based on Gross Domestic Product (GDP), Plastun, Makarenko, Khomutenko, Osetrova, & Shcherbakov (2020) concluded that the level of ESG disclosure differs between developed and developing countries, being higher in developed countries. The disclosure of information and data also affects the level of adherence to the Sustainable Development Goals, where greater disclosure correlates to greater the adherence and commitment to the Sustainable Development Goals.

Institutional investors who carry principles of environmental, social, and governance responsibility in their investments must act towards their beneficiaries' long-term interest. The latter believe that environmental, social, and governance (ESG) issues can impact the performance of their investment portfolios depending on the companies, sectors, regions, asset class, and investment term (UNPRI, 2021).

The interest in responsible consumption has grown along with the increased demand for products, capital markets, and services. With that, the phenomenon of greenwashing appeared. This is defined as the intersection of two business behaviors —bad conduct in relation to environmental issues and the dissemination of information in a positive light. The phenomenon is seen as a deliberate corporate action with the disclosure of misleading elements and information regarding social and environmental issues in order to deceive or confuse interested parties (de Freitas Netto, Sobral, Ribeiro, & Soares, 2020).

In Brazil, the main capital market index, that deals with ESG, is the Corporate Sustainability Index (ISE), created in 2005 by Bovespa. This index was implemented about a decade after the creation of the Dow Jones Sustainability Index by the North American stock exchange. Given the growing concern with corporate responsibility in relation to social and environmental causes (Machado, Machado, & Corrar, 2009), the ISE was the fourth sustainability index ever created, and the first in Latin America. The initiative was financed by the International Finance Corporation (IFC) and had the collaboration of renowned Brazilian financial entities such as Bovespa, the Getúlio Vargas Foundation Center for Sustainability Studies, the Brazilian Institute of Corporate Governance (IBGC), the Ministry of the Environment, and others (Cristófaló, Akaki, Abe, Morano, & Miraglia, 2016).

### 2.3 Sustainable Development Goals

Despite being a current concern, the concept of sustainable development was introduced in 1987 by the Brundtland Report by the United Nations World Commission on Environment and Development, and was entitled “Our Common Future”. This concept is defined as a transformation process that combines the exploitation of resources, investments, technological progress and institutional change in order to meet human needs and desires (UN, 2015).

Since then, sustainable development has become a relevant topic, stimulating the introduction of practices within business models. The United Nations Conference on Environment and Development, took place in 1992, Rio de Janeiro. Dubbed as ECO-92, it introduced a concept of sustainable development in world politics. It was remarkable in approaching the environmental issue from a scientific, diplomatic, political, social, and communication point of view, but it still demanded a specific understanding of the Brazilian reality (Novaes, 1992).

The 2030 Agenda was created in 2015 as to continue the UN Millennium Development Agenda and deal with the new emerging social and environmental challenges. It was adopted by 193 Member States of the United Nations (UN, 2015) and presented new themes related to environmental, social, economic, and institutional challenges—which by then began to receive greater attention. It was composed of 17 Sustainable Development Goals (Figure 1) represented by 169 goals and 232 indicators. The 2030 Agenda included a declaration which expresses the common vision, principles, and commitments of each Member State in addition to the established goals and indicators.



**Figure 1** *Sustainable Development Goals*

*Source:* (UN, 2015)

The 17 Goals for Sustainable Development are connected and deal with the main societal problems in Brazil and in the world. According to the UN (2015), “The Sustainable Development Goals are a global call to end poverty, protect the environment and climate, all the while ensuring that people everywhere can enjoy peace and prosperity”.

### 3 Methodological procedures

This research is a descriptive content analysis that systematically and precisely analyzes data for knowledge inference (Bardin, 2011). We used data collection based on systematic observation to answer the established objectives. This is a structured observation, where significant aspects are recorded in order to prepare a framework before data collection (Prodanov & de Freitas, 2013).

Documents such as annual reports, sustainability reports, ESG performance scores on specialized websites, and other official information from the official homepages of the companies were tabulated, analyzed, and compared in order to prepare a discussion for this research.

#### 3.1 Sample definition

The sample consisted of companies present in the theoretical portfolio of the Brazil Index (IBrX 50) and in the theoretical portfolio of the Corporate Sustainability Index (ISE), in the year 2022. Among the possibilities were the IBrX 50 and the IBrX 100, and we chose to analyze the former within the period from May to August 2022 with the data available on the B3 website. This is because the two portfolios are very similar in terms of inclusion and exclusion criteria, the main difference being the number of assets in each (B3, 2022a). The evaluations of IBrX50 companies were prioritized, and to deepen the comparisons, with companies present in both the index and the ISE B3 being identified. With this, it was possible to establish inferences regarding the relevance of an index focused on sustainable issues.

The Corporate Sustainability Index is the result of a theoretical asset portfolio belonging to a selected group of companies. It is composed of shares and units exclusively from B3-listed shares, excluding BDRs or company assets undergoing judicial reorganization, temporary administration special regime, or any other company asset in a special listing situation. One of the objectives of creating the ISE is to make companies adopt corporate sustainability practices and support investors in making socially responsible investment decisions (B3, 2015, 2022b).

Marcondes & Bacarji (2010) understand that the ISE acts as a sustainability promoter for companies, thus becoming a management tool in which Brazilian companies see it as a benchmark. This becomes a sustainability reference, and thus, promotes a sustainable management trend within companies. The theoretical portfolio of the Corporate Sustainability Index (ISE) for 2022 had 48 assets.

The Brazil 50 Index (IBrX 50) is a selection of assets that result in a theoretical portfolio with a market value of around 3 trillion reais (B3, 2022a). This index seeks to be an indicator of the average performance of the 50 most tradable and most representative assets in the Brazilian stock market. As with the asset selection constituting the ISE’s theoretical portfolio, the IBrX assets must comply with a series of eligibilities, such as being composed of shares and units exclusively by shares belonging to companies listed on B3. BDRs are not included in this universe, as well as company assets undergoing judicial or extrajudicial recovery, temporary administration special regime, intervention or any other special listing situation. The assets must additionally be among the top 50 in descending order of the Negotiability Index (IN), be present in at least 95% of trading sessions, and not be considered a penny stock (B3, 2022a).



The assets present in the Corporate Sustainability Index (ISE) which were also present in the IBrX 50 were analyzed in order to sample the theoretical portfolio used in this study. When cross-referencing the data, 23 assets (in bold) were in common between the two theoretical portfolios during the same period, as shown in Table 1.

**Table 1**

*IBrX 50 assets present in the ISE*

List of IBrx 50 and ISE B3 assets								
ABEV3	BBSE3	BRML3	CVCB3	GOAU4	<b>LREN3</b>	PETR3	<b>SUZB3</b>	<b>WEGE3</b>
<b>AMER3</b>	BIDI11	CASH3	CYRE3	HAPV3	LWSA3	PRI03	TOTS3	
<b>AZUL4</b>	<b>BPAC11</b>	<b>CCRO3</b>	<b>ELET3</b>	<b>ITSA4</b>	<b>MGLU3</b>	<b>RADL3</b>	USIM5	
B3SA3	BRAP4	COGN3	EMBR3	<b>ITUB4</b>	<b>MRFG3</b>	<b>RAIL3</b>	VALE3	
<b>BBAS3</b>	<b>BRFS3</b>	<b>CSAN3</b>	EQTL3	JBSS3	MULT3	RDOR3	<b>VBBR3</b>	
<b>BBDC4</b>	<b>BRKM5</b>	CSNA3	GGBR4	<b>KLBN11</b>	<b>NTCO3</b>	RENT3	<b>VIIA3</b>	

Source: B3 (may-aug, 2022)

The Fundamentus website was used for classification of the sectors and their proximity to the Sustainable Development Goals. It is a free online tool that provides fundamental financial information on companies with shares listed on B3 (Fundamentus, 2022).

### 3.2 Data collection

We gathered information on the discourse and official company reports in published documents (publicity materials and documents on the official website), annual reports, integrated reports, and sustainability reports. The choice to analyze sustainability action dissemination and approximation of the Sustainable Development Goals through annual company reports is justified by the fact that these reports are fundamental pieces for companies to establish their image with stakeholders. These reports contain information such as corporate values and principles, operating strategies, and achievements throughout the year.

The analyzed documents are public and easily accessible, distributed to shareholders and other stakeholders in order to express the managers' thoughts and positions regarding the company's strategies with the market, society, and the environment. These reports are highly robust, involve different areas of the company, and indicate the positioning and business practices adopted by the company. As such, their analysis enables the understanding of the company's positioning in relation to environmental and social issues (Irigaray, Vergara, & Araujo, 2017).

Among the information in the documents are a series of elements that locate references to SDGs or any other relevant information provided by companies, such as sections dedicated exclusively to SDGs or any other mentions (Izzo et al., 2020). A study was carried out based on the annual sustainability reports released by companies to measure how close they were to the Sustainable Development Goals. These reports involve different areas of the company, and since they are planned throughout the year, it is possible to find a wealth of evidence and concepts about the understanding, positioning, and business practices regarding sustainability issues (Irigaray et al., 2017).

Based on the available information and fragments in public talks, (Irigaray et al., 2017) it is possible to place Corporate Social Responsibility concepts into three categories: Broad Understanding, Restricted Understanding, and Confused Understanding. The proximity of companies to SDGs will be categorized similarly (Table 2) by adapting the authors' classification in this study, with a classification ranging between High, Medium, Low, and Nonexistent proximity.

**Table 2***Classification criteria for SDGs proximity*

<b>Classification</b>	<b>Description</b>
High proximity	The sustainability report must mention the Sustainable Development Goals clearly, informing goals directly related to them and demonstrating putting them into practice through social and environmental initiatives.
Medium proximity	The company, despite clearly mentioning the Sustainable Development Goals in its sustainability reports, must not present evidence of linkage to the SDGs in its goals and initiatives.
Low proximity	They mention SDGs in their reports, however, without clarity about the SDGs and using generic and broad phrases to explain them.
Non-existent	No mention of Sustainable Development Goals in sustainability reports, or don't publish sustainability reports.

*Source: Research Data.*

For the companies' ESG factors analysis, a corporate sustainability information platform coordinated by more than 20 organizations, such as the Climate Governance Initiative (CGI), UN Global Pact, the International Finance Corporation (IFC), and the Global Reporting Initiative (GRI) was used. It connects investors with companies, providing ESG data in a transparent, available and comparable way. It is possible to look up companies' scores that register in the ESG Book on this platform, which provides an integrated ESG score, indicating companies that follow ESG principles and are focused on creating value for shareholders in the long term (ESG Book, 2022).

In terms of analysis and categorization, the rule presented in Table 3 was used to classify the ESG score obtained in the ESG Book. As such, the grades could be grouped into High, Medium, or Low as a way of facilitating subsequent comparisons.

**Table 3***ESG score classification criteria*

<b>Category</b>	<b>ESG score</b>
High	57,0 >
Medium	50,0 > 57,0
Low	< 50,0
No data	-

*Source: Research Data.*

## 4 Results and Analysis

### 4.1 Sectorial classification

Table 4 indicates which sectors the companies belong to and the number that make up the IBrX 50 theoretical portfolio for each of these sectors. A total of 23 sectors were mapped, the sectors with the largest number of representatives are Financial Intermediaries, Oil, Gas and Biofuels, Steel and Metallurgy, and Commerce, all with 4 or more representatives in the 2022 IBrX 50 theoretical portfolio.

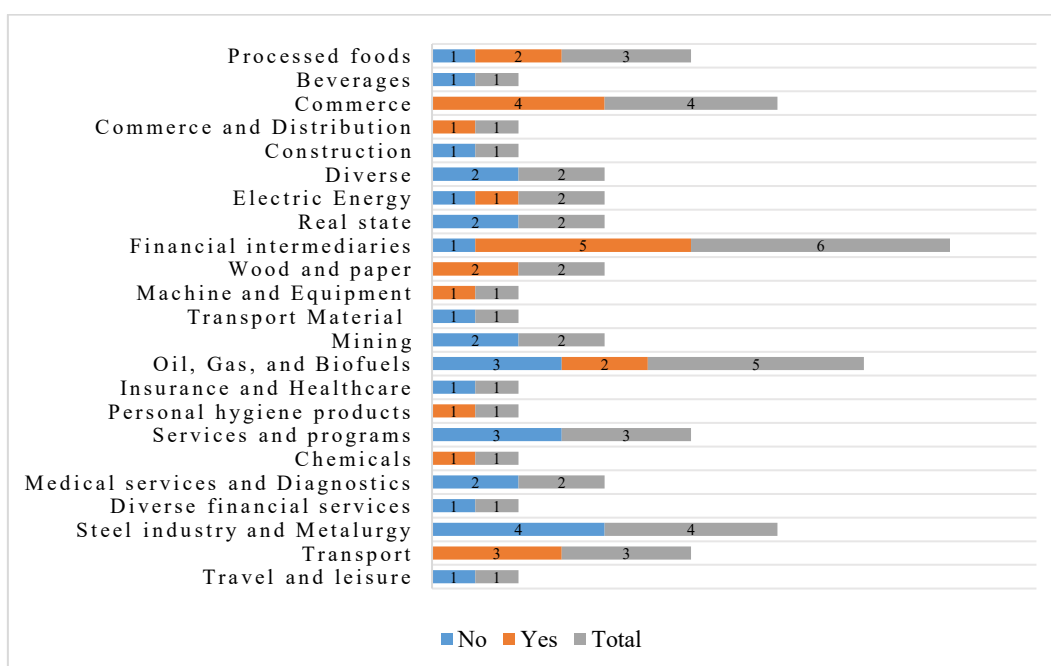
**Table 4***Grouping of IBrX50 companies by sector*

Sector	Number	Sector	Number
Processed foods	3	Mining	2
Beverages	1	Oil, Gas, and Biofuels	4
Commerce	4	Insurance and Healthcare	1

Commerce and Distribution	1	Personal hygiene products	1
Construction	1	Services and programs	3
Diverse	2	Chemicals	1
Electric Energy	2	Medical services and Diagnostics	2
Real state	2	Diverse financial services	1
Financial intermediaries	6	Steel industry and Metalurgy	4
Wood and paper	2	Transport	3
Machine and Equipment	1	Travel and leisure	1
Transport Material	1	-	-

*Source: Research Data.*

In view of the classification in Table 3, Figure 2 shows the number of IBrX50 companies that are also present in the Corporate Sustainability Index.



**Figure 2** Sectorial presence in ISE B3

*Source: Research Data.*

There is a low presence of companies from the Oil, Gas and Biofuels, Mining, Steel and Metallurgy, and Programs and Services sectors. There is, on the other hand, a high presence of companies from the Commerce, Financial Intermediaries, Wood and Paper, and Transport sectors in the Corporate Sustainability Index.

### 4.3 ESG score

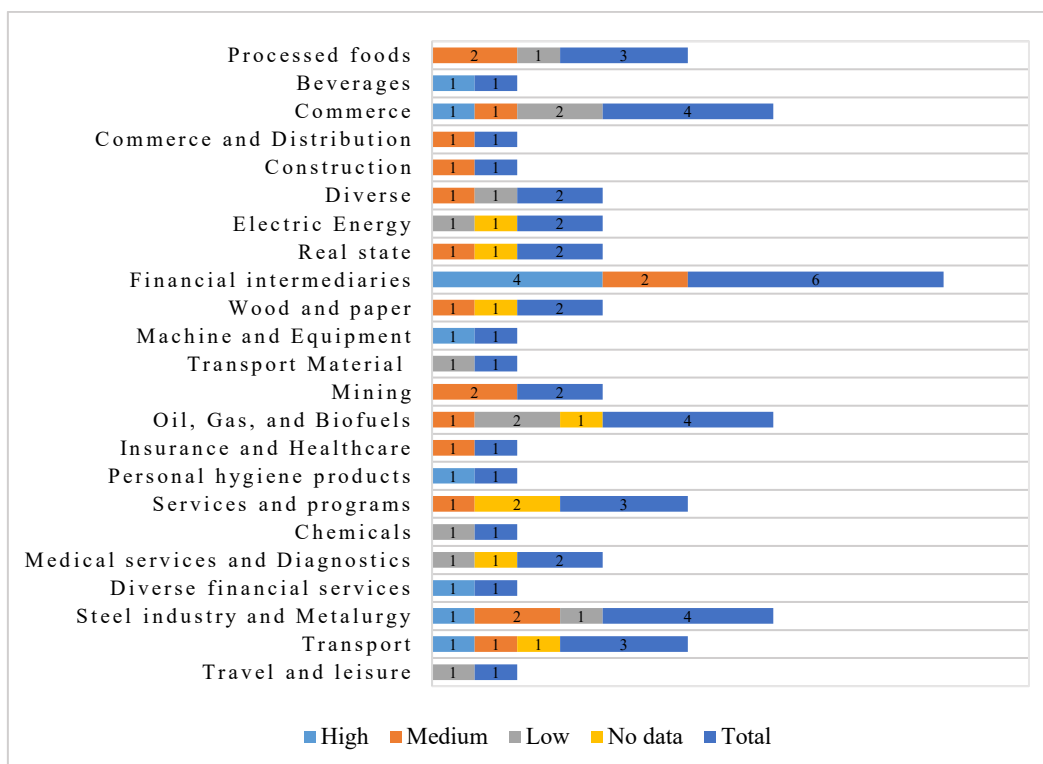
The ESG score of companies belonging to the IBrX 50 theoretical portfolio was investigated during data collection, except for seven companies due to data unavailability in the ESG Book. They are: Meliuz S.A. (CASH3), Brazilian Electric Power Co (ELET3), Multiplan (MULT3), Petróleo Brasileiro SA Petrobras (PETR3), Suzano S.A. (SUZB3), Locaweb (LWSA3), and Rede d'or São Luiz S.A. (RDOR3). Table 5 shows the ESG score for each of the companies.

**Table 5***ESG score of IBrX 50 companies*

Company	ESG Score	Company	ESG Score	Company	ESG Score
B3SA3	67,3	GGBR4	55,51	TOTS3	50,87
ITSA4	65,96	BBSE3	54,94	EQTL3	49,75
WEGE3	64,03	BRAP4	53,71	MGLU3	49,61
NTCO3	63,12	AZUL4	53,35	RENT3	49,47
BIDI11	62	COGN3	52,62	GOAU4	49,05
BPAC11	59,89	CYRE3	52,58	HAPV3	45,91
ITUB4	59,62	RADL3	52,52	CVCB3	45,56
LREN3	59,58	VBBR3	52,02	BRKM5	45,33
ABEV3	59,48	CSNA3	51,79	RAIL3	43,57
USIM5	58,35	MRFG3	51,77	EMBR3	42,78
VALE3	56,16	AMER3	51,7	JBSS3	42,65
BBDC4	55,96	KLBN11	51,42	PRI03	41,67
BRML3	55,78	BRFS3	51,23	VIIA3	41,14
BBAS3	55,75	CCRO3	51,16	CSAN3	40,14

*Source: Research Data.*

Table 5 presents the companies and their respective scores in descending order according to the ESG Book. Figure 3 divides the sectors into High, Medium, or Low ESG scores, or No data, according to the classification shown in Table 3. The rule for categorization is based on the ESG score value, with a High ESG score given to companies above 57.0, and Low ESG score given to below 50.0. Companies with an ESG score between 50.0 and 57.0 are considered having a Medium ESG score. Figure 2 shows that the sectors presenting a High ESG score are Financial Intermediaries, while Oil, Gas, and Biofuels sectors have an ESG score considered Low.



**Figure 3** ESG score by sectors

Source: Research Data.

Among the companies with a High ESG score, most of them are from the Financial Intermediaries sector, of which only one (BIDI11) is not included in the ISE. Among the 23 companies listed on both indexes, 26% have a High ESG score, 22% have a Low ESG score while 43% have a Medium ESG score. Of the companies without information, two are present in both indices (ELET3 and SUZB3), while the others are only in the IBRX50.

#### 4.4 Proximity to SDGs

A qualitative analysis of the reports was carried out in order to estimate the degree of proximity of the IBRX 50 companies with the Sustainable Development Goals according to the classifications proposed in Table 2. Table 6 indicates how close each company is to the SDGs. In the case of non-existent proximity, either an annual report was not made available, or the available report made no mention of Sustainable Development Goals.

**Table 6**

*Proximity of companies to SDGs*

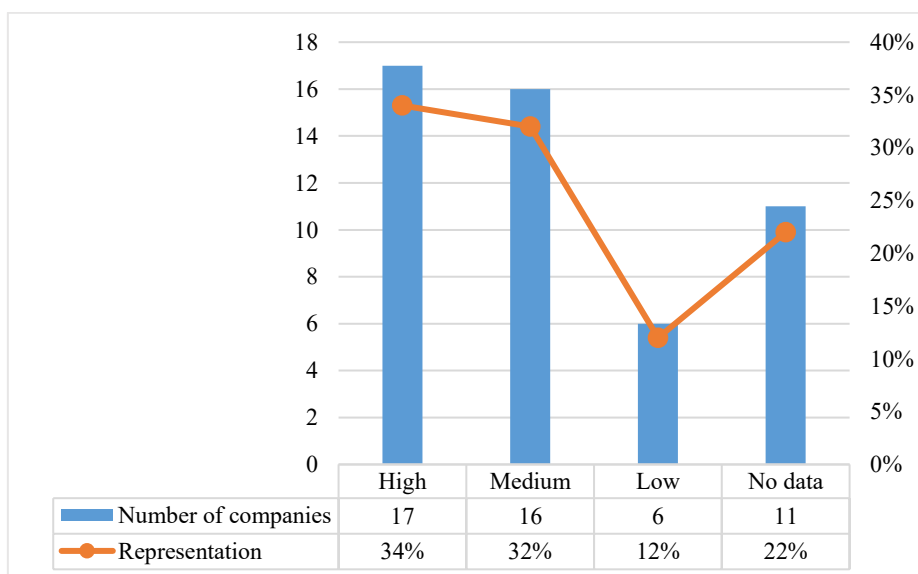
Company	Proximity	Company	Proximity	Company	Proximity	Company	Proximity
ABEV3	Medium	CCRO3	Non-existent	JBSS3	Medium	VBBR3	Medium
AMER3	High	COGN3	High	KLBN11	Low	VIIA3	Low
AZUL4	High	CSAN3	High	LREN3	High	WEGE3	High
B3SA3	Medium	CSNA3	High	MGLU3	Medium	CASH3	Non-existent
BBAS3	High	CVCB3	Non-existent	MRFG3	Low	ELET3	High
BBDC4	Medium	CYRE3	Non-existent	NTCO3	Low	MULT3	Low
BBSE3	High	EMBR3	Non-existent	PRIO3	Non-existent	PETR3	High

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BIDI11	Medium	EQTL3	Non-existent	RADL3	Medium	PETR4	High
BPAC11	Medium	GGBR4	High	RAIL3	Medium	SUZB3	Medium
BRAP4	Non-existent	GOAU4	High	RENT3	Medium	LWSA3	Non-existent
BRFS3	Medium	HAPV3	Non-existent	TOTS3	High	RDOR3	Medium
BRKM5	Medium	ITSA4	Medium	USIM5	High		
BRML3	Non-existent	ITUB4	High	VALE3	High		

**Source:** Research Data.

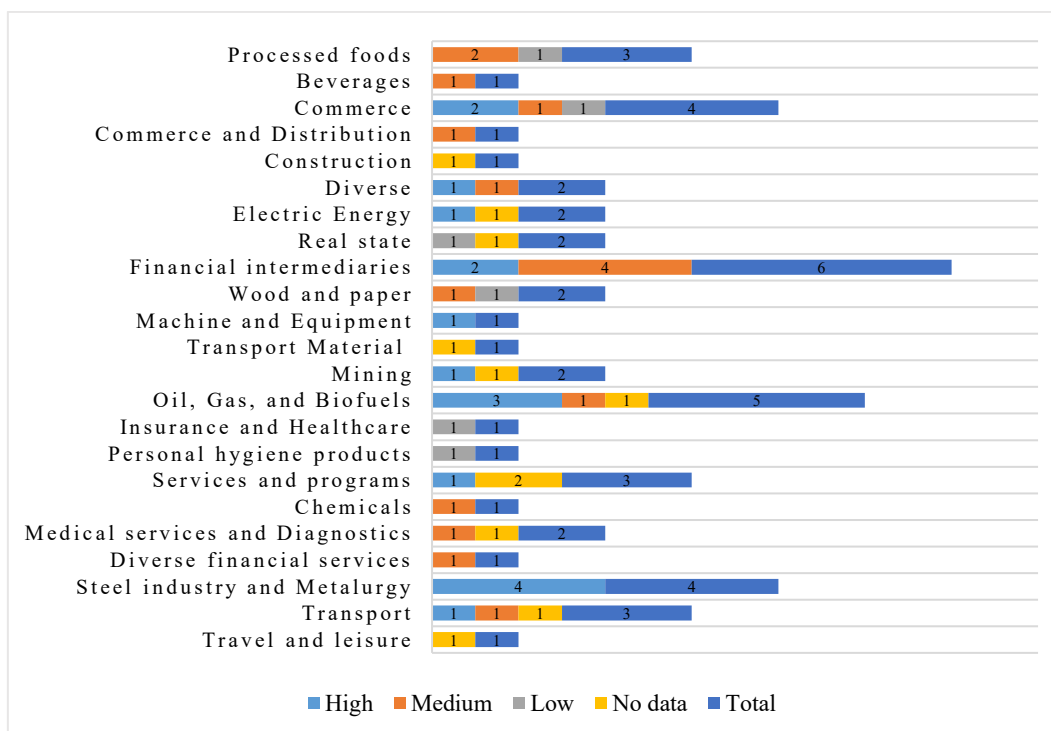
Figure 4 summarizes the number of companies in each category in quantitative terms. At least 78% of the companies mention Sustainable Development Goals, but only 34% of the companies have a high degree of proximity.



**Figure 4** Representation of company proximity to SDGs

**Source:** Research Data.

Figure 5 illustrates how close each sector is to the Sustainable Development Goals. Among the sectors with greater proximity are: Oil, Gas, and Biofuels, and Steel and Metallurgy.



**Figure 5** Sector proximity to SDGs

Source: Research Data.

A survey was additionally carried out on the 17 Sustainable Development Goals most mentioned in the reports, regardless of whether they are directly linked to the companies' goals or projects. Table 7 lists the Sustainable Development Goals and the number of reports in which they are mentioned.

**Table 7**

*Mentions to SDGs in sustainability reports*

SDG	Goal	Description	Mentions
8	Decent work and economic growth	Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all	30
5	Gender equality	Achieve gender equality and empower all girls and women	28
10	Reduction of Inequalities	Reduce inequality within and between countries	28
13	Action against global climate change	Take urgent action to combat climate change and its impacts	28
4	Quality education	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	27
12	Responsible consumption and production	Ensure sustainable production and consumption patterns	26
3	Health and wellness	Ensure sustainable living and promote well-being for everyone, at all ages	25
7	Clean and affordable energy	Ensure reliable, sustainable, modern and affordable access to energy for all and all	25

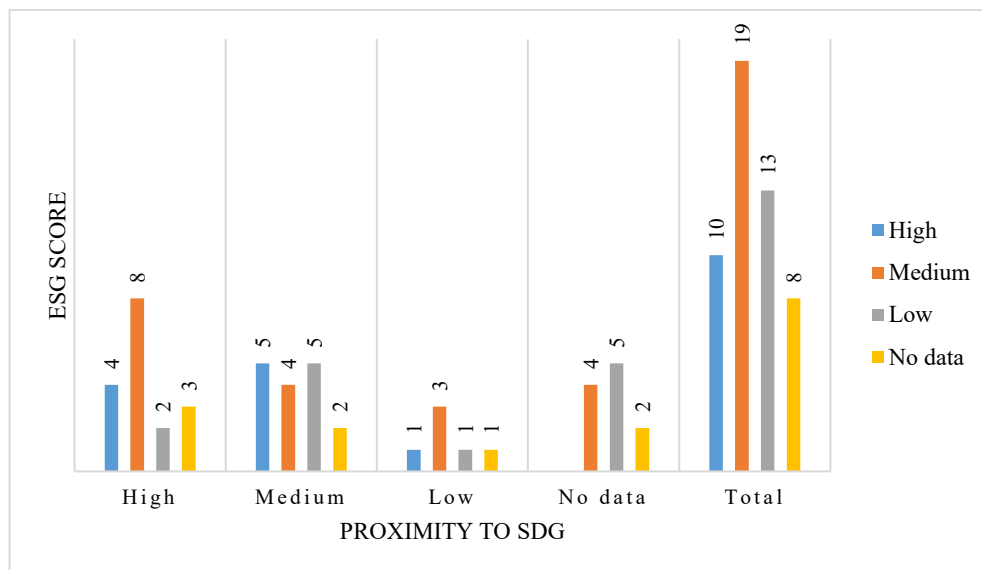
16	Peace, justice, and effective institutions	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable, and inclusive institutions at all levels	24
9	Industry, innovation, and infrastructure	Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation	22
11	Sustainable cities and communities	Make cities and human settlements inclusive, safe, resilient and sustainable	20
1	Poverty eradication	End poverty in all its forms, everywhere	19
6	Clean water and sanitation	Ensure the availability of sustainable water management and sanitation for all	17
15	Land life	Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, halt and reverse land degradation, and halt biodiversity loss	17
2	Zero hunger and sustainable agriculture	End hunger, achieve food security, improved nutrition, and promote sustainable agriculture	15
14	Aquatic life	Conservation and sustainable use of oceans, seas, and marine resources for sustainable development	14
17	Partnerships and means of implementation	Strengthen the means of implementation and revitalize the global partnership for development	11

**Source:** *Research Data.*

The companies in the sample predominantly mention Sustainable Development Goals number 8, 5, 10, and 13, which are related to Decent work and economic growth, Gender equality, Reduction of inequalities, and Action against global climate change, respectively. Meanwhile, the Sustainable Development Goals number 17, 14, and 2 — Partnerships and means of implementation, Aquatic life, Zero Hunger, and Sustainable Agriculture, respectively— are less mentioned.

Figure 6 reveals the number of companies for each of the categories in order to understand the relationship between the ESG score and proximity to Sustainable Development Goals.





**Figure 6** Relation of proximity to SDG and ESG score

Source: Research Data.

Most companies with high proximity to SDGs have a Medium ESG score. This was not expected, as it was assumed that the greater the proximity to the SDGs, the higher the ESG scores would be. Companies with Low ESG scores not close to SDGs were expected, however, the results indicate that the relationship between the variables is not merely intuitive and any analysis beyond these results requires in-depth research. The next section will address the discussions generated from this analysis. Among the qualitative and quantitative indicators, there is enough information to better understand the proximity of Brazilian companies to the Sustainable Development Goals.

## 5 Discussion of Results

This research aimed to identify whether publicly traded Brazilian companies listed in the Brazil 50 Index (IBrX50) and in the Corporate Sustainability Index (ISE) use the Sustainable Development Goals to guide their environmental, social, and governance practices (ESG).

Proximity expresses how much companies use Sustainable Development Goals in their business strategies and create sustainability goals. From a content analysis of the material we gathered, it was noticeable that most companies present themes on sustainability, society, and governance in their reports. Nevertheless, there is a considerable difference in the way this information is disclosed. This result corroborates with Verrecchia (2001), who stated that voluntary information from a company could be subject to the discretion of its managers and what they consider strategic.

We noted a difference between the ESG principles by grouping the companies according to sector. Sectors such as Oil, Gas, and Biofuels and Steel and Metallurgy have much lower ESG indexes than sectors such as Financial Intermediaries. This is probably due to the company's activity, which has a strong impact on the environment.

Despite this, companies with low ESG indexes tend to present a high proximity to the Sustainable Development Goals in their reports. We noticed that there is not necessarily an affinity between the ESG score and the proximity to the Sustainable Development Goals. As such, a high ESG score does not always tend to accompany a high proximity to SDGs, in the

same way that the opposite is also not necessarily true. This result is counterintuitive and corroborates the statements by Hummel & Schlick (2016) on the importance of striving for excellence in the voluntary disclosure of sustainability information as to avoid discrepancies and misalignments.

According to Kadłubek (2015), companies are taking measures on environmental issues to remain competitive and stable in the market. This induces as need to establish a good relationship with their customers in the long term. This movement can be observed through the analysis of the sustainability reports in IBrX 50 companies, since sustainability is a widely explored topic, despite coming from companies that do not necessarily have good ESG practices.

Our results also indicate that in addition to disclosing better environmental, social, and governance practices, the ISE B3 companies are closer to the Sustainable Development Goals. This corroborates the statements by Marcondes & Bacarji (2010) that the Corporate Sustainability Index has become a management tool, where Brazilian companies base their objectives on promoting the disclosure of information on sustainability. This makes the index a reference, promoting a sustainable management trend in these companies.

Amel-Zadeh & Serafeim (2017) observed that in recent decades there has been a significant increase in the voluntary disclosure of environmental data such as carbon emissions, water consumption, and waste generation. All these impacts are present in the 17 SDGs; however, despite being highly mentioned in the reports, there are no clear indications that the SDG information is priced into the company's equity. This is an important point, as the relevance and reliability of these accounting data are fundamental criteria for decision-making by investors and stakeholders.

The analyses corroborate the research by Izzo et al. (2020) on two points: Brazilian companies, as well as Italian ones, use Sustainability Reports as a means of disclosing SDGs; secondly, the analyses suggest that companies' SDGs awareness is considerably high among the largest listed companies in each country, where they have assimilated it into reporting practices and narratives. The results still agree that the exact nature and requirements of the SDGs, as well as the definitions of specific goals, are not always clearly addressed and disclosed.

The results were in line with the research by Da Silva et al. (2021), when pointing out that companies listed on B3 indexes make efforts to comply with the UN Global Pact proposed in their 17 SDGs. In both surveys, the SDGs that require external cooperation were not prominently considered in sustainability reports, indicating that the companies seek to adopt internal measures which reflect externally, avoiding activities related to the SDGs aimed at fighting poverty and hunger.

## 6 Final Considerations

Our purpose of identifying whether publicly traded Brazilian companies listed in the Brazil 50 Index (IBrX50) and in the Corporate Sustainability Index (ISE) use Sustainable Development Goals to guide their environmental, social and governance (ESG) practices, was achieved, since the proximity of the assets to the Sustainable Development Goals was evidenced in the annual sustainability report analysis.

It should be noted that there are still few companies that, in addition to mentioning SDGs, objectively incorporate them into their goals and initiatives, bringing in future perspectives and real cases of sustainability actions. As such, the result of the survey is not enough to guarantee whether disclosure in reports is in line with practice.

Despite approximately 78% of companies mentioning SDGs in their reports, only 34% have high proximity and explore the topic in greater depth when evidencing Sustainable Development Goals. Despite this, it seems clear that it is common for companies with a low ESG score and, therefore — ineffective environmental, social, and governance practices — to have a high proximity to SDGs. This may be due to bias in the disclosure of information, and may be further analyzed in studies which may extend the findings from this research.

The research contributes to theory by verifying the impact of disclosing sustainability reports within the Brazilian context and the advance of the 17 SDGs from the Global Pact proposed by the UN. In addition, we propose a comparative analysis between companies listed and unlisted in sustainability indices from the perspective of ESG scores and SDG proximity.

The study had limitations on the selected sample size and the time window, which referred only to the year before the analysis of the companies. With this taken into consideration, future studies can explore broader samples and time windows while incorporating discussions such as companies' ESG practices, the effects of corporate governance traits, and reports on Development Objectives with the accounting complexity behind ESG. As such, a qualitative study would be necessary, as well as understanding the motivations behind the disclosure of affirmative corporate governance practices.

## References

Amel-Zadeh, A. (2018). Social Responsibility in Capital Markets: A review and framework of theory and empirical evidence. *SSRN Electronic Journal*. Retrieved from <https://doi.org/10.2139/ssrn.2664547>

Amel-Zadeh, A., & Serafeim, G. (2017). Why and How Investors Use ESG Information: Evidence from a Global Survey. *SSRN Electronic Journal*. Retrieved from <https://doi.org/10.2139/ssrn.2925310>

B3. (2015). *Metodologia do Índice de Sustentabilidade Empresarial (ISE)*.

B3. (2022a). Índice Brasil 50 (IBrX 50 B3). Retrieved 3 May 2022, from [https://www.b3.com.br/pt\\_br/market-data-e-indices/indices/indices-amplos/indice-brasil-50-ibrx-50.htm](https://www.b3.com.br/pt_br/market-data-e-indices/indices/indices-amplos/indice-brasil-50-ibrx-50.htm)

B3. (2022b). Índice de Sustentabilidade Empresarial (ISE B3). Retrieved 3 May 2022, from [https://www.b3.com.br/pt\\_br/market-data-e-indices/indices/indices-de-sustentabilidade/indice-de-sustentabilidade-empresarial-ise-b3.htm](https://www.b3.com.br/pt_br/market-data-e-indices/indices/indices-de-sustentabilidade/indice-de-sustentabilidade-empresarial-ise-b3.htm)

Bardin, L. (2011). *Laurence Bardin - Análise de Conteúdo 1. News.Ge.*

Berthelot, S., & Magnan, M. (2003). Environmental disclosure research: Review and synthesis Value relevance of sustainability reports View project. *Journal of Accounting Literature*, 22, 1–44. Retrieved from <https://www.researchgate.net/publication/285059735>

Cristófalo, R. G., Akaki, A. S., Abe, T. C., Morano, R. S., & Miraglia, S. G. E. K. (2016). Sustentabilidade e o mercado financeiro: estudo do desempenho de empresas que compõem o índice de sustentabilidade empresarial (ISE). *REGE - Revista de Gestão*, 23(4), 286–297. Retrieved from <https://doi.org/10.1016/j.rege.2016.09.001>

Da Silva, B. S., De Queiroz, J. N., Da Silva, R. C., & Francisco, J. R. de S. (2021). Ações adotadas pelas empresas da B3 alinhadas com os 17 Objetivos de Desenvolvimento Sustentável (ODS): uma análise dos relatórios de sustentabilidade. *Revista Mineira de Contabilidade*, 22(2), 37–50. Retrieved from <https://doi.org/10.51320/rmc.v22i2.1217>

de Freitas Netto, S. V., Sobral, M. F. F., Ribeiro, A. R. B., & Soares, G. R. da L. (2020). Concepts and forms of greenwashing: a systematic review. *Environmental Sciences Europe*, 32(1), 19. Retrieved from <https://doi.org/10.1186/s12302-020-0300-3>

Degenhart, L., Vogt, M., & Hein, N. (2018). Relação do desempenho econômico-financeiro com a responsabilidade social corporativa das empresas brasileiras. *Revista Metropolitana de Sustentabilidade*, 8(1).

Drempetic, S., Klein, C., & Zwergel, B. (2020). The Influence of Firm Size on the ESG Score: Corporate Sustainability Ratings Under Review. *Journal of Business Ethics*, 167(2), 333–360. Retrieved from <https://doi.org/10.1007/s10551-019-04164-1>

ElAlfy, A., Palaschuk, N., El-Bassiouny, D., Wilson, J., & Weber, O. (2020). Scoping the Evolution of Corporate Social Responsibility (CSR) Research in the Sustainable Development Goals (SDGs) Era. *Sustainability*, 12(14), 5544. Retrieved from <https://doi.org/10.3390/su12145544>

Elkington, John. (1997). *Cannibals with forks : the triple bottom line of 21st century business.* Capstone.

ESG Book. (2022). ESG Book. Retrieved 3 May 2022, from <https://app.esgbook.com/dashboard>

Fundamentus. (2022). FUNDAMENTUS - Invista consciente. Retrieved 3 May 2022, from <https://www.fundamentus.com.br/index.php>

Hummel, K., & Schlick, C. (2016). The relationship between sustainability performance and sustainability disclosure – Reconciling voluntary disclosure theory and legitimacy theory. *Journal of Accounting and Public Policy*, 35(5), 455–476. Retrieved from <https://doi.org/10.1016/j.jaccpubpol.2016.06.001>

Irigaray, H. A. R., Vergara, S. C., & Araujo, R. G. (2017). Responsabilidade Social Corporativa: o que revelam os relatórios das empresas. *Organizações & Sociedade*, 24(80), 73–88. Retrieved from <https://doi.org/10.1590/1984-9230804>

Izzo, M. F., Ciaburri, M., & Tiscini, R. (2020). The Challenge of Sustainable Development Goal Reporting: The First Evidence from Italian Listed Companies. *Sustainability*, 12(8), 3494. Retrieved from <https://doi.org/10.3390/su12083494>

Jyoti, G., & Khanna, A. (2021). Does sustainability performance impact financial performance? Evidence from Indian service sector firms. *Sustainable Development*, 29(6), 1086–1095. Retrieved from <https://doi.org/10.1002/sd.2204>

Kadlubek, M. (2015). The Essence of Corporate Social Responsibility and the Performance of Selected Company. *Procedia - Social and Behavioral Sciences*, 213, 509–515. Retrieved from <https://doi.org/10.1016/j.sbspro.2015.11.442>

Li, Z., Jia, J., & Chapple, L. J. (2023). Textual characteristics of corporate sustainability disclosure and corporate sustainability performance: evidence from Australia. *Meditari Accountancy Research*, 31(3), 786–816. Retrieved from <https://doi.org/10.1108/MEDAR-03-2021-1250>

Machado Filho, C. P. (2006). *Responsabilidade social e governança : o debate e as implicações : Responsabilidade Social, Instituições, governança e Reputação*. Pioneira Thomson Learning.

Machado, M. R., Machado, M. A. V., & Corrar, L. J. (2009). Desempenho do Índice de Sustentabilidade Empresarial (ISE) da bolsa de valores de São Paulo. *Revista Universo Contábil*, 24–38. Retrieved from <https://doi.org/10.4270/ruc.2009211>

Marcondes, A. W., & Bacarji, C. D. (2010). *ISE - Sustentabilidade no Mercado de Capitais*. Retrieved from São Paulo:

- Marcus, J., Kurucz, E. C., & Colbert, B. A. (2010). Conceptions of the Business-Society-Nature Interface: Implications for Management Scholarship. *Business & Society*, 49(3), 402–438. Retrieved from <https://doi.org/10.1177/0007650310368827>
- Novaes, W. (1992). Eco-92: avanços e interrogações. *Estudos Avançados*, 6(15), 79–93. Retrieved from <https://doi.org/10.1590/S0103-40141992000200005>
- Plastun, A., Makarenko, I., Khomutenko, L., Osetrova, O., & Shcherbakov, P. (2020). SDGs and ESG disclosure regulation: is there an impact? Evidence from Top-50 world economies. *Problems and Perspectives in Management*, 18(2), 231–245. Retrieved from [https://doi.org/10.21511/ppm.18\(2\).2020.20](https://doi.org/10.21511/ppm.18(2).2020.20)
- Prodanov, C. C., & de Freitas, E. C. (2013). *Metodologia do trabalho científico: Métodos e técnicas da pesquisa e do trabalho acadêmico* (2. ed.). Novo Hamburgo: Feevale. Retrieved from [www.feevale.br/editora](http://www.feevale.br/editora)
- Rover, S., Tomazzia, E. C., Murcia, F. D.-R., & Borba, J. A. (2012). Explicações para a divulgação voluntária ambiental no Brasil utilizando análise de regressão em painel. *Revista de Administração*, 47(2), 217–230. Retrieved from <https://doi.org/10.5700/rausp1035>
- Schramade, W. (2017). Investing in the UN Sustainable Development Goals: Opportunities for Companies and Investors. *Journal of Applied Corporate Finance*, 29(2), 87–99. Retrieved from <https://doi.org/10.1111/jacf.12236>
- Soschinski, C. K., Brandt, E., & Klann, R. C. (2019). Internacionalização e práticas de responsabilidade social corporativa em empresas brasileiras. *Advances in Scientific and Applied Accounting*, 047–064. Retrieved from <https://doi.org/10.14392/ASAA.2019120103>
- Szabo, S., & Webster, J. (2021). Perceived Greenwashing: The Effects of Green Marketing on Environmental and Product Perceptions. *Journal of Business Ethics*, 171(4), 719–739. Retrieved from <https://doi.org/10.1007/s10551-020-04461-0>
- UN. (2004). *Who cares wins: connecting financial markets to a changing world. Who Cares Wins Connecting Financial Markets to a Changing World*. Retrieved from [https://www.unepfi.org/fileadmin/events/2004/stocks/who\\_cares\\_wins\\_global\\_compact\\_2004.pdf](https://www.unepfi.org/fileadmin/events/2004/stocks/who_cares_wins_global_compact_2004.pdf)

UN. (2015). *Transforming our world: The 2030 agenda for sustainable development*.

UNPRI. (2021). *Building a bridge between financial risk, opportunities and real - World outcomes*.

Verrecchia, R. E. (2001). Essays on disclosure. *Journal of Accounting and Economics*, 32, 97–180.