SemeAd 2023
XXVI Seminários em Administração

07, 08, 09 e 10 de novembro de 2023
ISSN 2177-3866

The Alignment of the B3's Corporate Sustainability Index with the Sustainable Development Goals

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Agradecimento à orgão de fomento:
Agradecemos a Fundação de Amparo à Pesquisa do Estado de Minas Gerais e a Organização dos Estados Americanos pelo apoio a realização desta pesquisa.

THE ALIGNMENT OF THE B3'S CORPORATE SUSTAINABILITY INDEX WITH THE SUSTAINABLE DEVELOPMENT GOALS

1. Introduction

With the growth of natural disasters, environmental awareness has become the subject of discussions in all areas of the globalized world. It all started after several reports published in the 1970s pointed out that the imbalance between economic development and environmental protection is the main cause of global warming (Gonçalves, Gaio & Ferro, 2021). This observation has raised the need for a global effort towards a development model among nations that favors collective welfare without harming the environment (ElAlfy et al., 2020; Saz-Gil, 2020). For a long time, at the local level, some countries adopted in an isolated way some rules and regulations to establish a balance between consumption needs and environmental conservation. The initiatives at the global level were captained by the United Nations (UN) which made the concept of Sustainable Development more relevant with a form to unite all efforts for a fair and sustainable economic growth (Qureshi et al., 2019).

The launching of the United Nations Environment Program in 1972 can be considered asthe first entity created by the UN to develop global actions involving environmental and humanrights issues. More than a decade later, the World Commission on Environment and Development was created in 1987 with the main objective of discussing environmental problems and developing strategies to guide states in the issues of sustainable development that guarantees the needs of current and future generations (Ashrafi et al., 2018; Qureshi et al., 2019).

In 1992 the Earth Summit (Eco-92) was held in Rio de Janeiro, bringing together more than 178 countries that approved the first global action plan that favored the creation of a consolidated worldwide effort to promote sustainable development. Despite all these initiatives adopted by the UN, little progress has been observed, and the acceleration of economic growth aligned with the consumption needs of developed countries has not accompanied the measures to reduce global pollution. After several conferences and summits without significant results, the last attempt materialized with the approval of the seventeen Sustainable Development Goals (SDGs) in 2015 by the UN General Assembly. Such goals were divided into 169 targets that must be achieved by countries by 2030 to strengthen global initiatives for sustainable development (Agudelo et al., 2019; Gomez-Echeverri, 2018; Grimaldi et al., 2020; Lu et al., 2020). Consequently, sustainable development has come to be tied to economic growth that meets the needs of the present world without compromising the ability of future generations to meet their own needs (Fonseca, Domingues, & Dima, 2020; Sachs et al., 2019).

Since the establishment of the sustainable development goals, the climate emergency is no longer a concern only for governments, so the social and environmental responsibility is now considered a shared vision between states, companies, and society itself. In the academic

area, the subject is treated in a multidimensional way, in which several studies seek to investigate how the SDGs are implemented both through public policies and in corporate and individual actions(ElAlfy et al., 2020; Gomez-Echeverri, 2018; Grimaldi et al., 2020). From the organizational point of view, discussions on sustainable development have enabled the emergence of the concepts of corporate social responsibility (CSR) and environmental, social and governance (ESG). These concepts make social and environmental aspects more evident in the context of organizational theories.

To contribute to the advancement of sustainable development objectives, we have observed the creation of several mechanisms that aim to encourage the consideration of social and environmental responsibility in corporate management strategies. As an example, we can cite the initiative of Brasil, Bolsa e Balcão - B3 that created the Corporate Sustainability Index - ISE to provide greater visibility to companies that have committed to corporate sustainability (ISE B3, 2021; Souza et al., 2019). The ISE as an index that evaluates the behavior of companies in environmental issues is not an isolated action. We observe several sustainability indicators around the world, among which stands out the ESG indices of S&P Dow Jones considered as the pioneer in combining rigorous analysis, robust methodologies, and state-of-the-art modeling to provide consistent indices for a wide range of ESG benchmarking and investment applications in emerging countries (Gomez-Echeverri, 2018). Among other sustainability indicators that stand out in the world we can mention: Thomson Reuters ESG index, Bloomberg ESG index, Zero Carbon index among others that seek to alignthe actions of companies with the sustainable development objectives for climate emergency ofthe 2030 Agenda.

The sustainable development report presented by Sachs et al. (2021) highlights the key role of companies in meeting global goals aligned with the SDGs. In this context, one cannot deny the importance of ESG indicators in this process that lead large corporations to view sustainable development from a competitive strategy perspective at a global level (Gomez-Echeverri, 2018; Zaman et al., 2020). Regarding B3's corporate sustainability index, for its more than 15 years, only less than 20% of companies listed on the exchange have composed the indicator.

In a context of slowing global efforts towards sustainable development and the reverse effect on the reduction of global warming as observed by Sachs et al. (2021), the doubt arose as to the alignment of the content of these indicators with the 17 SDGs. This doubt left open the possibility of the emergence of new studies to investigate in fact if the objectives of the sustainability indicators created by these independent institutions coincide with the goals and objectives of sustainable development established by the United Nations. Thus, this study aims to verify whether there is alignment between the dimensions of the B3 Corporate Sustainability Index (ISE) and the sustainable development goals established by the United Nations.

The B3 ISE index is widely used in the literature as a measure of environmental, social and governance performance of Brazilian companies (Anzilago, Flach & Lunkes, 2022;Oliveira et al., 2021; Souza et al., 2019). However, up to the time of writing this research there is empirical study that assesses whether in fact the objectives, structure and methodology adopted by the exchange to build the index is aligned with the UN sustainable development goals. For example, Souza et al. (2019) sought to map the legitimacy of the ISE against the various indicators created by the exchange, without, therefore, ascertaining whether these have

adherence with the SDGs. Given the confidence of researchers in the Brasil, Bolsa e Balcão, there is a need to explore in depth the dimensions of the ISE to resolve this doubt in the literature regarding the alignment of this indicator with global emergencies.

To answer this question, a documental study was conducted, and the content analysis technique was used to explore assessment methodologies of the companies that make up the index, to analyze the composition of the dimensions established by B3, and to cross-reference the SDGs to observe whether there is alignment with the global emergencies defined by agenda 2030. We contributed to the literature by providing evidence that explains the stakeholder and agency theories, since the results can guide stakeholders and society about the alignment of sustainable practices adopted by companies with the SDGs, which consequently would strengthen the confidence of the local and international market on the B3 corporate sustainability index.

2. Literature Review

2.1 Climate Emergency and the Sustainable Development Goals

The climate emergency has challenged international authorities on the need to join efforts on a global level to discuss the problem of global warming and adopt the effective measures to address environmental issues. The initiatives of the United Nations have been instrumental when considering its ability to bring world leaders together in search of solutions that address current problems and ensure the survival of the planet (Ashrafi et al., 2018; Mishra, 2020). Starting in the 1970s several conferences and summits were organized by the UN to reach a global agreement that could guide the actions of governments, business, academia, and civil society towards sustainable development (Gomez-Echeverri, 2018; Sachs et al., 2021).

A first agreement was approved in 1965 by 192 other countries and opened the door to the definition of the millennium goals for sustainable development in which all states present committed to take necessary measures to mitigate the problems of environmental pollution, hunger, poverty and to promote the rule of law (Mishra, 2020; Zanten & Tulder, 2018). The lack of engagement among nations and the degradation of the social fabric and climate led to the creation of the United Nations Environment Program in 1972 and the World Commission on Environment and Development in 1987 both with the same goals (Chams & García-Blandón, 2019; Tsalis et al., 2020).

The successive failures of these entities show the inability of leaders to make a commitment at the global level that addresses the climate emergency and raises the need for greater civil society involvement in the development of socio-environmental proposals and to create control mechanisms to ensure that they are fulfilled (Ashrafi et al., 2018; Qureshi et al., 2019). Consequently, during the Earth Summit (Eco-9) held in the city of Rio de Janeiro in 1992, the 17 sustainable development goals were approved by the more than 178 countries present, becoming the first major global action that aimed to promote sustainable development as the only way out to align environmental problems with economic development. The SDGs were later deepened during the United Nations Sustainable Development Summits held in 2002 and 2012 (Lu et al., 2020).

The slow achievement of the targets set in the SDGs led to the organization of the Paris summit, where again the government representatives present signed first-hand the great "Paris Agreement". This showed once again that economic development and climate emergency must go hand in hand to provide the well-being of current generations without compromising the needs of future generations (Nurunnabi et al., 2019; Rome, 2019). The Paris Agreement was considered by the international community as a major achievement in favor of environmental issues that was enshrined by the "2030 Agenda" in which 169 goals were once again established

to be met by 2030 (Gomez-Echeverri, 2018; Gonçalves, Gaio & Ferro, 2021; Lu et al., 2020; Sachs et al., 2021). Figure 1 highlights the 17 SDGs stipulated by the agreement.

Figure 1 - **The Sustainable Development Goals**

Source: ODS (retrieved from https://www.ods.pt/ods/#17objetivos)

From 1972 to the present day, climate change continues to become an issue of great importance at the global level, as temperatures continue to rise, flooding on a large scale intensifies around the world, the burning of the world's largest forest reserves continues unabated, and hunger and inequality increase. Moreover, as highlighted by Naidoo and Fisher (2020), the Sars-Cov-2 pandemic exposes the weakness of the SDGs by unprecedentedly affecting the efforts already made to meet the 2030 agenda goals. The Covid19 pandemic showed that no significant progress has been made with the established goals, especially with the collapse of the global health system, hunger and misery becoming increasingly evident (García-Sánchez & García-Sánchez, 2020). Due to these limitations, sustainable development has been debated in all areas of knowledge in academia. Because it is a multidimensional topic, there are numerous studies that address sustainability and its implications on society and businesses (Gonçalves, Gaio & Ferro, 2021; Grimaldi *et al.,* 2020; Qureshi *et al.,* 2019).

2.2 Corporate Sustainability and the Sustainable Development Goals

In the organizational field, studies seek to understand how companies should view the climate emergency and how sustainable development goals impact organizational structures and their relationship with stakeholders (Mishra, 2020; Jeffrey, Rosenberg & McCabe, 2018). In this context, Corporate Social Responsibility (CSR) and Environmental, Social and Governance (ASG or ESG for short) are two major concepts that have emerged addressing the voluntary engagement of companies towards the pillars of sustainable development (Ashrafi et al., 2018; Nurunnabi et al., 2019). To accompany companies on this sustainability journey, in addition to the creation of standards and regulations by governments that guide corporate actions towards sustainable development, there are initiatives by stock exchanges and entities such as non-governmental organizations and independent agencies that seek to align sustainable practices with the SDGs (ElAlfy et al., 2020; Chams & García-Blandón, 2019; Tsalis et al., 2020).

In the Brazilian context, in 2005 the Brasil Bolsa Balcão - B3 was the first initiative

from a stock exchange in Latin America that created the Corporate Sustainability Index (ISE) with the objective of becoming a reference indicator of the average performance of publicly traded companies that are committed to sustainable developments (Anzilago, Flach & Lunkes, 2022; ISE B3, 2021). The ISE is considered both by investors in their investment decisions and by researchers who have interests in studying sustainability practices and their implications on corporate actions in the Brazilian context. As such, there are numerous studies investigating the effects of the ISE on corporate debt, performance, value, and risk (Azevedo et al., 2019; Guimarães, Rover & Ferreira, 2018; Oliveira et al., 2021; Santos et al., 2020; Souza et al., 2019). The consideration of the ISE in the study points to the great confidence of academia in the B3 indicator.

The slowness in meeting the sustainable development goals may be linked to the misalignment of the companies' sustainable practices with the sustainable development goals. Furthermore, no study was observed that evidenced the reflection of the SDGs in the sustainability methodologies and practices observed by B3 to build or calculate the ISE. For example, Souza et al. (2019) attempted to investigate the structure and composition of the index, however, their focus was to investigate the legitimacy of the ISE vis-à-vis the other indices created by Brasil, Bolsa Balcão. They found a strong positive and significant relationship of the B3 corporate sustainability index with the other stock exchange indicators. The importance of investigating the alignment of corporate sustainability indicators with the SDGs is extremely important to clarify whether in fact the sustainable practices adopted by companies can effectively contribute to the 2030 Agenda and consequently to sustainable development.Several studies already conducted in emerging countries have investigated the adherence of corporate social responsibility practices with the SDGs (ElAlfy et al., 2020; Fernandes, 2018; Gonçalves, Gaio & Ferro, 2021; Lu et al., 2020; Saz-Gil et al., 2020).

Another important aspect to mention is the number of companies that have made up the ISE since its creation in 2005. On average, 45 of the more than 450 companies listed on B3 have responded to the criteria established by the exchange to define whether such firms have engagement or commitment to global efforts to reduce global warming (Eidt, Coltre & Mello, 2018). This fact shows that there is still much to be done to raise executives' awareness of the need to bring their contributions effectively to sustainable development. However, one must first ensure that the sustainable practices recommended by the exchange are aligned with the SDGs, which represent the compass for all global actions and initiatives aimed at promoting economic growth without, therefore, continuing to destroy the environment. This research will allow us to answer questions regarding the reflection of the SDGs in the methodologies, practices and contents involved in the construction of B3's corporate sustainability index.

3 Methodology

To analyze the alignment between B3's corporate sustainability index and the UN's sustainable development objectives, a documentary study was conducted, being a qualitative method technique that is characterized using written documents and or not as the main primary source of data collection. According to Gil (1995), the document analysis reflects the bibliographic analysis, which is concerned with the analysis of one or several documents not produced by the researcher himself. Documentary research is based on documents and materials from secondary sources that have not received any previous treatment or that may constitute research objects (Pimentel, 2001; Prates & Prates, 2009). It is worth noting that the use of documents in qualitative research allows to explore valuable information between the lines, allowing to obtain a view of time and understanding of the social phenomenon based on a theoretical perspective.

For data collection, we considered bibliographic sources and documents about the

Sustainable Development Goals available on the United Nations *website.* The organization provides the content of all 17 SDGs and all the goals that are expected to be achieved in each one of them. Next, on the Brasil, Bolsa e Balcão *website,* all documents related to guidelines, adopted methodologies, questionnaires, and the five dimensions defined to assess the sustainable practices of companies in the year 2021 were surveyed. The documents were classified to better identify the similarity between the dimensions and the SDGs.

We used the content analysis technique to decipher the relevant aspects of each document that contribute to the objective of this work. In this context, we first classified the 17 SDGs considering the central proposal of each one. Next, we categorized the content of each issue considering the five dimensions assessed by the ISE. Finally, based on the Sankey diagram and the crossing of the information collected, we identified the points of alignment between each dimension and the Sustainable Development Goals.

4. Analysis of the Results

4.1 The Sustainable Development Goals

This study seeks to investigate the alignment of B3's corporate sustainability index with the 17 sustainable development goals established by the United Nations. As already mentioned, discussions about the SDGs were initiated during the United Nations summit on sustainable development (Rio+20) held in 2012 in the city of Rio de Janeiro. However, it was only in 2015 during the Paris summit that there was a great consensus among the 193 UN member states that signed the "Paris Agreement on Climate Change" in which the 17 SDGs detailed in 169 targets to be achieved by 2030 were defined (Sachs et al., 2021).

According to the UN (2015), the SDGs serve as a guide for policies at the local level and serve as the backdrop for international cooperation over the next 15 years (2015 to 2030). Information available on the *website* highlights that actions are expected to be developed in five main areas. The first area focuses on "People," where action is expected at the local and global levels to "end poverty and hunger, in all its forms and dimensions, and ensure that all human beings can realize their potential in dignity and equality in a healthy environment" (SDG, 2019, p.1). The second strand has "Planet" as its focus, in which countries commit to acting to "protect the planet from degradation through sustainable consumption and production, sustainable management of its natural resources, and taking urgent action on climate change so that it can support the needs of present and future generations (SDG, 2019, p.1).

"Prosperity" is the third pillar of the SDGs, and to ensure its effectiveness, member states are expected to act to "ensure that all human beings can enjoy a prosperous life and full personal fulfillment, and that economic, social, and technological progress occurs in harmony with nature" (SDG, 2019, p.1). The fourth background is "Peace," in which countriescommit to taking actions to "promote peaceful, just, and inclusive societies that are free from fear and violence. There can be no sustainable development without peace and no peace without sustainable development" (SDG, 2019, p.2). Finally, for the "Partnership" governments have decided that they will:

> "mobilize the means necessary to implement the 2030 Agenda through a revitalized Global Partnership for Sustainable Development, based on a spirit of strengthened global solidarity, focused in particular on the needs of the poorest and most vulnerableand with the participation of all countries, all stakeholders and all people" (SDG, 2019,p.2).

The five pillars of the SDGs (called the five Ps) are the subject of several studies that investigate and evaluate the actions are taken by governments in all areas to limit the devastating effects of climate change (Gomez-Echeverri, 2018; Naidoo & Fisher, 2020;

Sachs et al., 2021). If some authors identify advances in some areas, however, the worseningsocioeconomic conditions observed in recent years in the world testify to the failure of government actions to achieve the goals set by the SDGs.

The five Ps present an overview of the main areas to be worked on by governments at the macro level. In Table 1 we highlight each of the 17 sustainable development goals and theirdescription as established by the UN.

Table 1 - **UN Sustainable Development Goals**

SDG	Goal	Description
SDG_01	Poverty Eradication	End poverty in all its forms everywhere.
SDG_02	Zero Hunger	End hunger, achieve food security and improved nutrition, and promote sustainable agriculture.
SDG_03	Health and Wellness	Ensure healthy living and promote well-being for all at all ages.
SDG_04	Quality Education	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.
SDG_05	Gender Equality	Achieve gender equality and empower all women and girls.
SDG_06	Drinking Water and Sanitation	Ensure availability and sustainable management of water and sanitation for all.
SDG_07	Clean and Affordable Energy	Ensure access to affordable, reliable, sustainable, and modernenergy for all.
SDG_08	Decent Work and EconomicGrowth	Promote sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all.
SDG_09	Industry, Innovation, andInfrastructure	Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation.
SDG_10	Reduction of Inequalities	Reduce inequality within and between countries.
SDG_11	Sustainable Cities and Communities	Make cities and human settlements inclusive, safe, resilient, and sustainable.
SDG_12	Responsible Consumptionand Production	Ensure sustainable consumption and production patterns.
SDG_13	Action Against Global Climate Change	Take urgent action to combat climate change and its impacts.
SDG_14	Life in Water	Conserve and sustainably use the oceans, seas, and marine resources for sustainable development.
SDG_15	Earth Life	Protect, restore, and promote the sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reserve land degradation and halt biodiversity loss.
SDG_16	Peace, Justice, and EffectiveInstitutions	Promote peaceful and inclusive societies for sustainable development; provide access to justice for all and build effective, accountable, and inclusive institutions at all levels.
SDG_17	Partnerships and Means ofImplementation	Strengthen the means of implementation and revitalize the global Partnership for Sustainable Development.

Source: Prepared by the author, based on the Sustainable Development Goals (UN- SDG, 2015)

In general, it can be pointed out that the 17 SDGs approved by the United Nations General Assembly define the paths to be followed by governments, businesses, non-governmental organizations, academia, civil society, and other stakeholders to take initiatives to tackle the problems of global warming. The SDGs guide the actions needed at local and global levels to establish a balance between sustainable development and economic,

environmental, and social development. Fonseca, Domingues, and Dima (2020) point out that due to the multidimensional nature of sustainable development, it is essential that there is a global awareness of climate change and its effects on communities to ensure a better quality of life for all people. Economic development, social development, and environmental protection are interdependent and mutually reinforcing components of sustainable development.

4.2 The B3 Corporate Sustainability Index and its dimensions

The 17 SDGs were created to guide governments and companies on the actions that should be taken to promote sustainable development. As this is a new issue, there is a need for synergy among stakeholders to debate and decide on the ways in which these goals should be addressed and implemented. This void makes room for the emergence of several independent institutions to guide companies and societies on the practices they should adopt to contribute to the fulfillment of the goals set by the SDGs. In this context, the Bolsa Brasil Balcão created the Corporate Sustainability Index with the objective of being "the indicator of the average performance of asset prices of companies selected for their recognized commitment to corporate sustainability" (ISE B3, 2021). In its filing addressing the indicator's methodology, the exchange highlights that:

> "The Corporate Sustainability Index (ISE B3) is the result of a theoretical portfolio of assets, prepared in accordance with the criteria established in this methodology. More details can be found in the B3 ISE Guidelines, available at www.b3.com.br, Market Data and Indexes, Sustainability Indexes, Corporate Sustainability Index (ISE B3). B3 indices use the procedures and rules set out in the B3 Indices' Definitions and Procedures Manual, available at www.b3.com.br, Market Data and Indices, Sustainability Indices, Corporate SustainabilityIndex" (ISE B3, 2021, p3).

To integrate the index, a company must have shares traded at B3, not be a BDR issuer, not have "assets under judicial or extrajudicial reorganization, special temporary administration regime, intervention or that are traded in any other special listing situation" (ISE B3, 2021, p3). The exchange sets some criteria for accepting an asset as part of the ISE. These are:

> "(i) Be among the eligible assets that, in the effective period of the previous 3 (three) portfolios, in descending order of Trading Index (NI), occupy the top 200 positions. (ii)Have a trading session presence of 50% in the effective period of the previous 3 (three)portfolios. (iii) Not be classified as "Penny Stock" and be an asset issued by a company that, as assessed in the annual selection process, cumulatively meets the sustainability criteria described below. (iv) Sustainability criteria a) ISE B3 Score equal to or greater than the general cut-off scores applicable to each annual selection cycle. b) Score by theme of the ISE B3 questionnaire greater than or equal to 0.01 points. c) Minimum qualitative score of 70 percentage points. [...] e) CDP-Climate score greater than or equal to "C". f) Positive response to the questions in the questionnaire classified as minimum requirements for the sector" (ISE B3, 2021, p. 4-5).

In contrast, B3 establishes the criteria for exclusion of a company from the corporate sustainability index, as follows:

> "(i) at the time of the four-month rebalancing of the portfolio, when possible, updates ofthe values referred to in items (d) and (e) of item 4.4 (Score CDP-Clima and RepRisk Index- Peak RRI) will be considered; (ii) during the life of the portfolio they are listed in a special situation. These assets will be excluded at the end of their first day of trading in this framework; (iii) during the life of the

> portfolio they become involved in incidentsthat make them incompatible with the objectives of the ISE B3, according to the criteria established in the risk management policy of the index" (ISE B3, 2021, p. 5-6).

To monitor the incidence of these factors for inclusion and exclusion of companies in the ISE, the exchange uses "the services of RepRisk, which is an international provider of massive collection and analysis of publicly available online information on environmental, social and corporate governance risks" (ISE B3, 2021, p. 7). Based on these criteria, B3 prepares annual questionnaires that are sent to the companies that intend to voluntarily integrate the ISE to assess their engagement with sustainable development practices. B3 provides a simulator in which firms can previously self-assess before submitting themselves as potential index members.

In general, the content of the questionnaires and the dimensions of analysis are divided into five main themes. We present in tables 2, 3, 4, 5 and 6 the objective themes of each dimension evaluated by the ISE, which will later be used to evaluate the alignment with the 17 United Nations sustainable development goals.

Table 2 - **Human Capital Dimension of the B3 ISE**

Topics	Topics Evaluated
Labor practices	Working conditions, Work formats, Quality of life and benefits, Outsourced workers, and Reduction of inequalities.
Worker health and safety	Leadership and Accountability, Management Practices, Performance, Certifications, and Legal Compliance.
Employee engagement, diversity and inclusion	Commitment to valuing diversity and inclusion, Promoting diversity and inclusion.

Source: Prepared by the author based on the overview of the new ISE B3 questionnaire <www.iseb3.com.br>

Table 3 - **Corporate Governance and Top Management Dimension of the B3 ISE**

Topics	Topics Evaluated
Fundamentals of corporate sustainability management	Management commitments and practices, Alignment with Agenda 2030 and SDGs, Compensation and incentive practices, Stakeholder engagement management, Materiality management, Transparent disclosure practices, Accounting, and financial practices.
Risk Management	Enterprise Risk Policy, Enterprise Risk Management, Critical Event Risk Management, and Systemic Risk Management.
Corporate Governance Practices	Leadership engagement with sustainability, Relationship between partners, Audit, and internal controls, Conduct and conflict of interests, Integration of sustainability into strategy, Autonomy of the Board of Directors, Composition and dynamics of the Board of Directors, Diversity on the Board of Directors, Quality of top management, Governance of subsidiaries, affiliates and/or subsidiaries, and Audit Committee.
Business Ethics	Managing ethics in the company and Fighting corruption.
Maintenance of the competitive environment	Competition advocacy.
Management of thelegal and regulatory environments	Administrative and judicial penalties, Collective action and influence.

Source: Prepared by the author based on the overview of the new ISE B3 questionnaire www.iseb3.com.br

Table 4 - **Business Model and Innovation Dimension of the B3 ISE**

Topics	**Topics Evaluated**
Sustainability of the business model	Trends and purpose, Innovation strategy, Controversial business or products
Product design and life cycle management	Product and service development, business model innovation, and life cycle management.
Efficiency in the procurement and use of materials	Efficiency in the use of scarce materials and Materials.
Supply Chain Management	Analysis of relevance in the supply chain, Strategic management of the chain, Social and environmental risk management policy in the chain, Verification of compliance in the supply chain, and Legal compliance in the chain.
Sustainable Finance	Socio-environmental commitment, Co-responsibility, Compliance, Conscious consumption and financial education, Biodiversity and climate change, Management of third-party resources and own resources, Credit granting, and Insurance

Source: Prepared by the author based on the overview of the new ISE B3 questionnaire www.iseb3.com.br

Table 5 - **Social Capital Dimension of the B3 ISE**

Topics	**Topics Evaluated**
Human rights and community relations	Commitment to Human Rights, Local Community. The management of the relationship between companies and the communities in which they operate, the management of directand indirect impacts on fundamental human rights, and the treatment of indigenous peoples.
Private Social Investment and Corporate Citizenship	Specific policies, adoption of corporate citizenship practices, and making private socialinvestments.
Technical and economical accessibility	Technical and economic accessibility. The management of issues related to universal needs such as accessibility to health services, financial services, public services,education, and telecommunications.
Product quality andsafety	Technical and economic accessibility. The management of issues related to universal needs such as accessibility to health services, financial services, public services,education, and telecommunications.
Product quality andsafety	Preventive approach, corrective approach. Issues involving unintended characteristics ofproducts sold or services provided that may create risks to the health or safety of end users.
Sales practices andproduct labeling	Sales Practices, Product and Service Labeling, and Legal Compliance. Advertising standards and regulations, ethical and responsible marketing practices, incorrect ormisleading labeling, discriminatory or predatory sales and lending practices.
Customer well being	Customer-consumer awareness, Ensuring customer-consumer welfare, Customer- consumer relations, Risks to the consumer or third parties. Health and nutrition of food and beverages, Antibiotic use in animal production and management of controlled substances.
Customer Privacy	Use of customer-consumer data, Legal compliance. Management of risks related to theuse of personal information and other customer or user data for purposes other than those for which it was collected, including marketing applications by the company that collectedthe data itself or by third parties.
Data Security	Data Security Management and Legal Compliance. Managing risks related to the collection, retention, and use of sensitive, confidential and/or proprietary customer or userdata. Include social issues that may arise from incidents such as breaches in which personal information and other customer data may be exposed.

Source: Prepared by the author based on the overview of the new ISE B3 questionnaire www.ise3.com.br>

Table 6 - **Environment Dimension of the B3 ISE**

Topics	Topics Evaluated
Environmental Management Policies and Practices	Leadership and accountability, Management practices, Performance, Certifications,Legal compliance, and Animal welfare.
Ecological impacts	Management practices and legal compliance. Include diagnostic actions in all thecompany's units, processes, and activities.
Power Management	Management practices, Performance, Innovation, and technology. The environmental management and energy management practices must necessarily include diagnostic actions carried out in all the company's units, processes, and activities.
Water and wastewater management	These initiatives include (i) measures for the efficient use of water (such as reducing waste, reusing water, using rainwater, and implementing more efficient technologies and devices), (ii) reducing the generation and discharge of liquid effluents, and (iii) reducing the polluting potential of the effluents generated, and (iv) control measures through effluent treatment systems.
Waste and hazardous materials management	Environmental issues associated with hazardous and non-hazardous waste generated by businesses. It should address solid waste management in manufacturing, agriculture, and other industrial processes, treatment, handling, storage, disposal, and regulatory compliance.
Air Quality	The company's policies should be permeated by (i) developing solutions that make it possible to reduce the levels of air pollution, (ii) investing in research and development (R&D), (iii) developing products, and (iv) controlling the sources that emit potentially toxic gases.

Source: Prepared by the author based on the overview of the new ISE B3 questionnaire <www.iseb3.com.br>

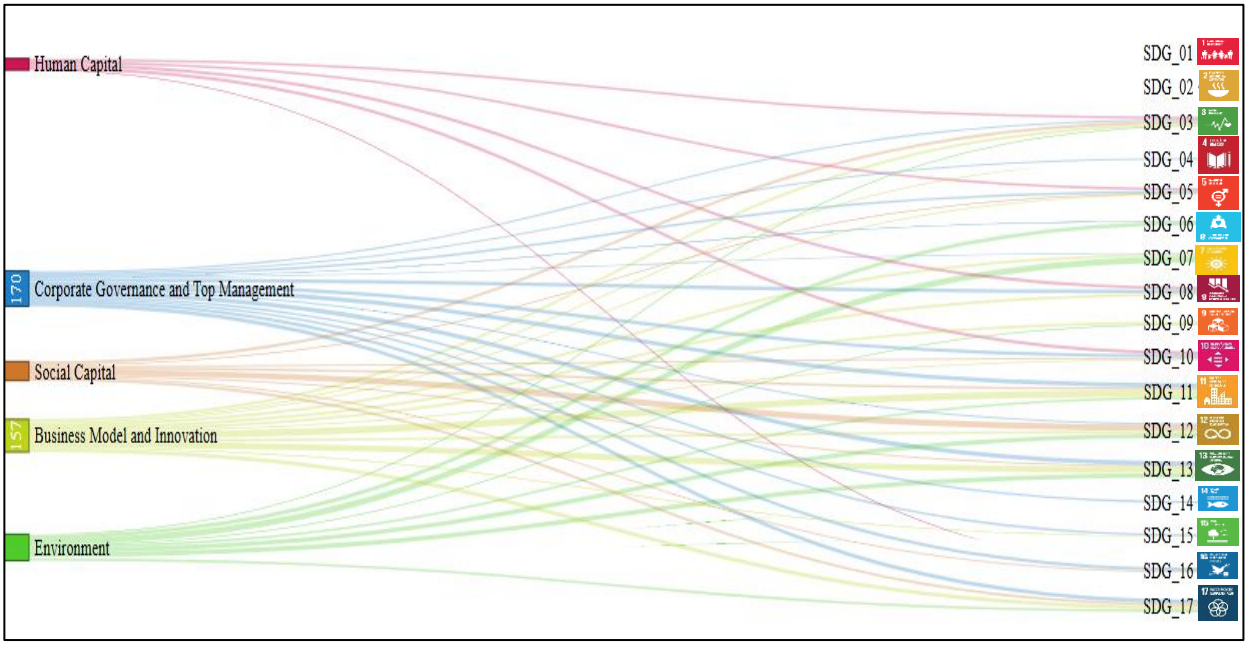
The five dimensions covered by the index represent the set of actions deemed essential that contribute to the alignment of corporate practices with sustainable development as established by the United Nations. Although the ISE is the first indicator that reflects corporate sustainability from the initiative of a Latin American stock exchange, the relatively low number of companies that make up the index shows that the dissemination of the sustainability concept is still a challenge in the Brazilian corporate environment.

An overview of the methodology and content of the questionnaires sent to the companies points to B3's great effort to guide corporate social responsibility at all levels. However, leaving the completion of the questionnaires up to the companies may generate distrust and, consequently, may put in evidence the reliability of the information disclosed by the companies, when considering the recurrent practices of data manipulation that is still a major concern of theoreticians and stakeholders. Due to the trust that investors have in the stock exchange, the evaluation of companies should not be limited only to the analysis of the answers to questionnaires and the files sent by the firms. This evaluation should be carried out by B3 analysts who should monitor how sustainable actions are being complied with in practice.

4.3 Alignment of the B3 Corporate Sustainability Index and the SDGs

In this section we present and analyze the alignment of the B3 Corporate Sustainability Index with the UN Sustainable Development Goals. To this end, a Sankey diagram was built to cross-reference the 17 SDGs with the actions in topics and content of the ISE questionnaire and the methodology employed by the exchange to assess the degree of engagement of companies with the sustainable development goals. Based on the documents sent to the companies, B3 diagnoses the status of the evaluated through questions whose objective was to identify how environmental issues are disseminated in the firms' business strategies. To construct the Sankey diagram, we considered the number of actions evaluated in each dimension and their relationship with each of the 17 SDGs. The diagram is presented in Figure 2.

Figure 2- Sankey diagram: alignment between the ISE and the SDGs



Note: The thicker the line, the greater the alignment of the evaluated dimension with the achievement of the SDGs. SDG icons courtesy of UN/SDG. Source: Elaborated by the author

As can be seen, the Sankey diagram shows that human capital and social capital were the dimensions that had the fewest actions aligned with the SDGs, while the dimensions "Corporate Governance and Senior Management", "Business Models and Innovation" and "Environment" showed greater alignment with the goals. It is worth noting that the governance and senior management dimension was the only one that evaluates companies in relation to the 17 sustainable development goals established by the 2030 Agenda.

Analyzing the 17 SDGs, it is observed that the following development goals had greater alignment with the five dimensions evaluated by B3: SDG_13 "Action Against Global Climate Change," SDG_11 "Sustainable Cities and Communities," SDG_17 "Partnerships and Means of Implementation," SDG_03 "Health and Wellbeing," SDG_05 "Gender Equality," SDG_07 "Clean and Affordable Energy," SDG_08 "Decent Work and Economic Growth," and SDG_10 "Reducing Inequalities." However, SDG_01 "Poverty Eradication", SDG_02 "Zero Hunger", SDG_04 "Quality Education", SDG_14 "Life on Water", and SDG_15 "Life on Land" had little alignment with the dimensions.

To present a more summarized and specific view of the alignments, Table 7 presents the 5 dimensions of the ISE_B3 and their respective SDGs related in the assessments. As observed in the Sankey diagram, it can be noted that the corporate governance and top management dimension was the one that was related to all 17 goals. This result shows that, as advocated by Naidoo and Fisher (2020) and Sachs et al. (2021), B3 understands that compliance with the SDGs must be seen as a competitive strategy by top management, which must take all necessary measures so that these goals are disseminated in all areas and levels within the companies. It is also worth highlighting the greater importance given to some specific objectives that the ISE has considered fundamental in its assessment of companies' sustainable development actions. The index focuses a lot on the actions adopted by the companies that contribute against global climate change, to make the city and community more sustainable, sustainable consumption and production partnerships, and means of implementation of the SDGs, mainly by complying with environmental standards and regulations. Creating a decent work environment, fighting inequality, caring for the collective welfare, and promoting diversity in the companies'

strategies are goals that B3 expects concrete actions from companies to contribute to sustainable development.

Table 7- The ISE dimensions and the alignment with the SDGs

Dimension	Related SDGs
Human Capital	SDG_03, SDG_04, SDG_05, SDG_08, SDG_10, SDG _16
Corporate Governance and Senior Management	From SDG _01 to SDG 17
Business Models and Innovation	SDG_03, SDG_04, SDG_05, SDG_07, SDG_08, SDG_09, SDG_10, SDG_11, SDG_12, SDG_13, SDG_15, SDG_17
Capital Stock	SDG_03, SDG_04, SDG_05; SDG_10, SDG_11, SDG_12, SDG_13, SDG_16, SDG_17
Environment	SDG_03, SDG_06, SDG_07, SDG_09, 11, SDG_12, SDG_13, SDG_14, SDG_15, SDG_16, SDG_17

Note: SDG = Sustainable Development Goal. An SDG is related to a dimension if at least one question evaluatesactions related to it. Source: Survey results

In general, one can highlight that the B3 Corporate Sustainability Index can be considered a valuable instrument that can guide corporate actions in Brazil to contribute to the fulfillment of the sustainable development goals established by the UN in Agenda 2030. The engagement with the main SDGs testifies the willingness and awareness of companies with the serious consequences of climate change that requires concrete and immediate actions to ensure the survival of present and future generations as advocated by the United Nations. However, it is worth pointing out the stock exchange's disregard for SDG_01 and SDG_02, which in our view lack the market's attention. Eradicating poverty and ending hunger should not only be a concern of governments; companies that control almost all the capital and resources on the planet should adopt measures and actions to fulfill these goals.

5. Conclusion

With the spread of sustainable development practices, companies are increasingly being held accountable for their environmental and social responsibilities, which has led to changes in organizational structures. In this context, this study investigated the alignment of the Corporate Sustainability Index of the Brasil Bolsa e Balcão with the 17 Sustainable Development Goals established by the United Nations to address climate change issues by 2030. A documental study was carried out, using content analysis to investigate the guidelines, methodologies, and the questionnaire of over 450 questions used by B3 to evaluate the companies that make up the index. The five dimensions of the ISE_B3 were analyzed and a cross-check with the SDGs was carried out to observe the alignment with the global climate emergency goals defined by agenda 2030.

The results show that the sustainability dimensions evaluated by the ISE_B3 were most aligned with the following sustainable development goals: Action Against Global Climate Change, Sustainable Cities and Communities, Partnerships and Means of Implementation of the SDGs, Health and Wellbeing, Gender Equality (diversity), Clean and Affordable Energy, Decent Work and Economic Growth, Reduction of Inequalities. The data analyzed showed little alignment of the dimensions with the goals for Poverty Eradication, Ending Hunger, Ensuring Quality Education, Protecting Life on Water and Protecting Life on Land. Issues related to these goals were not explicit in the ISE evaluation questionnaires.

From this evidence one can conclude that all ISE dimensions have some kind of alignment with sustainable development goals, however, concrete actions must be taken to encourage companies' engagement with poverty and hunger eradication, contribute to quality education, and protect aquatic and terrestrial life. We contributed to the literature by providing evidence that explains the stakeholder and agency theories, since the results can guide stakeholders and society about the alignment of sustainable practices adopted by companies with the SDGs, reinforcing the market's confidencein the B3 corporate sustainability index. However, some aspects can be considered as limitations in this study, among which one can consider that an analysis of the dimensions withthe sustainability reports of the companies that integrate the indicator was not carried out. In addition, a cross-check with all 165 goals that detail the 17 SDGs was not evaluated. Future research could investigate the level of adherence of the sustainability reports disclosed by the firms with the five dimensions of the ISE. A more in-depth study could analyze the alignment of the dimensions with the 165 goals of the 2030 Agenda.

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