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SDG Scoring

An analytic hierarchy process approach

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Católica Porto Business School
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An analytic hierarchy process approach

Final Internship Report
presented at the Portuguese Catholic University
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by

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The content of this thesis reflects my perspectives, work, and interpretations. It may contain incorrections, conceptually or methodologically, which are exclusively my responsibility. Therefore, any use of the content in this thesis shall be executed with care.

Abstract

The demand for non-financial information has substantially risen in the last few years. Previously, investors only considered financial information on their investment decisions but there is an increased perception that non-financial factors might provide an additional framework on which firms can be measured, which can positively impact their investment success. Due to this, multiple rating agencies have risen as providers of scores reflecting the Environmental, Social and Governance (ESG) position of firms. However, they often seen as not providing the adequate theoretical reasoning and methodological clarity, which in addition to the lack of a consensus on ESG criteria, creates the space for the development of another scoring system with a robust and clear sustainability framework underlying it.

Additionally, following the implementation of the Corporate Sustainability Reporting Directive (CSRD), a broader set of firms are required to report on their environmental and social impacts. This might create an information disadvantage for non-CSRD covered firms, which has led these firms to also have the desire to report on these issues.

This dissertation presents the development process of a scoring system on which non-financial performance is measured through the Sustainable Development Goals (SDGs), i.e., a robust framework and that combines both financial and non-financial information in a single value, through Multi-Criteria Decision Making, namely, the Analytic Hierarchy Process (AHP). Additionally, it also provides a base framework for firms ESG reporting.

Keywords: Sustainable Scoring, Sustainable Development Goals, Analytic Hierarchy Process.
Words: 7548

Resumo

Recentemente, a procura por informação não financeiro aumentou bastante. Previamente, os investidores apenas consideravam informação financeira nas suas decisões de investimento, mas há uma crescente perceção de que fatores não financeiros podem fornecer um quadro adicional para a avaliação das empresas, podendo impactar positivamente o sucesso dos seus investimentos.

Devido a isso, múltiplas agências de classificação surgiram como provedoras de pontuações que refletem a posição Ambiental, Social e de Governança (ASG) das empresas. No entanto, estas não fornecem o raciocínio teórico e clareza metodológica por trás dessas pontuações, o que, além da diferente definição de critérios ASG entre elas, cria espaço para o desenvolvimento de um outro sistema de pontuação com um quadro de sustentabilidade robusto e claro.

Além disso, após a implementação da Diretiva de Relato de Sustentabilidade Corporativa (DRSC), um conjunto mais amplo de empresas é obrigado a relatar sobre os seus impactos ambientais e sociais. Isto pode criar uma desvantagem de informação para as empresas não cobertas pela DRSC, o que levou essas empresas a também terem o desejo de relatar sobre estas questões.

Esta Tese apresenta o processo de desenvolvimento de um sistema de pontuação no qual o desempenho não financeiro é medido por meio dos Objetivos de Desenvolvimento Sustentável e que combina informações financeiras e não financeiras num único valor, por meio do processo de tomada de decisão multicritério, nomeadamente, o Processo Analítico Hierárquico (PAH). Além disso, também fornece um quadro básico para o relato ASG das empresas

Palavras-chave: Pontuação Sustentável, Objetivos do Desenvolvimento Sustentável, Processo Analítico Hierárquico.
Palavras: 7548

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Introduction

The quest for firms' non-financial information has been increasing in last few years, with investors having started to include this information in their investment strategies. Additionally, institutions such as the European Union (EU) has developed legislation which aims to standardize the classification of environmentally sustainable activities (i.e., EU Taxonomy) and increase the sustainability reporting requirements, with the recent implementation of the Corporate Sustainability Reporting Directive (CSDR).

In this context, FI Group has recently become focused on assisting firms with their sustainability reporting requirements. The internship opportunity that gave rise to this dissertation was part FI Group's desire to extend its services in this area (of sustainability), by developing a sustainable scoring system focused on assessing firms' orientation towards the Sustainable Development Goals (SDGs).

Scoring systems are used in financial markets as way to mitigate information asymmetry (Cassar *et al.*, 2015; Cowan & Cowan, 2006). Nevertheless, these are not restricted to financial information. Currently, some agencies provide Environmental, Social and Governance (ESG) ratings (scores), however, these may be seen as lacking theoretical rationale and methodological clarity, therefore, opening the space for the emergence of another scoring system.

This dissertation focuses on the development of such system, using the Analytic Hierarchy Approach (AHP) (Saaty, 1977, 1980) as the underlying methodology to build it. AHP enables the simplification of otherwise complex problems, by desegregating into the criteria and alternatives that compose them and pairwise compare them using a group of experts, which in the present case, are firms. From the comparisons, pairwise comparison matrices are constructed from which the priorities (i.e., weights) of each criterion and alternative are

derived. Additionally, in order to test for rank reversal, a sensitivity analysis is conducted, using two alternative scenarios.

The development process provided surprising results. Although non-financial information is increasingly more valued, firms still put a premium on financial information, allocating 80,5% of the system's final score on financial performance.

The rest of the dissertation is structured as follows. First, I provide a brief overview of the internship. Second, a brief overview of the EU sustainability legislation is provided. Third, the main literature concepts are presented. Fourth, the development process is explained. Fifth, the main results and a sensitivity analysis are present. Lastly, the main limitations and conclusions of the dissertation are exposed.

Organizational context

I developed this dissertation as a technical department intern at FI Group, a multinational consulting firm founded in 2000, specialized in managing fiscal benefits and Research and Development (R&D) projects.

The company's activity focuses primarily on firms with strong Innovation and R&D components, assisting them in obtaining financing from community programs, such as the NextGeneration EU, which includes RRP (Recovery and Resilience Plan), and the Multinational Financial Framework, which includes Portugal 2020 and Portugal 2030. Additionally, FI Group assists firms with the submission process for different incentives, namely, SIFIDE, a R&D tax incentive system for firms. Furthermore, FI Group provides follow-up services, supporting and accompanying firms during all the execution process of the different projects.

During my six-month internship, from September 6th to March 3rd, under the guidance of Doctor Rosa Pereira and Doctor Mafalda Rebelo, I was introduced and assigned to all these areas. Initially, I was assigned to the project follow-up section, and then to different application processes for several community programs. Moreover, I was also assigned tasks not directly linked to the company's normal activity but connected to the context of this dissertation.

On January 5th, 2023, a new European Union (EU) reporting directive, the Corporate Sustainability Reporting Directive (CSDR), came into force. In this context, FI Group is focused on assisting firms with their reporting obligations. Primarily, their assistance consists of the gathering of the firm's sustainability information and the elaboration of an Environmental, Social, and Governance (ESG) report.

Due to this, FI Group became interest in the development of a sustainability scoring system whose underlying framework is the Sustainable Development Goals, resulting in the present dissertation.

1. Overview of ESG legislation in the EU

According to Redondo Alamillos & de Mariz (2022), the EU's legislation[1] can be separated into several axles, namely, the Non-Financial Reporting Directive (NFRD), the Second Shareholders Rights Directive (SRE II), the Sustainability Financing Disclosure Regulation (SFDR), the Prudential Legislative Texts integrating ESG risks into a broader risk framework, the EU Taxonomy, the EU Green Bond Standard, and the extension proposal of EU Ecolabel to the financial services industry. Although all these regulations are relevant, in terms of sustainability reporting, the three key regulations are the NFRD, the SFDR and the EU taxonomy (Godemer, 2021).

The NFRD entered into force on December 5, 2014, and mandates that European-listed and large public interest companies with more than 500 employees must disclose information regarding their impact on ESG matters (European Commission, 2014).

The SFDR entered into force in 2021 and its main purpose is to "lay down harmonised rules for financial markets participants and financial market participants and financial advisors on transparency with regard to the integration of sustainability impacts in their processes and the provision of sustainability-related information with respect to financial products" (European Commission, 2019).

The EU Taxonomy is a classification system, "establishing the criteria for determining whether an economic activity qualifies as environmentally sustainable for the purposes of establishing the degree to which an investment is environmentally friendly" (European Commission, 2020).

[1] Only the European Union legislation is presented due to the scoring system being targeted for Portuguese companies. Although FI Group is a multinational organisation, the development and implementation of the presented work will be in Portugal.

On January 5, 2023, the Corporate Sustainability Reporting Directive (CSDR), a new reporting directive aligned with the commitment made under the EU Green deal, became operative. This directive addresses the gaps present in the NFRD and modernises and intensifies the environmental and social disclosure rules.

The CSDR enhances the scope of the NFDR, increasing the reporting obligations to a broader set of large firms as well as listed Small and Medium Enterprises (SMEs), encompassing roughly 50 000 firms (European Commission, 2022).

Additionally, the CSDR enables the reduction of medium to long-term reporting costs by harmonising the disclosed information, increases reporting transparency, and strengthens the quality of the disclosed information by introducing a mandatory sustainability audit for all the firms under its scope.

The application of this directive is structured in 4 different phases, starting in the 2024 financial year. Although only listed SMEs[2] are under the scope of the CSRD, it is predicted that all SMEs might be impacted given that large companies must report on their impact across their value chain. Therefore, all SMEs should prepare to evaluate and report on their ESG performance (Instituto de Apoio às Pequenas e Médias Empresas e à Inovação, 2023).

In that regard and given the difficulty for firms to align with ESG report requirements, a robust framework, e.g., SDGs, to help firms access their ESG information. Although this dissertation focuses on the development of an SDG scoring system, a secondary objective is to create a non-financial framework which will serve as a base for the ESG reports of firms not under the scope of the CSDR.

[2] SMEs must apply the new rules in the 2026 financial year.

2. Literature review

The literature review is structured in the following way. First, the theoretical rationale for the use of scoring systems in financial decision making is presented. Second, an introduction to ESG and its interaction with corporate financial performance are exposed. Lastly, sustainable development and SDG is presented.

2.1. Theoretical rationale for the use of scoring systems in financial decision making

From a theoretical standpoint, scoring systems are used to support financial decision making as a way of mitigating the problem of information asymmetry (Cassar *et al.*, 2015; Cowan & Cowan, 2006).

The financial system, in essence, provides the means to transfer funds from agents with excess funds to agents with funds' deficit (Foley, 1991), facilitating the funding of projects that can generate value for the economy, which would otherwise not be implemented due to the lack of self-financing.

However, the financial system is subject to market failures, i.e., certain frictions that impede the efficient allocation of funds in the economy, such as enforcement problems, incentives, and adverse selection (Stiglitz, 1989).

For the purpose of this study, we focus on information asymmetry, which refers to the information gap that exists between borrowers and creditors. More specifically, information asymmetry arises from the fact that creditors hold incomplete and costly information regarding the riskiness of the borrowers, either before the contract is established (*adverse selection*) and/or after (*moral hazard*) (Stiglitz & Weiss, 1981). The core implication of this problem is that the interest rate required by the creditor will be higher than the maximum rate

"good" borrowers are willing to pay, potentially only attracting "bad" borrowers (Altman, 1968). One classical example of this type of friction is SME financing (Lean & Tucker, 2001).

In this context, scoring systems can be seen as a way to mitigate the issue of information asymmetry (Cowan & Cowan, 2006). Scoring can be defined as "the use of a numerical tool to rank order cases (people, companies, fruit, countries), according to some real or perceived quality (performance, desirability, saleability, risk) in order to discriminate between them, and ensure objective and consistent decisions (select, discard, export, sell)" (Anderson, 2007: pp.3-5). An alternative definition is that scoring consists in the use of "statistical techniques of discriminant analysis" (Radu & Dimitru, 2012). Although scoring systems can be very useful as an estimation tool, it is important to note that they are predictive models, whose output is a probability, not a certainty on which investors can blindly trust (Anderson, 2007).

Historically, scoring systems have been applied to financial decision making for some years, exclusively using financial data (e.g., Durand, 1941; Sullivan, 1981)[3]. More recently, some authors have expanded the type of inputs to also include non-financial elements that can be relevant for the assessment of a firm's expected performance, e.g., the firm's commitment to ESG and SDGs – which will be covered in the next subsections.

[3] Namely, literature commonly refers the work by Durand (1941), titled "Risk Elements in Consumer Instalment Financing", as the first study focused on the development of a numerical scoring system, where different personal loans were analysed and judged using a variety of scoring systems with different weights.

2.2. Environmental, Social and Governance

2.2.1. Introduction to ESG

ESG originated in the "Who Cares Wins" report (United Nations Global Compact, 2004) and is seen as "a framework under which companies can be evaluated for a broad range of socially desirable targets" (Redondo Alamillos & de Mariz, 2022: p. 4).

ESG connects the three sustainability assessment pillars, each one addressing different subjects (Billio *et al.*, 2020). The 'environmental pillar' focuses on climate change and carbon emissions, the use and management of natural resources, pollution, waste, eco-design, and innovation; the 'social pillar' refers to workforce health and safety, diversity, customer and product responsibility, community relations, and charitable activities; the 'governance pillar' relates to shareholders' rights, diversity and independence of the administration, management wages and earnings policy, and illegal practices (Matos, 2020).

Firms and investors are more and more interested in ESG information (Kiron *et al.*, 2013). Firms interest derives from the recognition that ESG factors are crucial for their long-term financial value (Edmans, 2023). In the same reasoning, investors seek this information because they perceive it as something relevant to their investment decisions and they want to include it. Additionally, some investors, i.e., green investors, perform screening techniques that are more driven by moral and ethical values and less by financial considerations, enhancing their desire for non-financial information (Amel-Zadeh & Serafeim, 2018).

In this context, it is important to understand the relationship between ESG and corporate financial performance.

2.2.2. ESG and corporate financial performance

ESG is directly related to sustainability so, to better understand its relationship with corporate financial performance, it is helpful to have brief context of the interaction between sustainability and corporate financial performance.

There has been a significant amount of research dedicated to understanding and defining the way in which sustainability interacts with corporate financial performance (Scholtens, 2008; Correia *et al*., 2021; Weber, 2017; Wagner & Bloom, 2011; Paun, 2017).

According to neoclassical capital markets theory (Markowitz, 1952; Fama, 1970; Friedman, 1970; Fama, 1991), the pursuit of sustainability goals may be seen has bearing a negative impact on shareholder's value. For, example, Friedman (1970) states that the only corporate social responsibility is to increase profits and that social and environmental practices beyond what is required by law negatively impacts those.

Stakeholder theory (Freeman, 1984), on the other hand, supports an opposite perspective, defending that firms should create value for all stakeholders, not exclusively for shareholders.

Drilling down from sustainability to ESG, there has also been an extensive amount of research dedicated to understanding and defining the way in which it interacts with corporate financial performance (Aslan *et al*., 2021; Brogi *et al*., 2022; Dalal & Thaker, 2019; Halbritter & Dorfleitner, 2015; Weston & Nnadi, 2021; Whelan *et al*., 2015). For instance, Friede *et al*. (2015) conduct a literature review that summarises and analyses the findings of more than 2200 individual studies on the effects of ESG on financial performance. They conclude that roughly 90% of the studies found a non-negative interaction between ESG and corporate financial performance. Additionally, in terms of the individual factors (E, S, and G), governance represents the pillar with the highest percentage of positive interactions (62,3%), followed by environmental (58,7%) and social (55,1%).

However, it is important to note that governance is also the pillar with the highest percentage of studies with negative interactions (9,2%). If one deducts the percentage of negative findings from the positive findings, the environmental pillar is the one with the highest percentage of positive interactions (54,4%).

Although the results point to a positive interaction between financial and non-financial performance, a debate persists in the literature, which has been made difficult by the absence of an agreement on how to appropriately measure corporate financial and non-financial performance (Scholtens, 2008).

2.3. Sustainable Development and SDGs

Economic development has always been a central concern for any firm, institution, or country. However, the increasing realization of the impact that current economic activities have on present and future living conditions brought to the forefront sustainable development concerns (Chichilnisky, 1997).

Sustainable development can be understood as the development "that meets the meets the needs of the present without compromising the ability of future generations to meet their own needs" (World Commission on Environment and Development, 1987: p.54). The concept was initially linked to the Triple P (Planet, People, and Profit) by Elkington (1997), defending that corporate performance should be assessed through the three pillars that fundament the 'Triple Bottom Line'- namely, social justice, economic prosperity, and environmental quality.

In 2015, the United Nations introduced a new agenda with a set of goals that the constituent countries agreed upon, with the objective of achieving them by 2030. These goals are referred to as the Sustainable Development Goals (SDGs).

The SDGs are comprised of 17 goals and 169 different targets, analysed through 231 unique indicators (United Nations Statistics Division, n.d.) linking

the public, private, and social sectors through a unique agenda[4]. This agenda expands the framework of the Millennium Development Goals, focusing on both developed and undeveloped countries, covering several economic, social, and environmental areas, while expanding on the Triple Bottom Line by introducing two additional lines, i.e., Peace and Partnership (Observatório dos Objetivos do Desenvolvimento Sustentável, 2022).

Increasingly, SDGs have been a relevant topic for both investors and firms. Investors are interested in understanding how firms align their activities with the SDGs and firms have been aligning their activities given that studies point out that they could benefit from "investing in opportunities aligned with the SDGs, including helping secure stable returns, better representing the values of their clients, and offering sustainable finance products that differentiate them in the marketplace" (Global Reporting Initiative, 2017: p. 2).

In this context, works such Lee & Hess (2022) and Gutiérrez-Nieto *et al.* (2016) introduce these criteria in firms' expected performance assessment. Lee & Hess (2022) develop a Sustainable Development Goals (SDG) index that quantifies corporate social responsibility. To construct the index, the author focuses on Fortune 500 companies data from Bloomberg, ASSET4 and the Carbon Disclosure Project and compute a z-score for each variable, which are then aggregated to compute each SDG score. Gutiérrez-Nieto *et al.* (2016) construct a credit score system, using Multi-Criteria Decision Making (MCDM) for socially responsible lenders, where the financial aspects were evaluated through a conventional banking framework and the social aspects through the loan impact on the Millennium Development Goals, i.e., the predecessors of the SDGs.

This dissertation aims to contribute to this strand of the literature by developing a SDG scoring framework.

[4] As discussed in latter sections, the UN indicators are defined at a country-level and, hence, do not have a straightforward appliance to a firm-level.

3. Methodology

Scoring models can be seen as statistical models that aim to predict the likelihood of a given future event or outcome, and which are typically estimated using historical data (Radu & Dimitru, 2012).

These are used on a regular basis in a variety of different fields, in which Finance is included. For example, banks and other credit institutions resort to credit scoring models to estimate each borrower's probability of default (Gup & Kolari, 2005).

In this dissertation, we do not apply conventional, statistically driven methodology to build the SDG scoring model, given that our empirical setting (i) does not include a future event or outcome and (ii) we do not have access to complete historical data on the non-financial performance of firms. Additionally, as previously mentioned, currently there are agencies that issue ESG ratings (scores) for firms, most of those are owned by private companies that do not publicly provide the theoretical rationale and methodology that fundament the scores (Lee & Hess, 2022), which impeded the implementation of similar methodologies. A different approach was required in order achieve the proposed objective.

In this context, we follow the approach proposed by Gutiérrez-Nieto *et al.* (2016) who construct a scoring model for socially responsible lenders that combines social and financial data through Multi-Criteria Decision Making (MCDM), namely, the Analytic Hierarchy Process (AHP).

AHP (Saaty, 1977, 1980) is a multistep approach for managing complex problems with multiple criteria and alternatives. It simplifies those by continuously desegregating the main problem into several simpler ones. More specifically, it creates a hierarchical structure in which the top is constituted by the problem in question, followed by the several criteria that comprise the

problem and then by the different alternatives that constitute each criterion. The criterion and alternatives are then pairwise compared between each other by a defined group of people, imputed into a positive reciprocal matrix, from which we are able to derive priorities that enable the evaluation and ranking of each one.

Although a simpler approach, AHP can be a very time-consuming and complex method as the number of criteria and alternatives increases and becomes too large (Harker, 1987; Saaty, 1989). For example, consider a certain problem with 2 criteria, each one constituted by 2 alternatives. In this scenario, it is only required 3 comparisons (1 for the criterion and 1 for each pair of alternatives). If the number of criteria and alternatives increase to 3 each, this will require 12 comparisons. As seen, the number of comparisons will exponentially grow even if only one additional criterion and one additional variable in each criterion. For this reason, one of the main concerns during the development process of the presented scoring system was to minimize as much as possible the number of comparisons required by only including robust, significant, and unique[5] alternatives (henceforward referred as indicators) and by limiting the number of indicators per criterion.

The next subsections describe and follows the main and intermediary steps in a traditional AHP approach, namely, (i) the elaboration and hierarchization of a scoring system structure, (ii) the identification of potential indicators, (iii) the selection of the final indicators to be included in the model and (iv) the derivation of priorities among different indicators (Ariff et al., 2008; Hummel et al., 2014).

[5] SDG indicators can be used in several SDGs and, due to this, it was decided to only include indicators that focus on one specific SDG.

3.1. Scoring system structure

3.1.1. Concept

In AHP, the first step is to define the decision goal and subsequent problems (Hummel *et al.*, 2012). In our case, the goal is to create a firm scoring system that combines financial and non-financial performance which, after the firm's data is inputted provides an output consistent with the aggregated score of both performances.

Subsequently, there are several problems that need to be resolved to fulfil this goal. The first is how to aggregate both performances, more precisely, to define each performance weight in the final score. Additionally, both financial and non-financial performances are not directly measured, which requires the establishment of several indicators that will provide the assessment (Gutiérrez-Nieto *et al.*, 2016).

3.1.2. Hierarchy

After defining the system´s goal and subsequent problems, a generic hierarchy is created to desegregate the final score in each relevant criteria and indicator. **Figure 1** presents an illustration of the proposed hierarchy.

This enables an easier understanding of the following steps and, more importantly, creates an established structure that allows to check how many comparisons will be required and increase the ability of the pairwise comparison providers to focus specifically on the elicited judgments (Ishizaka & Labib, 2011).

In terms of the hierarchy itself, it makes sense that the first level (the highest one) comprises the combined score of the firm's financial and non-financial performance scores. Consequently, the level immediately below consists of the individual scores for financial and non-financial performance.

As previously mentioned, financial and non-financial performance cannot be directly measured. Their assessment is conducted through a set of measurable variables/indicators directly correlated to them, which will serve as proxy variables. Hence, a third level was created, immediately below the individual financial and non-financial scores, consisting of the chosen indicators' individual score per SDG.

Although the described hierarchy has already simplified the scoring systems, an additional discriminatory level was introduced on the non-financial side to provide an even more easily understood and applicable system. Non-financial performance, as previously stated, will be evaluated through 16 of the existing 17 Sustainable Development Goals[6].

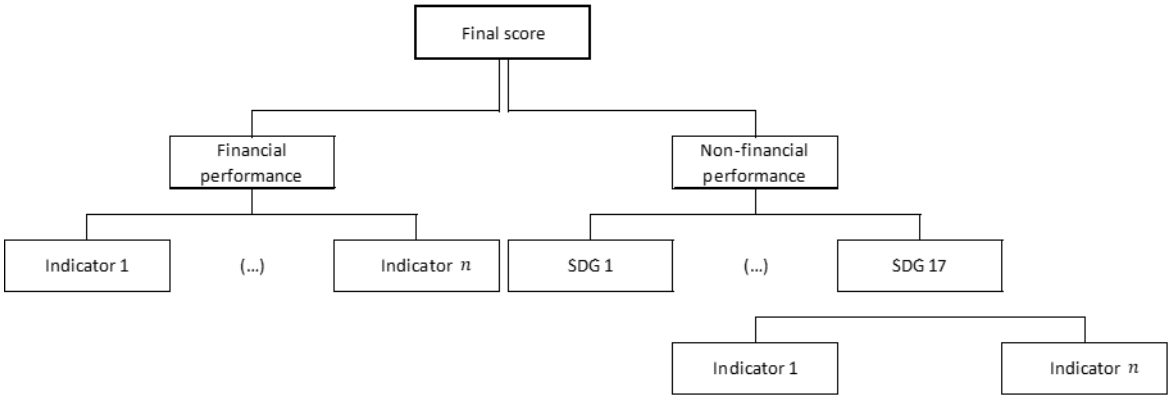

Figure 1. Scoring system hierarchical structure.

3.2. Potential indicators

3.2.1. Potential financial indicators

Corporate financial performance is usually measured through accounting-based or market-based measures (Rowe and Morrow Jr., 1999; Orlitzky et., 2003).

[6] SDG 10 is focused on government actors and civil organisations (Lee & Hess, 2022), therefore, was excluded from this firm-level scoring system.

Accounting-based measures reflect firm's internal efficiency and market-based measures reflect the investor's perspectives (Cochran & Wood, 1984).

There is still a debate on which type of measures should be used given their limitations. Accounting-based measures are subject to different accounting procedures and managerial manipulation, while market-based measures may not reflect investors true evaluation (McGuire *et al*., 1988). Most studies use a mixture of both type of measures, with Return on Assets (ROA) and Return on Equity (ROE) being the most used. Given that these are only two indicators, a more comprehensive review of the literature is required.

From this review, we reached the following indicators: 'Sales' and 'Sales growth rate' (Nollet *et al.,* 2016), enabling an understanding of the firms revenue and growth; 'Return on Assets' (ROA) and 'Return on Equity'(ROE) (Aggarwal, 2013) and EBITDA Margin (Weber *et al*., 2008), therefore, assessing a firms profitability from its assets, equity, and operations, respectively; 'Interest coverage ratio' and 'Financial autonomy' (Gutiérrez-Nieto *et al*., 2016), providing a perspective on firms' ability to meet its outstanding debt obligations and their leverage position, respectively; and 'Quick ratio' (Effiong & Ejabu, 2020), assessing firms ability to meet short-term obligations.

3.2.2. Potential non-financial indicators

The Global Initiative Framework of SDG indicators (UN, 2021) provides a list of 231 unique indicators relevant for SDGs targets and, therefore, the SDGs themselves. However, these indicators could not be directly applied due to being designed for country-level assessments. For example, indicators such as "3.2.1 Under-5 mortality rate" or "9.1.2. Passenger and freight volumes, by mode of transportation" are applicable to countries assessments but not to firms.

This created a need to find SDG indicators relevant to firms. Lee & Hess (2022) compile a list of variables for each SDG by matching the ESG measures from three

data providers (Bloomberg ESG, ASSET4 and the Carbon Disclosure Project) with the first version of the Global Initiative Framework. We analyse this list and, in addition we retrieve the ESG measures available at EIKON Refinitiv.

After this analysis, we analyse the degree of data completion in EIKON and critically analyse the applicability of some of the measures to the Portuguese context[7]. For example, indicators such as 'Policy against child labour', 'Child labour controversies' or 'Forced labour policy' were removed as they were considered not applicable to the Portuguese reality. As a result of this process, the following list of indicators was compiled (*vide* Table 1)

[7] FI Group pretends to implement the scoring system in Portugal so, throughout the process of development, the applicability of the chosen measures to the Portuguese reality was always considered.

Table 1. Potential Non-financial Indicators

SDG	Indicator	Measure	Source
SDG 1	Donations Policy	If the firm donated or did awareness actions to improve the less fortunate	Lee & Hess (2022)
	Percentage of employees on minimum wage	Percentage of firm employees on minimum wage	EIKON REFINITV
SDG 2	Access to low-price products	If the firm distributes a low-price service or product designed for low-income segments	Lee & Hess (2022)
	Product quality	If the firm receive any complaint regarding their products quality	Lee & Hess (2022)
SDG 3	Employees well-beign	If the firm promotes well-being (e.g., health insurance)	EIKON REFINITV
	Health and Safety Policy	If the firm goes beyond what is required by law in terms of health and safety policy	Lee & Hess (2022)
SDG 4	Human Resources Training	If the firm supplies more training hours than the minimum required by law	EIKON REFINITV
	ESG Training	If the firm gives ESG training to their employees	Lee & Hess (2022)
SDG 5	Gender salary disparity	If there is salary gap for men and women with the same professional category and years of service	Lee & Hess (2022)
	Female employees	Percentage of women employees compared to the sector average and profissional category	EIKON REFINITV
SDG 6	Water efficient use policy	If the firm employs water efficiency measures during production	EIKON REFINITV
	Water technologies	If the firm develops products that are used in water treatment, purification or promote the efficient use of water	Lee & Hess (2022)
SDG 7	Energy policy	If the firm employs energy saving measures	Lee & Hess (2022)
	Renewable energy use	Percentage of energy consumed originated from renewable sources	EIKON REFINITV
SDG 8	Diversity and Opportunity policy	If the firm has a policy that promotes diversity and equal opportunity	Lee & Hess (2022)
	Work-Life Balance policy	If the firm has a policy that incentivises Work-Life BaLance	Lee & Hess (2022)
	Working conditions	If the firm goes beyond the legal requirements in term of working conditions	EIKON REFINITV
	Disabled employees	Percentage of disabled employees according to the legal requirements	EIKON REFINITV
SDG 9	R&D expenses	If the firm invested in Research & Development	EIKON REFINITV
	Decarbonization policy	If the firm is engaged in decarbonization	EIKON REFINITV
SDG 11	Accessibility	If the firm is located near public transportation	EIKON REFINITV
	Transportation policy	If the firm adopts measures with significant impact in employees displacements	EIKON REFINITV
SDG 12	Sustainable products	If the firm develops or sales sustainable products (e.g., organic foods)	Lee & Hess (2022)
	Supply chain environmental management	If the firm chooses suppliers that promote good environmental practices	Lee & Hess (2022)
	Sustainability policy	If the firm has a policy that proves their sustainable management	EIKON REFINITV
SDG 13	Global Reporting Initiative (GRI) norms	If their sustainability report is according to the GRI norms	EIKON REFINITV
	Green financial instruments	If the firm invests in green financial instruments (e.g., green bonds)	EIKON REFINITV
SDG 14	Environmental accidents at sea	If the firm is associated with any accident at sea with bad environmental consequences	EIKON REFINITV
SDG 15	Ecosystems protection policy	if the firm promotes actions connected to deforestation	Lee & Hess (2022)
SDG 16	Bribery, Corruption and Fraude	If the firm or a high ranking official has been convicted for bribery, corruption or fraud	Lee & Hess (2022)
	Fiscal Infridgments	If the firm or a high ranking official has been convicted for fiscal evasion	Lee & Hess (2022)
SDG 17	SDG Alliance Portugal	If the firm belongs to the SDG Alliance Portugal or any other organisation that promotes sustainable development	Lee & Hess (2022)

3.3. Indicators selection

After identifying potential indicators for both financial and non-financial performance, experts was elicited through a questionnaire to obtain the final list of indicators.

AHP is applied to group decision scenarios, where the group constituents contribute with their experience and expertise on the subject (*Grošelj et al.*, 2015) and the criteria and alternatives selection are made by group discussion and agreement (Saaty, 1989), this way providing robustness to the choices. In the present context, this process could not be applied due to the non-existence of such a group, leading to the application of another method to select the appropriate indicators.

Alternatively, a group of outside experts can be consulted and provide valuable inputs and improvements to the system (Cancela *et al.*, 2015; Gutiérrez-Nieto *et al.*, 2016). In our setting, a group of 38 consultants, experienced in firms' and projects' financial and sustainability assessments, were surveyed through a questionnaire to provide such inputs – *vide* Annex 1.

They were asked to evaluate the relevance of each indicator for the respective criteria assessment. For example, they were asked to categorize the indicator "Return on assets" as non-relevant, relevant, or very relevant to the financial performance of a firm. Additionally, they were also asked to provide suggestions of additional indicators that in their opinion were important to include, hereby, completing and improving the model.

Subsequently, an analysis of their judgements was made to understand the improvements required. A benchmark of 80% relevance among experts was set to filter which indicators needed to be replaced and/or removed. The financial indicators 'ROE' and 'Interest Coverage ratio', alongside the non-financial

indicators ‘Donations Policy’ and ‘Green Financial instruments’ didn't meet the benchmark, therefore, were removed from the model. The financial indicators (ROE and Interest Coverage Ratio) were not replaced as they were considered somewhat redundant with other selected indicators (e.g., ROA and Financial Autonomy). On the other hand, the indicators ‘Salary Disparity evolution’ and ‘CO2 emissions’ were added to the non-financial section, more precisely, to the indicators for SDG 1 and SDG 13, respectively.

Additionally, concerning SDG 8 and SDG 12, the indicators ‘Diversity and Opportunity Policy’ and ‘Disabled employees’, alongside the indicator ‘Sustainable products’ were removed to maintain coherence and the same number of indicators per SDG as possible, even though all three met the benchmark.

Furthermore, due to multiple suggestions, the indicator ‘Decarbonization Policy’ was substituted by the indicator ‘Participation in innovation projects’.

Lastly, despite not meeting the benchmark, the indicator ‘SDG Alliance Portugal’ (SDG 17) was maintained due to the lack of adequate alternative indicators.

3.4. Priorities’ derivation

3.4.1. Comparisons’ elicitation

Having defined the set of indicators that will be in the scoring system, the next step is to elicit pairwise comparisons in order to derive their priorities and, subsequently, their weights.

Pairwise comparisons are provided by a group of decision-makers or experts, however, as already referred, this group does not exist in the present empirical context.

Burger *et al*. (2007) suggest that stakeholders should be included in the various stages of the research process. For example, Kwatra *et al*. (2021) gathered judgments from different stakeholders. Dolan *et al.* (1993) and Hummel *et al.* (2012) elicited patients' judgments in their work. Following this rationale and, due to a lack of the groups referred to above, a decision was made to include firms, the subjects of the scoring system, in the development process by eliciting comparisons from them.

Similar to other studies that draw on AHP (Cancela *et al.*, 2015; Lyu *et al.*, 2020), these comparisons were obtained through questionnaires (Annex 2). Firms were asked to provide relative judgments between financial and non-financial performance and between each pair of non-financial indicators using an adaptation of Saaty's (1977, 1980) fundamental scale (Table 2). This adaptation consisted in using a 4-point scale, where levels 2, 4, 6, 7, and 8 were removed from consideration, instead of the traditional 9-point scale. The reasoning behind this was to simplify the questionnaire and increase the number of answers, therefore, increasing the number of firms whose input is considered.

Table 2. Saaty's Linguistic[8] fundamental scale

Intensity of importance on an absolute scale	Definition	Explanation
1	Equal importance	Two activities contribute equally to the objective
3	Moderate importance of one over another	Experience and judgement slightly favor one element over another
5	Essencial or strong importance	Experience and judgement stronghly favor one element over another
7	Very strong importance	An activity is favored very strongly over another; dominance its demonstrated in
9	Extreme importance	The evidence favoring one element over another is of the highest possible order of
2, 4, 6 and 8	Intermediate values between the two adjacent judgemets	When comprise is needed

[8] In AHP, pairwise comparison providers give verbal comparisons.

3.4.2. PCMs Construction

From the sample of firms that received the questionnaires, 41 provided their judgments on the elicited questions. Although it is a small percentage (4,1%), in most cases, AHP uses a restrict small number of judgment providers hence, in this context, 41 responses may be considered a sufficient number.

These judgments are imputed into positive reciprocal matrices (A_{ij}), referred to as pairwise comparison matrices (PCMs)

$$A_{ij} = \begin{bmatrix} a_{11} & a_{12} \\ a_{21} & a_{22} \end{bmatrix}$$

In a PCM, a_{12} consists of the relative importance of indicator 1 over indicator 2 and given the reciprocity property, $a_{21}$is the reciprocal value of a_{12}.

To construct the PCMs and, consequently, derive priorities, requires the transformation of linguistic judgments into numerical ones through a numerical scale. Several numerical scales have been developed, with the most relevant being Saaty's (1977, 1980), the geometrical scale (Lootsma, 1989), the quadratic and root square scales (Harker & Vargas, 1987) and Salo and Hämäläinen scale (1997), with the first two being the most used in the literature. There is still a debate about which scale is preferable. Saaty's scale is supported by the evidence provided by him, however, studies have shown that the scale is not transitive (Dong *et al.*, 2008; Ji & Jiang, 2003). Dong *et al.* (2008) have shown that, when using the same prioritization method, the geometrical scale is preferable to Saaty's, while Franek & Kresta (2014) argue that although Saaty's scale is still a favourable option, when the concern is priorities values, the geometrical scale is preferable. Given this, and due to judgments consistency not being a concern as seen later, the geometrical scale was chosen.

3.4.3. Group aggregation and priorities derivation

Since there are multiple judgment providers, a group judgments aggregation is required. The procedure depends on if the providers are seen as a group

working together or as separate individuals (Forman & Peniwati, 1998). Given that the judgments were provided via questionnaire, without interactions between the providers, this implies that the group is comprised of separate individuals, for which, Forman & Peniwati (1998) argue that the best method is to aggregate individual priorities (AIP). Additionally, Ossadnik *et al*. (2016) study the different methods for group aggregation and defend that AIP offers the broadest range of applications and it's the most recommendable method, leading to the choice of AIP.

AIP requires the derivation of individual priorities. To extract priorities, the two most common methods are the maximal eigenvalue method (EVM) (Saaty, 1980) and the logarithmic least squares method (Crawford & Williams, 1985), i.e., geometric mean of rows (GMM). The latter has gained large support in the AHP literature, with its main advantage being the absence of rank reversals due to left and right inconsistency, unlike the eigenvalue method.

There are many studies comparing EVM and GMM, with some arguing in favor of EVM (Saaty & Vargas, 1984; Saaty and Hu, 1998) and others in favour of GMM (Barzilai, 1997; Blanquero *et al*., 2006). Dong *et al*. (2008) concluded that if the geometrical scale is used, the best method is the GMM, which alongside the large support for this method in the literature, lead to the selection of this method.

To ensure the reliability and meaningfulness of the priorities, a consistency test is required. Saaty (1977, 1980) proposed a consistency ratio (CR) to test the degree of consistency of the AHP matrices:

$$CR = \frac{CI}{RI}$$

Wherein, CI represents the consistency index, which is computed by $(\lambda_{max} - n)/(n-1)$, where n represents the matrix dimension and λ_{max} the maximal eigenvalue. RI represents the random index, i.e., the average consistency index

of 500 randomly filled matrices. These ratios were computed by Saaty (1977) and are represented in Table 3.

The degree of consistency is considered acceptable if CR is below than 10% and tolerable if below 20%. To attest if computed PCMs meet this benchmark, the λ_{max} and CI were computed for each matrix. Results showed that the λ_{max} was always equal to 2, i.e., the matrices dimension. Given that the random index value for a 2x2 PCM is zero, the consistency ratio is zero, concluding that the PCMs were perfectly consistent.

Table 3. Random Index (RI)

n	1	2	3	4	5	6	7	8	9	10
RI	0	0	0,58	0,9	1,12	1,24	1,32	1,41	1,45	1,49

After computing the individual priorities and aggregating them into global priorities, the final step was to use the distributive mode $\sum_{i=1}^{n} w_i = 1$ to reach uniqueness and, therefore, the criteria and indicators weight.

4. Results and discussion

4.1. Baseline results

The proposed scoring system is presented in **Figure 2.** The final score is composed in 80,5% by the financial performance score and 19,5% by the non-financial performance score, demonstrating that even though sustainability has been increasing in importance, firms still allocate most of the importance to financial performance. In terms of the ranking of relative importance within financial indicators, given that these were not included in the firm questionnaire for brevity reasons, it was seen as fit to attribute equal weighting, resulting in 16,(6)% importance for each.

Regarding non-financial performance, given that each SDG represents an important dimension of sustainability that should not be neglected, and every firm should thrive to achieve all, it was also assigned equal weighting, resulting in 6,25% importance for each in reaching the non-financial performance score.

In terms of each individual SDG, regarding the SDG 1 score, firms attribute more importance to 'Salary Disparity Evolution' (75,3%) than 'Percentage of employees on minimum wage' (24,7%). Minimum wage represents the minimum amount of renumeration an employer is required to pay its employees (International Labour Organization, 2016) while salary disparity represent the difference between the highest and the lowest salary in a firm. Since SDG 1 establishes the objective of ending poverty in all forms everywhere, it is reasonable that 'Salary disparity evolution' is more relevant than the 'Percentage of employees on minimum wage' since improving the former targets the whole organisation while the latter only targets the low-income segment.

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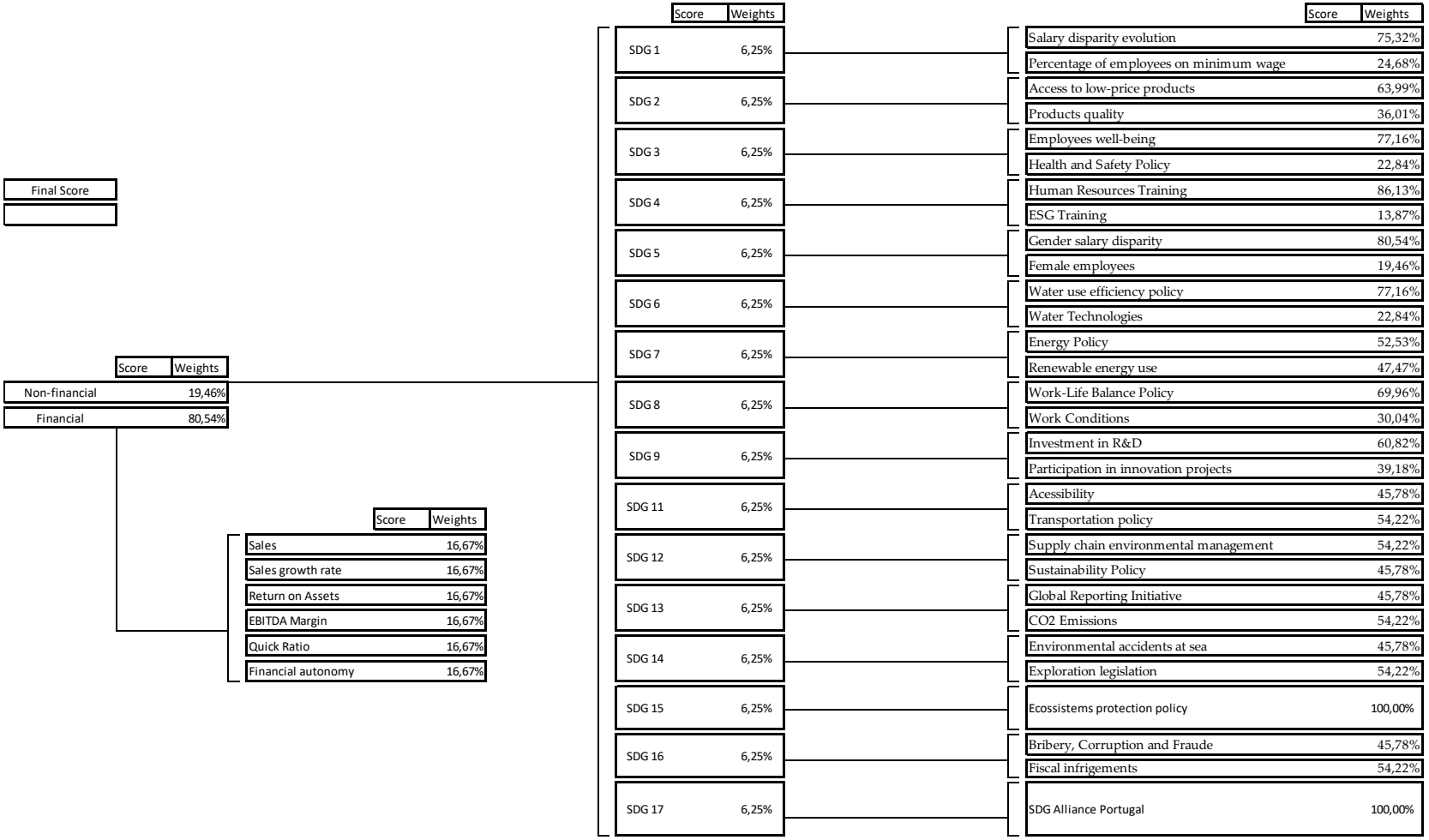

Figure 2. Final scoring system

Regarding the SDG 2 score, it is composed in 64% by 'Access to low-price products' and 36% by 'Quality products'. Rising food prices affect more the vulnerable segments of the population, pushing them more into poverty and hunger situations (Gustafson, 2013). Additionally, low-income groups are not so preoccupied with the quality of their food (Daniel, 2020). Given that SDG 2 targets the end of hunger and achievement of food security, it is understandable that 'Access to low-price products' is more important given that it targets the more vulnerable segments.

SDG 3 score is composed in 77,2% by 'Employees well-being' and 22,8% by 'Health and Safety policy'. Employee well-being is composed by three core components, being them subjective well-being, workplace well-being and psychological well-being (Page & Vella-Brodrick, 2008), while, traditionally, health and safety policy only encompasses the occupational portion (Pouliakas & Theodossiou, 2013). Such result can be understood in light of the fact that SDG 3 targets well-being, not specifically, the one regarding the workplace.

SDG 4 score is composed in 86,1% by 'Human Resources Training' and 13,9% by 'ESG training'. SDG 4 focuses on equitable quality education but it also focuses on lifelong learning opportunities. 'Human Resources Training' provides education in several different areas, while 'ESG Training' provides on only ESG. Given that one of the targets is lifelong learning opportunities, 'Human Resources Training' provides more general knowledge that can be used in multiple stages on a person life, which makes it reasonable that firms' attribute more importance to this indicator.

SDG 5 score is provided in 80,5% by 'Gender Salary disparity' and in 19,5% by 'Female employees'. SDG 5 focuses on achieving gender equality and empowering women and, since one way to empower women is to provide them with the same opportunities and benefits has men, which can be obtained by

providing them with the same monetary resources, it is understandable that firms attribute more importance to 'Gender Salary Disparity'

SDG 6 score is composed in 77,2% 'Water use efficiency policy' and in 22,8% by 'Water technologies'. IGI Global defines policy as a set of principles that provide the overall direction of an organization. Firms want to impact the SDGs in a variety of different ways, not only through a single measure, which makes it reasonable that they give more importance to policies (i.e., 'Water use efficiency policy') then a single measure.

This reasoning is not exclusively to this SDG, so results like in SDG 7, which is composed in 52,5% by 'Energy policy' and in 47,5% by 'Renewable energy use', SDG 8, which is composed in 70% by 'Work-life balance policy' and in 30% by 'Work conditions', SDG 11, which is composed in 54,2% by 'Transportation policy' and 45,8% by 'Accessibility', are reasonable. However, one surprising result is in SDG 12, where firms allocated 54,2% in 'Supply chain environmental management' and 45,8% in 'Sustainability policy'.

SDG 9 is comprised in 60,8% by 'Investment in R&D' and 39,2% by 'Participation in innovation projects'. SDG 9 focuses on promote inclusive and sustainable industrialization and foster innovation. Given this, firms should allocate more importance to 'Participation in innovation projects', the opposite happened, which lead us to conclude that firms see R&D as a more embracing indicator, i.e., applies to the whole SDG.

SDG 13 is composed in 54,2% by 'CO2 emissions' and in 45,8% by 'Global Reporting Initiative', which is understandable given that SDG 13 focuses on climate action and 'CO2 emissions' are a direct contributor to climate change.

SDG 16 is composed in 64,0% by 'Bribery, corruption and fraud' and in 36% by 'Fiscal infringements'. One of the focuses of SDG 16 is to accountable and inclusive institutions and, given than 'Bribery, corruption and fraud' encompass

a larger variety of transgressions, it is reasonable that firms value it more than 'Fiscal infringements'.

Lastly, SDG 15 and SDG 17 are constituted in 100% by 'Ecosystems protection policy' and 'SDG Alliance Portugal', respectively.

While the implementation of the proposed scoring system is out of the scope of this paper a few considerations are developed. The scoring system is constituted by several different indicators with different measurements, therefore, requiring the definition of a criteria for how to input the data. Gutierrez-Nieto et al. (2016), when applying the scoring system to a real case, requested members of the social and financial committee to score each criterion based on the indicator's value using a 7-point Likert scale that ranges from extremely low to excellent. In our system, we opted for a different approach, using a binary system for imputing the firms' data into the system. A criterion shall be established for each indicator, where if the firms' meet this criterion, a score of 1 is attributed, otherwise the score attributed is zero. A possible system to determine the criteria threshold is using sector wide averages or medians.

This provides a simplicity to the scoring system, both in retrieving the information needed as well as in its implementation.

4.2. Sensitivity analysis

It is important to test the robustness of the weights obtained. A sensitivity analysis allows the evaluation of the weight's stability when variations in the model's structure and inputs occur. If the stability of the rankings is altered, a rank reversal phenomenon occurs, i.e., a change in relative preferences due to the addition of new indicators or the removal of included ones.

In our empirical setting, a rank reversal might occur for the following reason. AHP uses absolute and relative measurements. The scenarios that use the former

incorporate a standard that enables the comparison between alternatives, leading to the preservation of the ranking regardless of how many alternatives are included or removed, while the scenarios that use the latter, where the present case is included, do not incorporate the standard, opening the possibility for the occurrence of rank reversal (Saaty, 1986).

Belton & Gear (1983) demonstrated that adding an exact replica of one of the alternatives might induce a rank reversal. To test if our scoring system is subject to this, two hypotheses were designed involving the introduction of alternative C with the same judgements as the original alternatives.

$$H_1 = Alternative\ C\ as\ the\ same\ judgements\ as\ alternative\ A.$$ [9]

$$H_2 = Alternative\ C\ has\ the\ same\ judgements\ as\ alternative\ B.$$ [10]

Table 4 illustrates the results of the sensitivity analysis. The original ranking was robust in both scenarios, for all variables of the model.

[9] Indicator A refers to the first indicator in scorecard

[10] Indicator B refers to the second indicator in the scorecard

Table 4. Sensitivity analysis weights

Objective	Indicator	Score	Weight	Weight (Hypothesis 1)	Weight (hypothesis 2)
SDG 1	*Salary disparity evolution*		75,3%	43,0%	60,4%
	Percentage of employees on minimum wage		24,7%	14,1%	19,8%
	Indicator [C]			43,0%	19,8%
SDG 2	*Access to low-price products*		64,0%	39,0%	47,0%
	Products quality		36,0%	22,0%	26,5%
	Indicator [C]			39,0%	26,5%
SDG 3	*Employees well-being*		77,2%	43,6%	62,8%
	Health and Safety Policy		22,8%	12,9%	18,6%
	Indicator [C]			43,6%	18,6%
SDG 4	*Human Resources Training*		86,1%	46,3%	75,6%
	ESG Training		13,9%	7,5%	12,2%
	Indicator [C]			46,3%	12,2%
SDG 5	*Gender salary disparity*		80,5%	44,6%	67,4%
	Female employees		19,5%	10,8%	16,3%
	Indicator [C]			44,6%	16,3%
SDG 6	*Water use efficiency policy*		77,2%	43,6%	62,8%
	Water Technologies		22,8%	12,9%	18,6%
	Indicator [C]			43,6%	18,6%
SDG 7	*Energy Policy*		52,5%	34,4%	35,6%
	Renewable energy use		47,5%	31,1%	32,2%
	Indicator [C]			34,4%	32,2%
SDG 8	*Work-Life Balance Policy*		70,0%	41,2%	53,8%
	Work Conditions		30,0%	17,7%	23,1%
	Indicator [C]			41,2%	23,1%
SDG 9	*Investment in R&D*		60,8%	37,8%	43,7%
	Participation in co-promotion projects		39,2%	24,4%	28,2%
	Indicator [C]			37,8%	28,2%
SDG 11	*Acessibility*		45,8%	31,4%	29,7%
	Transportation policy		54,2%	37,2%	35,2%
	Indicator [C]			31,4%	35,2%
SDG 12	*Supply chain environmental management*		54,2%	35,2%	37,2%
	Sustainability Policy		45,8%	29,7%	31,4%
	Indicator [C]			35,2%	31,4%
SDG 13	*Global Reporting Initiative*		45,8%	31,4%	29,7%
	CO2 Emissions		54,2%	37,2%	35,2%
	Indicator [C]			31,4%	35,2%
SDG 14	*Environmental accidents at sea*		45,8%	31,4%	29,7%
	Exploration legislation		54,2%	37,2%	35,2%
	Indicator [C]			31,4%	35,2%
SDG 15	Ecossistems protection policy		100%	100%	100%
SDG 16	*Bribery, Corruption and Fraude*		64,0%	39,0%	47,0%
	Fiscal infrigements		36,0%	22,0%	26,5%
	Indicator [C]			39,0%	26,5%
SDG 17	SDG Alliance Portugal		100%	100%	100%

5. Limitations

The present study has some limitations that should be mentioned. The primary limitation is that it was not possible to apply the model to a sample of firms in order to extract what might be considered a average score.

Additionally, AHP can become a very time-consuming process as the number of variables and the required relative judgments increases (Saaty, 1989). Due to concerns about the effects caused in the number and quality of firm's responses to the questionnaires, the number of indicators per SDG were limited, therefore, restricting the different aspects included in the scoring system. In addition, due to the same reasons, financial indicators were not included in the questionnaire, resulting in being equally weighted.

The possible deviation between equal weights and the true AHP weigh might mitigate the effect of some indicators and increase the effect of others, therefore, impacting both financial performance and final scores. As such, expanding the imputed indicators and eliciting from the same sample of firms the relative judgments for financial indicators in future questionnaires would be of relevance.

Moreover, most real cases require applying different weights for the decision-makers (i.e., firms) (Amenta *et al.*, 2020). In the present case, due to the absence of information regarding the experience of each firm as it relates to SDGs, the impracticability of consensus between firms, all the decision-makers (i.e., firms) are assumed to have the same relative importance. Future improvements should include the application of an analysis that enables the derivation and assignment of different weights to the firms (i.e., the replies of firms that have a greater expertise in SDG should have a greater weight).

Furthermore, the performed sensitivity analysis could be improved with the utilization of AHP software that enables the variation in judgments and weights, establishing not only if rank reversal could occur but in which situations it might occur.

Despite these limitations, the proposed scoring model bears some contributions to the current literature. It incorporates both financial and non-financial evaluation of firms, which is rather uncommon in the literature and the design and construction process was conducted with a robust methodology that has been studied and improved for several decades, with proven applications in different fields and in similar studies, e.g., Gutierrez-Nieto et al (2016).

6. Conclusion

The quest for firms' non-financial information has been increasing in last few years, with investors having started to include this information in their investment strategies. This trend underlies the emergency of agency ratings that issue ratings based on the ESG performance of firms. However, these ratings have two fundamental problems, them being the absence of public knowledge of the theoretical rationale and methodological approach behind those and the different ESG criteria used by different agencies, leading to different evaluations.

Additionally, institutions have increased and expanded the legislation relative to sustainability reporting, with the recent implementation of the Corporate Sustainability Reporting Directive (CSRD). A broader set of firms are required to report on their sustainability, but this creates an informational advantage for those, resulting in non-CSRD covered firms also wanting to report on their own sustainability.

The dissertation proposes a scoring model that answers these problems by providing a non-financial performance firm scoring system based on robust

criteria, i.e., Sustainable Development Goals. Additionally, it also provides the framework from which firms can base their sustainability reporting if not subject to the current legislation.

Furthermore, it also helps investors by providing an evaluation of the multiple dimensions of a firm in a single score.

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Annexes

Annex 1 - Experts questionnaire[11]

A 28 de novembro de 2022, o Conselho da União Europeia deu a aprovação final à "Corporate Sustainability Reporting Directive" (Diretiva 2022/2464). Esta diretiva, que entrou em vigor a 5 de janeiro de 2023, tem como objetivo expandir e substituir a "Non-Financial Reporting Directive" (NFRD). A NFRD requere que todas as grandes empresas de interesse público com mais de 500 trabalhadores reportem sobre o seu impacto em questões ambientais e sociais. A Corporate Sustainability Reporting Directive expande gradualmente as empresas abrangidas, passando a incluir todas as grandes empresas e pequenas e médias empresas (PMEs) listadas.

Adicionalmente, em 2015, as Nações Unidas introduziram uma Agenda denominada Objetivos de Desenvolvimento Sustentável (ODSs), com o intuito de promover e comprometer as Nações assinantes com o desenvolvimento sustentável global.

No âmbito da dissertação do Mestrado em Finanças na Universidade Católica Portuguesa intitulada de "Desenho e Desenvolvimento de um Sistema de Scoring de Empresas através de informação financeira e os Objetivos de Desenvolvimento Sustentável da ONU", pretendo desenvolver um sistema de pontuação que permita fundir as informações financeiras e não-financeiras das empresas a serem utilizadas no ESG report.

Estas informações serão analisadas e calculadas através de indicadores, sendo os indicadores não-financeiros organizados por Objetivo de Desenvolvimento Sustentável.

[11] The questionnaire was administrated in Portuguese to assure a higher answer rate.

O objetivo deste questionário é aferir se os indicadores selecionados são precisos e relevantes na análise pretendida e a sua aplicabilidade no contexto empresarial português.

1. Indicadores financeiros

A análise financeira será efetuada através dos seguintes indicadores:

- Volume de Vendas
- Crescimento do Volume de Vendas
- Rendibilidade do Ativo
- Rendibilidade do Capital Próprio
- Margem do EBITDA
- Rácio de liquidez reduzida
- Autonomia Financeira
- Cobertura dos encargos financeiros

i. Tendo em conta o contexto empresarial português, numa escala entre pouco relevante e muito relevante, concorda que estes indicadores demonstram a saúde financeira de uma empresa?

	Pouco relevante	**Relevante**	**Muito relevante**	**Sem opinião**
Volume de Vendas				
Taxa de Crescimento do volume de vendas				
Rendibilidade do ativo				
Rendibilidade do capital Próprio				
Margem EBITDA				

Rácio liquidez reduzida				
Autonomia Financeira				
Cobertura dos encargos financeiros				

ii. Caso considere que existem outros indicadores relevantes para a análise em causa, tendo em conta o contexto empresarial português, por favor, indique.

2. ODS 1 - Erradicar a pobreza em todas as suas formas, em todos os lugares

A análise do ODS 1 será efetuada através dos seguintes indicadores:

- Política de Doações (se a empresa efetuou doações ou realizou ações de sensibilização para a melhoria das condições dos menos afortunados).
- Percentagem de empregados renumerados com o salário mínimo.

i. Numa escala entre muito relevante e pouco relevante, concorda que os indicadores elencados são relevantes para o ODS 1, tendo em conta o contexto empresarial português?

	Pouco relevante	**Relevante**	**Muito relevante**	**Sem opinião**
Política de Doações				
Percentagem de empregados renumerados com salário mínimo				

ii. Caso considere que existem outros indicadores relevantes para a análise em causa, tendo em conta o contexto empresarial português, por favor, indique.

3. ODS 2 - Erradicar a fome, alcançar a segurança alimentar, melhorar a nutrição e promover a agricultura sustentável

A análise do ODS 2, apenas aplicável a empresas do setor alimentar (incluindo confeção e retalho), será efetuada através dos seguintes indicadores:

- Acesso a produtos de baixo preço (se a empresa distribui algum produto ou serviço de baixo preço especialmente desenhado para categorias com baixo rendimento).
- Qualidade do Produto (se existe alguma reclamação relacionada com a qualidade e responsabilidade dos seus produtos ou serviços).

i. Numa escala entre muito relevante e pouco relevante, concorda que os indicadores elencados são relevantes para o ODS 2, tendo em conta o contexto empresarial português?

	Pouco relevante	**Relevante**	**Muito relevante**	**Sem opinião**
Acesso a produtos de baixo preço				
Qualidade do produto				

ii. Caso considere que existem outros indicadores relevantes para a análise em causa, tendo em conta o contexto empresarial português, por favor, indique.

4. ODS 3 - Garantir o acesso à saúde de qualidade e promover o bem-estar para todos, em todas as idades

A análise do ODS 3 será efetuada através dos seguintes indicadores:

- Bem-estar dos colaboradores (se a empresa promove, através de iniciativas como a oferta do seguro de saúde, o bem-estar dos seus colaboradores).
- Política de Segurança e Saúde (se a empresa vai além dos requisitos regulamentares rem relação à sua política de segurança e saúde, em toda a sua cadeia de fornecimento).

i. Numa escala entre muito relevante e pouco relevante, concorda que os indicadores elencados são relevantes para o ODS 3, tendo em conta o contexto empresarial português?

	Pouco relevante	**Relevante**	**Muito relevante**	**Sem opinião**
Bem-estar dos colaboradores				
Política de Segurança e Saúde				

ii. Caso considere que existem outros indicadores relevantes para a análise em causa, tendo em conta o contexto empresarial português, por favor, indique.

5. ODS 4 - Garantir o acesso à educação inclusiva, de qualidade e equitativa, e promover oportunidades de aprendizagem ao longo da vida para todos

A análise do ODS 4 será efetuada através dos seguintes indicadores:

- Formação dos Recursos Humanos (se a empresa fornece horas de formação aos recursos humanos da empresa, além do mínimo obrigatório legal).
- Formação ESG (se a empresa providencia aos seus colaboradores formação relacionada com os fatores ambientais, sociais e/ou governance (ESG)).

i. Numa escala entre muito relevante e pouco relevante, concorda que os indicadores elencados são relevantes para o ODS 4, tendo em conta o contexto empresarial português?

	Pouco relevante	Relevante	Muito relevante	Sem opinião
Formação dos Recursos Humanos				
Formação ESG				

ii. Caso considere que existem outros indicadores relevantes para a análise em causa, tendo em conta o contexto empresarial português, por favor, indique.

6. ODS 5 - Alcançar a igualdade de género e empoderar todas as mulheres e raparigas

A análise do ODS 5 será efetuada através dos seguintes indicadores:

- Disparidade salarial entre género (se existe disparidade salarial entre homens e mulheres para a mesma categoria profissional e número de anos de serviço).
- Colaboradoras do sexo feminino (percentagem de mulheres empregadas em comparação com a média do setor de atividade e categoria profissional).

i. Numa escala entre muito relevante e pouco relevante, concorda que os indicadores elencados são relevantes para o ODS 5, tendo em conta o contexto empresarial português?

	Pouco relevante	Relevante	Muito relevante	Sem opinião
Disparidade salarial entre gênero				

Colaboradoras do sexo feminino				

ii. Caso considere que existem outros indicadores relevantes para a análise em causa, tendo em conta o contexto empresarial português, por favor, indique.

7. ODS 6 - Garantir a disponibilidade e a gestão sustentável da água potável e do saneamento para todos

A análise do ODS 6 será efetuada apenas para setores de atividade com uso intensivo de água através dos seguintes indicadores:

- Política do uso eficiente da água (se a empresa adota medidas para melhorar a eficiência do uso de água no seu processo produtivo).
- Tecnologias de água (se a empresa desenvolve produtos ou tecnologias que são utilizadas no tratamento de águas, purificação da água ou promovem o uso eficiente da água).

i. Numa escala entre muito relevante e pouco relevante, concorda que os indicadores elencados são relevantes para o ODS 6, tendo em conta o contexto empresarial português?

	Pouco relevante	**Relevante**	**Muito relevante**	**Sem opinião**
Política de uso eficiente de água				
Tecnologias de água				

ii. Caso considere que existem outros indicadores relevantes para a análise em causa, tendo em conta o contexto empresarial português, por favor, indique.

8. ODS 7 - Garantir o acesso a fontes de energia fiáveis, sustentáveis e modernas para todos

A análise do ODS 7 será efetuada apenas para setores de atividade com uso intensivo de energia através dos seguintes indicadores:

- Política de energia (se a empresa apresenta medida de poupança e eficiência energética)
- Uso de energias renováveis (percentagem de energia consumida pela empresa com origem em fontes de energia renováveis)

i. Numa escala entre muito relevante e pouco relevante, concorda que os indicadores elencados são relevantes para o ODS 6, tendo em conta o contexto empresarial português?

	Pouco relevante	**Relevante**	**Muito relevante**	**Sem opinião**
Política de energia				
Uso de energia renováveis				

ii. Caso considere que existem outros indicadores relevantes para a análise em causa, tendo em conta o contexto empresarial português, por favor, indique.

9. ODS 8 - Promover o crescimento económico inclusivo e sustentável, o emprego pleno e produtivo e o trabalho digno para todos

A análise do ODS 8 será efetuada através dos seguintes indicadores:

- Política de diversidade e oportunidade (se a empresa tem uma política que promove a diversidade e a igualdade de oportunidade)
- Política de Work-Life balance (se a empresa tem uma política que incentiva o Work-Life balance)

- Condições de Trabalho (se a empresa vai além dos requisitos legais no que toca à disponibilização das condições necessárias para o desempenho das funções dos colaboradores)
- Trabalhadores desfavorecidos ou com deficiência (percentagem de colaboradores "desfavorecidos" ou "com deficiência" de acordo com as definições legais)

i. Numa escala entre muito relevante e pouco relevante, concorda que os indicadores elencados são relevantes para o ODS 6, tendo em conta o contexto empresarial português?

	Pouco relevante	**Relevante**	**Muito relevante**	**Sem opinião**
Política de diversidade e oportunidade				
Política de Work-Life Balance				
Condições de Trabalho				
Trabalhadores desfavorecidos ou com deficiência				

ii. Caso considere que existem outros indicadores relevantes para a análise em causa, tendo em conta o contexto empresarial português, por favor, indique.

10. <u>ODS 9 - Construir infraestruturas resilientes, promover a industrialização inclusiva e sustentável e fomentar a inovação</u>

A análise do ODS 9 será efetuada para setores de atividade com maiores indices de emissão de carbono (setor energético, transportes, construção, indústria, etc) através dos seguintes indicadores:

- Despesa em I&D (se a empresa investiu em investigação e desenvolvimento).
- Política de descarbonização (se a empresa está comprometida na redução das suas emissões).

i. Numa escala entre muito relevante e pouco relevante, concorda que os indicadores elencados são relevantes para o ODS 6, tendo em conta o contexto empresarial português?

	Pouco relevante	**Relevante**	**Muito relevante**	**Sem opinião**
Despesa em I&D				
Política de descarbonização				

ii. Caso considere que existem outros indicadores relevantes para a análise em causa, tendo em conta o contexto empresarial português, por favor, indique.

11. <u>ODS 11 - Tornar as cidades e comunidades inclusivas, seguras, resilientes e sustentáveis</u>

A análise do ODS 11 será efetuada através dos seguintes indicadores:

- Acessibilidade (se a empresa se localiza numa área acessível através de transportes públicos).
- Política de deslocações (se a empresa adota políticas com impacto significativo nas deslocações dos trabalhadores, por exemplo, promoção de teletrabalho/reuniões em ambiente virtual, incentivo à deslocação dos trabalhadores em transportes públicos).

i. Numa escala entre muito relevante e pouco relevante, concorda que os indicadores elencados são relevantes para o ODS 6, tendo em conta o contexto empresarial português?

	Pouco relevante	Relevante	Muito relevante	Sem opinião
Acessibilidade				
Política de deslocações				

ii. Caso considere que existem outros indicadores relevantes para a análise em causa, tendo em conta o contexto empresarial português, por favor, indique.

12. ODS 12 - Garantir padrões de consumo e de produção sustentáveis

A análise do ODS 12 será efetuada através dos seguintes indicadores:

- Produtos sustentáveis (se a empresa desenvolve ou vende produtos ou serviços mais sustentáveis, por exemplo, bens de produção biológica ou local)
- Gestão ambiental da cadeia de fornecimento (se a empresa escolhe fornecedores que promovem práticas ambientais)
- Política de sustentabilidade (se a empresa tem uma política que documente as práticas de gestão sustentável adotada pela empresa)

i. Numa escala entre muito relevante e pouco relevante, concorda que os indicadores elencados são relevantes para o ODS 6, tendo em conta o contexto empresarial português?

	Pouco relevante	Relevante	Muito relevante	Sem opinião
Produtos sustentáveis				
Gestão ambiental da cadeia de fornecimento				
Política de sustentabilidade				

ii. Caso considere que existem outros indicadores relevantes para a análise em causa, tendo em conta o contexto empresarial português, por favor, indique.

13. <u>ODS 13 - Adotar medidas urgentes para combater as alterações climáticas e os seus impactos</u>

A análise do ODS 13 será efetuada apenas para empresas abrangidas pelo CSRD através dos seguintes indicadores:

- Normas Global Reporting Initiative (se o reporte de sustentabilidade da empresa cumpre as normas GRI).
- Instrumentos financeiros verdes (se a empresa investe em instrumentos financeiros com propósito ambiental, por exemplo, green bonds).

i. Numa escala entre muito relevante e pouco relevante, concorda que os indicadores elencados são relevantes para o ODS 6, tendo em conta o contexto empresarial português?

	Pouco relevante	**Relevante**	**Muito relevante**	**Sem opinião**
Normas Global Reporting Initiative				
Instrumentos financeiros verdes				

ii. Caso considere que existem outros indicadores relevantes para a análise em causa, tendo em conta o contexto empresarial português, por favor, indique.

14. <u>ODS 14 - Conservar e usar de forma sustentável os oceanos, mares e os recursos marinhos para o desenvolvimento sustentável</u>

A análise do ODS 14 será efetuada para empresas ligadas ao mar (exemplo, transporte maritimo, indústria da pesca, indústria de energia com exploração offshore) através dos seguintes indicadores:

- Acidentes ambientais no mar (se a empresa está associada a algum acidente com consequências ambientais no mar, por exemplo, derrames de petróleo).

i. Numa escala entre muito relevante e pouco relevante, concorda que os indicadores elencados são relevantes para o ODS 6, tendo em conta o contexto empresarial português?

	Pouco relevante	**Relevante**	**Muito relevante**	**Sem opinião**
Acidentes ambientais no mar				

ii. Caso considere que existem outros indicadores relevantes para a análise em causa, tendo em conta o contexto empresarial português, por favor, indique.

15. <u>ODS 15 - Proteger, restaurar e promover o uso sustentável dos ecossistemas terrestres, gerir de forma sustentável as florestas, combater a desertificação, travar e reverter a degradação dos solos e travar a perda de biodiversidade</u>

A análise do ODS 15 será efetuada através dos seguintes indicadores:

- Política de proteção dos ecossistemas (se a empresa promove iniciativas ligadas a problemas como a desflorestação, degradação dos solos, entre outras)

i. Numa escala entre muito relevante e pouco relevante, concorda que os indicadores elencados são relevantes para o ODS 6, tendo em conta o contexto empresarial português?

ii.

	Pouco relevante	Relevante	Muito relevante	Sem opinião
Política de proteção dos ecossistemas				

iii. Caso considere que existem outros indicadores relevantes para a análise em causa, tendo em conta o contexto empresarial português, por favor, indique.

16. ODS 16 - Promover sociedades pacíficas e inclusivas para o desenvolvimento sustentável, proporcionar o acesso à justiça para todos e construir instituições eficazes, responsáveis e inclusivas a todos os níveis

A análise do ODS 16 será efetuada através dos seguintes indicadores:

- Suborno, Corrupção e Fraude (se a empresa ou um alto dirigente foi condenado por práticas de suborno, corrupção ou fraude).
- Crime fiscal (se a empresa ou alto dirigente foi condenada por crimes de fraude ou evasão fiscal).

i. Numa escala entre muito relevante e pouco relevante, concorda que os indicadores elencados são relevantes para o ODS 6, tendo em conta o contexto empresarial português?

	Pouco relevante	Relevante	Muito relevante	Sem opinião
Suborno, Corrupção e Fraude				
Crime Fiscal				

ii. Caso considere que existem outros indicadores relevantes para a análise em causa, tendo em conta o contexto empresarial português, por favor, indique.

17. ODS 17 - Reforçar os meios de implementação e revitalizar a Parceria Global para o Desenvolvimento Sustentável

A análise do ODS 17 será efetuada através do seguinte indicador:

- Aliança ODS Portugal (se a empresa pertence à plataforma Aliança ODS Portugal ou outra organisação com o propósito de fomentar o desenvolvimento sustentável)

i. Numa escala entre muito relevante e pouco relevante, concorda que os indicadores elencados são relevantes para o ODS 6, tendo em conta o contexto empresarial português?

	Pouco relevante	**Relevante**	**Muito relevante**	**Sem opinião**
Aliança ODS Portugal				

ii. Caso considere que existem outros indicadores relevantes para a análise em causa, tendo em conta o contexto empresarial português, por favor, indique.

Annex 2 – Firm's questionnaire

Objetivo: A FI Group pretende através deste estudo perceber a relevância atribuída pelos seus clientes e parceiros em relação a duas questões fundamentais: 1) relevância relativa entre indicadores financeiros e não financeiros para a medição do desempenho da empresa e 2) importância relativa entre os indicadores selecionados para medir o desempenho não-financeiro da empresa, estando estes segmentados por Objetivos de Desenvolvimento Sustentável.

Contexto: No passado dia 05 de janeiro, entrou em vigor a Diretiva 2022/2464 (Corporate Sustainability Reporting Directive), aprovada pelo Conselho da União Europeia em 28 de novembro de 2022 que prevê que todas as grandes empresas e pequenas e médias empresas (PMEs) reportem sobre o seu impacto em questões ambientais e sociais. Esta diretiva vem substituir a NFRD (Non-Financial Reporting Directive) que previa a aplicação deste reporte a todas as grandes empresas de interesse público com mais de 500 trabalhadores.

Dentro desta temática, em 2015, os Estados-Membros das Nações Unidas adotaram a Agenda 2030 para o Desenvolvimento Sustentável, definindo as prioridades e aspirações do desenvolvimento sustentável global para 2030 e procurando mobilizar esforços globais à volta de um conjunto de objetivos e metas comuns. São 17 Objetivos de Desenvolvimento Sustentável (ODS) que representam um apelo urgente à ação de todos para um crescimento sustentável, regenerativo e inclusivo, sem o qual será impossível fazer face à emergência climática, à perda de biodiversidade e às desigualdades e assimetrias sociais.

Tempo: O preenchimento do questionário tem uma duração prevista de 10 min.

Divulgação/Privacidade: Os resultados do questionário serão divulgados a nível agregado, estando assegurado o anonimato das empresas participantes. A identificação da empresa (na secção seguinte) tem em vista, exclusivamente, permitir mapear as respostas segundo a natureza jurídica, setor de atividade e dimensão da organização

1. Informação a avaliar:

- [A] Indicadores financeiros
- [B] Indicadores não financeiros

Questão: Indique, através das opções disponíveis, a relevância relativa que atribui entre [A] e [B] para a medição do desempenho das organizações/empresas

- [A] extremamente mais relevante que [B]
- [A] fortemente mais relevante que [B]
- [A] moderadamente mais relevante que [B]
- [A] e [B] têm a mesma relevância
- [B] moderadamente mais relevante que [A]
- [B] fortemente mais relevante que [A]
- [B] extremamente mais relevante que [A]

2. <u>ODS 1 - Erradicar a pobreza em todas as suas formas, em todos os lugares</u>

A análise do ODS 1 será efetuada através dos seguintes indicadores:

- [A] Evolução da disparidade salarial (diferença entre o salário mais baixo e mais alto da empresa, em comparação com o ano anterior)
- [B] Percentagem de empregados renumerados com o salário mínimo

Questão: Indique, através das opções disponíveis, a relevância relativa que atribui entre [A] e [B] para a medição do desempenho das organizações/empresas no cumprimento do ODS 1.

- [A] extremamente mais relevante que [B]
- [A] fortemente mais relevante que [B]
- [A] moderadamente mais relevante que [B]
- [A] e [B] têm a mesma relevância
- [B] moderadamente mais relevante que [A]

- [B] fortemente mais relevante que [A]
- [B] extremamente mais relevante que [A]

3. ODS 2 - Erradicar a fome, alcançar a segurança alimentar, melhorar a nutrição e promover a agricultura sustentável

A análise do ODS 2, apenas aplicável a empresas do setor alimentar (incluindo confeção e retalho), será efetuada através dos seguintes indicadores: (Nota: ainda que a sua organização não pertença a este setor, pedimos que responda a esta questão, colocando-se no lugar de um gestor deste setor)

- [A] Acesso a produtos de baixo preço (se a empresa distribui algum produto ou serviço de baixo preço especialmente desenhado para categorias com baixo rendimento)
- [B] Qualidade do Produto (se existe alguma reclamação relacionada com a qualidade e responsabilidade dos seus produtos ou serviços)

Questão: Indique, através das opções disponíveis, a relevância relativa que atribui entre [A] e [B] para a medição do desempenho das organizações/empresas no cumprimento do ODS 2.

- [A] extremamente mais relevante que [B]
- [A] fortemente mais relevante que [B]
- [A] moderadamente mais relevante que [B]
- [A] e [B] têm a mesma relevância
- [B] moderadamente mais relevante que [A]
- [B] fortemente mais relevante que [A]
- [B] extremamente mais relevante que [A]

4. ODS 3 - Garantir o acesso à saúde de qualidade e promover o bem-estar para todos, em todas as idades

A análise do ODS 3 será efetuada através dos seguintes indicadores:

- [A] Bem-estar dos colaboradores (se a empresa promove, através de iniciativas como a oferta do seguro de saúde, o bem-estar dos seus colaboradores)
- [B] Política de Segurança e Saúde (se a empresa vai além dos requisitos regulamentares em relação à sua política de segurança e saúde, por exemplo, programa de combate ao tabagismo)

Questão: Indique, através das opções disponíveis, a relevância relativa que atribui entre [A] e [B] para a medição do desempenho das organizações/empresas no cumprimento do ODS 3.

- [A] extremamente mais relevante que [B]
- [A] fortemente mais relevante que [B]
- [A] moderadamente mais relevante que [B]
- [A] e [B] têm a mesma relevância
- [B] moderadamente mais relevante que [A]
- [B] fortemente mais relevante que [A]
- [B] extremamente mais relevante que [A]

5. <u>ODS 4 - Garantir o acesso à educação inclusiva, de qualidade e equitativa, e promover oportunidades de aprendizagem ao longo da vida para todos</u>

A análise do ODS 4 será efetuada através dos seguintes indicadores:

- [A] Formação dos Recursos Humanos (se a empresa fornece horas de formação aos recursos humanos da empresa, além do mínimo obrigatório legal)

- [B] Formação ESG (se a empresa providencia aos seus colaboradores formação relacionada com os fatores ambientais, sociais e/ou governance (ESG))

Questão: Indique, através das opções disponíveis, a relevância relativa que atribui entre [A] e [B] para a medição do desempenho das organizações/empresas no cumprimento do ODS 4.

- [A] extremamente mais relevante que [B]
- [A] fortemente mais relevante que [B]
- [A] moderadamente mais relevante que [B]
- [A] e [B] têm a mesma relevância
- [B] moderadamente mais relevante que [A]
- [B] fortemente mais relevante que [A]
- [B] extremamente mais relevante que [A]

6. <u>ODS 5 - Alcançar a igualdade de género e empoderar todas as mulheres e raparigas</u>

A análise do ODS 5 será efetuada através dos seguintes indicadores:

- [A] Disparidade salarial entre género (se existe disparidade salarial entre homens e mulheres para a mesma categoria profissional e número de anos de serviço)
- [B] Colaboradoras do género feminino (percentagem de mulheres empregadas em comparação com a média do setor de atividade e categoria profissional)

Questão: Indique, através das opções disponíveis, a relevância relativa que atribui entre [A] e [B] para a medição do desempenho das organizações/empresas no cumprimento do ODS 5.

- [A] extremamente mais relevante que [B]

- [A] fortemente mais relevante que [B]
- [A] moderadamente mais relevante que [B]
- [A] e [B] têm a mesma relevância
- [B] moderadamente mais relevante que [A]
- [B] fortemente mais relevante que [A]
- [B] extremamente mais relevante que [A]

7. ODS 6 - Garantir a disponibilidade e a gestão sustentável da água potável e do saneamento para todos

A análise do ODS 6 será efetuada apenas para setores de atividade com uso intensivo de água através dos seguintes indicadores: (Nota: ainda que a sua organização não pertença a este setor, pedimos que responda a esta questão, colocando-se no lugar de um gestor deste setor)

- [A] Política do uso eficiente da água (se a empresa adota medidas para melhorar a eficiência do uso de água no seu processo produtivo)
- [B] Tecnologias de água (se a empresa desenvolve produtos ou tecnologias que são utilizadas no tratamento de águas, purificação da água ou promovem o uso eficiente da água)

Questão: Indique, através das opções disponíveis, a relevância relativa que atribui entre [A] e [B] para a medição do desempenho das organizações/empresas no cumprimento do ODS 6.

- [A] extremamente mais relevante que [B]
- [A] fortemente mais relevante que [B]
- [A] moderadamente mais relevante que [B]
- [A] e [B] têm a mesma relevância
- [B] moderadamente mais relevante que [A]
- [B] fortemente mais relevante que [A]

- [B] extremamente mais relevante que [A]

8. ODS 7 - Garantir o acesso a fontes de energia fiáveis, sustentáveis e modernas para todos

A análise do ODS 7 será efetuada apenas para setores de atividade com uso intensivo de energia através dos seguintes indicadores: (Nota: ainda que a sua organização não pertença a este setor, pedimos que responda a esta questão, colocando-se no lugar de um gestor deste setor)

- [A] Política de energia (se a empresa apresenta medida de poupança e eficiência energética)
- [B] Uso de energias renováveis (percentagem de energia consumida pela empresa com origem em fontes de energia renováveis)

Questão: Indique, através das opções disponíveis, a relevância relativa que atribui entre [A] e [B] para a medição do desempenho das organizações/empresas no cumprimento do ODS 7.

- [A] extremamente mais relevante que [B]
- [A] fortemente mais relevante que [B]
- [A] moderadamente mais relevante que [B]
- [A] e [B] têm a mesma relevância
- [B] moderadamente mais relevante que [A]
- [B] fortemente mais relevante que [A]
- [B] extremamente mais relevante que [A]

9. ODS 8 - Promover o crescimento económico inclusivo e sustentável, o emprego pleno e produtivo e o trabalho digno para todos

A análise do ODS 8 será efetuada através dos seguintes indicadores:

- [A] Política de Work-Life balance (se a empresa tem uma política que incentiva o Work-Life balance)
- [B] Condições de Trabalho (se a empresa vai além dos requisitos legais no que toca à disponibilização das condições necessárias para o desempenho das funções dos colaboradores)

Questão: Indique, através das opções disponíveis, a relevância relativa que atribui entre [A] e [B] para a medição do desempenho das organizações/empresas no cumprimento do ODS 8.

- [A] extremamente mais relevante que [B]
- [A] fortemente mais relevante que [B]
- [A] moderadamente mais relevante que [B]
- [A] e [B] têm a mesma relevância
- [B] moderadamente mais relevante que [A]
- [B] fortemente mais relevante que [A]
- [B] extremamente mais relevante que [A]

10. <u>ODS 9 - Construir infraestruturas resilientes, promover a industrialização inclusiva e sustentável e fomentar a inovação</u>

A análise do ODS 9 será efetuada para setores de atividade com maiores índices de emissão de carbono (setor energético, transportes, construção, indústria, etc) através dos seguintes indicadores: (Nota: ainda que a sua organização não pertença a este setor, pedimos que responda a esta questão, colocando-se no lugar de um gestor deste setor)

- [A] Investimento em I&D (se a empresa, no último ano de atividade, realizou investimento em investigação e desenvolvimento, por exemplo, estudos para inovação do processo produtivo)

- [B] Participação em projetos de inovação (se a empresa, no último ano de atividade, realizou investimento em projetos de inovação, projetos de co promoção, etc.)

Questão: Indique, através das opções disponíveis, a relevância relativa que atribui entre [A] e [B] para a mediação do desempenho das organizações/empresas no cumprimento do ODS 9.

- [A] extremamente mais relevante que [B]
- [A] fortemente mais relevante que [B]
- [A] moderadamente mais relevante que [B]
- [A] e [B] têm a mesma relevância
- [B] moderadamente mais relevante que [A]
- [B] fortemente mais relevante que [A]
- [B] extremamente mais relevante que [A]

11. <u>ODS 11 - Tornar as cidades e comunidades inclusivas, seguras, resilientes e sustentáveis</u>

A análise do ODS 11 será efetuada através dos seguintes indicadores:

- [A] Acessibilidade (se a empresa se localiza numa área acessível através de transportes públicos)
- [B] Política de deslocações (se a empresa adota políticas com impacto significativo nas deslocações dos trabalhadores, por exemplo, promoção de teletrabalho/reuniões em ambiente virtual, incentivo à deslocação dos trabalhadores em transportes públicos)

Questão: Indique, através das opções disponíveis, a relevância relativa que atribui entre [A] e [B] para a medição do desempenho das organizações/empresas no cumprimento do ODS 11.

- [A] extremamente mais relevante que [B]

- [A] fortemente mais relevante que [B]
- [A] moderadamente mais relevante que [B]
- [A] e [B] têm a mesma relevância
- [B] moderadamente mais relevante que [A]
- [B] fortemente mais relevante que [A]
- [B] extremamente mais relevante que [A]

12. ODS 12 - Garantir padrões de consumo e de produção sustentáveis

A análise do ODS 12 será efetuada através dos seguintes indicadores:

- [A] Gestão ambiental da cadeia de fornecimento (se a empresa escolhe fornecedores que promovem práticas ambientais)
- [B] Política de sustentabilidade (se a empresa tem uma política que documente as práticas de gestão sustentável adotada pela empresa)

Questão: Indique, através das opções disponíveis, a relevância relativa que atribui entre [A] e [B] para a medição do desempenho das organizações/empresas no cumprimento do ODS 12.

- [A] extremamente mais relevante que [B]
- [A] fortemente mais relevante que [B]
- [A] moderadamente mais relevante que [B]
- [A] e [B] têm a mesma relevância
- [B] moderadamente mais relevante que [A]
- [B] fortemente mais relevante que [A]
- [B] extremamente mais relevante que [A]

13. ODS 13 - Adotar medidas urgentes para combater as alterações climáticas e os seus impactos

A análise do ODS 13 será efetuada apenas para empresas abrangidas pelo CSRD (Corporate Sustainability Reporting Directive) através dos seguintes indicadores: (Nota: ainda que a sua organização não pertença a este setor, pedimos que responda a esta questão, colocando-se no lugar de um gestor deste setor).

- [A] Normas Global Reporting Initiative (se o reporte de sustentabilidade da empresa cumpre as normas GRI)
- [B] Emissões de C02 (evolução da redução das emissões por unidade produzida)

Questão: Indique, através das opções disponíveis, a relevância relativa que atribui entre [A] e [B] para a medição do desempenho das organizações/empresas no cumprimento do ODS 13.

- [A] extremamente mais relevante que [B]
- [A] fortemente mais relevante que [B]
- [A] moderadamente mais relevante que [B]
- [A] e [B] têm a mesma relevância
- [B] moderadamente mais relevante que [A]
- [B] fortemente mais relevante que [A]
- [B] extremamente mais relevante que [A]

14. <u>ODS 14 - Conservar e usar de forma sustentável os oceanos, mares e os recursos marinhos para o desenvolvimento sustentável.</u>

A análise do ODS 14 será efetuada para empresas ligadas ao mar (exemplo, transporte marítimo, indústria da pesca, indústria de energia com exploração offshore) através dos seguintes indicadores: (Nota: ainda que a sua organização não pertença a este setor, pedimos que responda a esta questão, colocando-se no lugar de um gestor deste setor).

- [A] Acidentes ambientais no mar (se a empresa está associada a algum acidente com consequências ambientais no mar, por exemplo, derrames de petróleo)
- [B] Regras e limites de exploração (se a empresa cumpre os requisitos legais e os limites máximos de quotas de exploração marítima)

Questão: Indique, através das opções disponíveis, a relevância relativa que atribui entre [A] e [B] para a medição do desempenho das organizações/empresas no cumprimento do ODS 14.

- [A] extremamente mais relevante que [B]
- [A] fortemente mais relevante que [B]
- [A] moderadamente mais relevante que [B]
- [A] e [B] têm a mesma relevância
- [B] moderadamente mais relevante que [A]
- [B] fortemente mais relevante que [A]
- [B] extremamente mais relevante que [A]

15. <u>ODS 16 - Promover sociedades pacíficas e inclusivas para o desenvolvimento sustentável, proporcionar o acesso à justiça para todos e construir instituições eficazes, responsáveis e inclusivas a todos os níveis</u>

A análise do ODS 16 será efetuada através dos seguintes indicadores:

- [A] Suborno, Corrupção e Fraude (se a empresa ou um alto dirigente foi condenado por práticas de suborno, corrupção ou fraude)
- [B] Crime fiscal (se a empresa ou um alto dirigente foi condenado por crimes de evasão fiscal)

Questão: Indique, através das opções disponíveis, a relevância relativa que atribui entre [A] e [B] para a medição do desempenho das organizações/empresas no cumprimento do ODS 16.

- [A] extremamente mais relevante que [B]
- [A] fortemente mais relevante que [B]
- [A] moderadamente mais relevante que [B]
- [A] e [B] têm a mesma relevância
- [B] moderadamente mais relevante que [A]
- [B] fortemente mais relevante que [A]
- [B] extremamente mais relevante que [A]

16. <u>Dados da empresa</u>
    a. Região de localização da empresa:
        i. Norte
        ii. Centro
        iii. Lisboa
        iv. Alentejo
        v. Algarve
        vi. Açores
        vii. Madeira
    b. Setor de atividade (de acordo com o CAE Rev3)
        i. Indústrias transformadoras (C)
        ii. Eletricidade, gás, vapor, água quente e fria e ar frio (D)
        iii. Captação, tratamento e distribuição de água; saneamento, gestão de resíduos e despoluição (E)
        iv. Construção (F)
        v. Comércio por grosso e a retalho; reparação de veículos automóveis e motociclos (G)

vi. Transportes e armazenagem (H)
vii. Alojamento, restauração e similares (I)
viii. Atividades de informação e de comunicação (J)
ix. Atividades financeiras e de seguros (K)
x. Atividades imobiliárias (L)
xi. Atividades de consultoria, científicas, técnicas e similares (M)
xii. Atividades administrativas e dos serviços de apoio (N)
xiii. Outras

c. Natureza jurídica da organização
    i. Empresa
    ii. Universidade
    iii. Instituto
    iv. Instituição sem fins lucrativos
    v. Outro

d. Dimensão da Empresa
    i. Caso a resposta à pergunta 3 não seja empresa, selecione a opção não aplicável.
    ii. Microempresa
    iii. Pequena empresa
    iv. Média empresa
    v. Grande Empresa
    vi. Não aplicável

e. Cargo do colaborador responsável pela resposta ao inquérito