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The SDGs and Non-Financial Disclosures of Energy Companies: The Italian Experience

Giuseppe Scandurra [1,*] **and Antonio Thomas** [2]

[1] Department of Management Studies and Quantitative Methods, University of Naples Parthenope, 80134 Naples, Italy

[2] Department of Business and Economics, University of Naples Parthenope, 80134 Naples, Italy; antonio.thomas@uniparthenope.it

* Correspondence: giuseppe.scandurra@uniparthenope.it

Abstract: For some years, energy companies (ECs) have been increasingly pressured to address a broader set of social and environmental responsibilities that respond adequately to citizens' expectations, local and international regulatory frameworks, and transnational initiatives such as the Sustainable Development Goals (SDGs). Thus, ECs have invested considerable resources to reduce the environmental and social impact in their activities. This study aims to verify the measures that ECs have actually adopted by analyzing their social and sustainability reports. These reports constitute an official tool, and they are also supported by specific mandatory regulations such as EU Directive 2014/95, in which companies provide a non-financial disclosure aimed at demonstrating how their pursuit of the conditions of economic and financial equilibrium is increasingly and closely linked with the ability to assure sustainable development. This study considers eight major ECs operating in the Italian market. It compares the findings with two important foreign ECs that draw up a very structured and innovative report: the integrated report. The outcomes confirm that these ECs are making significant progress in the environmental and social spheres, although the path to full sustainable development is still unreached. The policy implications emerging from this study can contribute to this direction.

Keywords: energy companies; sustainable development; integrated report

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1. Introduction

Energy is essential for industries, transportation, households, and overall economic development. The activities related to producing, distributing, and consuming energy resources represent the energy sector. It comprises "companies that are highly involved in activities relating to the production, exploration, refining, or transportation of consumable fuels, such as coal, oil, and gas" [1]. By ensuring a reliable and continuous supply of energy to various sectors and end users, these energy companies (henceforth ECs) play a crucial role in powering global economic systems, and they significantly contribute to GDP and employment.

However, ECs are also known for their significant environmental impact. Thus, given the growing concerns about climate change, air pollution, and resource depletion, ECs face increasing scrutiny and pressure to reduce greenhouse gas emissions, adopt renewable energy technologies, and incorporate environmentally friendly practices across their operations.

In response to the urgent need to tackle climate change and achieve the Sustainable Development Goals (SDGs), ECs should expand their responsibilities within operational frameworks that embrace concepts such as Corporate Sustainability; Corporate Citizenship; Stakeholder Theory; Creating Shared Value; Environment, Social and Governance (ESG); and Corporate Social Responsibility [2]. Due to the support provided by the Carbon Disclosure Project (CDP)—the non-profit organization that runs the global disclosure system for investors, companies, cities, states, and regions to manage their environmental impact—CDP frameworks provide companies with a foundation through which to integrate sustainability considerations into their operations, decision-making processes, and engagement with various stakeholders. By embracing these concepts, ECs aim to align their business practices with social and environmental needs, thereby contributing to sustainable development, as well as improving their long-term profitability and success [3,4]. This expectation is driven by various factors, including societal expectations of corporate behavior, e.g., [5], local and international laws and regulations [6], specific commitments of the country to sustainability objectives [7], the use of energy and sustainability indices [8], and the urgency of addressing the climate change [9].

With this in mind, this study aims to analyze the content of the social and sustainability reports published by the Italian ECs. These reports provide detailed information on the measures and actions taken by the ECs to minimize the impact of their activities and their generation of value for external stakeholders. The reports serve as official tools in accordance with regulations such as the EU Directive 2014/95, which require companies to disclose non-financial information. The reports demonstrate how companies increasingly align their pursuit of economic and financial equilibrium with sustainable development as defined by the Brundtland report of 1987: "a development that meets the needs of the present without compromising the ability of future generations to meet their own needs". Specifically, sustainability is understood from a social perspective as the ability to ensure that conditions of human well-being (such as safety, health, education, democracy, participation, and justice) are distributed equally across social classes and genders. From an environmental perspective, sustainability is understood as the ability to maintain the quality and renewability of natural resources.

While these reports are mandatory only for companies with over 500 employees, they are increasingly being adopted voluntarily due to their benefits as a marketing tool for engaging various stakeholders, as well as for enhancing the company's reputation and legitimacy. As these reports' importance and diffusion grow, an emerging research focus on their qualitative analysis is emerging. Furthermore, international organizations are specifying the requirements and frameworks that an ideal report should possess, aiming to improve their effectiveness.

We are, therefore, witnessing a far-reaching change in the so-called non-financial disclosure in which companies must now also report the performances obtained from the social and environmental side, in addition to the financial and economic ones. This reporting must be truthful and is subject to the judgment of many stakeholders. This new line of research is expanding rapidly and calls for researchers to identify the most suitable methods through which to evaluate the information disclosed in these reports.

In line with this framework, the present study aims to examine the content of reports published by eight major Italian ECs. It compares them with the latest theoretical advancement in reporting, known as the integrated report (<IR>).

The findings confirm that Italian ECs have made significant strides in addressing environmental and social dimensions, although they do not fully meet all the requirements of an <IR>. The study also highlights the importance of these reports, the involvement of external expertise in their preparation, and the need for ECs to further align their practices with the expectations of external stakeholders. The policy implications derived from this study can offer valuable insights for bridging the identified gaps.

The study is organized as follows. After this introduction, we briefly recall the debate about the importance of non-financial disclosure; next, Section 3 describes the method. The research outcomes are in Section 4, while the discussion is in Section 5. Conclusions are in the last section.

2. From the Non-Financial Disclosure to the Integrated Report

Traditionally, the most widespread form of disclosure provided by companies is a financial disclosure that is linked to the financial statement. The financial statement has numerous merits, and it is widely used worldwide. However, it also has considerable limitations in its ability to represent the performance of companies along competitive, social, and environmental dimensions [10,11]. For example, financial statements primarily focus on historical data and do not contain information about the company's so-called invisible resources (such as customer loyalty or employee competencies), which are increasingly important in the knowledge economy [12,13].

To fill these gaps consistently with the theoretical model of the "triple bottom line helix" [14], financial statements have been supplemented with additional documents to display progress in various development dimensions beyond the financial aspect. These documents include the management commentary, the Social Report, the Environmental Report, the Sustainability Report, the Intellectual Capital Framework, and the Reporting of Intellectual Capital and Intangible Resources.

Accountability scholars [15–17] have demonstrated that presenting non-financial disclosure in a more structured and organized manner improves the qualitative level of company disclosure. In doing so, it adds value for both stakeholders and shareholders. This updated concept of non-financial disclosure pertains to companies providing information about their environmental and social performances, as well as their governance and external impacts. Therefore, this disclosure details sustainability initiatives, environmental management practices, social responsibility efforts, employee welfare, community engagement, and more. This information aims to offer stakeholders a comprehensive understanding of the company's non-financial performance, thus extending the information beyond financial indicators. Additionally, it visualizes the effects of the actions performed by companies consistently with their mission and strategy. It shows the company's ability to create value for each stakeholder participating in the corporate production process [18,19].

Non-financial disclosure enhances the interconnections between company objectives and choices [20]. In any case, it differs from the progressive enrichment of the company disclosure that is achieved through the aggregation of supplementary publications, or documents that add to the mandatory financial disclosure, since it aspires to summarize, in "one report" [21], the activities carried out by the company in the various directions of corporate development.

The "latest development in a long line of proposed reporting innovations that have attempted to 'reform' financial accounting and company reports" [22] (p. 1090) is named the integrated report (<IR>). The integrated report takes non-financial disclosure a step further by presenting a holistic view of a company's value-creation story. It goes beyond traditional reporting practices by combining financial and non-financial information, offering a comprehensive understanding of how an organization's strategy, governance, performance, and prospects contribute to value creation in the short, medium, and long term.

In doing so, as represented in Figure 1, the <IR> incorporates the previous reports, such as social or sustainability reports, which are mainly or exclusively focused on just one dimension of the companies' development, and considers these dimensions together.

According to its designers, this tool aims to connect the various dimensions of business development by overcoming the "great proliferation of theories, approaches and terminologies' regarding corporate social responsibility" [23] (p. 51), ESG, and sustainable development. For this reason, the <IR> is focused on the shared value generation [24] that is realized to grant benefit for every stakeholder and to ensure their active involvement in company decisions. Additionally, it intends to replace and incorporate the various types of reports that are focused on a single dimension of company development to be integrated instead (Figure 2).

The concept of the <IR> is still evolving, and it was only in 2013 that the International Integrated Reporting Council (IIRC) developed and published a broadly shared framework, providing companies guidance on what constitutes an <IR> [25]. This framework guides the content, structure, and presentation of an <IR>, emphasizing the importance of including material information that is relevant to the organization and its stakeholders.

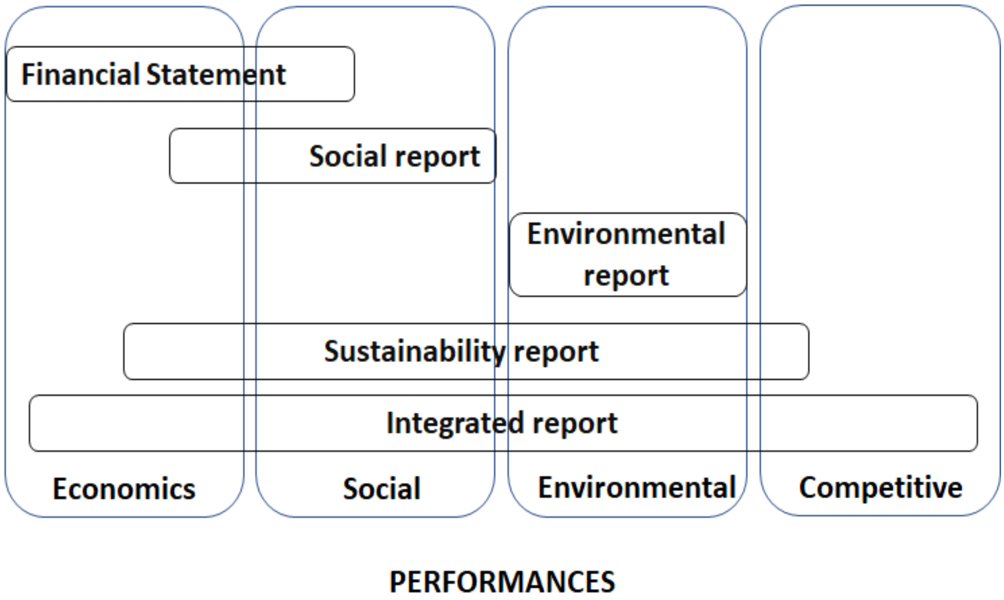

Figure 1. The main tools of multidimensional reporting.

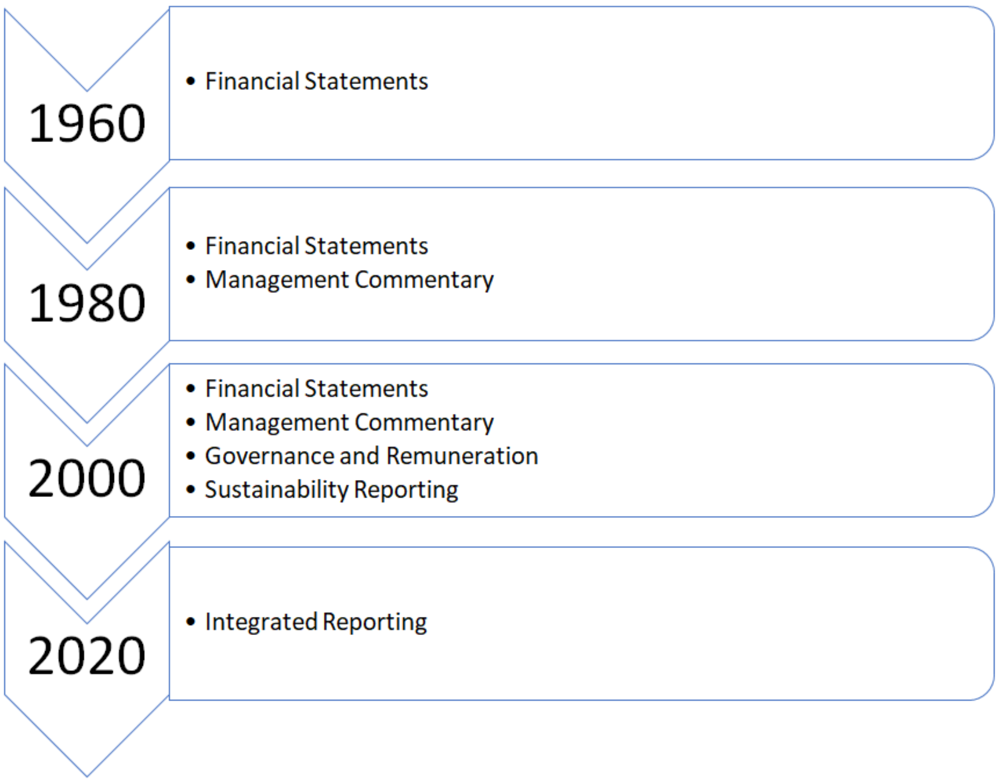

Figure 2. Evolution of corporate reporting.

Founded in 2010, the IIRC is an international non-profit organization made up of investors, companies, regulatory bodies, and professionals operating in the accounting sector (among them are the Global Reporting Initiative, the International Accounting Standards Board, the Financial Accounting Standards Board, and the International Federation of Accountants). Nevertheless, the beginning of this conceptual path is now thirty years old. It is customary to trace the origin of these theories to 1994, which is when the legislator introduced the King Code of Corporate Governance Principles (or King I). Subsequently, South Africa published three other codifications (King II, III, and IV) [26].

The IIRC is the world's leading body in developing integrated reporting policies and practices [27,28]. The fact that the IIRC was "dramatically quick and effective in establishing itself as a globally recognized body leading this new reporting initiative and the signing up of so many supportive actors" [29] (p. 38) unequivocally reflects a now inevitable need for the community in wanting to overcome the cognitive limits associated with traditional forms of reporting.

The shift from non-financial disclosure to the <IR> reflects an evolving understanding of the interdependence between financial and non-financial factors in driving business value [16]. It recognizes that sustainability and ESG considerations are integral to long-term business success and stakeholder relationships [30]. By adopting an <IR>, companies can demonstrate a more comprehensive approach to reporting and accountability, promoting transparency, trust, and informed decision making among stakeholders [17,31].

Compared to the widely used sustainability report established by the Global Reporting Initiative (GRI) in 2000, which primarily focuses on the environmental dimension, the <IR> provides information and insights across eight areas: organizational overview; governance; operating context; risks and opportunities; business model; strategies and resource allocations; performances; and outlook. The GRI is an independent organization founded in Boston in 1997 with the aim of creating the first accountability mechanism that could stimulate companies to follow the principles of responsible environmental conduct. The GRI's action has since expanded to include social, economic, and governance issues. Since 2000, the GRI has been proposing free-of-charge internationally recognized guidelines and standards for drawing up the sustainability report.

Moreover, the <IR> emphasizes a forward-looking perspective by elucidating how the company's resources have evolved, and these are categorized into six interconnected types (financial, infrastructures, employees, relationship, natural, and expertise) [27,28]. By analyzing the information presented within this framework, the commitment and efforts made by companies in pursuing sustainable development and creating shared value in alignment with the various dimensions of corporate growth is assessed.

3. Method

This study aims to examine, in detail, the actions taken by Italian ECs in their pursuit of sustainable development and of the SDGs. The survey, conducted in May 2023, analyzes the reports available on the websites of all the Italian ECs listed on the stock exchange. This choice aspires to ensure the reliability of the information presented in these online reports. The ECs showing a non-financial disclosure using multiple documents or reports were excluded from the analysis. The rationale behind this exclusion is that the <IR> follows the Eccles and Kruzs [21] fundamental principles of aiming to be a "one report" that replaces all other non-financial disclosures, and probably the financial ones in the future. The <IR> also intends to be easy to read for all stakeholders, including those lacking expertise in economic matters.

The investigation also excluded the ECs operating in the fuel production sector to ensure a more homogeneous sample of ECs for analysis. Finally, the study specifically examined reports from 8 ECs, which collectively represent approximately 80% of the Italian market in the supply of electricity and gas.

To enhance the effectiveness of the proposed analysis, this study also includes a comparison with the two <IRs> published by prominent foreign ECs. The first foreign EC is Eskom (Johannesburg, South Africa), a South African company that has been preparing <IRs> for several years following the mentioned King 1 and its subsequent updates; the second EC is Engie (Paris, France), the leading EC in France. The checklist used to assess the Italian ECs' reports was also applied to these foreign ECs' <IRs>, and the final scores were compared with those of the 8 Italian ECs.

As explained, this investigation focuses on analyzing the quality of the content in the reports produced by these companies. These reports provide a highly truthful account of the actions taken and the outcomes achieved in the social, environmental, and competitive domains. It is not by chance that these reports are often drafted or checked by external specialized societies with assurance (which is compulsory for larger companies).

In the previous section, we explained that some of these reports, which are more innovative and comprehensive, may also demonstrate the value-creation process and how this value is distributed among stakeholders involved in the production process. This type of report, defined as integrated, aspires to replace all the other forms of corporate disclosure, both financial and non-financial, that are currently prevalent in practice. By examining the content of these reports, this study aims to gain insights into the extent of which Italian ECs are aligning their actions with sustainable development principles and the SDGs.

The transition from a sustainability report that is focused on past interventions to a truly <IR> that incorporates future-oriented coherence is challenging. However, an increasing number of companies are moving in this direction. In certain countries, such as South Africa, larger companies have been required to prepare an <IR> for many years.

The reports drafted by companies are subject to stakeholder evaluation. Companies are therefore stimulated to improve the actions taken in social and sustainability terms, while researchers are looking for methods to objectively evaluate the performance achieved by companies in the social and environmental fields.

Consistent with this approach, this paper explicitly applies the methodology introduced by Stent and Dowler [32] to evaluate the companies' report quality. In better detail, these authors proposed a checklist based on the founding elements of the <IR>, assigning scores to the information provided in the related <IR> by companies of the same sector (i.e., airport operators). As mentioned in Section 1, this is a new research stream that has arisen in the last five–seven years with an increasing audience, and which aspires to value the qualitative information provided by firms.

Among the researchers who have applied similar methodologies to <IRs>, sustainability, or social reports (albeit those concerning different types of companies), we can mention—for instance—Mauro et al. [33], who examined the <IRs> from universities; Nguyen et al. [34] who analyzed reports from listed firms; Thomas and Scandurra [35], who focused on airport operators; and Calabrese et al. [36], who assessed sustainability reports from various energy companies (with a specific emphasis on the GRI guidelines).

The present study follows the format and scoring table used in the most recent of the mentioned articles (Thomas and Scandurra [35] that, in turn, closely mirrors the original Stent and Dowler's [32] approach) with two additions. The first concerns the explicit reference to the SDGs for each type of intervention described by the companies (C6 in Table 1). The reason for this addition is the substantial potential impact that ECs can have on the environment from various perspectives; therefore, it is appropriate to demonstrate their strong commitment to the specific principles outlined by the SDGs. The second addition concerns a further issue regarding conciseness. The inclusion of conciseness mirrors a virtue of the reports, as stated by the IIRC [37] (p. 7): "An integrated report should be concise". Moreover, although the length of the examined reports varies from 90 to almost 600 pages, the applied format in this study only assigns a binary value of 0 or 1 based on whether the reports fall within the average length range of all the considered reports. We also wish to underline the presence of a score concerning assurance and methodology. As already explained, assurance relates to the reliability and accuracy of the information presented in the reports [38,39]. Describing the method, on the other hand, facilitates the reports being read by the stakeholders, but it also confirms the adherence of the reports to the prescribed formats suggested by the specific organizations, such as the GRI for sustainability reports and the IIRC for <IRs>.

Table 1 details the adopted format, the specific issues examined, and the related corresponding scores.

Table 1. The checklist.

Section		Items	Max Score (in Points) = 52
A	*Organizational overview and business model*		*9*
A1	Mission and vision	0: no vision and/or mission 1: mission OR vision statements 2: mission AND vision statements	2
A2	Values and culture	0: no mention 1: general comments 2: code of conduct, list of values, etc.	2
A3	Ownership and operating structure	0: no mention 1: specific illustration	1
A4	Principal activities, market, products, and services	0: no mention 1: specific illustration	1
A5	Reporting boundaries	0: indeterminable 1: determinable	1
A6	Key quantitative information	0: no mention 1: brief mentation 2: elaborate	2
B	*Operating context*		*9*
B1	Legal, commercial, social, environmental, and political context	1: for each considered context	5
B2	Key risks and opportunities	0: no mention 1: risks OR opportunities 2: risks AND opportunities	2
B3	Material issues/determinations and impact on creating/preserving value	0: no mention 1: description 2: explanation	2
C	*Strategies and resource allocation*		*10*
C1	Short, medium, and long-term objectives	0: no mention 1: listed 2: listed and time framed	2
C2	Implementation plans	0: no specific description 1: specific description	1
C3	Influence from operating context	0: reference 1: clear linkage	1
C4	Effects on key capitals	0: no details 1: listed 2: clear linkage	2
C5	Stakeholders consultations	0: no details 1: monitoring 2: engagement	2
C6	Alignment with the SDGs	0: no mention 1: generic 2: detailed	2

Table 1. *Cont.*

Section		**Items**	**Max Score (in Points) = 52**
D		***Governance***	*6*
D1	Structures' representations	0: no mention 1: member listed 2: member listed with expertise	2
D2	Action taken to monitor strategic directions	0: no actions determinable from narrative 1: described 2: elaborated	2
D3	Compensation policies	0: no mention 1: described 2: elaborated	2
E		***Performance***	*10*
E1	KPIs	0: no key performances described 1: key performances described	1
E2	KRIs	0: no key risks described 1: key risks described	1
E3	Company's effect on the six capitals	0: no mention 1: two or more capitals considered 2: all six capitals considered	2
E4	Key stakeholders' relationships	0: no mention 1: mention 2: described	2
E5	Significant external factors	0: no mention 1: mention 2: described	2
E6	Actual results vs. target	0: no comparison provided 1: comparison provided	1
E7	Benchmarks against regional competitors	0: no benchmark provided 1: benchmark provided	1
F		***Future outlook***	*5*
F1	Management expectations	0: no statements 1: described	1
F2	Operating context	0: no statements 1: described	1
F3	Uncertainties	0: no statements 1: described	1
F4	Potential implications	0: no statements 1: described	1
F5	Key assumptions	0: no statements 1: described	1
G	***Assurance***	0: no assurance 1: assurance	*1*
H	***Methodology section***	0: no mention 1: described	*1*
I	***Conciseness***	0: >268 pages (average) 1: <268 pages	*1*

4. Results

In May 2023, almost all companies had already presented their 2022 edition of the related report. These reports were denominated as sustainability reports, except for A2A (Brescia, Italy) and Edison (Milano, Italy), whose reports were <IRs> and non-financial statements (in line with Directive 2014/95). All the reports are easily accessible on the companies' websites, typically just a few clicks away from the homepage. Moreover, they appear to be reader friendly and easy to understand. The writing style is clear and straightforward, using highlights, key performance indicators (KPIs), photos, and graphics to aid comprehension.

At first glance, all the reports adhere to the GRI Standards and include a specific methodological section. The six reports considered had also undergone external assurance. Additionally, these ECs possess a variety of technical and socio-environmental certifications. For these reasons, we can state that, regardless of the length, the overall quality of the reports examined was good, if not excellent—provided we consider these reports a tool through which to evaluate the progress and actions taken by the companies regarding social and environmental sustainability.

The length of the reports varied significantly, from a minimum of 90 pages for Ascopiave (Treviso, Italy) and 105 for Sorgenia (Milan, Italy) to 306 for Acea (Rome, Italy) and Iren (Reggio Emilia, Italy), 367 for Hera (Bologna, Italy), and almost 600 pages of Enel (Rome, Italy), with an average length of 268 pages. A more extended report can provide more information, but an excessive length can confuse readers, and including redundant or marginal information may hinder understanding of the company's activities. The importance of conciseness emphasized by the IIRC is reflected in the relatively shorter lengths of the <IRs> of the two foreign ECs: 52 pages for Engie and 156 for Eskom (Table 2). However, it is essential to note that length in pages is only an indicative parameter, as factors such as font size and the number of tables/figures used can affect the overall comparison.

Table 2. Scoring of the disclosure levels.

Company	**Eskom**	**Engie**	**A2A**	**Acea**	**Asco-piave**	**Edison**	**Enel**	**Hera**	**Iren**	**Sorgenia**
Sections / **Type Report, Pages**	**IR, 156**	**IR, 52**	**IR, 220**	**SR, 306**	**SR, 90**	**NFD, 180**	**SR, 590**	**SR, 367**	**SR, 308**	**SR, 105**
A. Organizational overview and business model										
A1. Mission and vision	1	2	1	0	1	1	1	2	1	1
A2. Values and culture	1	1	1	0	2	2	1	0	1	1
A3. Ownership and operating structure	1	0	0	1	1	0	2	1	1	0
A4. Principal activities, market, products, and services	1	1	1	1	1	1	1	0	1	1
A5. Reporting boundaries	0	1	1	1	1	1	1	1	1	1
A6. Key quantitative information	2	1	1	1	1	1	1	1	1	1
Total	*6*	*6*	*5*	*4*	*7*	*6*	*7*	*6*	*6*	*5*
B. Operating context										
B1. Legal, commercial, social, environmental, and political context	5	2	4	2	2	4	4	3	3	2
B2. Key risks and opportunities	1	2	2	2	0	1	2	1	2	0
B3. Material issues/determinations and impact on creating/preserving value	2	1	1	2	1	2	1	2	1	1
Total	8	5	7	6	3	7	7	6	6	3
C. Strategies and resource allocation										
C1. Short-, medium-, and long-term objectives	1	2	2	2	1	2	2	1	2	0
C2. Implementation plans	1	1	1	1	0	1	1	1	1	0
C3. Influence from operating context	1	0	1	1	0	1	1	1	0	0
C4. Effects on key capitals	2	1	2	0	0	1	1	1	0	0
C5. Stakeholder consultations	2	2	2	2	2	1	1	2	2	1
C6. Alignment with the SDGs	1	2	2	0	2	2	2	2	2	1
Total	*8*	*8*	*10*	*6*	*5*	*8*	*8*	*8*	*7*	*2*
D. Governance										

Table 2. *Cont.*

Company	**Eskom**	**Engie**	**A2A**	**Acea**	**Asco-piave**	**Edison**	**Enel**	**Hera**	**Iren**	**Sorgenia**
Sections **Type Report, Pages**	**IR, 156**	**IR, 52**	**IR, 220**	**SR, 306**	**SR, 90**	**NFD, 180**	**SR, 590**	**SR, 367**	**SR, 308**	**SR, 105**
D1. Structures' representations	2	1	1	1	1	1	1	0	1	0
D2. Actions taken to monitor strategic directions	2	1	2	0	0	0	0	1	1	0
D3. Compensation policies	2	1	0	0	0	0	0	0	1	0
Total	*6*	*3*	*3*	*1*	*1*	*1*	*1*	*1*	*3*	*0*
E. Performance										
E1. Key performance indicators	2	1	1	1	1	1	1	1	1	0
E2. Key risk indicators	1	0	1	1	0	0	1	1	1	0
E3. Company's effect on the six capitals	1	1	2	0	0	1	1	1	0	0
E4. Key stakeholders' relationships	1	0	1	2	1	0	1	0	1	1
E5. Significant external factors	1	0	2	1	0	0	1	0	0	1
E6. Actual results vs. target	1	1	0	1	0	1	1	0	1	0
E7. Benchmarks vs. regional competitors	0	1	0	0	0	0	0	0	0	0
Total	*7*	*4*	*7*	*6*	*2*	*3*	*7*	*3*	*4*	*2*
F. Future outlook										
F1. Management expectations	1	1	0	0	0	0	1	1	1	0
F2. Operating context	1	0	0	1	0	0	0	1	0	0
F3. Uncertainties	0	1	0	1	0	0	0	0	0	0
F4. Potential implications	1	1	0	1	0	0	1	0	1	0
F5. Key assumptions	1	1	0	1	1	1	1	1	1	0
Total	*4*	*4*	*0*	*4*	*1*	*1*	*3*	*3*	*3*	*0*
G. Assurance										
Total	*1*	*1*	*1*	*1*	*0*	*1*	*1*	*1*	*1*	*0*
H. Methodology section										
Total	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*
I. Conciseness										
Total	*1*	*1*	*1*	*0*	*1*	*1*	*0*	*0*	*0*	*1*
TOTAL (A+B+C+D+E+F+G+H+I)	***42***	***33***	***35***	***29***	***21***	***29***	***35***	***29***	***31***	***14***
% of covering checklist (Table 1)	**81**	**63**	**67**	**56**	**40**	**56**	**67**	**56**	**60**	**28**

After this overview, the reports' consistency with the <IR> criteria was assessed in this study. The objective was to determine whether these reports had the potential to become true <IRs>, thus demonstrating the process of creating and distributing shared value, as well as the reproducibility of resources (with a focus on the future). Therefore, this research examined aspects such as the mission, vision, and values, as well as references to the ethics code of conduct or transparency; stakeholder mapping; the impacts on the environmental, social, and economic dimensions; the connections with the local territory; and the perimeters of materiality. Furthermore, this study scrutinized the description of the business model and its consistency with the strategy; the analysis of changes in the six capitals and their interconnections; the distribution of the generated value; the governance practices; and the stakeholders' engagement. The investigation also underlined the link between the actions undertaken by the ECs with the SDGs.

Table 2 presents the results of this assessment. Following the framework proposed by [35], each format section has a score. Regarding the first section—Organizational overview and business model—the scores given to the reports were quite homogeneous, with two cases (Ascopiave and Enel) surpassing those of Eskom and Engie.

Regarding the second section—Operating context—greater variations among the ECs became evident, and none achieved the highest score obtained by Eskom. Among the Italian ECs, A2A attained the highest score in this section and the third section—Strategies and resource allocation. Regarding this section, all ECs, to varying degrees, emphasized the connection between their actions and the relevant referenced SDGs, except for Acea, which only vaguely mentioned this link. However, all the ECs demonstrated attention to stakeholders, with some providing stakeholder mapping matrices, explanations on engagement, or both. The recognition of multiple stakeholders with different interests to satisfy is an important outcome, as it forms the basis for improving shared value creation [18,40].

Conversely, the ECs only marginally addressed the definition of their strategy, future prospects, and competitive levers. Except for a very detailed case (A2A), the reports generally discussed the "six capitals" in a summative fashion, or in relation to impact-related issues. In other words, most of the ECs touched upon financial, intellectual, relational, human, social, and environmental matters but did not explicitly treat them as "capitals".

On average, the Governance section showed the most significant deviation from the principles of <IRs>. While Eskom received the highest score, the Italian ECs had considerably lower values, and one company, Sorgenia, even scored zero. Engie also received a low score, indicating a lack of information regarding compensation policies and transparency in disclosing the competencies of managers. These findings suggest that Italian ECs need to improve their adherence to the principles of <IRs> in this section. Enhancing transparency and providing comprehensive information about compensation policies and the skills and expertise of managers can contribute to a more transparent and accountable governance structure. By aligning with the principles of <IRs>, ECs can improve their reporting practices and provide stakeholders with a clearer understanding of how governance practices support the creation of sustainable value.

The Performance section, which encompasses the impact of the ECs' actions on the external context and their resources, exhibited a significant heterogeneity in scores. Scores ranged from 2 points for Ascopiave and Sorgenia to 7 points for A2A and Enel. Even Eskom and Engie received scores of 7 and 4 points, respectively. The reports of the ECs generally addressed the links with the territory and the impact of their business on the context, but only weakly. Similarly, few of the reports systematically considered risks and opportunities, and only a few highlighted the instruments used to align the risks with predefined levels (risk appetite). It is worth noting that three of the reports did not include key risk indicators, such as Engie. On the other hand, all the ECs specified their investments in material capital. From this perspective, the reports deviated significantly from the purpose of an <IR>. The goal of an <IR> is to enhance accountability regarding the capital employed, and to promote an understanding of the interdependencies between different forms of capital and their ability to create value [37]. Therefore, the current reports do not appear fully aligned with the principles of an <IR> as they lack comprehensive coverage of the impacts on the external context, risks, and opportunities, as well as the interdependencies between different forms of capital. Improving these aspects would contribute to a more comprehensive and value-driven approach to reporting. As expected, the Italian ECs indicated a lag in the section Future Outlook compared to Eskom and Engie since the sustainability reports are a final balance of the actions carried out and are not future-oriented like the <IR>. Only Acea had a value in line with the two foreign ECs.

By adding the score for each section, A2A and Enel reached the highest score: 35 points (on average 28 for all the eight ECs). This corresponded to a coverage of 67% (54% on average) in a theoretical <IR>. A value that was even higher than Engie (33 points) but lower than Eskom (42 points) exhibited the highest score. However, Engie presented a report with the shortest length, less than half of Eskom; thus, we could suppose it has the greatest effectiveness in explaining relevant issues. Similarly, the length of the A2A report was less than half that of Enel. We also have to remind that A2A denominated its report as an <IR>; hence, in the mind of its preparers, it should replicate the IIRC principles. Enel's report preparers have not yet exhibited this ambition.

We also must point out that not even Eskom reached the maximum score, although it has the greatest history and experience in drafting an <IR>. Clearly, the specific checklist adopted with the relative scores affects the findings. That is to say that the results could be somewhat different by adopting other formats.

Another important observation was that the two ECs without external assurance (Ascopiave and Sorgenia) achieved the lowest scores. This suggests that ECs require specific expertise to prepare high-quality <IRs>, and that they may not be able to rely solely on internal staff who have previously worked on mandatory disclosures. Preparing an <IR> requires a deep understanding of the principles and frameworks underlying integrated reporting, as well as the ability to communicate the interrelationships between financial and non-financial factors effectively. Meeting the requirements of both the GRI and the IIRC formats is not a straightforward task. Overall, the observation emphasizes that the successful preparation of high-quality integrated reports requires specific expertise and may necessitate the involvement of external professionals with experience in this field.

Based on the scores of Table 2 (last row), Figure 3 compares, in percentage, the average rating values (horizontal line) with the average evaluation of the reports for each of the considered ECs (54%). That is, the figure quickly illustrates the quality of the drafted reports. The two foreign ECs—along with A2A, Enel, and Iren—had values above the average, while the remaining companies fell below the average.

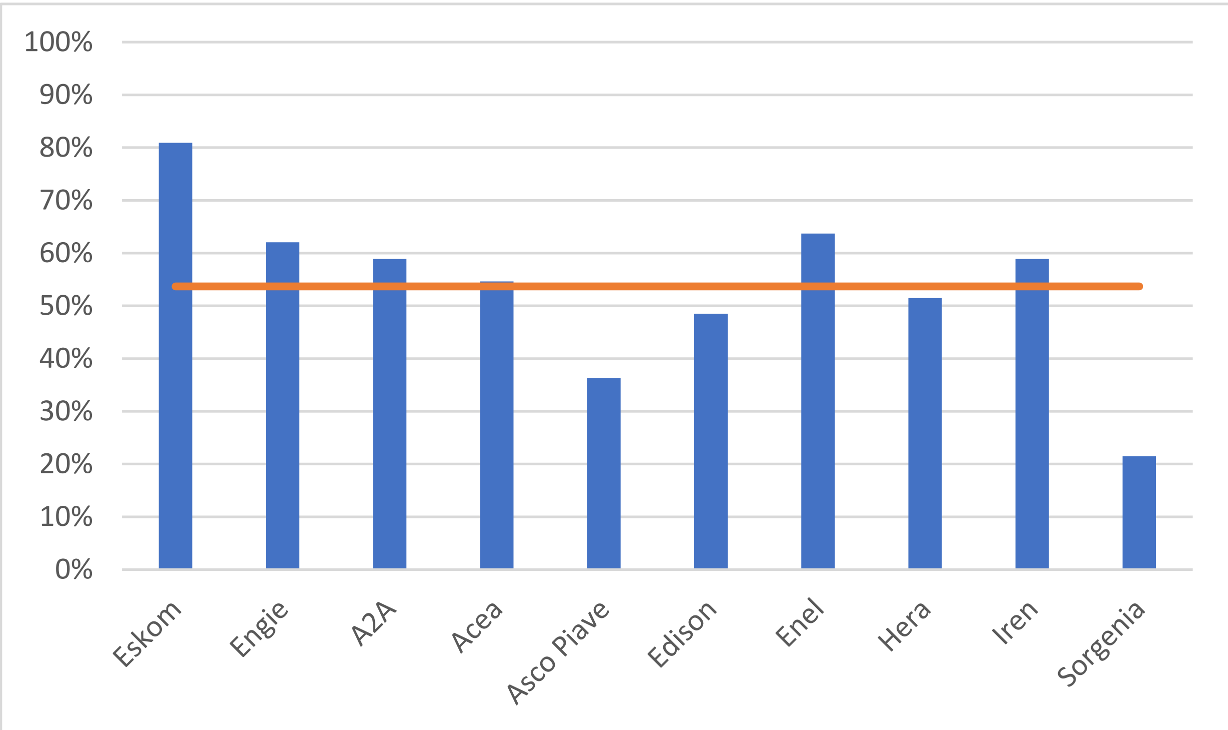

Figure 3. Comparisons among the ECs' average compliances (bar) and the average score for all the ECs (line).

Furthermore, Figure 4 summarizes the differences between the overall scores obtained by all the ECs for each of the six sections of the checklist compared to the maximum achievable value (as shown in Table 2). Figure 4 indicates that none of the ECs (except for Eskom in Section D and A2A in Section C) reached the maximum score, highlighting the gaps between the published reports and the ideal standards that should be met.

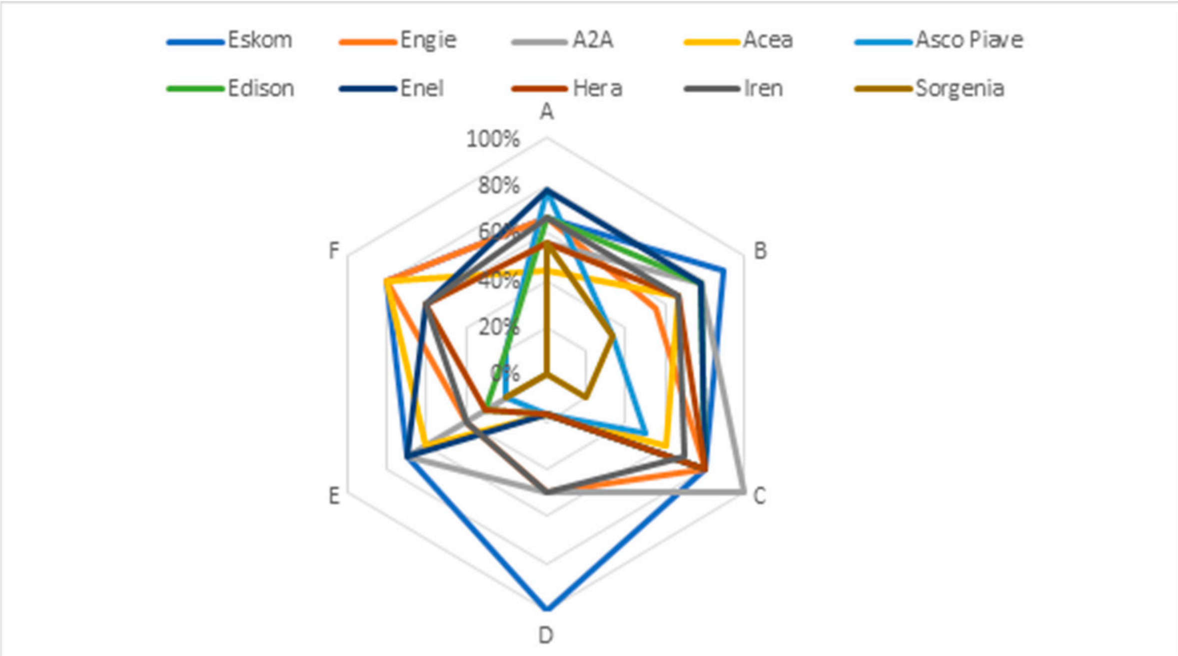

Figure 4. Level of compliance of the reports with the <IR> requirements.

5. Discussion

The growing attention to environmental sustainability has raised questions about companies' ability in pursuing these principles with their economic and competitive development. Consequently, a specific research stream within accountability studies has emerged, aiming to theorize and implement reports that effectively represent efforts in pursuing sustainable development.

The sustainability/social reports drafted by the eight examined Italian ECs can be considered of good or excellent quality since they carefully follow the requirements of the GRI and are closely aligned with the SDGs' principles. It can be stated that these companies are making numerous efforts toward sustainability, striving to minimize their social and environmental impact. However, these reports provide limited information regarding future development directions and the generation of shared value. This is likely because strict compliance with the GRI criteria also serves as the main limitation of the published reports, as an <IR> follows partially different criteria [41,42]. In particular, a lack of connectivity between the information provided becomes evident. Therefore, the disclosed information often appears as a compilation of company progress updates in the competitive, social, and environmental dimensions without demonstrating a clear link between mission, strategy, and sustainable value creation.

However, the attention of the AOs toward <IR> is growing rapidly, and one EC (A2A) named its report as an <IR>. At the same time, the six ECs had their sustainability report assured by a specialized external society. This trend is encouraging as it stimulates the production of higher-quality reports and facilitates the transition toward <IRs>, which requires new competencies. In summary, the survey findings confirm the overall high quality of the reports.

To promote the dissemination of these reports and encourage the production of more comprehensive reports like <IR>, it would be beneficial for regulatory entities to introduce regulations that incentivize companies to increase their voluntary disclosure, particularly in the realm of <IRs>. The European Commission is already moving in this direction, considering the expansion of Directive 95/2014 to include smaller companies. Companies are eager to publish reports highlighting their sustainability efforts to differentiate themselves or to keep up with competitors. However, if more companies are required to prepare such reports, they may lose this autonomous drive. In such cases, it could be appropriate to provide fiscal or monetary incentives. This approach aligns with the idea that enhancing the quality of the disclosure necessitates engaging costly external experts with specific skills [43,44].

Consistent with the existing literature, another crucial step is to raise management awareness about the importance of combining economic and financial growth with the social and environmental development of the neighboring context [3,4]. This will enable ECs to create shared value for the community [45,46]. From the demand side, researchers should further investigate the factors that support the drafting of an <IR>. For instance, we have to reiterate that accounting scholars have highlighted several advantages for companies that adopt <IRs>, including increased firm value [47,48], lower cost of capital [49,50], and enhanced legitimacy [51,52]. On the supply side, standard setters and academics should provide clearer guidance to preparers regarding the requirements for preparing an <IR>. There are uncertainties about translating theoretical criteria into practical implementation; for instance, the integrated thinking concept [19,53].

6. Conclusions

The companies' commitment to adhering to the principles of sustainable development and demonstrating their actions in this regard has produced increasingly detailed and comprehensive non-financial disclosures. These disclosures outline the initiatives undertaken by companies in the social, environmental, and competitive domains. In this study, we evaluated the quality of the disclosure provided by eight prominent Italian energy companies (ECs) by examining their published reports. To assess the quality of these reports, we utilized a framework aligned with the structure of an integrated report (<IR>). Accounting scholars consider the <IR> a highly innovative approach that not only tracks a company's progress across various development dimensions, but also emphasizes the coherence of its actions and the diligent management of different types of resources employed to achieve its objectives. This study initially examined the key characteristics of sustainability/social reports drafted by the ECs, how they addressed the fulfillment of the SDGs, and how they aligned with the EU 2014/95 Directive on non-financial disclosures. Subsequently, this study evaluated to what extent the content of these reports was aligned with the criteria proposed by IIRC for an <IR>. The objective was to assess the ECs' ability to create shared value for the wider community.

The study's findings indicate that the ECs, which have a significant environmental and social impact, have implemented various initiatives effectively so as to promote sustainable development. Their reports, carefully drafted, provide comprehensive and valuable information aligned with their intended purpose. Nevertheless, these reports do not fully meet the criteria of an <IR>. They lack crucial information regarding the integration of the company's mission, strategy, and actions, as well as the specific benefits provided to each stakeholder. Regarding compliance with the IIRC framework, the examined ECs disclosed only around 54% of the required information on average. The reporting scores ranged from 28% to 67%, indicating scope for improvement. In comparison, the two foreign ECs that prepared an <IR> demonstrated higher compliance levels, with 63% and 81% disclosure rates, respectively.

To fill the gap between the current reports and the principles of an <IR>, these ECs must improve the alignment between their organizational mission, strategic initiatives, and operational actions. This would involve demonstrating how the activities of ECs contribute to sustainable development and how they create value for various stakeholders. Additionally, providing a more detailed and comprehensive disclosure of the specific benefits provided to different stakeholders would enhance transparency and accountability. By striving to meet the Standards set by the IIRC, these ECs could further strengthen their commitment to sustainable development and demonstrate their ability to generate long-term value for their company and its stakeholders.

It is important to acknowledge certain limitations associated with the methodology employed in this study, which could have influenced the positive findings. For instance, utilizing different checklists could potentially lead to variations in the overall evaluation or scores. Moreover, the subjective nature of the judging criteria used by the evaluation team introduced a degree of partiality when assessing the quality of the elements in the analyzed reports. Future investigations adopting a similar methodology could enhance effectiveness by comparing results and employing consistent evaluation parameters. Nevertheless, it is undeniable that the sustainability actions described in the published reports are genuine, thus providing evidence of the significant commitment of the ECs toward sustainability.

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