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Article

Effective Disclosure in the Fast-Fashion Industry: from Sustainability Reporting to Action

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Abstract: This work, set in the context of the apparel industry, proposes an action-oriented disclosure tool to help solve the sustainability challenges of complex fast-fashion supply chains (SCs). In a search for effective disclosure, it focusses on actions towards sustainability instead of the measurements and indicators of its impacts. We applied qualitative and quantitative content analysis to the sustainability reporting of the world's two largest fast-fashion companies in three phases. First, we searched for the challenges that the organisations report they are currently facing. Second, we introduced the United Nations' Sustainable Development Goals (SDGs) framework to overcome the voluntary reporting drawback of 'choosing what to disclose', and revealed orphan issues. This broadened the scope from internal corporate challenges to issues impacting the ecosystems in which companies operate. Third, we analysed the reported sustainability actions and decomposed them into topics, instruments, and actors. The results showed that fast-fashion reporting has a broadly developed analysis base, but lacks action orientation. This has led us to propose the 'Fast-Fashion Sustainability Scorecard' as a universal disclosure framework that shifts the focus from (i) reporting towards action; (ii) financial performance towards sustainable value creation; and (iii) corporate boundaries towards value creation for the broader SC ecosystem.

Keywords: sustainability reporting; sustainability actions; United Nations SDGs; fast-fashion industry; supply chain sustainability; sustainability scorecard

1. Introduction

The textile and apparel industry, which ranks among the world's most polluting sectors [1], has historically been among the first to enter less-developed countries due to its labour-intensive character [2]. This results in a highly globalised industry, with complex supply chains (SCs) shaped by the combination of transnational outsourcing and the relocation of activities by focal companies—those playing pivotal roles in the SC—with many SC actors (mainly upstream suppliers) located in developing countries [3,4]. Additionally, the characteristics of the fast-fashion business model—high volume, rapid lead times, and low prices [5]—adds criticality to the sustainability challenges associated with the sector [1]. Thus, fast-fashion SCs are potential vehicles for the development of upstream producers and the introduction of industrial improvements to local communities [2], but are also at risk of generating sustainability issues related to social and environmental breaches [6,7].

This situation, augmented by social pressures to enhance Corporate Social Responsibility (CSR), has forced fast-fashion companies to accelerate their search for sustainability—i.e., the confluence of the economic, social, and environmental dimensions, such that no dimension is compromised for the benefit of the others, as per Elkington's triple bottom line (TBL) concept [8]. CSR is defined as “the responsibility of enterprises for their impacts on society” [9] (p. 6), and is particularly requested from:

- focal companies, due to their large size, global brands, media visibility, and reliance on demanding institutional investors based in developed countries; and/or
- industries with large economic, social, and environmental impacts [10–12].

This places retailers in fast-fashion SCs at the centre of the spotlight of social pressure.

The European Union (EU) points out that in order “to fully meet their corporate social responsibility, enterprises should have in place a process to integrate social, environmental, ethical, human rights, and consumer concerns into their business operations and core strategy in close collaboration with their stakeholders” [9] (p. 6). To this end, sustainability reporting is not only the most important accountability tool allowing stakeholders and companies to report their social and environmental risks and policies [13], but also a crucial one for decision makers balancing the TBL [14,15]. Therefore, CSR and sustainability reporting has grown considerably in the apparel and fast-fashion industry [15].

However, firms’ adoption of standards such as the Global Reporting Initiative (GRI) has increased alongside criticisms of the limitations of these standards in terms of actually enhancing sustainability in SCs [16]. Sustainability reporting has been broadly attacked as “greenwashing” [13,17], or corporate rhetoric lacking consistency between talk and action [18]. The primary interpretations for this apparent gap are paradoxical. On one hand, it has been argued that compliance with overly closed sustainability standards boils down to an annual “tick the box” ritual that ignores local and industry conditions [19]. On the other hand, standards that do not require firms to report concrete information about their actions and, thus, offer only vague assertions decoupled from business practices, have been criticised as too open [20].

All in all, the gap between sustainability reporting and sustainability practice is particularly worrisome in sectors that rely heavily on global SCs, as is the case in the fast-fashion industry. Furthermore, since apparel and fast-fashion SCs currently employ millions of workers—especially young women—worldwide, there is an urgent need to leverage their developing power for local producers, communities, and the environment, as well as reverse the negative impacts of their growth: that is, to create sustainable value within and beyond company and SC boundaries. This is the ultimate goal of this work, which relies on the potential of effective sustainability reporting. Specifically, we present a universal disclosure framework that aims to:

1. Move beyond reporting towards action;
2. Move beyond financial performance towards sustainable value creation; and
3. Move beyond corporate boundaries towards value creation for the broader SC ecosystem.

By building on sustainable value creation and collective impact approaches, this integrative framework provides a common agenda for sustainability in the fast-fashion industry. To this end, we adopt the United Nations’ Sustainable Development Goals (SDGs) as the universally shared soft regulations that balance the three dimensions of TBL, uniting all countries, actors, and stakeholders—i.e., the broad SC ecosystem—around a common objective [21].

The article is structured as follows. We start by describing the structure of fast-fashion SCs and analysing the potential of the sustainable value creation and collective impact approaches to solve or leverage the sustainability challenges and opportunities of complex global SCs. We then discuss the limitations of mainstream reporting, and substantiate the potential utility of disclosure frameworks and practice-oriented and industry-relevant tools for sustainability. This discussion leads to our research objectives. In the Methods and Data Analysis section, we introduce the sample companies and their reporting instruments, and discuss the key concepts to be integrated into the proposed framework. We then explain the steps taken to carry out the content analysis. Subsequently, by building on the discussion of the findings, we present the ‘Fast-Fashion Sustainability Scorecard’ (SS) as the common agenda for sustainability in the fast-fashion industry. Finally, we outline the main conclusions and limitations of the study.

2. Literature Review

2.1. Complex SCs in the Fast-Fashion Industry

The fast-fashion industry, while endowed with enormous potential and responsibility related to the development of countries participating in its complex SCs, is also associated with high-risk activities along social and environmental dimensions. For example, workplaces and working conditions sometimes borderline human rights violations, and production methods often involve high levels of pollution and contamination [1,22,23].

The risk of fast-fashion activities is associated with the behaviour of both firms and customers [24]. Companies are compelled to adapt their processes and structures to survive in a market of immediate demands and cheap prices [25,26], which can involve endangering labour practices that violate human rights. Meanwhile, responsible environmental management requires the reduction of environmental impacts (e.g., boosting transportation emissions and reducing the use of water and water pollution) [26,27]. Customers support a SC ecosystem that encourages disposability, with the subsequent societal and environmental challenges [28].

Of the many definitions and formulas for fast-fashion [29], this paper follows the one proposed by Caro and Martínez-de-Albéniz [5], who describe fast-fashion as a specific business model that combines three elements: (i) quick responses; (ii) frequent assortment changes; and (iii) fashionable designs at affordable prices [5].

From the above, it follows that fast-fashion SCs tend to adopt the following structure, comprising two main types of actors and activities:

1. Downstream activities: activities carried out by retailers acting as focal companies that are characterised by high competition (prices and speed), high volume, and high visibility.
2. Upstream activities: activities carried out by suppliers following focal companies' demands that are characterised by high dynamism (and pressure), high volume, labour intensiveness, social complexity, the geographical dispersion and fragmentation of production, high levels of pollution and contamination, and generally low profit margins.

The consequence of this dual structure is twofold. On one hand, the retailers (focal companies) lose direct control over upstream activities, while remaining fully responsible for their product/service lifecycles [11]. On the other hand, it results in frequent trade-off situations among the three dimensions of sustainability and the different actors of fast-fashion SCs, within and beyond corporate boundaries [24]. Using a case study of the fast-fashion retailer H&M, Shen [24] points out that these conflicts appear at each stage of the SC, "including material production, garment manufacturing, transportation/distribution, consumer education, and retailing" [24] (p. 6237). They may come from sourcing managers' decisions to produce in countries with low levels of human well-being despite the higher carbon emissions [24], from product returns being part of the customer value strategy [30] or from the trade-offs between clean technology and technology investment [31], to cite only a few. Therefore, fast-fashion SCs' focal companies will seek to manage the SCs and maximise the positive impacts of activities relating to the products they commercialise, while minimising (and ideally neutralising or even reversing) any negative effects for any related actor.

The situation in which (i) one individual company (focal company) is responsible for all the activities contributing to the product that the enterprise commercialises; and (ii) each individual company may belong to several SCs, leads us to explore sustainable value creation and collective impact approaches.

2.2. Fast-Fashion Industry Sustainable Value Creation and Collective Impact

The first element listed above relates to the asymmetry typical of fast-fashion SCs, in which the focal company is declared responsible for the whole set of activities and is assumed to be the strongest link (in terms of resources). This privileged position is a double-edged sword, since anything that

happens in relation to a focal company's products will be blamed on that enterprise. Who, then, is the weakest link? The answer to this question is not straightforward, and indicates that solving any SC challenge will benefit all of the ecosystem's actors, which in turn get implicated in its solution. In this way, it demands a 'sustainable value creation' ('co-creation' or 'shared value creation') approach [32–34] where efforts are placed "on exploring how to create the value that benefits multiple stakeholders, including the environment and society, but not without sacrificing shareholders' benefits." [35] (p. 2). In line with Yang et al. [35], we put the focus on the entire SC. Therefore, in the context of fast-fashion, such sustainable value creation can be defined as the generation of value for all of the actors in the SC, the communities, and the environment in which the firm operates, without compromising the focal firm's benefits.

The second element—that is, the fact that every company operating in the fast-fashion industry belongs to many different SCs—anticipates that different companies will share similar concerns, objectives, and actors. This gives meaning to our search for 'collective impact', which is defined as "the commitment of a group of important actors from different sectors [in our context: SCs] to a common agenda for solving a specific social problem" [36] (p. 36). We argue that there is no other way to reach the ambitious goal of sustainability. Even more, we can even expect synergetic effects of shared value and collective impact approaches: "to advance shared value efforts, therefore, businesses must foster and participate in multi-sector coalitions, and for that, they need a new framework. Governments, NGOs, companies, and community members all have essential roles to play, yet they work more often in opposition than in alignment." [37] (p. 4).

2.3. From Sustainability Reporting to Effective Disclosure

Sustainability reporting standards seek to enhance SC sustainability, transparency, and value creation in practice. The Global Reporting Initiative (GRI), the most widely used sustainability reporting guidelines worldwide, states that "sustainability reporting helps organisations to set goals, measure performance, and manage change in order to make their operations more sustainable. A sustainability report conveys disclosures on an organisation's impacts—be they positive or negative—on the environment, society, and the economy" [15] (p. 380). Modern sustainability reporting has evolved into Integrated Reporting (IR), which can be defined as "a concise communication about how an organization's strategy, governance, performance, and prospects, in the context of its external environment, lead to the creation of value over the short, medium, and long term." Its vision is to "align capital allocation and corporate behaviour to wider goals of financial stability and sustainable development." [38]. Both GRI and IR adopt the United Nations' Sustainable Development Goals (SDGs) as the universally shared soft regulations that balance the three dimensions of TBL, uniting all countries, actors and stakeholders—i.e., the broad SC ecosystem—around a common objective [21,38,39].

However, even the most recently developed IR initiatives are criticised for their inability to move beyond communication. IR has not yet shown its ability to effectively contribute to corporate sustainability [16], and this gap has led some researchers to brand the approach a failure [40].

Does this widespread scepticism concerning the potential of sustainability and integrated reporting mean that the effort to ensure its effectiveness is meaningless? The conventional assumption that CSR communication opposes CSR action, and that the talk–action gap hampers sustainability, has been challenged by the research tradition that regards communication as performative [41]. Christensen, Morsing, and Thyssen [42] argue that this gap has the potential to stimulate improvements in CSR. CSR statements reflect not only the current state of managerial practice, but also aspirations and visions for a (presumably) better future state. Schultz et al. [43] oppose the prevailing instrumental and political-normative views on CSR, and promote the communication view of CSR instead. This latter perspective argues that "CSR is a matter not only of legal liability, brand value, or social connectedness, but also of communicative connectedness between organisations, media, and stakeholders" [43] (p. 689). CSR derives from more than simply multiple social relations: it is communicatively constituted in complex and dynamic networks. Thus, responsibility is not achieved in corporate spheres separate

from society, but rather, it is co-constructed in de-centralised networks where knowledge about the meaning and expectations of CSR is organised and negotiated.

We further argue that sustainability and integrated reporting is crippled by its origin in financial reporting, which is understood as a “detailed periodic account of a company’s activities, financial condition, and prospects that is made available to shareholders and investors” [44] (p. 178). Even in approaches integrating non-financial dimensions of performance, reporting is built on the concept of a company unilaterally producing and making information accessible about itself. In a networked society, however, revelations of new information about how companies consider ethical, social, and environmental impacts do not depend on views originating from instrumental corporate reports or consensual reporting standards, but rather, tend to emerge from the dialogue, conflict, or dissent of multiple voices. Along this line of thought, we integrate the concept of disclosure—that is, “the revelation of information that was previously secret or unknown” [44] (p. 178)—into the field of sustainability. Sustainability disclosure is effective to the extent that it reveals new information, regardless of origin, that provides incentives for action to the focal firm, other SC actors, stakeholders outside the SC, or stakeseekers—i.e., those beyond established stakeholders claiming to have a stake in a corporation’s decision making [45]. From this perspective, standards and frameworks are no longer considered just technical compliance tools; rather, they become agents of change, stimulating the questioning and constructive criticism of corporate practices [46].

2.4. Research Objectives

Thus, building on the sustainable value creation and collective impact approaches, and assuming that disclosure tools are agents of change, this paper argues that the complex problem of SC sustainability can only be tackled if a common agenda for the sector is co-constructed. Based on the discussion of CSR and sustainability literature, and on the insights from the previous experience of one of the authors as a practitioner in the fast-fashion industry, the ultimate purpose of the study—creating sustainable value through effective disclosure—is decoupled in a twofold objective:

Objective 1: To draw a comprehensive map of the sustainability challenges for fast-fashion SCs (Objective 1.a.) and analyse current fast-fashion industry actions in pursuit of sustainability (Objective 1.b.).

Objective 2: To propose a universal action-oriented tool for the fast-fashion industry that, with TBL disclosure, assists in creating sustainable value for the whole SC ecosystem.

This universal disclosure tool would constitute a common agenda towards sustainable value creation in the fast-fashion industry.

3. Methods and Data Analysis

This section begins with an introduction of the sample and the key elements and terms used in our analysis. Then, we explain the method of analysis and further develop the ad-hoc research design that we built on to reach our objectives.

3.1. Sample Description and Data Analysed

Acknowledging the role of focal companies as catalysts of sustainable value creation in global and complex SCs, this research focuses on the sustainability reports of the two leading fast-fashion retailers: Inditex and H&M [29]. This joint analysis represents a major study of the fast-fashion market.

3.1.1. Sample Selection: The Fast-Fashion Companies

Inditex is a fashion retailer that opened in 1963 as a small workshop making women’s clothing in A Coruña (Spain), where the company’s headquarters are still based. Today, Inditex operates in 88 countries (29 online) under eight commercial brands: Zara, Pull&Bear, Massimo Dutti, Bershka, Stradivarius, Oysho, Zara Home, and Uterqüe. In 2016, Inditex’s net sales were €23.3 billion [47].

Hennes & Mauritz AB (H&M), founded in 1947, is based in Sweden and currently operates in 64 markets (35 via e-commerce), offering fashion products from its seven brands: H&M, COS, Monki, Weekday, & Other Stories, Cheap Monday, and H&M Home. In 2016, it reported sales of 223 billion SEK (€23 billion), including value-added tax [48].

3.1.2. Inditex and H&M Sustainability and Integrated Reporting

Since sustainability reporting relies on companies' willingness to share details of their performance and the initiatives used to achieve a balanced TBL, each company may use different mechanisms, "such as corporate web sites, reporting integrated with annual financial reporting, or stand-alone sustainability reports" [15] (p. 380). For example, since 2013, Inditex has followed an IR approach, including all sustainability information within its annual report, while H&M reports sustainability through a stand-alone document. Both communications include a materiality matrix. In sustainability and integrated reporting, materiality is "the principle that determines which relevant topics are sufficiently important that it is essential to report on them" [49] (p. 10), which considers the significance of their possible impacts from the reporting company's point of view, as well as "the concerns expressed directly by stakeholders" [49] (p. 10). All of the identified issues (material issues) are positioned on the materiality matrix. Thus, the corpus of this study's content analysis comprises the following:

- Materiality matrices (Inditex and H&M; Appendix A—Figures A1 and A2);
- Annual report (Inditex; Supplementary Materials S1); and
- Sustainability report (H&M; Supplementary Materials S2).

We have analysed the latest reports available on the companies' websites. The Inditex data belongs to its 2015 fiscal year (February 2015 to January 2016), and the H&M information belongs to its 2016 fiscal year (December 2015 to November 2016). The materiality matrices were included in each group's report.

3.1.3. Sustainability Reporting Analysis—Key Elements

For the easier follow-up of the remaining of the paper, we explain the key elements from the sustainability and integrated reports, and the SDGs integrating our framework, before detailing the steps involved in pursuing our objectives.

- Reported Material Issues (RMIs): The points appearing on each company's materiality matrix (i.e., the points that are sufficiently important to report).
- Common Material Issues (CMIs): The minimum number of material issues that summarise all of the RMIs in the fast-fashion retailers' materiality matrices, and thus can be considered important for the broader fast-fashion ecosystem. It is possible for a CMI to relate to an RMI that appears in only one of the two matrices.
- Reported Actions towards Sustainability (RASs): The activities described in each company's annual or sustainability report as having been implemented to tackle the RMIs.
- United Nations (UN) Sustainable Development Goals (SDGs) Framework: Since both Inditex and H&M have declared their alignment with, commitment, and contribution to the SDGs, we take them as the frame from which we have deductively derived the categories for the analysis of the materiality matrices. We chose the SDGs, as they represent a main framework toward new actions for those companies that aim to adopt new sustainability activities and practices (UN, 2015). Based on the descriptions of the 17 goals in the main document published by the UN [21], we set up the SDG framework (Table 1), which includes risk and opportunities around the SDGs. Those descriptions led us to define actions and practices that companies and other actors can adopt to contribute to SDGs, differentiating between risks (what need to be avoid) and opportunities (what should be developed/fostered). This produced 34 possible categories through which to frame the CMIs (Table 1).

Table 1. United Nations (UN) Sustainable Development Goals (SDGs) Framework.

SDGs	
Risks: Avoid Practices and Policies	Opportunities: Enhance These Practices and Policies
SDG1 No Poverty: avoid those practices and policies that foster extreme poverty, and avoid inequality and labour exploitation	SDG1 No Poverty: enhance practices and policies that create shared value with workers and suppliers, help to create equal labour practices in particular to poor and vulnerable workers, and foster equal rights to economic resources and access to basic services
SDG2 Zero Hunger: avoid practices and policies that foster all forms of malnutrition	SDG2 Zero Hunger: enhance practices and policies that end hunger and ensure access to safe, nutritious, and sufficient food to workers in vulnerable situations, including company workers and the company's supply chain
SDG3 Good Health and Well-being: avoid practices and policies that foster death and mortality among the company workers and across the company's supply chain	SDG3 Good Health and Well-being: enhance labour practices and policies that improve well-being and prevent death and mortality to the company's workers and across the company's supply chain. Reduce diseases, injuries, and accidents.
SDG4 Quality Education: avoid practices and policies that foster lack of education among the company workers and across the company's supply chain	SDG4 Quality Education: enhance practices and policies that ensure primary and secondary education to the company's workers and across the company's value chain, improving workers' skills and capabilities. Ensure equal access for all women and men to inclusive equitable quality and affordable technical, vocational, and tertiary education to their workers, promoting lifelong learning opportunities for them
SDG5: Gender Equality: avoid labour practices and policies that foster all forms of discrimination against women that work at the company or across the company's supply chain	SDG5 Gender Equality: enhance labour practices and policies that eliminate all forms of violence against women and girls, ensure women equal rights to economic resources, and promote equal and inclusive labour opportunities across the company's workers and across the company's value chain
SDG6 Clean Water and Sanitation: avoid practices and policies that foster pollution on clean water and do not foster sanitation for all	SDG6 Clean Water and Sanitation: enhance practices and policies that ensure the availability and use of clean water and sanitation
SDG7 Affordable and Clean Energy: avoid practices and policies that foster the use of non-renewable energy	SDG7 Affordable and Clean Energy: enhance practices and policies that ensure access to affordable, reliable, renewable, and modern energy
SDG8 Decent Work and Economic Growth: avoid labour practices and policies that foster indecent work practices to company workers and across the company's supply chain	SDG8 Decent Work and Economic Growth: enhance practices and policies that promote sustained, inclusive, and sustainable economic growth, full productive employment, and decent work across the company's workers and across the company's supply chain
SDG9 Industry, Innovation and Infrastructure: avoid practices and policies that foster non-sustainable industrialization and lack of innovation	SDG9 Industry, Innovation and Infrastructure: enhance practices and policies that build resilient infrastructure and promote inclusive and sustainable industrialisation and innovation
SDG10 Reduce Inequalities: avoid practices and policies that increase inequality within and among countries	SDG10 Reduce inequalities: enhance practices and policies that reduce inequality within and among countries
SDG11 Sustainable Cities and Communities: avoid practices and policies that generate lack of access to affordable housing and basic services	SDG11 Sustainable Cities and Communities: enhance practices and policies that generate access to affordable housing
SDG12 Responsible Consumption and Production: avoid practices and policies that foster the inefficient use and scarcity of natural resources and generate environmental impacts	SDG12 Responsible Consumption and Production: enhance practices and policies that foster the efficient and long-term sustainable use of natural resources and reduce negative environmental impacts
SDG13 Climate Action: avoid practices and policies that increases climate change	SDG13 Climate Action: enhance practices and policies that reduce climate change
SDG14 Life below Water: avoid practices and policies that generate marine pollution and destroy marine and water ecosystems	SDG14 Life Below Water: enhance practices and policies that foster the conservation and sustainable use of the oceans, seas, marine resources, and water ecosystems
SDG15 Life on Land: avoid practices and policies that generate the unsustainable use of terrestrial ecosystems and generate biodiversity loss	SDG15 Life on Land: enhance practices and policies that foster the sustainable use of terrestrial ecosystems, improve biodiversity, and combat desertification

Table 1. Cont.

SDGs	
Risks: Avoid Practices and Policies	Opportunities: Enhance These Practices and Policies
SDG16 Peace, Justice and Strong Institutions: avoid practices and policies that generate conflict, violence, abuse, and exploitation against workers and children	SDG16 Peace, Justice and Strong Institutions: enhance practices and policies that promote peaceful and inclusive societies for sustainable development and provide access to justice for workers and children
SDG17 Partnership for the Goals: avoid unilateral practices and policies that do not foster UN SDGs	SDG17 Partnership for the Goals: foster collaborative and multi-stakeholder practices and policies to strengthen the means of implementation of UN SDGs

Source: Own elaboration, based on UN General Assembly “Transforming Our World: The 2030 Agenda for Sustainable Development” [21].

3.2. Content Analysis and Research Process

Content analysis was chosen as the most appropriate method for the analysis of the data, which included corporate sustainability reports and their materiality matrices. Content analysis combines qualitative approaches, which require the interpretation of texts and documents, with quantitative analyses at levels determined by the researcher [50]. Content analysis can be broadly defined as “any methodological measurement applied to text (or other symbolic materials) for social science proposes” [50] (p. 546), and it is “the research method that is most commonly used to assess organizations’ social and environmental disclosures” [51] (p. 166). The content analysis process was supported by the specialised software NVivo 11 [52], which facilitated the desired research replicability and systematicity [53] and supported the quantitative data analysis.

The ad-hoc research process (Figure 1) was designed to target the two sequential objectives of this study and included two separate codification processes. The first codification process (leading to Objective 1.a.) involved the analysis of the materiality matrices of the two fast-fashion retailers described in the previous subsection. The second codification process (leading to Objective 1.b.) involved the analysis of their annual or sustainability reports. We explain both codification processes below. Building on the results of the content analysis, an action-oriented disclosure tool (leading to Objective 2) is proposed.

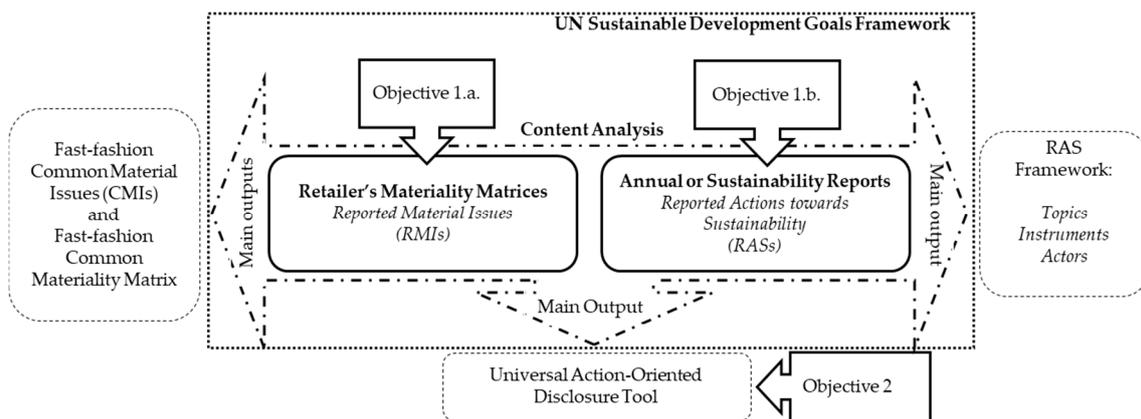


Figure 1. Research Process.

3.2.1. Objective 1.a. Retailer’s Materiality Matrices Analysis: Comprehensive Map of the Sustainability Challenges for Fast-Fashion SCs

- Subject of analysis: Inditex and H&M’s materiality matrices.
- Unit of analysis: RMIs.

- Content analysis process: We coded the RMIs in the materiality matrices of the two leading fast-fashion companies against the 34 SDGs categories in Table 1. Next, we grouped all of the RMIs into 27 CMIs, which are subsequently rated per their potential to impact SDGs and their relevance in the original materiality matrices. We finally performed cross-tabulation and frequency counts on the results from the previous analysis.
- Coding reliability: The first author performed the initial coding, and the results were discussed among the three researchers until agreement was reached for each coding. In the Results section, we illustrate with an example how the agreements were reached.
- Main outcome: CMIs and a fast-fashion common materiality matrix.

3.2.2. Objective 1.b. Annual and Sustainability Reports Analysis: Analysis of Current Fast-Fashion Industry Actions in Pursuit of Sustainability

- Subject of analysis: Inditex's annual report and H&M's sustainability report.
- Unit of analysis: RASs.
- Content analysis process: The annual or sustainability reports of the two retailers were analysed to identify significant RASs. We followed a qualitative codification process [54,55]. The reports were analysed carefully by following three levels of codification [56]. We did this analysis for each company separately. The first level of codification includes an inductive open coding analysis of first-order concepts, which includes the list of actions connected to sustainability reported by each company. The second level of codification includes second-order themes that joined the main similarities and differences between the two companies. Finally, the third level of codification resulted in three axial codes [56]. We finally performed cross-tabulation and frequency counts on the results from the previous analysis.
- Coding reliability: The first authors of this manuscript did the first two levels of coding, while the two main authors did the third level of codification by building the aggregate codes for the three final axial codes.
- Main outcome: Framework of RASs.

4. Results

This section describes in detail the process followed to achieve each objective, and the results of each phase.

4.1. Objective 1.a. Comprehensive Map of the Sustainability Challenges for Fast-Fashion SCs

Figure 2 presents an outline of this phase.

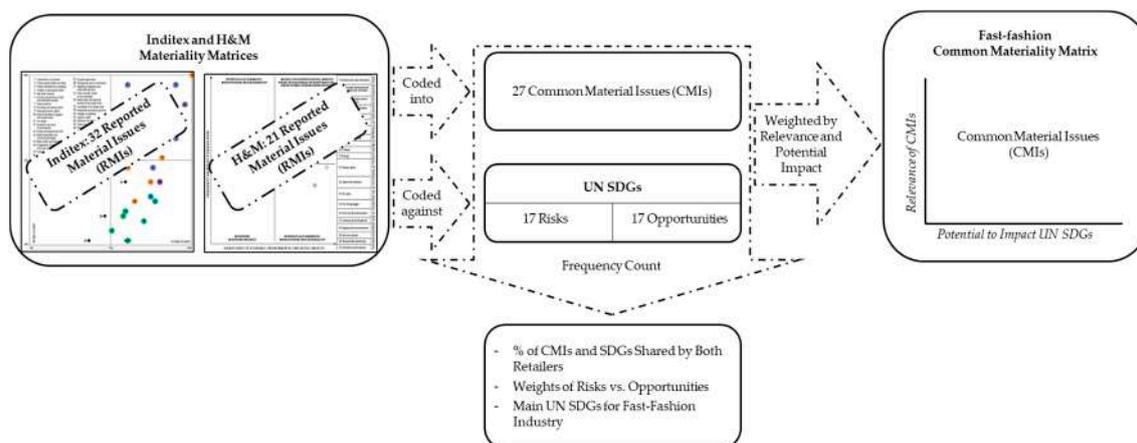


Figure 2. Materiality Matrices Content Analysis.

4.1.1. Materiality Matrices Coding

After coding all of the RMIs in the materiality matrices (32 from Inditex (Figure A1) and 21 from H&M (Figure A2)) against the 34 SDG categories (Table 1), we grouped them into 27 CMIs. The results are shown in Table 2, Column 1.

We take “Promote and Scale Innovation”, the first RMI in H&M’s materiality matrix, to illustrate this process. First, “Promote and Scale Innovation” was coded against all of the SDGs that it could potentially impact (i.e., the number of SDGs it could affect, as either risks or opportunities). As the three authors believe in the boundless contributions of promoting and scaling innovation to sustainable development, it was coded into the 17 SDG opportunities. However, we also consider that it could bring some associated risks. The most discussed risk was the potential of “Promote and Scale Innovation” to endanger the “Gender Equality Goal”. In line with the controversial debate where mixed evidence can be found in the literature (see for instance Cooper [57] and Hilbert [58]), the avoidance of labour practices and policies that foster all forms of discrimination against women that work at the company or across the company’s supply chain (Table 1) could not be ensured. We took a conservative approach to these discussions: if at least one (sound) reference could be provided in favour of an argument, it would be considered a possible scenario. Thus, “Promote and Scale Innovation” was coded into “Gender Equality Goal Risk”. Following this procedure, “Promote and Scale Innovation” was also coded into “Affordable and Clean Energy”; “Responsible Consumption and Production”, and “Climate Action” risks. Next, “Responsible Consumption and Production” was compared with similar RMIs that could be in a similar category (and hence conform a CMI). As no similar RMIs were found in the materiality matrices, we inductively developed the CMI “Innovation” that only contains the RMI “Promote and Scale Innovation”.

Table 2. Fast-Fashion Common Material Issues (CMIs).

Common Material Issues (CMIs)	Shared by the Two Retailers
Animal Welfare	Yes
Climate, Energy, and Greenhouse Gases (GHGs)	Yes
Commitment to Customers	Yes
Community Development and Investment	Yes
Compliance with Regulations and Responsible Practices, Marketing, Product Info and Labelling	Yes
Corporate Governance and Anticorruption	Yes
Developing Human Capital and Talent	Yes
Ecodesign	Yes
Health and Safety in Suppliers	Yes
Human Rights, Labour, and Industrial Relations	Yes
Product End of Life, Recycling, and Circular Economy	Yes
Risk Management, Control, Assessments, and Information Systems	Yes
Transparency and Traceability	Yes
Waste	Yes
Water and Discharges	Yes
Changes in Regulation	No
Consumption Habits	No
Diversity and Inclusiveness	No
Expansion, New Channels, and Markets	No
Exposure in Mature Markets	No
Innovation	No
Logistics	No
Product Quality Health and Safety	No
Raw Material Price Volatility	No
Reward Suppliers	No
Stakeholder Engagement, and Dialogue	No
Taxes	No
Total CMIs: 27	% of CMIs: 56%

4.1.2. Building the Fast-Fashion Common Materiality Matrix

In a final step, we weighted the 27 CMIs to build the Fast-Fashion Common Materiality Matrix. Each CMI was rated according to (i) its relevance to the focal companies and stakeholders; and (ii) its potential to impact the SDGs:

- i. The relevance to the focal companies and stakeholders was calculated based on the importance of each RMI that was condensed into each CMI in its original materiality matrix. Depending on the position of each RMI in the Inditex and H&M materiality matrices, we assigned a value, as shown in Figure 3.

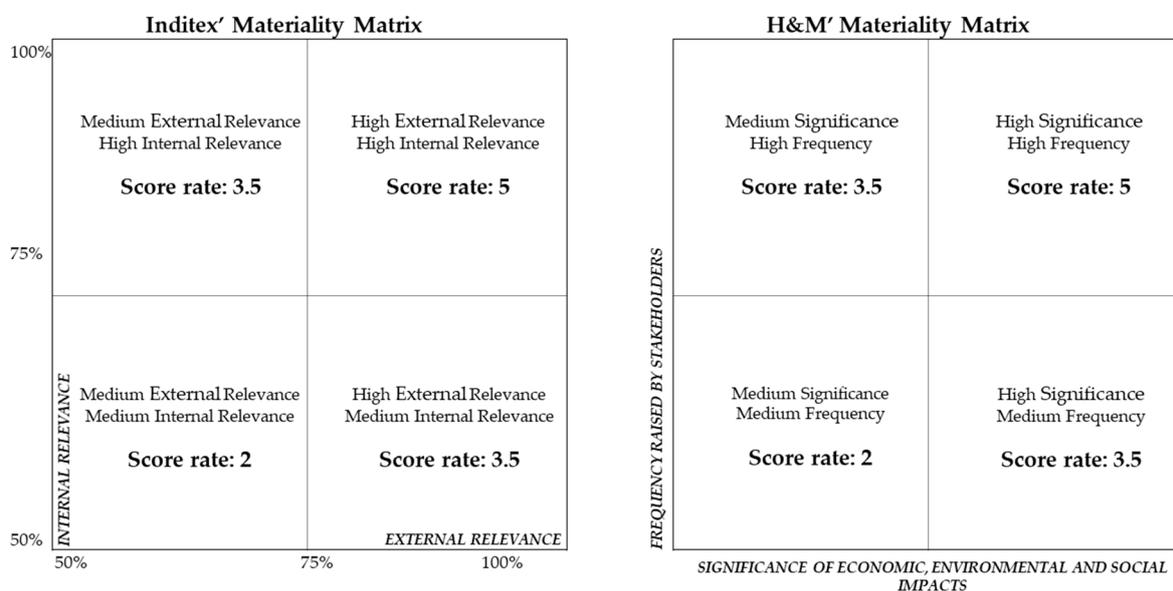


Figure 3. Relevance of Reported Material Issues. Source: Own elaboration based on Inditex and H&M materiality matrices [47] (p. 161), [48] (p. 112).

The weighted final score per CMI appears in Table 3, Column 2. This final rate is determined by dividing the total score assigned to each CMI (i.e., the sum of the scores of the RMIs that conform the CMI) by the number of RMIs that it contains (i.e., two if the CMI is shared by the two retailers, and one otherwise).

Table 3. Relevance of Common Material Issues and SDGs potentially impacted.

Common Material Issues (CMIs)	Final Score	SDGs Potentially Impacted
Animal welfare	4.25	17.65%
Changes in regulation	3.5	20.59%
Climate, energy, and GHGs	4.25	23.53%
Commitment to customers	5	17.65%
Community development and investment	4.25	47.06%
Compliance with regulations, responsible practices, marketing, product information, and labelling	4.25	44.12%
Consumption habits	5	5.88%
Corporate governance and anticorruption	3.5	25.00%
Developing human capital and talent	5	29.41%
Diversity and inclusiveness	3.5	2.94%
Ecodesign	4.25	19.12%
Expansion; new channels and markets	3.5	23.53%
Exposure in mature markets	2	2.94%
Health and safety in suppliers	5	11.76%
Human rights, labour, and industrial relations	5	52.94%

Table 3. Cont.

Common Material Issues (CMIs)	Final Score	SDGs Potentially Impacted
Innovation	5	61.76%
Logistics	5	14.71%
Product end of life, recycling, and circular economy	4.25	29.41%
Product quality health and safety	5	10.29%
Raw material price volatility	2	5.88%
Reward suppliers	5	8.82%
Risk management, control, assessments, and information systems	5	41.18%
Stakeholder engagement and dialogue	3.5	52.94%
Tax	3.5	14.71%
Transparency and traceability	4.625	41.18%
Waste	3.5	16.18%
Water and discharges	5	13.24%
Total Topics: 27		

Source: Own elaboration based on Inditex and H&M materiality matrices [47] (p. 161), [48] (p. 112).

- ii. The potential to impact the SDGs appears in Table 3, Column 3, which shows the percentages of risks or opportunities possibly affected by each CMI.

This process yielded the Fast-Fashion Common Materiality Matrix (Figure 4). The observations are the 27 CMIs within the matrix. The potential of each CMI to impact the SDGs (percentages in Table 3, Column 3) is shown by the $\langle x \rangle$ axis. Its relevance (coming from the Total Scores in Table 3, Column 2) is shown by the $\langle y \rangle$ axis. To facilitate the visualisation of all the observations, those with the same values on one axis have been moved to the closest possible position.

Turning again to our empirical example of “Promote and Scale Innovation”, it appeared in the top right quadrant of the H&M materiality matrix, thus obtaining a score rate of 5 in Figure 3. This refers to the high significance of its impacts (as reported by H&M), and to being frequently raised by H&M’s stakeholders. As “Promote and Scale Innovation” is the unique RMI conforming to the CMI “Innovation”, the final score of “Innovation” is 5 (as shown in Table 3, Column 2). Regarding the SDGs it can impact, “Promote and Scale Innovation” was coded into the 17 SDG opportunities and four SDG risks (21 SDGs categories in total), which are directly translated into the CMI “Innovation”. The reading is that “Innovation” can potentially impact 61.7% (21) of the 100% (34) SDGs categories, as shown in Table 3, Column 3. The combination of the Final Score and the number of SDGs potentially impacted determined the position of “Innovation” in the Fast-Fashion Materiality Matrix (Figure 4).

4.1.3. Cross-Tabulation and Frequency Counts

Additionally, with the support of NVivo, we performed a quantitative evaluation of the above coding using cross-tabulations and frequency counts. Specifically, we analysed:

- the CMIs shared by the two retailers (i.e., the CMIs relating to a RMI in both materiality matrices);
- the connection between the SDGs and the CMIs; and
- the relation between risks and opportunities.

This step produced the following results:

1. Only 56% of the CMIs were shared by the two retailers (Table 2, Column 2).
2. Most (82%) of the SDGs were covered by the two retailers’ RMIs, and connected in at least one way to the 27 fast-fashion CMIs, either as an opportunity, or as both a risk and an opportunity (Table 3, Columns 2 and 3).

Thus, our assumption concerning the need for a more universal disclosure framework is supported, and the SDGs appear to be an appropriate option.

3. Opportunities clearly surpass risks (72% vs. 28%). This reinforces, on one hand, the urgency of leveraging the industry development potential of the wider fast-fashion ecosystem, and on the other hand, indicates the need to go beyond voluntary reporting, which might be positively biased (Table 4, Columns 4 and 5).

Furthermore, the top three SDG opportunities, as calculated through frequency counts (i.e., the goals into which the most individual RMIs were coded), were “Decent Work and Economic Growth” (Goal 8), “Responsible Consumption and Production” (Goal 12), and “Industry, Innovation and Infrastructure” (Goal 9). Remarkably, “Decent Work and Economic Growth” stood out as the industry’s most notable risk (Table 4, Column 6).

Table 4. SDGs vs. Fast-Fashion RMIs and CMIs.

UN's Sustainable Development Goals (SDGs)	Shared by the Two Retailers	Connected to CMIs as Risks, Opportunities, or Both	Coded as		Total Frequency
			Risk	Opportunity	
Goal 1. No Poverty	Yes	Opportunity	0.00%	3.30%	3.30%
Goal 2. Zero Hunger	No	Both	0.55%	0.55%	1.10%
Goal 3. Good Health and Well-being	No	Both	0.55%	2.20%	2.75%
Goal 4. Quality Education	No	Opportunity	0.00%	3.30%	3.30%
Goal 5. Gender Equality	Yes	Both	0.55%	3.30%	3.85%
Goal 6. Clean Water and Sanitation	Yes	Both	2.75%	0.55%	3.30%
Goal 7. Affordable and Clean Energy	Yes	Both	0.55%	1.10%	1.65%
Goal 8. Decent Work and Economic Growth	Yes	Both	8.24%	11.54%	19.78%
Goal 9. Industry, Innovation, and Infrastructure	Yes	Both	4.40%	9.34%	13.74%
Goal 10. Reduce Inequalities	Yes	Opportunity	0.00%	4.40%	4.40%
Goal 11. Sustainable Cities and Communities	Yes	Both	1.65%	4.40%	6.04%
Goal 12. Responsible Consumption and Production	Yes	Both	1.10%	13.19%	14.29%
Goal 13. Climate Action	Yes	Both	2.75%	4.40%	7.14%
Goal 14. Life Below Water	Yes	Both	1.65%	0.55%	2.20%
Goal 15. Life on Land	Yes	Both	1.65%	0.55%	2.20%
Goal 16. Peace, Justice, and Strong Institutions	Yes	Both	1.10%	2.20%	3.30%
Goal 17. Partnerships for the Goals	Yes	Both	0.55%	7.14%	7.69%
% Appearing in Both Materiality Matrices	82%				
% Appearing in at Least One Materiality Matrix		100.00%			
Total Risks vs. Opportunities			28%	72%	

Source: Own elaboration.

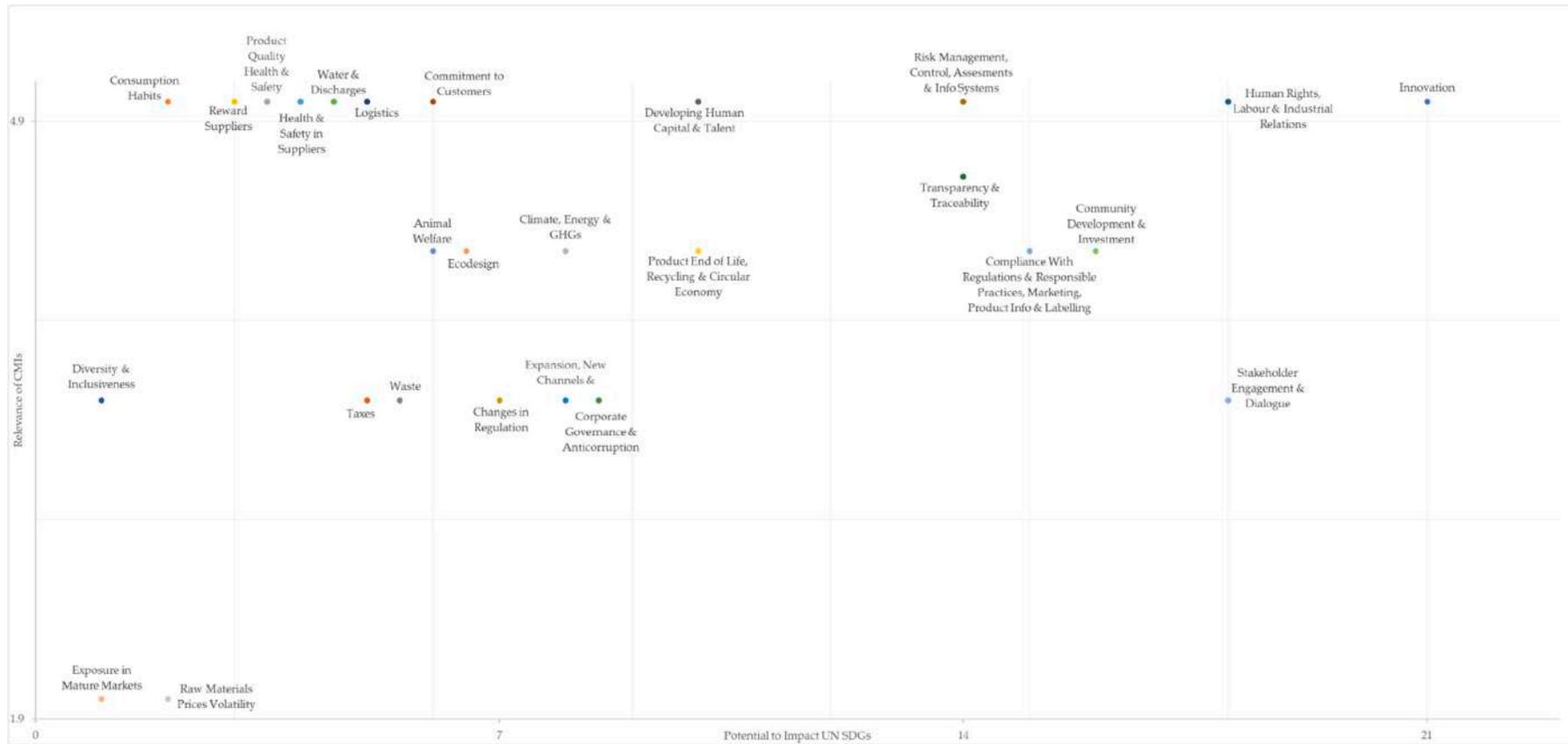


Figure 4. Fast-Fashion Common Materiality Matrix.

4.2. Objective 1.b.: Analysis of the Current Fast-Fashion Industry Actions in Pursuit of Sustainability

Figure 5 presents an outline of this phase.

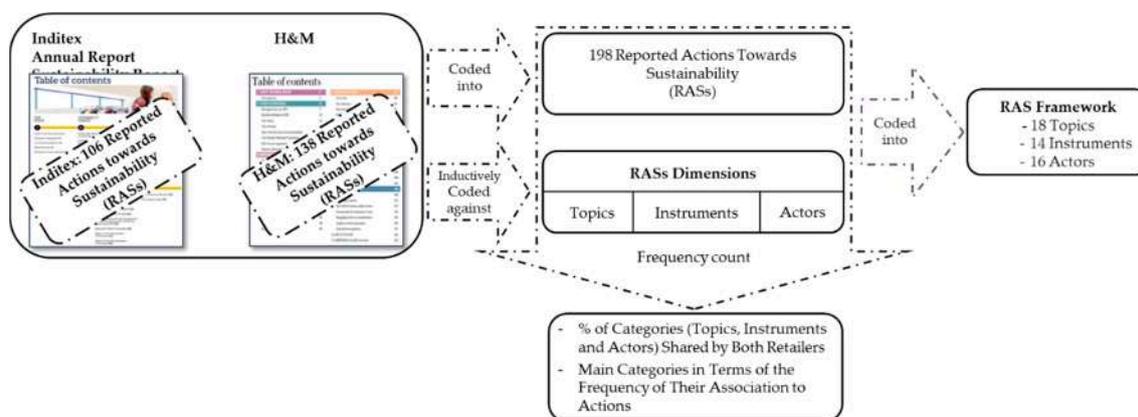


Figure 5. Annual and Sustainability Reports Content Analysis.

4.2.1. Annual and Sustainability Reports Coding

In this phase, we first conducted a qualitative content analysis of the Inditex annual report and the H&M sustainability report to identify the fast-fashion retailers’ main RASs. We identified 106 RASs from Inditex and 138 from H&M, and we condensed these into 198 primary RASs. Then, we interpreted and inductively coded these RASs into three core axial codes (RAS dimensions):

- i. Topics: The broad questions the RAS seeks to tackle.
- ii. Instruments: Strategies, policies, and practices through which the RASs are implemented in practice.
- iii. Actors involved: Each player (from the wider fast-fashion ecosystem) participating in the execution of the RASs.

4.2.2. Building RAS Framework

These three dimensions conform the “Reported Actions Towards Sustainability Framework” (Table 5). It shows 18 main topics and 14 instruments through which the actions towards sustainability are implemented in practice, with the active participation of 16 actor groups.

Table 5. Reported Actions Towards Sustainability Framework.

Topics	Instruments	Actors
Human Rights (Compensations and Benefits, Social Equality, Bargaining Power, etc.)	Training–Education–Awareness raising	Retailers (=fashion brand = focal company)
Resources and Energy Saving	Assessment–Monitoring–Audits	Direct Suppliers (tier 1)
Circular Economy and Recycling	Partnerships–Alliances–Multi-stakeholders’ Initiatives–Platforms	Sub-suppliers (tier 2, and upstream)
Health and Safety	Projects–Special Plans	Workers
Chemicals	Standards–Certificates–Internal Policies–Compliance	Non-Governmental Organisations (NGOs), Foundations, and Private Institutions
Transparency, Traceability	Funding–Philanthropy	Customers

Table 5. Cont.

Topics	Instruments	Actors
Water Stewardship	Sourcing Strategy and Purchasing Practices	Raw Material Suppliers
Raw Materials	Awards–Rewards–Grants	Other Supply Chain (SC) Partners
Renewable energy	Innovation and Technology	Education Institutions, Universities
Empowerment, Capacity Building	Research	Certification Companies
Emergency Situations (Refugees and Others)	Committees–Forums–Consultations	Governments and Public Institutions
Ethics	Dialogue–Stakeholders and Customers	Technological and Innovation Partners
Animal Welfare	Sustainability-Oriented Investments (New Energy, New Processes, Improved Facilities, Appliances, etc.)	Social Partners and Unions
Customer Service	Labels–Collections	Broad Stakeholders and Citizens (Activists)
IT		Logistics Partners
Responsible Consumption–Use–End of Life		Traders, Agents
Ecoagriculture		
Forest Management		
Total Topics: 18	Total Instruments: 14	Total Actors: 16

Source: Own elaboration based on the Inditex annual report and H&M sustainability report.

4.2.3. Cross-Tabulation and Frequency Counts

Additionally, we carried out a quantitative evaluation of the above analysis. This involved:

- Comparing the results of the two companies' reports; and
- Performing frequency counts of the three RSA dimensions over the coded actions. Although we are aware of the flaws associated with frequency measurements, which we will briefly underline in the limitations section, we consider this indicator relevant and appropriate for our analysis under the rationale of communication as performative, and that talk is a precursor to action [42]. It will follow that the more times something is reported, the closer it becomes to action (and the opposite holds true). Thus, it fits our goal of pushing sustainability reporting into action, and helping reveal orphan issues that are key for sustainable value creation.

From this evaluation, we outline the following findings:

1. The three dimensions indicate a high level of coincidence between the two studied retailers (72% of the topics, 100% of the instruments, and 87.5% of the actors are shared by the two companies' RASs) (Table 6, Column 2). These results may suggest, on one hand, that the RSAs may constitute the skeleton of the action-oriented disclosure framework we seek. However, on the other hand, it might also suggest a possibility of orphan issues not being tackled by fast-fashion retailers due to their complexity or difficulty.

Table 6. Quantitative Evaluation of the Reported Actions towards Sustainability (RASs)—Topics, Instruments, and Actors.

Topics	Shared by the Two Retailers	Total Frequency
Human Rights (Compensations and Benefits, Social Equality, Bargaining Power, etc.)	Yes	35.35%
Resources and Energy Saving	Yes	10.61%

Table 6. Cont.

Topics	Shared by the Two Retailers	Total Frequency
Circular Economy and Recycling	Yes	10.10%
Health and Safety	Yes	7.58%
Chemicals	Yes	6.06%
Transparency and Traceability	Yes	6.06%
Water Stewardship	Yes	6.06%
Raw Materials	Yes	5.56%
Renewable energy	Yes	3.54%
Empowerment, Capacity Building	Yes	3.03%
Emergency Situations (Refugees and Others)	Yes	2.02%
Ethics	Yes	1.52%
Animal Welfare	No	1.01%
Customer Service	No	1.01%
IT	Yes	1.01%
Responsible Consumption–Use–End of Life	No	1.01%
Ecoagriculture	No	0.51%
Forest Management	No	0.51%
Total Topics: 18	Total Topics Shared: 72%	198 Actions
Instruments	Shared by the Two Retailers	Total Frequency
Training–Education–Awareness-raising	Yes	27.78%
Assessment–Monitoring–Audits	Yes	17.17%
Partnerships–Alliances–Multi-stakeholders’ Initiatives–Platforms	Yes	14.65%
Projects–Special Plans	Yes	13.13%
Standards–Certificates–Internal Policies–Compliance	Yes	13.13%
Funding–Philanthropy	Yes	8.59%
Sourcing Strategy and Purchasing Practices	Yes	5.05%
Awards–Rewards–Grants	Yes	3.54%
Innovation and Technology	Yes	3.54%
Research	Yes	3.54%
Committees–Forums–Consultations	Yes	2.53%
Dialogue–Stakeholders and Customers	Yes	2.53%
Sustainability–Oriented Investments (New Energy, New Processes, Improved Facilities, Appliances, etc.)	Yes	2.53%
Labels–Collections	Yes	1.52%
Total Instruments: 14	Total Topics Shared: 100%	198 Actions
Actors	Shared by the Two Retailers	Total Frequency
Retailers (=fashion brand = focal company)	Yes	100.00%
Direct Suppliers (tier 1)	Yes	25.25%
Sub-suppliers (tier 2, and upstream)	Yes	18.69%
Workers	Yes	17.17%
NGOs, Foundations, and Private Institutions	Yes	15.66%
Customers	Yes	10.10%
Raw Material Suppliers	Yes	8.59%
Other SC Partners	Yes	8.08%
Education Institutions–Universities	Yes	6.06%

Table 6. Cont.

Topics	Shared by the Two Retailers	Total Frequency
Certifications Companies	Yes	5.05%
Governments and Public Institutions	Yes	4.04%
Technological and Innovation Partners	Yes	3.54%
Social Partners and Unions	Yes	3.03%
Broad Stakeholders and Citizens (Activists)	Yes	2.02%
Logistic Partners	No	1.52%
Traders–Agents	No	0.51%
Total Actors: 16	Total Actors Shared: 87.5%	198 Actions

Source: Own elaboration.

2. The most frequently coded elements from each category (Table 6, Column 3) reveal that there is still an important gap between reporting and action, and that filling this gap may introduce trade-offs within the core business of fast-fashion.

- **Topics.** Of the 198 actions under analysis, only 1% dealt with Responsible Consumption and End of Life; 5.5% addressed Raw Materials Sustainability; and a rather low 6% had to do with Traceability and Transparency, a key aspect in complex textile SCs. The analysis also showed that the highest proportion of actions (35%) related to human rights (Compensations and Benefits, Social Equality, Bargaining Power, etc.), which was likely due to the seriousness of these topics, as well as related social pressure and media impact. The concern here is whether tackling only ‘tip-of-the-iceberg’ topics will truly solve sustainability issues in practice.
- **Instruments.** The analysis showed that most efforts go towards Training, Education, and Awareness Campaigns (28%) and Assessment and Monitoring (17%). Although these areas are needed as instruments of transversal support, they will not transform the industry in the short term. On the other hand, Sustainable Sourcing Strategies and Sustainability-Oriented Investments—approaches that could have more immediate and durable impacts—attracted only 5% and 2.5% of the actions reported, respectively.
- **Actors.** The frequency count showed that the core group of actors actively involved in the execution of the RASs was limited, for a high percentage of the actions, to retailers, suppliers (direct and indirect), workers, and NGOs. The positive reading of this result leaves room for hope, suggesting that solving sustainability issues is not impossible, but rather that many SC actors, stakeholders, and other stakeholders have not yet begun to proactively collaborate on a solution. This interpretation supports our initial assumption concerning the urgency of building a shared disclosure framework capable of uniting the wider ecosystem’s actors around a common goal.

5. Action-Oriented Disclosure Tool Proposal

The results described in the previous section clearly reinforce the second objective of this paper:

Objective 2: To propose a universal action-oriented tool for the fast-fashion industry that assists TBL disclosure in creating sustainable value for the whole SC ecosystem.

Thus, building on the results of the content analysis and in combination with our discussion of the academic literature and the insights and experience of the fast-fashion practitioner, we worked towards constructing a disclosure tool that could ensure that:

1. The CMIs were complemented with the absent material issues, i.e., those issues not currently being reported, but found to be key for the wider fast-fashion industry ecosystem.

2. The RASs were contrasted with the SDGs and the CMIs to ensure that they:
 - Targeted the relevant topics.
 - Leveraged the most effective instruments.
3. The key actors actively involved in the implementation of the RASs were shortlisted in order to identify and push all of the relevant ecosystem actors towards a common goal.

Our action-oriented disclosure tool aims to facilitate the revelation of information on sustainability actions to help SC actors, stakeholders, and stakeholders understand how sustainability is managed in practice in complex SCs in the fast-fashion industry, as well as to promote actions towards improving such practices.

Weighing its pros and cons, we decided to root our tool in the architecture of the Balanced Score Card (BSC) and the Sustainability Balanced Score Card (SBSC) [59–61]. The rationale was to leverage its benefits as an interactive system for integrated sustainability management [59,61] that “helps significantly to overcome the shortcomings of the often parallel approaches of environmental, social, and economic management systems implemented in the past” [59] (p. 283). We overcome its main critique of not contributing to sustainable development [62] with our focus on actions and the direct link to the SDGs.

To adapt the SBSC architecture to our objective, we moved the traditional business unit focus to a system level that analyses the fast-fashion SC’s wider ecosystem, thus taking a multiple stakeholders’ view [63]. Consequently, in order to not contradict the founders of the original BSC [61], we removed the word ‘balanced’ from our disclosure tool and named it the Fast-Fashion Sustainability Scorecard.

Our Fast-Fashion Sustainability Scorecard (Figure 6) is an action-oriented disclosure framework comprising the five analysed elements that were revealed to be key to fast-fashion sustainability:

1. **SDGs:** The universal framework containing the broader and widely accepted sustainability goals. The 17 goals are grouped into three levels of urgency (Critical Relevance, Priority, and Ensure Compliance) inspired by previous BSC and SBSC architectures [59,63] according to their relevance to the fast-fashion industry (extracted from our previous analysis; see Table 3). By forcing companies to report on all goals (to at least a minimum compliance level), we avoid the possibility of orphan issues or easy-to-solve problem biases.
2. **CMIs:** The concrete issues already reported by fast-fashion retailers. By disclosing the CMIs in a common framework that relates them to the other categories in the Sustainability Scorecard, we make it difficult for disclosing companies to leave any issue unaddressed and prevent retailers from reporting on accessory issues.
3. **RAS Topics:** The particular questions retailers report that they are already actively tackling. By disclosing these in a common framework and relating them to the other categories in the Sustainability Scorecard, we make it difficult for disclosing companies to act on irrelevant questions and easier for them to compare and team up with peers in the sector.
4. **RAS Instruments:** The strategies, policies, and practices that retailers report that they are already using to cover their RMIs. Publicly disclosing these makes it more difficult for companies to communicate only green-washing practices or other mechanisms that are far from action. Such disclosure also facilitates a sector-wide comparison and analysis to identify the most useful instruments.
5. **Actors Involved:** The players already reported as participating in the execution of the RASs. By shortlisting these actors, we call out all actors in the wider fast-fashion ecosystem and empower relevant partners to pursue a common goal.

The Fast-Fashion Sustainability Scorecard, which was conceived as a public and interactive tool, constitutes the co-constructed common agenda to foster sustainable value creation in the industry. Its main contributions are detailed in the following section.

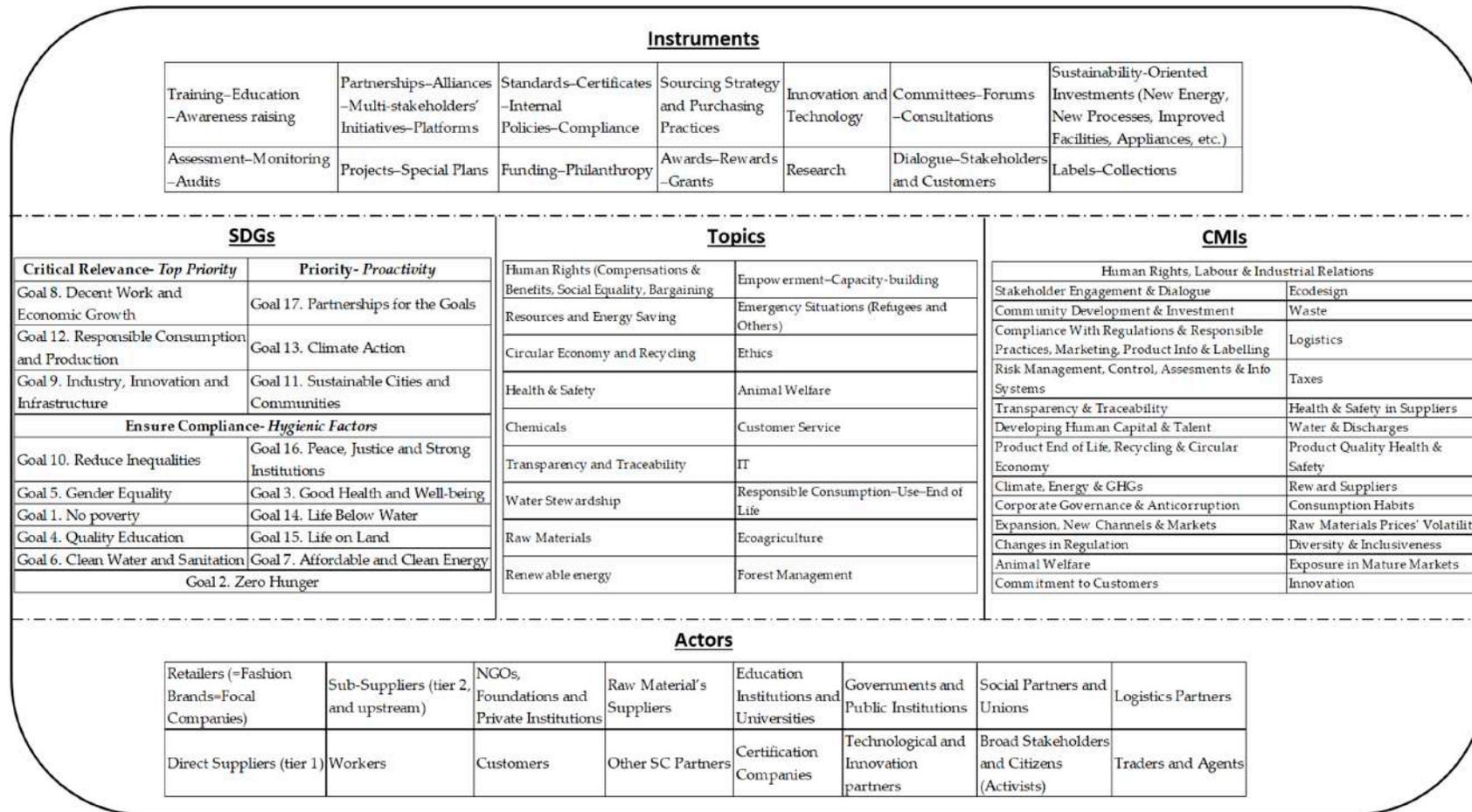


Figure 6. Fast-Fashion Sustainability Scorecard.

6. Discussion and Final Conclusions

Current sustainability and integrated reporting frameworks have sought to develop common standards and measurement tools to allow companies to communicate their performance regarding material issues in relation to a range of indicators [15,64]. However, these tools' potential for practice has yet to be fulfilled. Our 'Fast-Fashion Sustainability Scorecard' addresses the call of the communication view of CSR to construct an action-oriented, networked disclosure approach capable of enacting sustainable transformation in and beyond global and/or complex SCs [43].

Within the fast-fashion industry, too much time and effort and too many resources have been devoted to identifying impacts that are nearly identical for all industry actors and are universally clustered around the SDGs. With respect to the disclosure of relevant information that was "previously secret or unknown" [44] (p. 178), it is necessary to discontinue this expenditure and instead invest in solutions, which are currently very weak and fail to point to core business activities. Only by focussing our efforts on building and disclosing concrete actions towards sustainable supply chains, can we exploit sustainability-related challenges and opportunities. Those concrete actions can be contrasted and discussed among stakeholders and eventually become best practices. However, many of the actions that retailers report thus far are vague, uncertain, and projected too far into the future.

We agree on the potential of standards and frameworks as agents of change that stimulate the constructive criticism of corporate practices, but argue that in order to achieve effective sustainability disclosure with an impact beyond investors and organisations' financial performance, it is more relevant to share timely and detailed information on how companies are tackling key industry-specific concerns. We apply the main lessons learnt from previous experience, our content analysis, and the literature to propose a new approach that does not change the universal framework for the impacts (SDGs). On the contrary: it explores concrete ways to manage the SDGs and compel companies to disclose them in ways that reveal and communicate how risks and opportunities are being tackled, which in turn allows these risks to be minimised and industry opportunities to be exploited. In sum, by focusing on actions instead of impacts and relating actions to SDGs and SC and non-SC actors, this paper builds a universal disclosure framework—the 'Fast-Fashion Sustainability Scorecard'—which allows for interactive, timely, and dynamic information sharing, and offers several contributions that are discussed below in line with previous relevant literature.

It specifically covers the challenges of the fast-fashion industry (Figure 6), allowing for comparability and synergetic actions alongside contributions to the impact of SDGs. Fritz et al. defended a similar approach for the electronics and automotive industry. Their work suggested a list of 36 industry-specific-SDG related aspects that allow companies "to prioritise, measure, and monitor their own sustainability performance over time, as well as the one of their entire SC and to address stakeholders' expectations" [64] (p. 600). The originality of our study is that, after identifying SDG-related aspects for the fast-fashion industry, we applied the same logic to the reported actions towards sustainability, thus helping disclosure take a step forward, towards practice. This orientation to immediate action distinguishes our research from Turker and Altuntas' analysis of fast-fashion corporate reports, whose comprehensive conceptual map of Sustainable Supply Chain Management approaches remains at a theoretical level [27].

- It focusses on immediate solutions and actions, including the topics, instruments (strategies, policies, and practices), and actors needed to deploy them. For example, rather than publishing, with a lapse of one and a half years, the percentage of CO₂ reductions coming from stores (impacts), the proposed 'Fast-Fashion Sustainability Scorecard' facilitates the identification and exchange of solutions to tackle concerns related to "climate, energy and greenhouse gases (GHG)" (instruments). In this way, we hope to contribute to the need for a "greater emphasis in disclosures related to what apparel brands are doing to find better ways of doing things", as pointed out by Kozlowski et al. [15] (p. 392).

- It integrates the focal company with other relevant actors in the SC and beyond. For instance, it smoothens the process used to detect and team up with key partners within or outside the SC for each activity or issue to be tackled. This would have a direct contribution to sustainability, as anticipated in the works of Li et al. [26] and Hansen and Schaltegger [63]. In the first study, the authors verified collaborations between suppliers, industries, and NGOs as true enablers of SC sustainability. In the second, Li et al. point out that “collaboration among all stakeholders will normally guarantee an increase in the level of sustainable performance in the global marketplace.” [26] (p. 834).
- In trying to avoid the reporting company being the one that decides “which kind of information to disclose and how to deepen the narrative” [13] (p. 5), our scorecard facilitates the revelation of new information on the gap between sustainability goals and material issues, on one hand, and sustainability actions and instruments, on the other. In other words, it helps to identify orphan material issues so that they can be appropriately addressed. For instance, our analysis reveals a big gap between the potential of innovation in terms of sustainability and the number of actions reported on it. As shown in Figure 4, innovation is revealed as the most material issue in the Fast-Fashion Common Materiality Matrix. However, Table 6 reveals that only 3.54% of the analysed RASs turn to Innovation (under the ‘Innovation and Technology’ instrument) as the instrument for action. This opens up the floor for stakeholders’ demands to focal companies to align their sustainability investments (and disclosure) with the real needs and potential of the broader SC ecosystem. Additionally, following Fritz et al. [64] (p. 600), if the scorecard is pushed by SC actors different from the focal firm, “the risk to report only on good performance aspects would be even better addressed”.
- If retailers allow the scorecard to be interactive, all of the actors related to a particular goal or action can report on and monitor it in almost real-time. As pointed out by Yang et al. [35], fostering SC actors to exchange information would create sustainable value and improve business operations. In this way, the scorecard can also be used to control involuntary disclosure—“what stakeholders and stakeholders disclose about an organisation” [65] (p. 30)—in two ways. The scorecard can firstly prevent the dissemination of inaccurate or false information from outside a company, and secondly, facilitate an awareness of and reactions to key concerns from other companies and related actors, stakeholders, and stakeholders. Companies can use our scorecard as a hedging tool against false declarations, and as an opportunity pool for proactively integrating and canalizing external information from stakeholders and stakeholders.
- It supports the social enforcement, thereby overcoming the critique of lack of normative enforcement that exists in current reporting norms [40]. When reporting on particular and tangible issues that people can understand and see, everyone becomes capable of auditing the degree of execution of an action and claiming responsibility. A simple but clear example is that, although customers might not be able to measure the CO₂ in a store, they can report on (and act against) retailers irrationally using the air-conditioning system on shop floors at 15 °C in summer time.
- Finally, our scorecard broadens the grounds for finding best practices, by focussing not on CMIs, but rather on uncovering as many different actions (topics, instruments, and operative actors) as possible. The aim is to compel companies to ‘compete’ in the TBL, thereby adding goals such as ‘I want the best partners for sustainability’ or ‘I want the most comfortable climatisation systems for the workers in the factories’ to already existing goals, such as ‘I want the best IT system’ or ‘I want the highest turnover growth’.
- Businesses and SCs can use the ‘Fast-Fashion Sustainability Scorecard’ to understand and design corporate actions to help alleviate poverty, address climate change, protect human rights, or prevent worker exploitation, thereby encouraging the implementation and commitment of new actions, tools, and actors. UN Global Compact has called for the use of instruments that increase SDG adoption and implementation. The present scorecard addresses this call by aligning CMIs currently reported in fast-fashion with the 17 SDGs, and then examining sustainability-oriented

business practices (i.e., real actions in cooperation with SC actors and stakeholders). As described before, our proposed 'Fast-Fashion Sustainability Scorecard' aims to transform compliance tools into agents of change [46].

This study's main limitations concern its reliance on the analysis of contents voluntarily disseminated by companies (i.e., the materiality matrices and corporate reports). However, we believe that this methodological limitation should not negate the significance and potential utility of the proposed framework to foster sustainability in practice. On one hand, it could be argued that stakeholders' views are indirectly reflected in the materiality matrix; on the other hand, our scorecard can help stakeholders [45] uncover new information and position concrete new topics, actions, and instruments within the corporate agenda. In fact, voluntary reports are only the starting point for the 'Fast-Fashion Sustainability Scorecard' as a collaborative disclosure mechanism that aims to uncover the hidden and out-of-date information that is commonly used in traditional reporting.

Common to qualitative analysis that form the basis of coding processes, we acknowledge the potential limitation of the researcher's previous experience, knowledge, and mindset leading the results [7,66], and tried to overcome it by discussing the findings of each step of the content analysis among the three authors of the paper.

Another methodological limitation involves the analysis focussed on frequencies, which could cause a bias towards simplicity and is short in regard to assessing the different magnitude of the discussed RSAs. To address this limitation, it would be desirable to critically analyse the importance of actions in relation to companies' core business, main impacts, and performance, as well as compare the efforts and feasibility (in terms of resources) that each action would imply.

It is necessary to underline that, except for the SDGs, the list of entries under the four key elements of the 'Fast-Fashion Sustainability Scorecard' in Figure 6 is by no means exclusive. Even in the context of the content analysis of the two main fast-fashion retailers, this list may still be too restrictive. Thus, the lists appearing under the categories of CMIs, Topics, Instruments, and Actors aim to serve as a starting point for a dynamic tool co-constructed by the wider pool of fast-fashion ecosystem actors.

Regarding the validity of our scorecard, it would be desirable to expand the testing by replicating it in other sectors and/or through real case studies with primary data. Given the importance of collective impact, reinforced by the complete lack of any reported actions involving only one SC partner or stakeholder, a deep analysis of industry collaboration would truly complement this research.

Finally, given the nature and goals of the 'Fast-Fashion Sustainability Scorecard', research on digital and technological solutions supporting the framework's potential is also needed.

Supplementary Materials: The following are available online at www.mdpi.com/2071-1050/9/12/2256/s1, S1: Inditex Annual Report 2015, S2: H&M Sustainability Report 2016.

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Appendix A

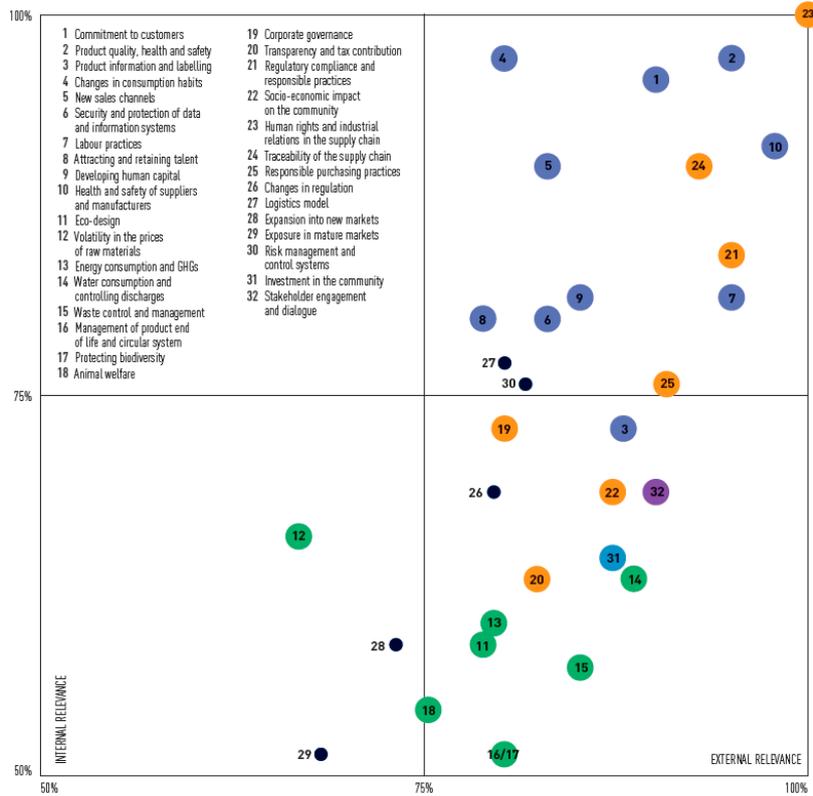


Figure A1. Inditex' Materiality Matrix.

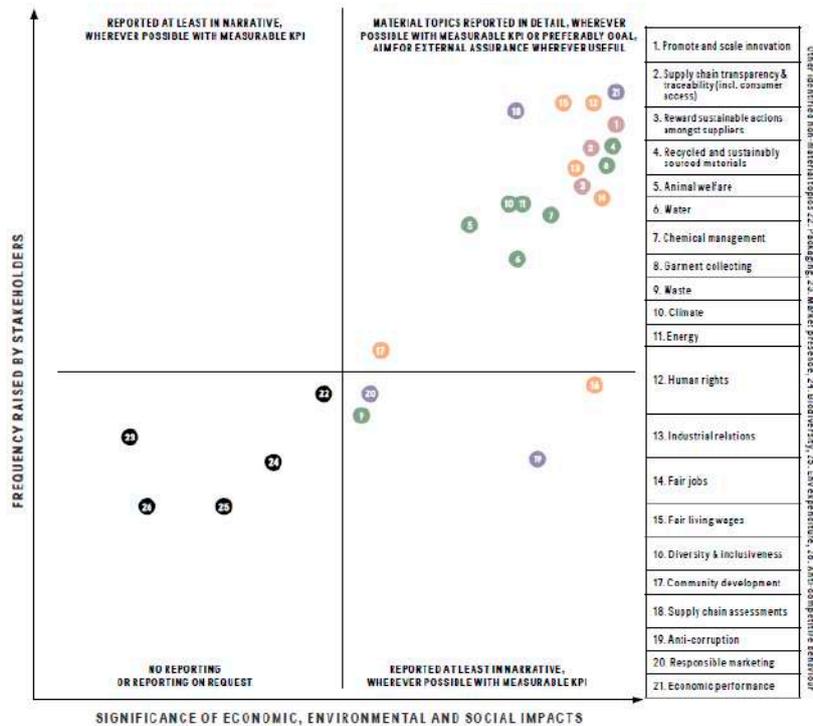


Figure A2. H&M's Materiality Matrix.

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