

## RESEARCH ARTICLE

# Reporting Sustainable Development Goal 12 in the Spanish food retail industry. An analysis based on Global Reporting Initiative performance indicators

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## Abstract

Companies play a significant role in addressing the challenges of the Sustainable Development Goals (SDGs), and sustainability reporting is a strategic tool for decision making and impact disclosure. This study assesses food retailers' contribution to SDG 12, its targets and its business themes as a way to examine their level of engagement with sustainable consumption and production (SCP). Specifically, we measure Spanish food retailing companies' SDG 12 disclosures under Global Reporting Initiative standards. To this end, we develop a scoring system based on the compulsory disclosure requirements. Our findings show that, in general terms, food retailers perform poorly in communicating their SDG 12 achievements. Companies mainly focus on internal actions aimed at decreasing environmental impact and disclose very few actions linked to the circular economy and responsible consumption. In terms of SCP, these findings suggest that food retailers are more committed to sustainable production than to enhancing sustainable consumption.

## KEYWORDS

Global Reporting Initiative, SDG 12, Spanish food retail firms, sustainability reporting, sustainable consumption and production, sustainable development

## 1 | INTRODUCTION

The Sustainable Development Goals (SDGs) have generated enthusiasm and inspired multiple initiatives worldwide to promote sustainable development. Although some advances have been made, progress in their implementation has been slow and limited, particularly in areas such as sustainable consumption and production (SCP), mainly addressed in SDG 12 (Guevara & Pla, 2019; United Nations, 2020a; Wang et al., 2019). SDG 12 is particularly relevant to sustainable development because, in addition to its environmental content (Szennay et al., 2019), it is also associated with social and economic factors (Fonseca & Carvalho, 2019; Lu et al., 2021) and is the goal with the

most links to other goals and a key cross-cutting enabler of Agenda 2030 (Bauer et al., 2018; Le Blanc, 2015). Indeed, dealing with sustainable production and consumption means that, on the one hand, production processes will need to dovetail with the functioning of socio-ecological systems; and, on the other hand, consumers will have to be aware and well informed if they are to adopt sustainable purchasing decisions and behaviours (Guevara & Pla, 2019). Thus, advancement towards SCP patterns would enable progress in many other areas of the sustainable development agenda (Bauer et al., 2018; Bengtsson et al., 2018) as it demands societal transformation.

Companies play a central role in achieving the SDGs by designing and implementing sustainable solutions, enabling and inspiring

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individuals to lead more sustainable lifestyles, reducing impacts and improving well-being (United Nations, 2020b). The food retail sector is very well placed to address SDG 12 in particular (Jacob-John et al., 2021), since it links primary producers and manufacturers with consumers (Delai & Takahashi, 2013). As such, food retailers can promote SCP through their internal operations and influence both suppliers to produce and consumers to consume sustainably (UNEP, 2011). Examination of how retailers are communicating their sustainability initiatives and achievements can provide a detailed view of the extent to which companies are engaged with SCP (Naidoo & Gasparatos, 2018). While they combine various mechanisms to communicate their sustainability commitments and progress, sustainability reporting is the most popular tool (Jones et al., 2020; Naidoo & Gasparatos, 2018).

Various frameworks and guidelines are available for sustainability reporting (Avrampou et al., 2019; Lu et al., 2021), of which the Global Reporting Initiative (GRI) standards provide the oldest (Adams & Abhayawansa, 2022) and the most comprehensive and widely used framework (KPMG, 2020). Although research on sustainability reporting has attracted numerous contributions (Meutia et al., 2019; Noronha et al., 2013), SDG reporting is still a novel research area (Pizzi et al., 2020) and how companies report and measure their contribution to the SDGs has not been explored in sufficient depth (Diaz-Sarachaga, 2021; Heras-Saizarbitoria et al., 2022). A few studies have used GRI indicators as a base for examining firms' sustainability practices through the SDG lens (e.g., Avrampou et al., 2019; Diaz-Sarachaga, 2021; Tsalis et al., 2020). Nevertheless, although they provide valuable insights on how well companies contribute to SDGs, most studies offer little information about how they report on specific elements of SDGs such as the targets and the key business themes they address. In particular, there is a lack of research examining the degree to which companies develop their actions aimed at achieving SDG 12.

In order to fill this gap, the objective of this study is to investigate how companies in the Spanish food retail sector report their contribution to SDG 12, its targets and its business themes as a way to examine the extent of their engagement with SCP. In doing so, we rely on the GRI standards framework and develop a scoring system based on the GRI disclosure requirements.

The contribution of this research is twofold. First, we provide an in-depth picture of food retail firms' engagement with SCP through their alignment with SDG 12, its targets and associated business themes. Second, we present a methodological refinement in research using scoring systems based on GRI indicators, since our approach focuses on the compulsory disclosure requirements of the GRI topics, which reduces subjectivity in the data gathering process.

The rest of the paper is structured as follows. First, we present a literature review of SDG 12 as a way to address SCP, its relevance in the food retail industry and the role of corporate sustainability reporting in assessing companies' contributions to SDG 12. The next sections describe the methodology and present the main findings. Finally, we discuss the findings, summarise the main conclusions and identify the limitations of our research.

## 2 | LITERATURE REVIEW

### 2.1 | SDG 12: Achieving sustainable consumption and production

The concept of SCP was defined at the 1994 Oslo Symposium on Sustainable Consumption as 'the use of services and related products which respond to basic needs and bring a better quality of life, while minimising the use of natural resources and toxic materials as well as the emissions of waste and pollutants over the life cycle of the service or product so as not to jeopardise the needs of future generations'. This view stresses that (1) sustainable production is environmentally and socially responsible while remaining profitable, and (2) it needs to be matched with sustainable consumption, which requires both individuals and companies to accept their level of responsibility in order to be truly effective (Welford et al., 1998). Thus, SCP is about promoting resource and energy efficiency, sustainable infrastructure, and providing access to basic services, green and decent jobs, and a better quality of life for all (UNEP, 2010).

The 2030 Agenda for Sustainable Development clearly reflects the need for modifications in consumption and production, both in a commitment to change production and consumption habits in our societies, and through SDG 12 dedicated to ensuring SCP (Akenji & Bengtsson, 2014; Bengtsson et al., 2018). This means that some elements of SCP can also be found in other SDGs, reflecting the cross-cutting nature of SCP as an objective and its environmental, social, and economic dimension (Fonseca & Carvalho, 2019; Szennay et al., 2019). These linkages mean that implementing SDG 12 effectively can also help achieve a range of connected goals (Akenji & Bengtsson, 2014; Bauer et al., 2018; Guevara & Pla, 2019; Jacob-John et al., 2021; Le Blanc, 2015).

SDG 12 has eight main targets, most of which aim to achieve sustainability through the lens of production efficiency. Unsustainable patterns of consumption are given less priority, as sustainable consumption targets only focus on reducing food waste at the consumer level and promoting consumer action by ensuring universal access to information for sustainable lifestyles (Gasper et al., 2019). At a business level, companies can take the SDG 12 targets as a base to ensure SCP through concrete initiatives such as incorporating sustainability into business vision and strategies, implementing a circular economy, raising consumer awareness about sustainable lifestyles, integrating waste management policies, or partnering with NGOs and stakeholders (GRI & UN Global Compact, 2017).

The retail sector plays a vital role in corporate achievement of the SDGs (Naidoo & Gasparatos, 2018; Wynn & Jones, 2020). In particular, food retailers are well positioned to tackle sustainability issues (Chkanikova & Mont, 2015; Saber & Weber, 2019a, 2019b), given the direct impact of their supply chain management practices on sustainable production and consumption (Jacob-John et al., 2021). In fact, they have a pivotal role both in promoting sustainable production by influencing their supply chains, and in encouraging responsible consumption by influencing their consumers (Bradley, 2016; UNEP, 2011). To play this important role, food retailers must first

ensure the sustainability of their internal operations and reduce negative environmental impacts by implementing environmental management systems in their locations (stores, headquarters, and warehouses) (Delai & Takahashi, 2013; Malay & Aubinet, 2021). In addition, on the supply side, they can have a significant influence on their global and local supply chains (Illes, 2007). Some examples are cooperation with suppliers to develop ecological products, products with a circular life cycle and packaging design, including environmental certifications within the supplier selection process, or adopting more sustainable production techniques (UNEP, 2011). On the demand side, food retailers influence consumers' lifestyles by shaping their consumption patterns. They can run awareness-raising campaigns to persuade customers to consume sustainably, encourage the purchase of sustainable products or give advice on the use and disposal of products (Delai & Takahashi, 2013; Jones et al., 2009). It therefore makes sense to assess the extent to which they develop effective actions to achieve SDG 12. In this line, although Jones et al. (2020) conducted an exploratory analysis of this issue in leading UK retailers, little research has attempted to quantify the contribution to SDG 12 in the food retail sector. We will therefore attempt to fill this gap by analysing the sustainability reporting of Spanish food retailers.

## 2.2 | Sustainability reporting and SDGs

Sustainability reporting is a strategic tool for sustainability decision-making processes in a company, stimulating organisational development and innovation, driving better performance, engaging stakeholders, and attracting investment (GRI & UN Global Compact, 2017, 2018). Indeed, sustainability reporting has been identified as an enabler of SDG actions, investments, and strategies (Heras-Saizarbitoria et al., 2022; Rosati & Faria, 2019). In this context, lining up a company's sustainability reporting with SDGs is an important step towards integrating sustainability into its core business (GRI, UN Global Compact, & WBCSD, 2015). In addition, as the SDGs define a common agenda of action and language, they can help companies demonstrate their performance, both by minimising negative impacts and maximising positive impacts on people and the planet. Thus, companies can use the SDGs as a general framework to align their strategies as well as to measure their contribution to sustainable development.

Since the SDGs were launched in September 2015, an increasing number of companies have referred to them in their sustainability reports and state their priorities for action (KPMG, 2020; PwC, 2017). Nevertheless, the SDGs are in no way the backbone of sustainability reports, and harmonisation of SDG reporting is still at an incipient stage compared to the sustainability reporting practices at a global level, which started through the GRI in the late 1990s (Adams & Abhayawansa, 2022). This may help explain why SDG reporting practices are heterogeneous, with a relatively low number of firms setting quantitative targets linked to key performance indicators (PwC, 2017).

One way to provide information on companies' engagement with the SDGs is through the SDG Compass, an initiative developed by

GRI, the UN Global Compact and the World Business Council for Sustainable Development to help firms to align their strategies and measure their contribution to the goals (GRI & UN Global Compact, 2017). The SDG Compass maps each of the 17 SDGs, their targets and their key business themes against a series of specific key performance indicators (KPIs) from different frameworks for sustainability reporting and measurement.<sup>1</sup> Of these frameworks, GRI standards are the most comprehensive and widely applied (Avrampou et al., 2019; Girella et al., 2019; KPMG, 2020). GRI guidelines are also the only ones to take a double materiality approach—impact materiality and financial materiality (Adams & Abhayawansa, 2022), a focus which enhances an organisation's engagement with the SDGs (Adams et al., 2021). In this way, GRI standards report corporate economic, environmental and social impacts through a set of interrelated standards. Each standard contains disclosure topics, which, in turn, have particular requirements and recommendations that can be qualitative or quantitative. While the requirements list the compulsory information to be reported, the recommendations are encouraged and voluntary (GRI, 2021).

As well as being the most frequently used framework for sustainability reporting around the world, GRI standards have also attracted great academic interest (Peters & Wagner, 2015). Researchers can use them to build instruments to assess firms' sustainability reporting because their coding structure yields consistent and comparable information (Aras et al., 2018; Hammond & Miles, 2004). The GRI indicators can therefore be assigned a range of points indicating how thoroughly the topics are covered in company reports (Morhardt et al., 2002).

Although the literature on the content and quality of sustainability reports is extensive, the same cannot be said of academic research assessing company contributions to SDGs in sustainability reports (Tsalis et al., 2020). Previous research has mainly been based on content analysis and reporting guidelines (e.g., Avrampou et al., 2019; Consolandi et al., 2020; Di Vaio & Varriale, 2020; Diaz-Sarachaga, 2021; Fonseca & Carvalho, 2019; Ionascu et al., 2020; Tsalis et al., 2020). A few of these contributions rely on GRI standards to develop scoring systems for evaluating firms' adherence to SDGs (e.g., Avrampou et al., 2019; Diaz-Sarachaga, 2021; Tsalis et al., 2020). In general terms, these studies highlight a low level of corporate SDG alignment and show a high degree of heterogeneity in the quality of disclosures among industries and across SDGs. They allow firms' sustainability performance to be compared with regard to the set of SDGs at a target level. Nevertheless, most of them offer little detail about the specific actions firms deploy to achieve the SDGs as they do not examine the associated business themes. To the best of our knowledge, only Avrampou et al. (2019) linked the GRI indicators to SDGs and business themes and used a gradation scheme for scoring each topic, which denotes a certain degree of subjectivity.

Consequently, evaluating SDG 12 achievements by examining information at the level of business themes and applying a scoring

<sup>1</sup>Carbon Disclosure Project (CDP) Guidance; Climate Disclosure Standards Board (CDSB) Framework; International Integrated Reporting (IR) Framework; Sustainability Accounting Standards Board (SASB) Standards; Task Force on Climate-related Financial Disclosures.

system that overcomes subjectivity related to the grading scales can provide a more accurate view on how SCP is being achieved.

### 3 | MATERIAL AND METHODS

#### 3.1 | Data

We focus on the Spanish food retail industry to carry out our research. Food retailing is by far the largest sector within the Spanish retail economy (INE, 2020), with eight food retailers in the top 10 Spanish retailers (Reyes, 2019). As part of their strategies, Spain's leading food retailers emphasise their commitment to sustainability by publishing sustainability reports. Spain is one of the countries with the highest commitment to disclosing non-financial information, with a sustainability reporting rate higher than 90% among the largest firms in the country<sup>2</sup> (KPMG, 2020) and national companies disclosing, on average, a higher number of GRI indicators than other countries (Tarquinio et al., 2018).

Information for our research was taken from the non-financial information statements (NFIS) of a representative sample of Spanish food retail firms in fiscal years 2018 and 2019. We did not include 2020 in the research period because usual company activity was interrupted by the Covid-19 pandemic. Since 2018, when Spain adapted its legislation to Directive 2014/95/EU through Law 11/2018, companies of public interest (net turnover >2,000,000,000 euros; average workforce >4000 employees during two consecutive years) are required to publish an NFIS, which is an extension of the annual corporate governance report included in the financial reports of these companies. Relevant aspects of sustainability information that Law 11/2018 requires companies to disclose include environmental issues such as the measures implemented to reduce pollution, implement a circular economy, prevent waste, make sustainable use of resources or reduce greenhouse gases, as well as other corporate issues such as actions aimed at promoting the health of consumers or responsible management of the value chain. Although there is no explicit mention of SDG 12 (or any other SDG), all these actions are related to SCP and are fully embedded in SDG 12 through several of its targets (12.2; 12.3; 12.4, 12.5, 12.6, 12.7, and 12.8). When providing this information, companies must rely on national frameworks, European Union frameworks or international frameworks such as the GRI Sustainability Reporting Standards. Our information is taken from the GRI indicators included in the KPI content index at the end section of the NFIS.

The data were compiled directly from the online reports published on the companies' websites. Only 11 of the 19 companies that meet the requirements of the law disclosed GRI indicators. Together, these 11 companies account for more than 77% of the sector's turnover, 64% of the commercial area, and 68% of the workforce (Reyes, 2020). Accordingly, we used the information disclosed by these firms to carry out our research. Table 1 shows the characteristics of the sample of companies and the source reports we used. Although many of the firms

operate internationally, only five do so in a wide range of countries. With regard to SDG reporting, all but two refer to the 17 SDGs in their reports, and six companies prioritise SDG 12, that is, they expressly state that they are committed to this objective.

#### 3.2 | Steps to measure SDG 12 alignment

Each part of the three-step process we followed to assess companies' alignment with SDG 12 (Figure 1) is explained in detail in the following subsections.

##### 3.2.1 | Linking SDG 12 targets, business themes and GRI indicators

The first step consisted of matching SDG 12 targets and business themes with GRI topic disclosures. In the SDG Compass framework each target has an associated set of business themes and each of the business themes, in turn, is linked to one or more indicators (GRI & UN Global Compact, 2017). Table 2 shows that, for SDG 12, four targets (12.2, 12.4, 12.5, and 12.8) that are very likely to be relevant for business (GRI & UN Global Compact, 2017), and 13 business themes, are associated with 24 GRI topic disclosures. As can be seen from the table, a business theme can be related to several targets and, also, the number of indicators varies for each business theme and respective target (e.g., waste management and targets 4 and 5).

We then updated the catalogue of indicators to the subsequent version of GRI for the superseded indicators. The content of the G4-EN31 indicators was replaced by the following: GRI 103 Management Approach; GRI 305 Section 1. Management approach disclosures; GRI 306 Section 1. Management approach disclosures; and GRI 307 Section 1. Management approach disclosures.

Moreover, since the SDG Compass framework is open to additional indicators, we incorporated those suggested by Tsalis et al. (2020) for SDG 12 to offer a more complete view. Accordingly, we added four disclosure topics and mapped them to SDG12 targets and business themes as follows: GRI 305-4 (12.4, GHG Emissions); GRI 308-1 and 308-2 (12.2, Extended Producer Responsibility), and GRI 204-1 (12.2, Procurement Practices).

##### 3.2.2 | Building the disclosure requirements matrix (DRM)

In the second step, we focused on the requirements for each topic disclosure in GRI standards to design the DRM as a worksheet to collect the data. The matrix links the targets and business themes with the related GRI topic disclosures and their corresponding requirements (GRI-R). For each topic disclosure (e.g., 305-1), we considered all its reporting requirements (e.g., 305-1a; 305-1b; 305-1c; 305-1d; 305-1e; 305-1f; and 305-1g), which represent the most disaggregated level of information under GRI standards. At this level, information is

<sup>2</sup>KPMG Survey of Sustainability Reporting 2020 assessed sustainability reporting from a worldwide sample of 5200 companies by reviewing annual financial (or integrated) reporting and sustainability reporting by the largest 100 companies in 52 countries and jurisdictions.

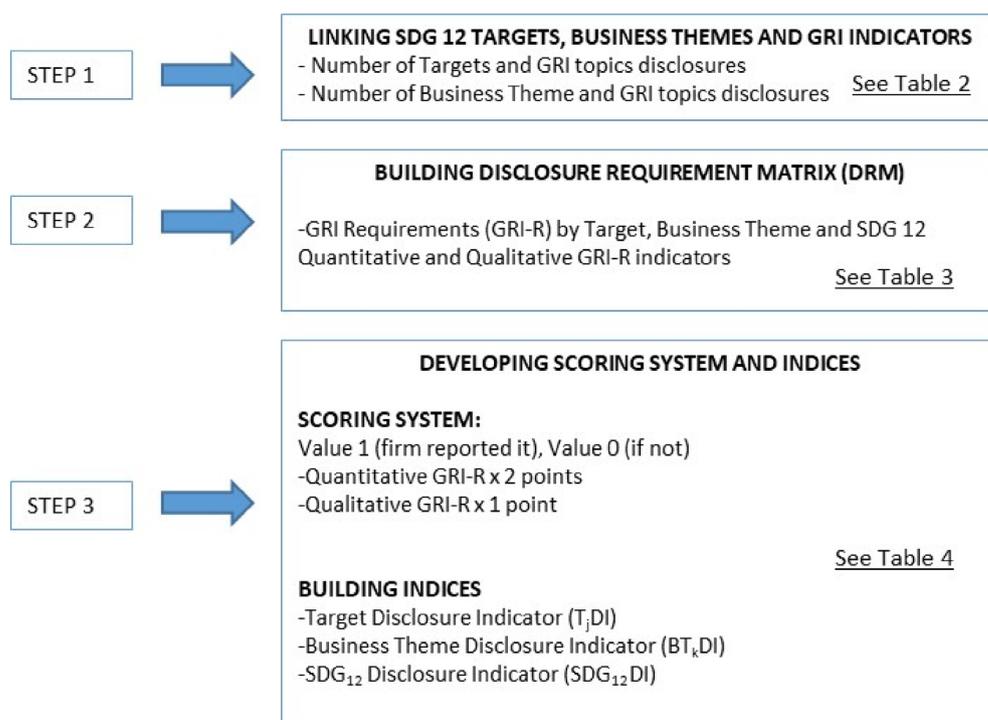
**TABLE 1** Characteristics of sample and source reports

Retailer	Size (employees 2019)	Home country (geographical scope)	SDG priorities	Reports
Eroski	29,998	Spain (Spain)	17 SDG, Priority: 3 and 12	NFIS-2018 NFIS-2019
Mercadona	90,000	Spain (Spain, Portugal)	17 SDG	NFIS-2018 NFIS-2019
Carrefour	50,000	France (30 countries)	17 SDG, Priority: 2, 5, 12, 13, 14, and 15	NFIS-2018 NFIS-2019
Dia	23,931	Spain (Spain, Portugal, Brazil, Argentina)	None	NFIS-2018 NFIS-2019
Auchan	20,000	France (12 countries)	17 SDG, Priority: 12, 14, 15, 2, 7, 13, 5, and 10	NFIS-2018 NFIS-2019
Aldi	4200	Germany (18 countries)	17 SDG, Priority: 12, 8, 14, 15, 7, and 13	NFIS-2018 NFIS-2019
Lidl	14,500	Germany (32 countries)	17 SDG, Priority: 12, 8, 13, 14, and 15	NFIS-2018 NFIS-2019
Consum	16,000	Spain (Spain, Regional)	17 SDG, Priority: 3, 17, 1, 4, 2, 10, and 5	NFIS-2018 NFIS-2019
El Corte Inglés	12,925	Spain (Spain, Portugal)	17 SDG, Priority: 12, 5, 8, and 13	NFIS-2018 NFIS-2019
Alimerka	6900	Spain (Spain, Regional)	17 SDG	NFIS-2018 NFIS-2019
Dinosol	7855	Spain (Spain, Regional)	None	NFIS-2018 NFIS-2019

Abbreviation: NFIS, Non-Financial Information Statement.

Source: Reyes (2020) and companies' NFIS.

**FIGURE 1** Steps for measuring alignment with SDG 12 [Colour figure can be viewed at [wileyonlinelibrary.com](http://wileyonlinelibrary.com)]



quantitative (e.g., percentages, tonnes, euros, etc.) and qualitative (standards, methodologies, assumptions, etc.). As requirements are compulsory (GRI, 2021), firms should report both quantitative and qualitative disclosure items.

The above process resulted in 96 GRI-R for SDG 12, 51 of which are quantitative and 45 are qualitative (see Table 3). This step gives our analysis a sharper focus on SDG 12 than previous research.

**TABLE 2** SDG 12 targets, business themes and GRI disclosure topics in SDG compass

Targets	Business theme	GRI topic	Number GRI topic by business theme	Number GRI topic by target
Target 12.2. Natural resources	Material efficiency (ME)	301-1, 301-2	2	9
	Energy efficiency (EE)	302-1, 302-2, 302-3, 302-4, 302-5	5	
	Water efficiency (WE)	303-3	3	
	Extended producer responsibility (EPR)	301-3	1	
Target 12.4. Waste and pollution	Water management (WM)	306-1	1	10
	Waste management (WsM)	306-2, 306-4	2	
	GHG emissions (GHGE)	305-1, 305-2, 305-3	3	
	ODS emissions (ODSE)	305-6	1	
	Air pollution (AP)	305-7	1	
	Spills (SP)	306-3	1	
	Environmental expenditure 1 (EEX1)	GRI G4-EN31	1	
	Chemical management (CM)	-	-	
Target 12.5. 3Rs: Reduce, Recycling, Reuse	Materials recycling (MR)	301-2	1	4
	Waste management (WsM)	306-2	1	
	Environmental expenditure 2 (EEX2)	GRI G4-EN31	1	
	Extended producer responsibility (EPR)	301-3	1	
Target 12.8. Responsible consumption	Product information (PI)	417-1	1	1
	Communication and Promotion (CP)	-	-	
Total number of GRI topics			24	24

Note: (1) EEX1: Financial resources allocated to the management of chemicals, emissions and all waste throughout the life cycle; (2) EEX2: Financial resources allocated to reduce waste generation through prevention, education, recycling and reuse.

Source: The authors, based on GRI, UN Global Compact, and WBCSD (2015).

### 3.2.3 | Developing the scoring system and indices

$$SDG_{12}DI = \sum_{i=1}^n R_i w_i, \quad (1)$$

In the third step, we developed a scoring system based on the presence of GRI-R and whether it is qualitative or quantitative. First, we assigned a value of 1 (data reported) or 0 (no data reported) to each requirement, depending on whether information was provided or not (Clarkson et al., 2013; Rivera-Arrubla et al., 2017; Tarquinio et al., 2018). Second, following Tsalis et al. (2018, 2020), we assigned 1 point if the requirement was qualitative ( $w_i = 1$ ) and 2 points if the requirement was quantitative ( $w_i = 2$ ), reflecting the nature of the information reported. This helps researchers to assess the sustainability information companies disclose by means of objective categories, which facilitates comparability among firms.

We created several indices to measure a company's adherence to the SDG 12, its targets and associated business themes: the  $SDG_{12}$  Disclosure Indicator, the Target Disclosure Indicator and the Business Theme Disclosure Indicator.

The  $SDG_{12}$  Disclosure Indicator ( $SDG_{12}DI$ ) assesses a company's commitment to SDG 12. It can take values ranging from 0 to 147 (Equation 1).

where,  $R_i$  refers to each of the GRI-R assigned to SDG 12 ( $i = 1, \dots, n$ ), with a value of 0 if not reported and a value of 1 if reported;  $w_i$  is the value of each GRI-R according to whether it is quantitative ( $w_i = 2$ ) or qualitative ( $w_i = 1$ ); and  $n$  is the total GRI-R of SDG12 ( $n = 96$ ).

The Target Disclosure Indicator ( $T_jDI$ ) assesses a company's commitment to an SDG 12 target. For each target (12.2, 12.4, 12.5, and 12.8), the TDI is calculated as shown in Equation (2).

$$T_jDI = \sum_{i=1}^n R_i w_i, \quad (2)$$

where,  $T_j$  refers to each one of the targets with associated GRI topic disclosures ( $j = 12.2, 12.4, 12.5, 12.8$ );  $R_i$  refers to each of the GRI-R assigned to a specific target  $j$  ( $i = 1, \dots, n$ ), with a value of 0 if not reported and a value of 1 if reported;  $w_i$  is the value of each GRI-R according to whether it is quantitative ( $w_i = 2$ ) or qualitative ( $w_i = 1$ ); and  $n$  is the total number of GRI-R for the target  $j$ .

**TABLE 3** SDG 12 disclosure requirements matrix

Targets	Business theme	GRI topic	GRI requirement		GRI-R BT	GRI-R T
			Quantitative	Qualitative		
12.2	ME	301-1, 301-2	3011a, 3011b, 3012a	-	3	38
	EE	302-1, 302-2, 302-3, 302-4, 302-5	3021a, 3021b, 3021c, 3021d, 3021e, 3022a, 3023a, 3024a, 3025a	3021f, 3021g, 3022b, 3022c, 3023b, 3023c, 3023d, 3024b, 3024c, 3024d, 3025b, 3025c	21	
	WE	303-3	3033a, 3033b	3033c	3	
	EPR	301-3, 308-1, 308-2, 204-1	3013a, 3081c, 3082a, 3082b, 3082d, 3082e, 2041a	3013b, 3082c, 2041b, 2041c	11	
12.4	WM	306-1	3061a	3061b	2	46
	WsM	306-2, 306-4	3062a, 3062b, 3064a, 3064b	3062c, 3064c	6	
	GHGE	305-1, 305-2, 305-3, 305-4	3051a, 3051c, 3052a, 3052b, 3053a, 3053c, 3053d, 3054a	3051b, 3051d, 3051e, 3051f, 3051g, 3052c, 3052d, 3052e, 3052f, 3053b, 3053e, 3053f, 3053g, 3054b, 3054c, 3054d	24	
	ODSE	305-6	3056a	3056b, 3056c, 3056d	4	
	AP	305-7	3057a	3057b, 3057c	3	
	SP	306-3	3063a, 3063b	3063c	3	
	EEX1	<i>GRI G4-EN31: 103, 305, 306, 307</i>	<i>103, 305103, 306103, 307103</i>		4	
12.5	MR	301-2	3012a		1	10
	WsM	306-2	3062a, 3062b	3062c	3	
	EEX2	<i>GRI G4-EN31: 103, 305, 306, 307</i>	<i>103, 305103, 306103, 307103</i>		4	
	EPR	301-3	3013a	3013b	2	
12.8	PI	417-1	4171b	4171a	2	2
SDG <sub>12</sub>		34	51	45	96	96

Source: The authors, based on GRI, UN Global Compact, and WBCSD (2015). In italics, Tsalis et al. (2020) KPIs and change in GRI Statements.

Finally, the Business Theme Disclosure Indicator ( $BT_kDI$ ) measures the degree of disclosure with a given business theme. For each business theme associated with a different target (e.g., material efficiency, energy efficiency, water efficiency, etc.), the  $BT_kDI$  is calculated (Equation 3).

$$BT_kDI = \sum_{i=1}^n R_i w_i, \quad (3)$$

where,  $BT_k$  refers to each business theme as listed in Table 3 ( $k = ME, EE, WE, EPR, WM, WsM, \text{etc.}$ );  $R_i$  refers to each of the GRI-R assigned to a specific business theme  $k$  ( $i = 1, \dots, n$ ), with a value of 0 if not reported and a value of 1 if reported;  $w_i$  is the value of each GRI-R according to whether it is quantitative ( $w_i = 2$ ) or qualitative ( $w_i = 1$ ); and  $n$  is the total number of GRI-R for the business theme  $k$ .

High index values imply greater disclosure of information related to SDG 12, target or business theme and a greater commitment and contribution to its achievement. A maximum score for each index is obtained when a firm reports all possible GRI-R, both qualitative and quantitative. Following the same criterion as Tsalis et al. (2020), for scores greater than 50% of the index we assumed that the

information provided by the company is acceptable, and below the 50% threshold, that the company is poorly aligned with SDG 12, and contributes very little to achieving it. We applied the same criterion to assess the contribution of each company to the SDG 12 targets and key business themes. Table 4 shows the maximum scores of the indices and the thresholds.

Finally, to examine the average disclosure of the sampled firms, we calculated the aggregated indices of SDG 12, its targets and its business themes as a simple mean for each year. The resulting values were rescaled so that a percentage of 100% indicates maximum possible disclosure.

## 4 | RESULTS

### 4.1 | Reporting on SDG 12

Table 5 shows the SDG 12 disclosure indicator scores ( $SDG_{12}DI$ ) and the percentage of disclosure achieved ( $SDG_{12}DI\%$ ) for each company and each reporting year. Our findings show evidence of polarisation in disclosure practices. The three companies reporting the highest

**TABLE 4** Disclosure indices for measuring SDG 12

T <sub>i</sub> DI	Maximum	Threshold 50%	BT <sub>k</sub> DI	Maximum	Threshold 50%
12.2	59	29.5	Material efficiency	6	3
			Energy efficiency	30	15
			Water efficiency	5	2.5
			Extended product responsibility	18	9
12.4	67	33.5	Water management	3	1.5
			Waste management	10	5
			GHG emissions	32	16
			ODS emissions	5	2.5
			Air pollution	4	2
			Spills	5	2.5
			Environmental expenditure 1	8	4
12.5	18	9	Materials recycling	2	1
			Waste management 2	5	2.5
			Environmental expenditure 2	8	4
			Extended product responsibility 2	3	1.5
12.8	3	1.5	Product information	3	1.5
SDG <sub>12</sub> DI	147	73.5		147	73.5

SDG 12 Firms	No. reporting requirements disclosed		SDG <sub>12</sub> DI		SDG <sub>12</sub> DI (%)	
	2018	2019	2018	2019	2018	2019
Consum	77	76	114	112	78	76
Eroski	67	70	96	101	65	69
El Corte Inglés	50	59	78	88	53	60
Alimerka	25	27	37	42	25	29
Mercadona	21	27	33	40	22	27
Dia	21	24	33	40	22	27
Dinosol	19	27	27	39	18	27
Lidl	22	22	37	37	25	25
Aldi	15	21	21	31	14	21
Auchan	0	17	0	26	0	18
Carrefour	9	0	15	0	10	0
Average	29.6	33.6	44.6	50.5	30	34
Max (threshold)	96		147 (73.5)		100	

**TABLE 5** Reporting on SDG 12.  
Spanish food retailers

indicator values are ranked significantly above the others: Consum (76% in 2019), Eroski (69% in 2019), and El Corte Inglés (60% in 2019). It should be noted that Consum and Eroski are cooperatives, which clearly reflects their high commitment to social and environmental issues. On the other hand, none of the other companies reached 30% of the maximum score, which, despite improvements in their individual scores in 2019, falls far below 50%. The company with the highest score (Consum) does not prioritise SDG 12, although it mentions other closely related SDGs. By contrast, multinational firms (Carrefour, Lidl, Aldi, and Auchan), do prioritise SDG 12 but their scores are very low.

## 4.2 | Reporting on SDG 12 targets

Table 6 describes how each company reports on SDG 12 targets. For each target, it shows the TDI of each company in 2018 and 2019, the average score of the sampled firms (average TDI), the percentage of disclosure achieved (average TDI %) and the maximum score for the disclosure indicator (TDI max.).

Target disclosures at an aggregate level show very low scores across all targets. Although the scores for each target (TDI) increase in value from 2018 to 2019, there is plenty of room for improvement. Turning to the average percentage of disclosure for the sector in each

**TABLE 6** Reporting on SDG 12 targets. Spanish food retailers

Targets Firms	T <sub>12.2</sub> DI		T <sub>12.4</sub> DI		T <sub>12.5</sub> DI		T <sub>12.8</sub> DI	
	2018	2019	2018	2019	2018	2019	2018	2019
Consum	43	43	58	58	10	10	3	1
Eroski	38	40	51	52	6	8	1	1
El Corte Inglés	33	34	40	46	5	5	0	3
Mercadona	16	13	11	20	6	7	0	0
Lidl	16	16	13	13	5	5	3	3
Alimerka	14	18	20	21	3	3	0	0
Dinosol	10	16	15	21	2	2	0	0
Dia	9	15	19	21	5	4	0	0
Aldi	5	10	13	16	3	5	0	0
Carrefour	2	0	6	0	7	0	0	0
Auchan	0	13	0	10	0	3	0	0
Average TDI (standard deviation)	16.9 (14.7)	19.8 (13.4)	22.4 (18.8)	25.3 (18.5)	4.7 (2.7)	4.7 (2.8)	0.6 (1.2)	0.7 (1.2)
Average TDI (%)	29	34	33	38	26	26	21	24
TDI max (threshold)	59 (29.5)		67 (33.5)		18 (9)		3 (1.5)	

target (average TDI %), none of the targets reached 50% in either 2018 or 2019, indicating that the food retail sector's disclosure on SDG 12 targets is poor. Target 12.4, related to waste and pollution management, presents the highest level of disclosure, with an average TDI of 33% and 38% in each reporting year, followed by 12.2 (management of natural resources), with average TDI of 29% and 34%. Targets 12.5 and 12.8, linked to improvements in sustainability through the circular economy and responsible consumption, score lower. A closer inspection of companies' TDI in target 12.8, for which the most frequent value is zero points, suggests there are some weaknesses in sustainability reporting practices based on GRI standards when they are matched with SDG.

Regarding the individual TDI at the company level, we can see that Consum achieves the highest scores in every target in both years (except for target 12.8 in 2019). Furthermore, Consum is the only company that exceeds the 50% disclosure threshold considered minimally acceptable in all the targets. It is followed by Eroski and El Corte Inglés, which also provide an adequate level of information on targets 12.2 and 12.4. The rest of the companies do not reach the 50% acceptability threshold defined for each target, once more drawing attention to the very low values achieved by the international companies (Carrefour, Auchan, Lidl, and Aldi).

### 4.3 | Reporting on business themes

Table 7 shows the maximum score for the disclosure indicator (BTDI max), the average requirements, the average score for the sampled firms (average BTDI) and the average percentage of disclosure achieved in each business theme (average BTDI %) for each BT in each reporting year. The BT with the highest disclosures are: water efficiency (WE), waste management (WsM), GHG emissions (GHGE),

**TABLE 7** Reporting on SDG 12 business themes. Spanish food retailers

Business themes	BTDI max	Average BTDI		Average BTDI (%)	
		2018	2019	2018	2019
(WE)	5	1.8	2.5	36	51
(WsM)	10	4.7	4.4	47	44
(GHGE)	32	11.5	14.1	36	44
(ODSE)	5	1.6	2.1	33	42
(EE)	30	9.6	11.6	32	39
(ME)	6	1.8	1.6	30	27
(WM)	3	0.9	0.8	30	27
(SP)	5	1.4	1.4	27	27
(MR)	2	0.4	0.5	18	27
(PI)	3	0.6	0.7	21	24
(EPR)	18	3.6	4.0	20	22
(AP)	4	0.7	0.7	18	18
(EEX)	16	1.7	2.2	11	14

and ODS emissions (ODSE), all of which are related to environmental impacts. It is important to note that none of the BT scores shows an average BTDI above the disclosure acceptability threshold (50%), with the exception of water efficiency (WE) in 2019 (51%). At the other end of the spectrum, air pollution (AP) and environmental expenditure (EEX) are the lowest scoring business themes (AP 18% and EEX 14% in 2019). EEX describes the euros allocated to management emissions, as well as the financial resources devoted to reduction, recycling and reuse initiatives. These results suggest companies are reluctant to voluntarily provide financial information with an impact on the environment. Note also the very low percentage (22%) for the business theme extended producer responsibility (EPR). Considering that this



aspect is especially relevant in the food retail industry, our results suggest that more efforts are needed in this direction. In general terms, it can be said that food retailers do not disclose business themes properly.

## 5 | DISCUSSION AND CONCLUSIONS

This study aimed to assess Spanish food retailers' contribution to SDG 12 as a way to examine the extent of their engagement with SCP. For this purpose, we analysed GRI disclosures included in their NFIS and applied a scoring system based on the disclosure of GRI requirements.

Our findings suggest that, according to this system, Spanish food retail firms perform poorly in communicating their SDG 12 achievements when reporting under GRI standards, since in most cases the information provided does not reach the acceptable disclosure threshold established in our scoring framework. If we examine SDG 12 by targets, we see that retail firms disclose information to a larger extent on targets 12.4 (management of chemicals and wastes) and 12.2 (efficiency of natural resources), while the targets related to promoting a circular economy and sustainable consumption (12.5 and 12.8) are given less coverage. In line with these findings at the target level, our analysis of disclosure on business themes reveals a remarkably higher effort in actions related to energy efficiency and the reduction of gases, and also a low effort in environmental expenditure and extended producer responsibility. These results seem to suggest that food retailers find it more convenient, or more material, to report on aspects concerning the efficiency of internal operations, in line with findings by Delai and Takahashi (2013) and Tsalis et al. (2020), rather than influencing suppliers and consumers with their actions. This, in terms of SCP, suggests that food retailers are more committed to sustainable production than to enhancing sustainable consumption.

Low scores may evidence, first, food retailers' low alignment with SDG 12 and, second, their weak sustainability communication. The low integration of SDG 12 into the firms' business strategies uncovers the contradiction between what companies say and what they do: despite SDG 12 being prioritised by half of the companies in our study, their reporting practices do not reflect their commitment to it. Thus, our findings would indicate that, instead of being a proxy for internal reflection and integration of the goals (Mhlanga et al., 2018), prioritisation of SDGs is rather a result of cherry-picking (or SDG-washing), with organisations engaging with SDGs only superficially (Heras-Saizarbitoria et al., 2022). In turn, the reason for food retailers' weak sustainability communication may be that the quality of their communication depends on the costs of sustainability reporting and the costs of providing sensitive information to stakeholders (Saber & Weber, 2019b), which might create a gap between retailers' sustainability reporting and their sustainability behaviour (Diaz-Sarachaga, 2021; Jones et al., 2011). In our sample, this can be exemplified by the fact that sustainability reports provide qualitative information on several environmental initiatives, yet the lowest scores are found for the environmental expenditure business theme. All this leads us to conclude that retailers are not fully exploiting their

potential as a bridge between sustainable production and consumption (Saber & Weber, 2019a). These results are also in line with findings from the United Nations (2020a), which reveal that certain critical aspects of environmental, social and governance domains are hardly mentioned despite the increase in firms' sustainability reporting, and with Heras-Saizarbitoria et al. (2022), who point out that companies are not taking seriously widely recognised reporting principles such as the GRIs.

This work contributes to the academic literature in two complementary ways. First, it adds to the literature on corporate sustainability reporting and SDGs, providing further evidence on how companies can measure their commitment to SDGs using the GRI standards, in line with Tsalis et al. (2020), Rosati and Faria (2019) and Avrampou et al. (2019). The value of our research is twofold: it analyses a specific SDG in depth, in this case SDG 12, using the GRI requirements to measure the targets and the business themes; and it develops a scoring system with which to capture, measure and compare the information companies are obliged to disclose when reporting SDG using GRI standards. Since reporting sustainability information under GRI is optional for the company, it should at least comply with the mandatory disclosures included in the GRI level chosen. This responds to calls from Schaltegger et al. (2017) and Macellari et al. (2021) for innovations in sustainability reporting that will improve firms' achievement of SDGs, and to Diaz-Sarachaga's (2021) call for a quantitative instrument that facilitates the standardisation and measurement of corporate contributions in achieving the SDGs.

Second, this paper contributes to the literature on SCP and retailing, showing quantitative evidence of Spanish food retailers' level of commitment to SCP through the reporting of the SDG 12 targets and business themes. Some relevant studies have examined food retailers' sustainability reporting and SCP (Jones & Comfort, 2019a, 2019b; Saber & Weber, 2019a, 2019b), but none of them have focused on SDG 12. To the best of our knowledge, this is the first paper to quantitatively analyse the contribution to SCP through SDG 12 in the food retail sector, thus filling the gap in the literature and opening the door for further research in other countries and industries.

The above findings have a number of implications for managers, policy makers and standard-setters. A strong commitment to SDG 12 implies prioritising SCP actions and making them more transparent, so managers should increase their efforts to disclose SCP more thoroughly, especially aspects such as the circular economy, product information or communication and promotion. To do this, they should also consider the benefits of adopting higher levels of compliance with the GRI standards in their companies (i.e., moving from core to comprehensive GRI) in order to better report about their achievements on SDGs, since it is optional. In addition, the low commitment with SDG 12, particularly in the companies that prioritised it, highlights the need to reinforce the linkage between material topics and indicator disclosures when reporting under GRI standards, which, as stated by Chang et al. (2021), reminds the need of careful preparation of sustainability reports in terms of material topics and indicators. Finally, the scoring system proposed here aims to provide an objective measure of the degree of adherence to SDGs through the information companies disclose, both in terms of

quantity and quality of information. Managers can also use this system as a diagnostic and internal control tool to assess their company's progress on specific areas of SDG 12. At the firm level, measuring the extent to which they meet the business themes and targets will reveal firms' strengths and weaknesses and allow them to make comparisons with their competitors. At the sector level, it will show which key business themes, targets and SDG are furthest from being achieved and prompt business associations, policy makers and standard-setters to design actions that will enable companies in a sector to become more sustainable through their commitment to SDG 12.

In this process, governments and agencies have a responsibility to issue guidelines and propose policies and legislation because companies still need training and guidance on how to report positive and negative impacts in some key areas (Avrampou et al., 2019), all of which will result in greater comparability of sustainability information. With regard to sustainability standard setting, despite several recent initiatives (e.g., update of GRI 303 and GRI 306 to align with SDG 12), increased efforts are required to harmonise the current objectives and disclosure standards with the new information needs emanating from the SDG framework. In this vein, the leading role in developing sustainability standards recently assumed by the European Financial Reporting Advisory Group (EFRAG) and the International Financial Reporting Standards Foundation (IFRS-Foundation) should be noted.

This research has several limitations. First, some of the SDG targets and business themes do not correspond with GRI indicators within the SDG Compass. This is the case of SDG 12 targets and business themes that reflect essential aspects which retailers can address to achieve SCP, such as food waste and food losses (target 12.3) and communication and promotion of responsible consumption (BT). Although companies report on a number of actions in these two aspects, they are not considered in the framework, which hinders the comparability of sustainability information between firms.

A second limitation concerns the comparability of the results when studying companies in different countries. Although it can be applied to any SDG and also to any sector and country, its potential use in comparative studies between countries should carefully be assessed by researchers. Sustainability reports are heterogeneous in scope and, since they are mostly discretionary, it may be that, in the case of multinational companies, subsidiaries disclose information of the company on a global basis, which may invalidate the comparison and mask territorial imbalances in meeting SDG targets. Thus, researchers should warrant that this question does not invalidate the comparison.

Some avenues for future research can be identified. We consider that the methodology used can be applied to any SDG and to any sector in which sustainability reports or NFIS are accessible and the GRI KPI tables can be identified. Thus, future studies could extend this research to other SDGs, which would undoubtedly enhance measurement and comparability of efforts towards specific SDGs. Researchers could also explore firms' commitment to SDG 12 in other industries to encourage a comparative and sectoral vision. Finally, since our study shows that the highest scores are achieved by cooperatives, the analysis should go deeper into the relationship between certain

organisational factors and the degree of alignment with the SDG 12, as some authors have suggested (Di Vaio & Varriale, 2020; Rosati & Faria, 2019; Tsalis et al., 2020).

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## REFERENCES

- Adams, C., & Abhayawansa, S. (2022). Connecting the COVID-19 pandemic, environmental, social and governance (ESG) investing and calls for 'harmonisation' of sustainability reporting. *Critical Perspectives on Accounting*, 82, 102309. <https://doi.org/10.1016/j.cpa.2021.102309>
- Adams, C., Alhamood, A., He, X., Tian, J., Wang, L., & Wang, Y. (2021). *The double-materiality concept: Application and issues*. Project report. Global Reporting Initiative.
- Akenji, L., & Bengtsson, M. (2014). Making sustainable consumption and production the core of sustainable development goals. *Sustainability*, 6(2), 513–529. <https://doi.org/10.3390/su6020513>
- Aras, G., Tezcan, N., & Furtuna, O. K. (2018). Multidimensional comprehensive corporate sustainability performance evaluation model: Evidence from an emerging market banking sector. *Journal of Cleaner Production*, 185, 600–609.
- Avrampou, A., Skouloudis, A., Iliopoulos, G., & Khan, N. (2019). Advancing the sustainable development goals: Evidence from leading European banks. *Sustainable Development*, 27(4), 743–757. <https://doi.org/10.1002/sd.1938>
- Bauer, B., Watson, D., & Gylling, A. C. (2018). *Sustainable consumption and production: An analysis of Nordic Progress towards SDG 12 and the way ahead*. Nordic Council of Ministers.
- Bengtsson, M., Alfredsson, E., Cohen, M., Lorek, S., & Schroeder, P. (2018). Transforming systems of consumption and production for achieving the sustainable development goals: Moving beyond efficiency. *Sustainability Science*, 13(6), 1533–1547. <https://doi.org/10.1007/s11625-018-0582-1>
- Bradley, P. (2016). Environmental impacts of food retail: A framework method and case application. *Journal of Cleaner Production*, 113, 153–166. <https://doi.org/10.1016/j.jclepro.2015.09.085>
- Chang, A. S., Paramosa, L. S., & Tsai, C. Y. (2021). Linking key topics to environmental indicators in corporate social responsibility reports of construction companies. *Corporate Social Responsibility and Environmental Management*, 28, 1335–1347.
- Chkanikova, O., & Mont, O. (2015). Corporate supply chain responsibility: Drivers and barriers for sustainable food retailing. *Corporate Social Responsibility and Environmental Management*, 22, 65–82. <https://doi.org/10.1002/csr.1316>
- Clarkson, P. M., Fang, X., Li, Y., & Richardson, G. (2013). The relevance of environmental disclosures: Are such disclosures incrementally informative? *Journal of Accounting and Public Policy*, 32(5), 410–431. <https://doi.org/10.1016/j.jaccpubpol.2013.06.008>
- Consolandi, C., Phadke, H., Hawley, J., & Eccles, R. G. (2020). Material ESG outcomes and SDG externalities: Evaluating the health care sector's contribution to the SDGs. *Organization and Environment*, 33(4), 511–533. <https://doi.org/10.1177/1086026619899795>



- Delai, I., & Takahashi, S. (2013). Corporate sustainability in emerging markets: Insights from the practices reported by the Brazilian retailers. *Journal of Cleaner Production*, 47, 211–221. <https://doi.org/10.1016/j.jclepro.2012.12.029>
- Di Vaio, A., & Varriale, L. (2020). SDGs and airport sustainable performance: Evidence from Italy on organisational, accounting and reporting practices through financial and non-financial disclosure. *Journal of Cleaner Production*, 249, 119431. <https://doi.org/10.1016/j.jclepro.2019.119431>
- Diaz-Sarachaga, J. M. (2021). Shortcomings in reporting contributions towards the sustainable development goals. *Corporate Social Responsibility and Environmental Management*, 28, 1299–1312. <https://doi.org/10.1002/csr.2129>
- Fonseca, L., & Carvalho, F. (2019). The reporting of SDGs by quality, environmental, and occupational health and safety-certified organizations. *Sustainability*, 11(20), 5797. doi:10.3390/su11205797
- Gaspar, D., Shah, A., & Tankha, S. (2019). The framing of sustainable consumption and production in SDG 12. *Global Policy*, 10(Suppl. 1), 83–95. <https://doi.org/10.1111/1758-5899.12592>
- Girella, L., Zambon, S., & Rossi, P. (2019). Reporting on sustainable development: A comparison of three Italian small and medium-sized enterprises. *Corporate Social Responsibility and Environmental Management*, 26, 981–996.
- GRI. (2021). *A short introduction to the GRI standards*. <https://www.globalreporting.org/media/wtaf14tw/a-short-introduction-to-the-gri-standards.pdf>
- GRI, & UN Global Compact. (2017). *Business reporting on the SDGs: An analysis of the goals and targets*. <https://www.unglobalcompact.org/library/5361>
- GRI, & UN Global Compact. (2018). *Business reporting on the SDGs. Integrating the SDGs into corporate reporting: A practical guide*. <https://www.unglobalcompact.org/library/5628>
- GRI, UN Global Compact, & WBCSD. (2015). *SDG compass: The guide for business action on the SDGs*.
- Guevara, S., & Pla, I. J. (2019). Sustainable consumption and production: A crucial goal for sustainable development—Reflections on the Spanish SDG implementation report. *Journal of Sustainability Research*, 1(2), 1–21. <https://doi.org/10.20900/jsr20190019>
- Hammond, K., & Miles, S. (2004). Assessing quality assessment of corporate social reporting: UK perspectives. In *Accounting forum*. Elsevier.
- Heras-Saizarbitoria, I., Urbieta, L., & Boiral, O. (2022). Organizations' engagement with sustainable development goals: From cherry-picking to SDG-washing? *Corporate Social Responsibility and Environmental Management*, 29, 316–328. <https://doi.org/10.1002/csr.2202>
- Illes, A. (2007). Seeing sustainability in business operations: US and UK food retailer experiments with accountability. *Business Strategy and the Environment*, 16, 290–301. <https://doi.org/10.1002/bse.483>
- Instituto Nacional de Estadística (INE). (2020). *Estadística estructural de empresas: Sector comercio, año 2018. Nota de prensa de 24 de junio de 2020*. <https://www.ine.es>.
- Ionascu, E., Mironiuc, M., Anghel, I., & Huian, M. C. (2020). The involvement of real estate companies in sustainable development—An analysis from the SDGs reporting perspective. *Sustainability*, 12, 798. <https://doi.org/10.3390/su12030798>
- Jacob-John, J., D'Souza, C., Marjoribanks, T., & Singaraju, S. (2021). Synergistic interactions of SDGs in food supply chains: A review of responsible consumption and production. *Sustainability*, 13, 8809. <https://doi.org/10.3390/su13168809>
- Jones, P., & Comfort, D. (2019a). Storytelling and corporate social responsibility reporting: A case study commentary on U.K. food retailers. *Journal of Public Affairs*, 19(4), 1–8. <https://doi.org/10.1002/pa.1834>
- Jones, P., & Comfort, D. (2019b). Better retail, better world: A commentary on British retailers and the sustainable development goals. *Journal of Public Affairs*, 19(2), 1–6. <https://doi.org/10.1002/pa.1910>
- Jones, P., Comfort, D., & Hillier, D. (2009). Marketing sustainable consumption within stores: A case study of the UK's leading food retailers. *Sustainability*, 1(4), 815–826. <https://doi.org/10.3390/su1040815>
- Jones, P., Comfort, D., & Hillier, D. (2011). Sustainability in the global shop window. *International Journal of Retail and Distribution Management*, 39(4), 256–271. <https://doi.org/10.1108/09590551111117536>
- Jones, P., Wynn, M., & Comfort, D. (2020). SDG 12, sustainable consumption and the UK's leading retailers. In L. McNeill (Ed.), *Transitioning to sustainability*. Basel.
- KPMG. (2020). *The time has come: The KPMG survey of sustainability reporting 2020*. <https://www.home.kpmg/sustainabilityreporting>
- Law 11/2018. (2018) Of December 28, on non-financial information and diversity. BOE n° 314, of December 29, 2018 (pp. 129833–129854). <https://www.boe.es/eli/es/l/2018/12/28/11>
- Le Blanc, D. (2015). Towards integration at last? The sustainable development goals as a network of targets. *Sustainable Development*, 23(3), 176–187. <https://doi.org/10.1002/sd.1582>
- Lu, J., Liang, M., Zhang, C., Rong, D., Guan, H., Mazeikaite, K., & Streimikis, J. (2021). Assessment of corporate social responsibility by addressing sustainable development goals. *Corporate Social Responsibility and Environmental Management*, 28(2), 686–703. <https://doi.org/10.1002/csr.2081>
- Macellari, M., Yuriev, A., Testa, F., & Boiral, O. (2021). Exploring bluewashing practices of alleged sustainability leaders through a counter-accounting analysis. *Environmental Impact Assessment Review*, 86, 106489.
- Malay, O. E., & Aubinet, S. (2021). Improving government and business coordination through the use of consistent SDGs indicators. A comparative analysis of national (Belgian) and business (pharma and retail) sustainability indicators. *Ecological Economics*, 184, 106991. <https://doi.org/10.1016/j.ecolecon.2021.106991>
- Meutia, I., Yaacob, Z., & Kartasari, S. F. (2019). Sustainability reporting: An overview of the recent development. *Accounting and Financial Control*, 3(1), 23–39. [https://doi.org/10.21511/afc.03\(1\).2020.03](https://doi.org/10.21511/afc.03(1).2020.03)
- Mhlanga, R., Gneiting, U., & Agarwal, N. (2018). *Walking the talk: Assessing companies' progress from SDG rhetoric to action*. Oxfam Discussion Papers.
- Morhardt, J. E., Baird, S., & Freeman, K. (2002). Scoring corporate environmental and sustainability reports using GRI 2000, ISO 14031 and other criteria. *Corporate Social Responsibility and Environmental Management*, 9, 215–233. <https://doi.org/10.1002/csr.26>
- Naidoo, M., & Gasparatos, A. (2018). Corporate environmental sustainability in the retail sector: Drivers, strategies and performance measurement. *Journal of Cleaner Production*, 203, 125–142. <https://doi.org/10.1016/j.jclepro.2018.08.253>
- Noronha, C., Tou, S., Cynthia, M. I., & Guan, J. J. (2013). Corporate social responsibility reporting in China: An overview and comparison with major trends. *Corporate Social Responsibility and Environmental Management*, 20, 29–42. <https://doi.org/10.1002/csr.1276>
- Petera, P., & Wagner, J. (2015). Global reporting initiative (GRI) and its reflections in the literature. *European Financial and Accounting Journal*, 10(2), 13–32. <https://doi.org/10.18267/j.efaj.139>
- Pizzi, S., Caputo, A., Corvino, A., & Venturelli, A. (2020). Management research and the UN sustainable development goals (SDGs): A bibliometric investigation and systematic review. *Journal of Cleaner Production*, 276, 124033. <https://doi.org/10.1016/j.jclepro.2020.124033>
- PricewaterhouseCoopers-PwC. (2017). *SDG reporting challenge 2017 exploring business communication on the global goals*. <https://www.pwc.com/gx/en/sustainability/SDG/pwc-sdg-reporting-challenge-2017-final.pdf>
- Reyes, C. (2019). *Top 50 Retail en España. Alimarket Gran consumo, diciembre 2019, 2–7*. Publicaciones Alimarket.
- Reyes, C. (2020). *Distribución Alimentaria: El sector afronta un nuevo escenario, Monográficos ALIMARKET, octubre 2020* (pp. 80–163). Publicaciones Alimarket.

- Rivera-Arrubla, Y. A., Zorio-Grima, A., & García-Benau, M. A. (2017). Integrated reports: Disclosure level and explanatory factors. *Social Responsibility Journal*, 13(1), 155–176. <https://doi.org/10.1108/SRJ-02-2016-0033>
- Rosati, F., & Faria, L. G. (2019). Business contribution to the sustainable development agenda: Organizational factors related to early adoption of SDG reporting. *Corporate Social Responsibility and Environmental Management*, 26(3), 588–597. <https://doi.org/10.1002/csr.1705>
- Saber, M., & Weber, A. (2019a). Sustainable grocery retailing: Myth or reality? – A content analysis. *Business and Society Review*, 124, 479–496. <https://doi.org/10.1111/basr.12187>
- Saber, M., & Weber, A. (2019b). How do supermarkets and discounters communicate about sustainability? A comparative analysis of sustainability reports and in-store communication. *International Journal of Retail & Distribution Management*, 47(11), 1181–1202. <https://doi.org/10.1108/IJDRM-08-2018-0156>
- Schaltegger, S., Etxeberria, I. A., & Ortas, E. (2017). Innovating corporate accounting and reporting for sustainability—Attributes and challenges. *Sustainable Development*, 25(2), 113–122. <https://doi.org/10.1002/sd.1666>
- Szennay, Á., Szigeti, C., Kovács, N., & Szabó, D. R. (2019). Through the blurry looking glass-SDGs in the GRI reports. *Resources*, 8(2), 101. <https://doi.org/10.3390/resources8020101>
- Tarquinio, L., Raucci, D., & Benedetti, R. (2018). An investigation of global reporting initiative performance indicators in corporate sustainability reports: Greek, Italian and Spanish Evidence. *Sustainability*, 10(4), 897. <https://doi.org/10.3390/su10040897>
- Tsalis, T. A., Botsaropoulou, V. D., & Nikolaou, I. E. (2018). A methodology to evaluate the disclosure practices of organisations related to climate change risks: A case study of international airports. *International Journal of Global Warming*, 15(3), 257–276. <https://doi.org/10.1504/ijgw.2018.093120>
- Tsalis, T. A., Malamateniou, K. E., Koulouriotis, D., & Nikolaou, I. E. (2020). New challenges for corporate sustainability reporting: United Nations' 2030 agenda for sustainable development and the sustainable development goals. *Corporate Social Responsibility and Environmental Management*, 27(4), 1617–1629. <https://doi.org/10.1002/csr.1910>
- United Nations. (2020a). *Responsible consumption & production: Why it matters* (Online). [https://www.un.org/sustainabledevelopment/wp-content/uploads/2019/07/12\\_Why-It-Matters-2020.pdf](https://www.un.org/sustainabledevelopment/wp-content/uploads/2019/07/12_Why-It-Matters-2020.pdf)
- United Nations. (2020b). *The sustainable development goals report 2020*. <https://unstats.un.org/sdgs/report/2020/>
- United Nations Environment Programme (UNEP). (2010). *ABC of SCP. Clarifying concepts on sustainable consumption and production*. Division of Technology, Industry and Economics, United Nations Environment Programme.
- United Nations Environment Programme (UNEP). (2011). *SCP branch: Retail sector*. <http://www.unep.fr/scp/xretail/background.htm>
- Wang, C., Ghadimi, P., Lim, M.-K., & Tseng, M. L. (2019). A literature review of sustainable consumption and production: A comparative analysis in developed and developing economies. *Journal of Cleaner Production*, 206, 741–754. <https://doi.org/10.1016/j.jclepro.2018.09.172>
- Welford, R., Young, W., & Ytterhus, B. (1998). Towards sustainable production and consumption: A literature review and conceptual framework for the service sector. *Eco-Management and Auditing*, 5, 38–56.
- Wynn, M., & Jones, P. (2020). *The sustainable development goals: Industry sector approaches*. Routledge. <https://doi.org/10.1002/sd.1582>

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