

Article

# The Strategic Role of the Corporate Social Responsibility and Circular Economy in the Cosmetic Industry

Simona Fortunati <sup>1</sup>, Laura Martiniello <sup>2</sup> and Donato Morea <sup>2,\*</sup> 

<sup>1</sup> Department of Economics, Engineering, Society and Business, University of Tuscia, Via del Paradiso, 47, 01100 Viterbo, Italy; simonafortunati@unitus.it

<sup>2</sup> Faculty of Economics, Universitas Mercatorum, Piazza Mattei, 10, 00186 Rome, Italy; l.martiniello@unimercatorum.it

\* Correspondence: donato.morea@unimercatorum.it

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**Abstract:** In the literature, circular economy (CE) and corporate social responsibility (CSR) are increasingly interconnected concepts. Turon et al. (2016) consider CE the guidelines of conduct for designing and developing good CSR strategies. In particular, the corporate management philosophy needs to be translated into mandatory CSR reports that better frames circular economy objectives by identifying and communicating actions to achieve sustainable development goals. The purpose of this paper is to explore a number of CSR reports in order to understand if cosmetic multinationals' (MNC) nonfinancial reporting is focused on the concept of circular economy and if CSR reports ensure an adequate level of disclosure to circular strategies. Moreover, the paper highlights the advantages that arise by converging the concepts of CSR and CE. The originality of this paper lies on providing evidence on “how” MNC are implementing a circular model. This paper contributes to our understanding on the relation between CSR and CE; it assesses the state of the art of circular strategies in MNC and proposes a consolidation of the concept of CE in terms of sustainable strategic and managerial practices communicated to the market by CSR reports. Moreover, it brings MNC to a better understanding of the ways to communicate their new circular business model. The analysis reveals a good level of attention by MNC to circularity in drafting their CSR reports that in many cases are able to describe objectives and actions that embrace multiple dimensions.

**Keywords:** corporate social responsibility; circular economy; cosmetic industry; sustainability; reports; multinational

## 1. Introduction

The increasing complexity and turbulence of the environment make it necessary for companies to develop competitive management models aimed to reach profits but also to meet the expectations of society and stakeholders in a sustainable and long-term view [1]. The European Commission, in 2001, defined corporate social responsibility (CSR) “as a concept whereby companies integrate social and environmental concerns in their business operations and in their interaction with their stakeholders on the voluntary basis” [2]. This definition was modified in 2011 with the recognition that CSR is not only beyond the law but also a means to respect legal obligations. The new regulation better clarifies that enterprises, to fully meet their corporate social responsibility, have to integrate social, environmental, ethical, human rights, and consumer concerns into their business operations and core strategy in close collaboration with their stakeholders. In line with this aim, CSR is defined as “the responsibility of enterprises for their impacts on society” [3].

In recent years, some authors combined the concepts of CSR and circular economy. Leandro and Paixao consider CSR as “the corporate management philosophy and set of practices that better frames sustainability.” “Circular economy draws from the purest values of CSR and puts them to practice. Both help achieve the sustainable development goals, and sustainable behavior at large, for both citizens, institutions and corporations” [4]. The concept of the CE is consequently spreading significantly, expanding to new issues such as economic growth and political strategy for the development and implementation of new business models [5].

In this context, a targeted action program that addresses people to the planet and prosperity is Agenda 2030, which includes 17 specific sustainable development goals (SDGs) where countries around the world have committed themselves to common objectives. Under “Objective 12” on responsible consumption and production, it is specifically outlined how states should achieve high standards that are relevant to the effective transition to a circular economy through efficient use of resources and more sustainable management. Furthermore, the prevention, reduction, and subsequent reuse of waste would implement this new model of economy even more significantly. Agenda 2030 also stresses that, in order to implement this change of mentality, it is necessary to incentivize companies to apply sustainable practices and disclose information on sustainability in their annual reports.

The European Union has implemented a range of both voluntary and mandatory actions in support of this new paradigm, including Agenda 2030. CSR can therefore represent a joint strength between business, economy, politics, and society through innovation, development, human resources management, and shared value creation, which ultimately will ensure companies a good reputation and a greater visibility [6].

According to Nemtanu, “the first companies to integrate CSR policies in their development strategy were (and still are) multinationals. Among these the cosmetics companies are distinguished organizations which by the nature of invented/produced/distributed products have a direct and personal impact on the consumer” [7]. Unlike large organizations, unfortunately, small and medium-sized enterprises (SME’s) implicitly carry out CSR actions by adopting behavior that can be hardly traced back.

With the entry into force of Legislative Decree no. 254/2016 implementing the European Directive 2014/95/EU, the obligation to report on CSR was introduced in Italy for large companies and in particular for public interest entities and large companies with more than 500 employees, such as insurance companies, listed companies, and banks. CSR reports are not subject to third-party certification but only to verification by managers in charge of financial statements. Since 2016, financial managers have had a new responsibility in communicating non-financial information to companies’ stakeholders making clear activities and results obtained in relation to environmental, social, and governance policies implemented by their companies [8]. Then, it seems necessary to investigate whether business strategies (as presented in CSR reports) are changing in the direction of a circular model, in order to bring out the relationship between CSR and implementation of a circular economy (CE) model.

Nevertheless, while much was written on CSR and its effects on legitimacy, the issues related to the link between CSR practices and CE model have been seldom investigated in the scientific literature as well as the possible implications and interactions between the two areas.

The search for organizational legitimacy through the disclosure of information on social and environmental issues is at the base of various studies on neo-institutional theory and sustainability accountability [9,10].

This legitimacy can be provided by real strategic actions or to be mere “window-dressing”. Some authors criticized the “rhetoric of sustainability” providing reports essentially based on words and justifications rather than real actions [11].

In particular, in the absence of clear objectives and reliable accountability mechanisms, nonfinancial reporting is characterized only by a reassuring rhetoric and techniques of neutralization promoting corporate greening without questioning the business-as-usual model. Many studies have criticized this organizations’ symbolic commitment to sustainability [10,12–14].

Overall, as pointed out by Bansal and Kistruck [15], the complexity, opacity, and uncertainty of environmental issues encourage impression management and symbolic rather than substantive commitment on the part of the organizations.

What does it mean for cosmetic companies questioning their business model? In our opinion, companies implementing circular economy (CE) are really engaged in changing their business, avoiding the rhetoric of sustainability. For this reason, CE and CSR are seen as converging concepts.

The study contributes to the literature on how accounting circular economy aims to bridge the gap between theories of CSR and circular economy.

The objective of this paper is to verify the existence of CE strategies in cosmetic organizations through the analysis of their non-financial reports and analyze the relation between CE and CSR in these reports to evaluate the importance of certain trends. We detect how organizations account for CE in their CSR reports for a better understanding of their commitment toward a new business model.

Our study aims to bridge the gap in the literature regarding the possible interaction between the areas of CSR and CE in the cosmetics industry to enhance the transition toward a new circular business model. In our opinion, concepts such as governance, workers, community, and environment (at the basis of CSR policies) must find their full development in the logic of a CE in order to implement real, long-term changes in cosmetic industries' business model.

Therefore, our research question is: Do CSR reports in the leading cosmetic MNEs contain (implicit or explicit) references to CE?

The paper is organized as follows: Section 2 examines relevant literature. Section 3 presents the research methodology. Section 4 contains the findings from document analysis. Section 5 discusses the results obtained, and finally, Section 6 presents the conclusions and limitations of the paper itself, identifying future research activities.

## 2. CSR and CE in Cosmetic Industry: Relevant Literature Review

The topics of corporate social responsibility and environmental sustainability have assumed considerable importance concerning the conservation of ecosystems and biodiversity [16]. Many are the benefits of CSR for organizations when corporate sustainability objectives are implemented [17]. The traditional shareholders view, mainly oriented to profits, evolved in favor of environmental and social values [18].

The cosmetics sector has been strongly affected by this paradigm shift, especially because consumers' demand for products with a low environmental impact and organic certifications that guarantee the reliability of the formulations [19] has become strongly differentiating. In fact, terms such as safety, lack of toxic substances, and tolerability of the product are increasingly required for cosmetics to be appealing for the market. Many companies pay particular attention to the sensitivity of their buyers toward environmentally friendly and biodegradable products, without neglecting the quality. According to Sahota [20], *"Sustainability has come to the fore in the cosmetics and personal care industry. Rising ethical consumerism and the need for resource efficiency are making cosmetic companies-small, independent firms to global giants—take steps towards sustainable development"*. To verify the environmental impact that a cosmetic product can create in the entire production cycle, it is of paramount importance to consider a series of factors as the emissions of CO<sub>2</sub>, the energy or water consumption, and the use of alternative sources to fossil fuels [21]. The choice of an adequate eco-design linked to reducing the impact of packaging is also a fundamental choice for a company that wants to adopt sustainable, innovative packaging with ethical labels [22]. Environmental sustainability is a key concept that is part of the MNCs business model. Being able to map the single process also means ability to count the criticality and environmental impact of products in order to better manage their reduction. Attention to the environment as well as to employees and the community is evident in MNC's business model [6].

In the cosmetics industry, these aspects are, according to some authors, really permeating the organization integrating the CSR in the company strategic policy through practices of collaboration with employees, suppliers, and users [23]. The big variety of certifications in the cosmetic field proves

that companies who promote eco-compatible solutions must follow strict quality and environmental standards, must adopt practices of waste reduction and CO<sub>2</sub> reduction, and must adopt eco-design and packaging reduction [24].

The circular economy definition is less shared in the literature. The circular economy concept cannot be traced back to one single date or author. Its applications to modern economic systems have gained momentum since the late 1970s, led by a number of academics and businesses [25]. CE can mean different things to different people and it is necessary to reach a shared understanding and common language [26].

Circular economy aims to redefine growth, focusing on positive society-wide benefits. It entails gradually decoupling economic activity with a transition to renewable energy sources, the circular model builds economic, natural, and social capital. It is based on three principles: (i) Design out waste and pollution, (ii) keep products and materials in use, and (iii) regenerate natural systems.

The measurement of circularity is at the center of many questions recently raised by researchers such as how to measure the progress to transition toward a CE [27] and how is circularity measured in business and economics [28].

According to EASAC [29], companies may lack the information confidence and capacity to move CE solutions due to a lack of indicators and targets. More structured information needs to inform decision making and to improve circular business investment decisions. Recently, many circular indicators (C-indicators) have been developed, but dissemination and proper use of such indicators is needed. Saidani et al. [26], through an extended review of literature and academic journals, identified 55 C-indicators. The information retrieved was collected and analyzed driving to the classification of such indicators in 10 categories, in which categories 1–4 are specific to CE paradigm and categories 5 and 6 are related to the particular usage of C-indicators; categories 7 and 8 regard basic feature of C-indicators, category 9 is dedicated to the assessment framework of C-indicators, and category 10 specifies the background in which C-indicators are developed. In this context, some authors affirm that CE and CSR are increasingly interconnected concepts. In recent years, social factors started to play a more important role in circular economy studies. Researchers have focused on how a circular economy can contribute to greater inter and intra-generational equality in terms of social and financial equity by reducing the distance between the concepts of CSR and CE [30,31].

According to Bonet et al. [32], *“The circular economy (CE) is a new economic model reconciling economy and environmental preservation in a social approach”*; consequently, what is missing in the literature are the synergistic effects between CSR and circular economy [33].

Esken et al. [34] tried to identify the possible implications for multinational companies of CE policies and showed how CSR can use the principles of the circularity to implement new strategies at the managerial-organizational level. This research offers a proposition on how to use CSR perception as a signpost for CE and fuel future research into this direction.

Stewart and Niero [35] point out that, although there is an increasing attention to sustainability among companies in cosmetic industry, there is little collaboration with consumers (at the end of life of products) and there is hardly any circular design model.

Turoń and Czech [36] highlight how circular economy and sustainability practices can provide a solid basis for the implementation of CSR in transport and logistics industries.

Yang et al. [33] state that *“circular economy (CE) is receiving increasing attention worldwide and is intended to integrate economic activity and environmental wellbeing in a sustainable way, . . . however, what is missing in the literature are the synergistic effects between the two practices on corporate social responsibility (CSR) performance”*.

Daú et al. [37] analyze the sustainable supply chain 4.0 by proposing the circular economy transition conceptual framework. The research concludes that *“the union among the triple bottom line, Industry 4.0, and the corporate social responsibility allows the transition from the linear model to the circular model and can improve the sustainable healthcare supply chain 4.0.”*

According to Nemtanu [7], “The first companies to integrate CSR policies in their development strategy were (and still are) multinationals.

A circular approach is, according to several authors, a new winning strategic market approach for MNC alternative to the more traditional Linear design.

In fact, in linear design, the company pays much more attention to the aesthetics and advertising campaigns around that product [38]. In circular design, there is particular attention to the economic and social aspects as well as environmental being by creating and optimizing new business models for the transition to a CE [39].

The literature hypothesizes is that the circular economy strategies also include social performances [32] with large convergence areas with CSR. Circular design means being able to design from the beginning durable products, whose packaging is also easily reusable, recyclable, and easily disassembled, which would produce maximum economic and social value. According to the literature, the triple bottom line, as a tool for economic growth and respect for the environment, is a fundamental factor behind this transition [40]. The importance of design and the role of designers in creating increasingly sustainable products and processes have been much discussed in the academic world in order to propose an alternative and responsible approach with terms such as “Eco-Design”, “Green Design”, “Environmental Design”, and “Sustainable Design” [41].

Bom et al. [42] proposed a sustainable approach specific for cosmetic industry by identification and management of multiple environmental, economic, social, and safety aspects. They affirm that the “*cosmetic industry needs to adapt and innovate to design products and processes that can improve the sector sustainability, acting across the entire value chain*” and that “*it is essential to understand which factors to consider when aiming for sustainability.*”

These authors summarize seven essential phases/areas in a model that clearly integrate elements of circularity. In each phase of a product life cycle, they try to understand which factors to consider when aiming for sustainability, within a circular approach. The phases/areas identified are: (i) Design, (ii) sourcing, (iii) manufacturing, (iv) packaging, (v) distribution, (vi) consumer-use, and (vii) post-consumer use.

In relation to the design phase, they affirm that the way the product is designed plays a very important role in its environmental impact. The sourcing phase regards the use of sustainable agriculture, natural raw materials, responsible and ethical sourcing, fair trade, etc. The manufacturing phase regards production process and related problems of safety, energy and water use, emission and waste, and community involvement. Packaging phase regards packaging materials. Distribution phase relates transport and frequency of deliveries. Consumer-use phase regards functional benefits, product safety and quality, social benefit, and consumer practices. Post-consumer use phase involves biodegradability, packaging waste, landfill, and recycling and re-use.

In this paper, we apply the seven areas of Bom et al. [42] as an interpretative lens to analyze CSR reports of MNC. We aim to verify whether a circular approach is still far from being formulated and reported, or vice versa if there are signals of a strategic and managerial approach to CE. Moreover, we wish to understand if the existing (often compulsory) CSR reports can be used as an integrated nonfinancial reporting tool or if dedicated reports on circularity are needed by cosmetic companies.

This works points out how circular economy practices are the guidelines for the design and development of CSR strategies and allow a real business model innovation in cosmetic industries.

### 3. Methodology

Among various qualitative research approaches, “Grounded theory” is the methodology that allows theories to emerge from the data that are collected. Grounded theory research follows a systematic yet flexible process to collect data, with some margin to interpret the results. Basically, grounded theory is the simultaneous collection and analysis of data using a process known as constant comparative analysis [43].

Some methodological issues arise regarding the nature and process of grounded theory [44]. The main issues regard precision and clarity. These issues can be described as method slurring with other similar yet different qualitative methodologies, e.g., phenomenology [45] and in the absence of theoretical coding [46].

Nevertheless, this paper uses the grounded approach for a preliminary “observation” and “interpretation” of the behavior of cosmetic multinationals through the analysis of CSR reports and other internal and external documents looking for existing interconnections between CSR and CE. To improve precision and clarity of our grounded analysis, theoretical coding occurs, using a method based on a qualitative content analysis when explaining results.

The research aims to confirm the idea that CSR and CE are converging concepts, with consistent benefits arising from an adequate level of disclosure of CE strategies through an integrated CSR reporting. To test this working hypothesis, a secondary data review was implemented through the analysis of the CSR reports of eight well-known MNCs.

The choice of the sample is not random but guided by the criterion of “representativeness”. In particular, the companies identified are those most active in CSR practices and reporting. We assumed that by observing these companies is it possible to gain first insights on “if” and “how” companies (the best in class) are moving toward a CE strategic approach and if their CSR practices (as described in their reports) reflect this strategic approach.

Information was gathered online and through companies’ websites through a careful analysis of annual reports, CSR reports, sustainability reports, circularity reports, and any other available information on the companies’ CE and CSR practices. The more recent nonfinancial reports were considered (usually 2018/2019). To analyze these documents, some key terms representing a CE approach were coded. In particular, we looked for the use of terms such as: (i) Circular economy, (ii) recycling/reuse; (iii) zero waste/waste reduction; (iv) water/energy consumption; (v) gas emission; and (vi) soil use/biodiversity. Moreover, we checked whether circularity ratio and/or other social/environmental indicators were used in companies nonfinancial reporting.

Moreover, to interpret firms’ behavior, seven areas of the companies’ business model were examined, in line with the Bom et al. [42] model. These areas were design, sourcing, manufacturing, distribution, consumer-use, and post-consumer use.

The companies selected were L’Oreal Group, Clarins Group, Guerlain Group, Shiseido Group, Lush Group, Yves Rocher Group, Pierre Fabre Group, and Chanel Group.

For each firm, CSR reports and other documents and information on the company were gathered from the company websites. Other information was selected from social media and official annual reports of the companies (see Table A1, in Appendix A).

#### 4. Case Studies

The following analysis starts from a literature review aimed to identify some key concepts of circularity we expect should be been used in nonfinancial reporting when CE and CSR are converging concepts. Then, all the relevant nonfinancial document produced by eight MNCs were downloaded and analyzed.

The literature review allowed the following coding of five main concepts suggesting a circular approach in companies’ strategies: (1) Recycling/reuse; (2) zero waste/reduction in waste; (3) reduction of water/energy consumption; (4) reduction of gas emission; and (5) attention to soil use/biodiversity. Moreover, it was verified whether the concept of circularity was explicitly mentioned in the reports and whether circularity ratio (C-ratio) or other social/environmental indicators were provided.

For each coded concept, the number of times the concepts were mentioned in the report was checked as a signal of the importance of this factor. When the companies used a dedicated website to report this information, the count of the recurrent concepts was not available and the report was analyzed as a whole.

The following table synthesizes the main results of the qualitative concepts analysis (see Table A2, in Appendix A). Then, for each MNCs, a deeper assessment of reports was provided according to Bom et al.'s [42] model to verify how MNCs approach some strategic areas of the cosmetic business: (i) Design; (ii) sourcing; (iii) manufacturing; (iv) packaging; (v) distribution; (vi) consumer use; (vii) post-consumer use.

#### 4.1. L'Oréal Group

The L'Oréal Group pays particular attention to the “design phase”. The company produces its products by minimizing waste in landfills also through the tool of “eco-design” and environmental design to obtain lighter packaging reducing weight.

In the “sourcing phase”, the company declares to use sustainable raw materials with the aim to reduce the environmental impact. The use of raw materials of vegetable origin respects the principles of biodiversity protection and the production of artificial substances and is linked to the principles of green chemistry. Its life cycle assessment (LCA) process includes the analysis of the potential impact that products generate on the environment and allows to control Eco toxicity, biodegradability, and bioaccumulation. The company also uses eco-sustainable material (from recycling) for production purposes. In this field, it seems particularly attentive to CE. In particular, it has joined the circular economy networks for collaborations of companies in different areas.

In the “manufacturing phase”, the company uses, in all its plants, a tool called “waters can” to classify the different types of water use and verify the quantity of water consumed reducing water consumption. The heat from the water is recovered and re-used (through evaporation). In addition, the “Carbon Balanced project” has enabled the Group to prevent the emission of 59.341 tons of CO<sub>2</sub>.

The “packaging phase” provided an internal policy of optimization of the packaging, based on the main factors and taking into account the health and safety of consumers, as well as through the total elimination of PVC. In addition, the company produces PET for food use from the recycling of materials and uses methods to reduce the footprint of cosmetic packaging as well as wood fiber-based products.

The “distribution phase” is particularly relevant. The company has implemented a 60% reduction in waste and a 20% reduction in CO<sub>2</sub> emissions on the transport of the products.

In the “consumer-use phase”, the company is committed to provide both health and social care to its employees meeting their needs. Indirectly, health and social care can lead to lower healthcare costs for employees and to company benefits due to an increased efficiency of employees. In addition, a series of initiatives are undertaken to support the community such as solidarity shopping and employment for disabled people or disadvantaged groups.

In the “post-consumer use” phase, the company pays attention to recycling the products and recovering and reusing the elements of the product. Waste that cannot be returned to the production cycle is reused for production of energy from alternative sources. The company is certified ISO 9001, ISO 14001, OHSAS18001, ISO 50001.

L'Oréal provides an integrate financial/nonfinancial annual report (year 2019) of more than 400 pages of which 256 dedicated to nonfinancial disclosure. The document includes clear dedicated statements on “Circular Economy” strategies. Recurring terms are water/energy consumption (cited 55 times) followed by recycling/reuse (cited 44 times).

Table 1 summarizes what has been previously described.

#### 4.2. Clarins Group

The Clarins Group pays particular attention to the “design phase” as a strategy to support product development, also using an eco-calculator of the product itself which, through indicators, identifies and directs the company on the most appropriate choices in order to keep under control emissions on the environment.

In the “sourcing phase”, the company carefully chooses the raw materials and ingredients of the products. It is particularly attentive to the optimization of natural resources use and to the

assessment of environmental impacts. It also uses life cycle assessment (LCA) as a method of evaluating the environmental loads connected to the production process. An interesting aspect is the protection of biodiversity, carried out respecting the international guidelines of environmental protection. These guidelines (dictated by the Rio Convention and the Convention on International Trade) aim at protecting endangered species of flora and fauna. The company prefers organic crops and permaculture relying on expert groups of botanists.

**Table 1.** L'Oréal Group sustainability assessment according to Bom et al. [42] model (source: Authors' elaboration).

Design	Sourcing	Manufacturing	Packaging	Distribution	Consumer use	Post-Consumer Use
- Eco-design	- Sustainably sourced materials	- Transport	- Footprint of cosmetic product packaging		- Equal opportunities and zero discrimination	- Post-consumption recycled and renewable materials
- Environmental design	- Sustainable, low-carbon agricultural practices and preserve biodiversity	- Use water	- Plastic packaging, rechargeable, recyclable, or compostable,	- Reducing product transport emissions	- Wood-fiber based products	- Reduce the weight and size of packaging
	- Circular economy networks	- Emission waste	zero PVC		- Inclusion of people with disabilities	- Improving energy efficiency zero waste to landfill

In the “manufacturing phase”, the company monitor the environmental impact of its production sites, monitor water, energy consumption, and control waste of water and greenhouse gas emissions at all stages of production. In addition, the production sites are ISO14001 and ISO50001 certified. The reduction of consumption is implemented through different systems such as ungrouped switches, light timers, sensors, lower temperatures in certain cleansing processes, achieving a 34% energy saving. They have obtained a double environmental certification HQE and BREEAM that demonstrate the attention of Clarins Group for environment.

In the “packaging phase”, Clarins is committed to assessing its carbon footprint. Clarins has verified that 24% of the company’s greenhouse gas emissions come from packaging materials. This is why it has formed a group whose priority is “eco-design” as a tool to reduce waste and consequently CO<sub>2</sub> emissions. Today 63% of the Clarins Group’s packaging consists of recyclable glass, paper, and cardboard.

In the “distribution phase”, attention is paid to transport choosing sea and road transport instead of air transport because very polluting.

In the “consumer-use phase”, the innovation aspect is very important. School projects are developed in Madagascar, Burkina Faso, and Vietnam as well as the creation of adequate facilities to support people with rheumatoid arthritis or women with cancer. Pedagogical Gardens are created to encourage the most disadvantaged and disadvantaged families in Madagascar.

In the “post-consumer-use phase”, waste in landfills is very significantly reduced and the weight and volume of the containers are reduced as well as the labels that are printed on the front back to save paper.

Clarins’ nonfinancial disclosure is provided by a CSR report (year 2018) of 64 pages, without a clear statement on “Circular Economy” strategies. This concept is mentioned only one time. Recurring terms are soil use/biodiversity (cited 38 times) and recycling/reuse (cited 26 times).

All is summarized in Table 2.



**Table 2.** Clarins Group sustainability assessment according to Bom et al. [42] model (source: Authors' elaboration).

Design	Sourcing	Manufacturing	Packaging	Distribution	Consumer Use	Post-Consumer Use
- Eco-design as the Group's strategy in product development	- Each of the ingredients or raw materials is used with respect for nature.	- Reduction of environmental impact at all industrial sites			- Supports innovation and humanitarian, environmental and school projects and women with cancer.	- AI reduce the weight and volume of recycled and recyclable containers, front back printing to save paper
	- Optimizing the use of natural resources	- Reduction of greenhouse gas emissions at all stages of production continuous monitoring of water, energy, and waste consumption	- 63% of packaging materials are recyclable	- Transport by sea or road to reduce emissions		
- Eco-product calculator	assessment of environmental impacts to reduce their effects in advance(LCA)	- The industrial sites are ISO14001 and ISO50001 certified			- Pedagogical gardens	- Less waste to landfill
	improving biodiversity through targeted projects	- Strict control of wastewater				
	organic crops and permaculture and relies on ethnobotanics					

#### 4.3. Guerlain Group

Guerlain Group pays particular attention to the “design phase” as a phase of innovation, social responsibility, and sustainability of all products. A sustainability score is calculated from design to the end of life of a product on the basis of a specific environmental performance indicator (EPI) using software developed by the LVMH Group. In addition, the weight and size of the products has been reduced.

In the “sourcing phase”, the commitment for environment it is evident because raw materials are carefully selected, preserving biodiversity. Studies are conducted on environmental protection and on importance of sustainability.

In the “manufacturing phase”, the use of clean energy is envisaged, such as electric means of transport to supply shops in Paris.

In the “packaging phase”, attention is paid to the reusability of containers and the return of containers through the CEDRE platform in collaboration with LVMH. The packaging is designed to reduce the environmental impact.

In the “distribution phase”, the company reduces emissions during transport for its products.

In the “consumer-use phase”, the social aspect is important as the company is engaged in solidarity campaigns to raise awareness on environmental and social issues and committed to the health of its employees. It also supports nursing homes and hospitals in offering women with cancer expert and make-up artists. The philanthropic aspect is also important for the company, which offers opportunities to artists and promotes cultural initiatives.

In the “post-consumer phase”, the company reduced glass use through 90% recycled glass or reusable ceramic containers. In France, 50% of the subsidiaries have ISO 1400 certification. The company uses the traceability of its products and the communication of its results to customers through a dedicated app that uses QR codes to provides information on social-environmental impact and production. With the creation of the “Bee Respect” digital platform, the company offers consumers and employees information on the ingredients and packaging of their products. In addition, the company is seeking to achieve carbon neutrality by 2028.

Guerlain’s nonfinancial disclosure is provided by a CSR report (year 2018) of 54 pages, without a clear statement on “Circular Economy” strategies. This concept is never mentioned in the document. Recurring terms are gas emission (cited 11 times) and water/energy consumption (cited 5 times).

Table 3 reports a summary than previously stated.

**Table 3.** Guerlain Group sustainability assessment according to Bom et al. [42] model (source: Authors’ elaboration).

Design	Sourcing	Manufacturing	Packaging	Distribution	Consumer Use	Post-Consumer Use
- Eco-design	- Products with ingredients of natural origin	- Transport by electric truck for products			- Environment Academy	- Platforme IFE index performance environment for traceability products
- Environmental design	- Sustainable industries	- Reduce use water	- Bottles are refillable or life	- Reducing product transport emissions	- Transparency of data through the bee respect platform	- Reduce the weight and size of packaging
- Eco-construction	- Research and studies for protection and the environment	- Emission waste			- Solidarity and collaboration with associations ONG in the word	- Carbon neutrality - Reduce waste in landfill - Return of containers

#### 4.4. Shiseido Group

Shiseido Group, in the “design phase”, pays particular attention to eco-design; in particular, products are partly in metal and partly in glass to be easily separable as suggested by universal design guidelines “Production Eco Standards”.

In the “sourcing phase”, the company invests both in economic and human resources to preserve the environment. Sustainability is ensured by the use of natural resources minimizing the impacts on climate change. The conservation of forests and biodiversity is pursued by a set of corporate environmental principles “Shiseido Eco Policy”. In addition, the company assesses the environmental footprint by reducing CO<sub>2</sub>. One of the company’s objectives is to ensure the entire supply chain is ethically managed. The company has also achieved Halal certification. The company conducts a policy of monitoring water consumption and water-related cultural practices of the local population. In the “manufacturing phase”, the company pays particular attention to: (i) Monitoring transport to reduce emissions, (ii) control of CO<sub>2</sub> emissions, and (iii) monitoring of wastewater. It also controls the purchase process of raw materials.

In the “packaging phase”, the company has been awarded the Japan Packaging Institute Adoption of refill containers made from sugarcane-derived polyethylene and is committed to using sustainable refillable and recyclable packaging with accessible design.

In the “distribution phase”, Shiseido pays particular attention to emissions and energy conservation during transport.

In the “consumer use phase”, the company adopts a responsible sourcing of raw materials and it is attentive to social issues with respect for human rights and gender equality.

In the “post-consumer-use phase”, the company aims to improve products customer life, recycling, and reuse.

Shiseido’s nonfinancial disclosure is provided by a dedicated web site on sustainability, in which it declares its commitment to a “Circular Economy” approach. Recurring terms can be calculated but the website is focused on 100% sustainable packaging by 2025 with a specific effort in minimizing single-use plastics; maximizing the development of reusable/recyclable packaging; and accelerating the development of bio-based biodegradable packaging.

Table 4 reports a summary than previously stated.

**Table 4.** Shiseido Group sustainability assessment according to Bom et al. [42] model (source: Authors’ elaboration).

Design	Sourcing	Manufacturing	Packaging	Distribution	Consumer Use	Post-Consumer Use
- Eco-design	- Development of eco-friendly formulas	- Transport	- Developing sustainable packaging	- Reducing product transport emissions	- Responsible procurement	- Improvement of consumers’ quality of life
	Conservation of forests	Monitoring of paths to reduce emissions	- Plastic packaging, rechargeable, and recyclable		- Respect for human rights	- Reuse recycle
	- Evaluate the environmental footprint	- Emission waste	- Accessible Design Packaging		- Gender equality	
	- Response to climate change reduce CO <sub>2</sub>	- Encourage innovation low	- Technical Packaging		- Utilization of Shiseido’s cultural assets	
	- Follows the principles of the circular economy	- Carbon technology	- Eco-friendly		- Waste treatment and recycling	
Universal design initiatives “Production Eco Standards”	- Acquisition of Halal	- Efficient use of		- Conserving energy during distribution	- Information for consumers	- Reduction of waste
	Certification	Water resources			- Workplace safety and health of employees	
		- Developing alternative methods to animal test			- Global Innovative Center	
	Shiseido Vietnam Factory	- Purchase control of raw materials	Packaging			
		- Measurement GHG Protocol				
		- Preventing pollution from wastewater				

#### 4.5. Lush Group

Lush company pays particular attention to the “design phase” through a particular concept of eco-design of its products: Visual design and permaculture design for an agriculture that offers natural alternatives for the environment and people, with innovative ecology models.

In the “sourcing phase”, the company not only prefers natural cosmetics, but also seeks to enhance environmental sustainability by working closely with small local producers, with a view of using natural raw materials of plant origin for the preservation of biodiversity.

In the “manufacturing phase”, cosmetics are produced 70% from solid self-preserving products to guarantee their freshness for longer. More than 65% of Lush products are self-preserving, i.e., they do not need any synthetic preservatives to stay fresh. Lush does not test products on animals, does not use products derived from animals, and buys from companies not testing on animals or using palm oil.

In the “packaging phase”, the company prefers 100% recycled packaging with simple design, which allows lower price instead of expensive and unnecessary packaging. Lush is committed to the communities from which it purchases its ingredients. The wrapping paper and instruction booklets found in the product description packs are all 100% recycled paper or recycled cotton for reuse.

In the “distribution phase”, transport is minimized to reduce CO<sub>2</sub> emissions.

In the “consumer-use phase”, the company’s policy is to move from a linear production cycle involving production, consumption, and disposal, to a circular economy in which value maximization and resource efficiency are achieved. Lush is particularly attentive to workers’ rights, discrimination, and children’s rights. By purchasing the Charity Pot cream, part of the earnings is donated to associations and local initiatives for the change of society.

In the “post-consumer-use phase”, the company has significantly reduced waste through the efficient use of resources. It has also obtained fair-trade certification for its focus on fair trade.

Lush’s nonfinancial disclosure is provided by a circular economy dedicated report (year 2019) of 33 pages. It is the only company producing a specific report on this theme. Recurring terms are recycling/reuse (cited 35 times).

Table 5 reports a summary than previously stated.

**Table 5.** Lush Group sustainability assessment according to Bom et al. [42] model (source: Authors’ elaboration).

Design	Sourcing	Manufacturing	Packaging	Distribution	Consumer Use	Post-Consumer Use
- “Eco-design”	- Preservation Biodiversity	- Products handman	- Reduces and raw materials		- Reduction water and energy consumption	- Recycling and re-use
- “Visual design”	- Only natural products	- Reduce CO <sub>2</sub>	- Packaging recycling		- Product safety and quality	- Certification Fair-Trade
	- Digital chip for animals tested	- Products not tested on animals		- Short routes and minimum air use		
- “Permaculture design”	- Local products - Sustainable development - Raw material vegetable origin	- Self-preserving society	- Naked products		- Charity pot	- Zero waste

#### 4.6. Yves Rocher Group

Yves Rocher Group pays particular attention to the “design phase” through the idea of a compact eco-design concept with cellulose-based thermoplastics that has the double advantage of being high performance and reducing the impact on the environment at the same time.

Eco-design takes into account the environmental footprint of products during their life cycle. Each of the Group’s brands implements a proactive eco-design strategy along the entire value chain of its products.

In the “sourcing phase”, the company pays particular attention to the preservation of the environment and biodiversity and to quality control in the supply chain with special and rigorous

attention paid to each stage of the production cycle, (from the supply chains of vegetable raw materials to the choice of the container, from the creation of folding to the recycling of packaging). The company offers eco-sustainable products from biodynamic agriculture: The plants have obtained three types of certification ISO 14001, ISO 9001, ISO 18001. The creation of the Group's Purchasing and Quality Department aims at meeting customers' expectations on products design. The company has invested in systems and equipment to reduce energy and water consumption with an objective of 100% renewable energy by 2030.

In the "manufacturing phase", the company pays attention to CO<sub>2</sub> reduction and uses raw materials of vegetable origin from cultivated plants or renewable parts of plants. One hundred percent of the products used are biodegradable and the company manages the entire cultivation, production, and sales cycle.

In the "packaging phase", the choice of a single model of glass jar for all products leads to a reduction of gas emissions and to a lower environmental impact. By eliminating metal and using fewer materials in the design, the Rocher Group has created a compact case that requires fewer natural resources and less energy to be produced without reducing the functionality of the packaging.

In the "distribution phase", the Group is studying new forms of transport to reduce CO<sub>2</sub>, promoting green electricity from renewable sources for all operations and offices in France. The Sustainable Development Department has issued guidelines for all Group subsidiaries to improve their impact on biodiversity, water, energy, and sustainability.

In the "consumer-use phase", particular attention is paid to the quality of product safety and to products and ingredients that are not tested on animals. In addition, the company policy is designed to include people with disabilities in the economic life of the company.

In the "post-consumer-use phase", the company has also achieved the goal of zero waste through the recovery and recycling of all materials.

Yves Rocher's nonfinancial disclosure is provided by a CSR report (year 2018) of 32 pages, with a clear statement on "Circular Economy" strategies. Recurring terms are recycling/reuse (cited 15 times) and zero waste/reduction in waste (cited 5 times).

Table 6 reports a summary than previously stated.

**Table 6.** Yves Rocher Group sustainability assessment according to Bom et al. [42] model (source: Authors' elaboration).

Design	Sourcing	Manufacturing	Packaging	Distribution	Consumer Use	Post-Consumer Use
- Eco-design	- Preservation of the Environment and Biodiversity	- Reduce CO <sub>2</sub> and raw material	- Packaging proof-of-concept		- Product safety quality	- Recycling and re-use
	- Quality control in the supply chain	- Reduction water and energy consumption			- Products and ingredients not tested on animals	
	- Eco-sustainable and biodynamic products		- Packaging recycling	- New forms of transport for reducing CO <sub>2</sub> are under study	- Inclusion of people with disabilities in the economic life of the company	- Zero waste
	- Green chemistry					
	- The plants have the triple certification of quality (ISO 9001, ISO 14001, ISO 18001)	- The company manages the entire cycle of cultivation, production, sales.				
	- Raw material vegetable origin					
	- Sustainable development					

#### 4.7. Pierre Fabre Group

Pierre Fabre Group pays attention to eco-design and product formulas that are seen from the perspective of biodegradability. Pierre Fabre's Laboratories are committed to eco-conception projects, a path of prevention characterized by the importance of environmental issues during the conception or improvement of a product.

In the "sourcing phase", the company is attentive to the protection of biodiversity. Seventy percent of revenue is made from products whose active ingredient comes from natural ingredients in compliance with green chemistry. The supply chain is sustainable in order to achieve high-quality standards through certifications such as ISO 9001, ISO 13,485, and ISO 22716. The technology of Fabre laboratories has also involved "plant cell cultures" with respect to biodiversity with a method that makes it possible to multiply the number of cells resulting from a plant. In addition, the extraction of ingredients from plants is carried out by producing active ingredients of the highest quality. In the "manufacturing phase", the company pays particular attention to technological innovations by mapping the main emission sources in order to define corrective actions and CO<sub>2</sub> reduction. In particular, the industrial sites of Pau, Gaillac, and Avène, have given rise to a reduction in greenhouse gases and the implementation of actions such as the installation of biomass boilers fed by plant residues from the production of plant extracts from some production sites. The boiler makes it possible to replace 60% of the factory's gas consumption with renewable energy. Eco-conception and the industrial footprint are implemented to control the life cycle of the products.

In the "packaging phase", the company aims to optimize product packaging to reduce and recycle packaging and to develop environmentally sustainable formulas with reduced packaging for pharmaceuticals and cosmetics.

In the "distribution phase", the company is trying to reduce as much as possible the movements of employees that represent a large part of CO<sub>2</sub> emissions. A carpooling intranet site has been set up for employees in France and a shuttle bus is arranged to reach the various production sites. In addition, video and web conference technologies have been increased. Since 2008, all shipments are grouped on the same day for each customer with a 10% reduction for monthly shipments.

In the "consumer-use phase", the company also pays attention to social aspect. Pierre Fabre's Foundation aims to improve access to medicines and treatment in developing countries. It implements a governance policy with particular attention to the territory, employees, partners, and communities in order to establish a process of co-construction and co-responsibility of production. The company recycles more than 90% of the waste generated by the manufacture of pharmaceuticals and dermo-cosmetic products and has equipped itself with a computerized waste traceability system that allows the quantity and destination of waste to be known in real time.

In the "post-consumer phase", actions have been taken to activate a "free cooling" system that uses external air in the plants to create cold air and achieve a reduction in CO<sub>2</sub> emissions. In addition, a "centralized technical management" system has been installed to manage the main energy instruments in an automated way and to monitor consumption according to the needs of the production site. In French sites, network printers with duplex printing are used to reduce paper consumption, as well as for sending invoices and statements of account, which are inserted in the same envelope and printed on both sides.

Pierre Fabre dedicate an area of its website to sustainable development, but a clear statement on "Circular Economy" strategies is not available; however, the company is very focused on CSR practices. A specific report is dedicated to the "Protection of Biodiversity". Recurring concepts are recycling/reuse and biodiversity.

A summary is provided by Table 7.

**Table 7.** Pierre Fabre Group sustainability assessment according to Bom et al. [42] model (source: Authors' elaboration).

Design	Sourcing	Manufacturing	Packaging	Distribution	Consumer Use	Post-Consumer Use
- Eco-design	- Biodiversity protection	- Quality and Safety	- Packaging recycling and optimization	- Short transport routes	- Biodegradable	
	- Sustainable supply chain	- Biotechnology and sterile cosmetics		- Car pooling	Products	- Responsible communication
	- Green chemical cluster	- Botanical Expertise Pierre Fabre, preserve,			- Recycling 90% of waste	- Medical information
	- High Environmental Quality	guarantee, respect			- Ethical trade	- Eco-behaviors
- Eco-conception	- Extraction of plant active ingredients	- Technological innovation	- Less weight and volume		- Waste water purification	- Reduce water & paper
		- Biomass boilers(Soul) processing waste		- Use of railways	- Web conference	
	- Industrial Footprint	- Production 80% electric energy of renewable sources			- Group ethical charter and culture sport education	- Reduce waste

#### 4.8. Chanel Group

Chanel Group pays particular attention to the “design phase”. It prefers circular design and eco design as initial design tools for successful products with a lower impact on the environment.

In the “sourcing phase”, the company prefers natural ingredients obtained through regenerative agriculture that enrich the soil. This allows preserving the biodiversity of ecosystems. Moreover, buying from local producers improves a supply process in line with the UN’s sustainable development objectives. The company implements measures to assess the entire supply chain and monitors the potential and actual risks on environment and animals. Moreover, it is also RSPO certified. In the “manufacturing phase”, the company, through a series of collaborations, activates the airplane cultivation. This new approach to plant cultivation makes it possible to control the plant ecosystem by providing them all the necessary nutrients. It also does not test products on animals and maximizes renewable energy production in its production sites.

In the “packaging phase”, the company has tried to change the deep-rooted conception that a luxury product is linked to the weight and thickness of the glass bottle by creating a thin and light glass aesthetically created with blunt lines that also allow for transparency and light. The product packaging is recyclable.

In the “distribution phase”, Chanel has thought of packaging optimization to reduce the volume of transport and implement air-sea transport as well as optimization of transport flows. It works with freight service providers to identify more sustainable transport solutions, including the use of electric vehicles.

In the “consumer-use phase”, the company implements measures to ensure quality and safety of the products for customer. In addition, the company has a social commitment to non-discrimination and promotes gender equality policies and cultural initiatives through the Chanel Foundation and the Chanel Image Cultural Platform.

In the “post-consumer phase”, the company implements the recycling and reuse of products, invests in wind and solar energy, implements a strong reduction in waste, and adheres to the

International Platform for Insetting (IPI), a collaborative platform of multi-stakeholders from both the academic and business world aiming at promoting best practices worldwide.

Chanel's nonfinancial disclosure is provided by a CSR report (year 2018) of 76 pages, with a clear statement on "Circular Economy" strategies. This concept is mentioned five times about regenerating materials and products reducing waste. Recurring terms are water/energy consumption (cited 29 times) and recycling/reuse (cited 18 times).

Table 8 provides a summary of all examined aspects.

**Table 8.** Chanel Group sustainability assessment according to Bom et al. [42] model (source: Authors' elaboration).

Design	Sourcing	Manufacturing	Packaging	Distribution	Consumer Use	Post-Consumer Use
- "Eco-design"	- Respect of Biodiversity	- Aerologic cultivation plant technologies	- Reduces and raw materials	- Route optimization	- Reduce water and energy consumption	- Recycling and re-use
- "Circular design"	- Only natural products	- Sustainable development	- Packaging optimization and volume reduction	- Sea transport compared to air	- Product safety and quality	- International Platform for Insetting (IPI)
	- Regenerative agriculture	- Reduce CO <sub>2</sub>	- "Naked product"		- Gender equality	- Zero waste
	- Certified to the Roundtable on Sustainable Palm Oil	- Products not tested on animals			- Chanel Foundation	
- "Circular economy"	- Green power for production, sales, and office	- Raw material vegetable origin	- Packaging recycling	- Use of electric vehicles	- Impact assessment on human rights	- Investments in wind and solar energy
	- Sustainable supply chain	- Maximize renewable energy on site production				

## 5. Results and Discussion

The section presents the results and discussion of our analysis. The previous analysis is used to answer the research question (*Do CSR reports in the leading cosmetic MNEs contain (implicit or explicit) references to CE?*).

Preliminarily, the documents' analysis show that only one company (Lush) provide a dedicated report to CE. The majority of companies (four) mention circularity in their CSR reports. Few of them provide clear CE objective (L'Oréal, Chanel) while other companies do not explicitly state their CE strategies, showing a more traditional business model.

It is interesting to observe that not one of the companies from this sample use the circularity ratios presented in the literature; however, some companies adopt other sustainability ratios (L'Oréal, Guerlain, Clarin, Lush).

Table A3, in the Appendix A, represents the state of the art of CSR practices emerging from the observation of our sample. In particular, CSR/CE practices, considered as converging concepts of sustainability, have been observed in relation to seven areas of activities.

The first area taken into consideration is "Design". The design is perceived as a fundamental factor for the products upstream, so the concept of "eco-design" has been widely implemented by each company. Tools such as "eco-design" and "eco-conception" lead to a higher durability of the product, which is also important for the extension of the life of the product itself. The design principle is a common factor of attention in all the MNC analyzed, nevertheless in some cases, it is not linked



to specific objectives [47,48]. These actions are in line with what is suggested in the literature for a circular approach.

In the area of “Sourcing”, we found clear statement of preservation actions of environment and biodiversity. All the companies aim at environment’s preservation but with different objectives such as commitment to reduce CO<sub>2</sub> emissions, waste, water consumption, and/or plastic. These actions are in line with what is suggested in the literature for a circular approach [47,49].

In addition, all the companies have many certifications. Environmental certifications are fundamental because they force organizations to implement planning strategies and control systems. The most common certification within the sample considered is ISO 14,000, which provides companies with tools to calculate their environmental performance. In addition, OHSAS 18,001 represents a management system of health and safety at work, useful to guide companies with the implantation of procedures and controls that follow international standards to protect health and safety in the workplace.

There is also the Forest Stewardship Council certification (FSC) for sustainable forest management and traceability of derived products, which guarantees that raw materials used in the production meet many strict environmental, social, and economic standards. Some companies have a cruelty-free certification demonstrating that their products have not been tested on animals.

Another tool used by MNCs is the life cycle assessment (LCA). It is a useful tool to analyze the environmental impact of a product or process along all the phases of the life cycle and quantify the resources used or the emissions produced.

The “Manufacturing” factor seems to be particularly relevant for companies mainly interested in finding vegetable raw materials for their production. Organizations declare their future objective to be increasing the use of raw materials of natural or organic origin to between 80% and 100%. In particular, two of them (Shiseido and Yves Rocher) state an objective of 100% vegetal origin of their products. Also, these actions are in line with what is suggested in the literature for a circular approach [50,51].

In the area of “Packaging”, all the analyzed companies are strongly convinced that reducing the volume, weight, packaging, and materials of which the products are made of can be an important step to reduce the impact on to the environment. For this reason, some of them (in particular, L’Oréal, Guerlain, and Shiseido) are committed to ensuring refillable containers in light of new consumer trends that see the containers as something that is wasteful and no longer necessary. All the companies also seem committed to reducing disposable plastic packaging with those made from recycled materials that can be an alternative to plastic itself, with recyclability targets around 100% as suggested by White et al. [22] and in line with a circular approach.

The “Distribution” factor sees that companies pay particular attention to the reduction of CO<sub>2</sub> during transportation of the products. In particular, L’Oréal and Guerlain state an objective of zero emission of CO<sub>2</sub>. This factor has a significant impact on the environment and the possibility of a change of direction towards sustainability in this sector has led to consider alternative ways to optimize transports such as car sharing, carpooling, and electric vehicles also in light of the United Nations Conference position [51,52].

The “Consumer-use” factor has been broadly interpreted as a “social” approach. We noted a general propensity to support projects in the social and environmental field. Health and social care can lead to lower healthcare costs for employees and ensure (indirectly) economic benefits to the company. These “economic” benefits include easier access to credit, risks reduction, ability to meet the needs of stakeholders with an increase in profits, and increased company’s brand reputation with leads to an increase in sales.

The “Post-consumer use” factor involves the reduction of waste in landfills. In particular, three companies (L’Oréal, Guerlain, and Yves Rocher) state an objective of zero waste in landfill and more than 90% recycling. Other companies state a lower recycling objective (almost by 50%). The use of biodegradable plastic is taken into consideration by some companies. This approach is, as suggested by many authors [53,54], in line with a circular approach.

Table A3 shows that the companies analyzed presents large areas of commonalities in their strategies and are (on average) strongly oriented towards circularity; nevertheless, they use different reporting strategies, in some cases using a dedicated website, and in other cases producing dedicated reports. Only in one case (L'Oréal) were financial and nonfinancial reporting presented in a single document.

The presence of high environmental attention and CE approach seem to be greater for four of the observed companies: L'Oréal, Yves Rocher, Lush, and Chanel, which declare specific objectives of circularity, questioning their traditional business model.

It seems possible to affirm that there is an increasing desire to start a strong path of improvement and refinement of environmental practices using CSR documents as tools also able to disclose information on CE strategies.

Moreover, CSR contains information on CE (see Table A2 in the Appendix A) and strategic actions seem to converge toward a new circular business model. In this context, CSR reports seem to be an adequate tool to support CE disclosure in the cosmetic industry. The analysis of the eight MNC shows CSR reports are potentially able to make explicit links amongst CSR and CE actions, even if in some cases this circular approach is still unconscious and some work has to be done to explicitly state companies' CE strategies.

The results obtained support previous literature, that see CSR and CE as converging concepts and where circularity should represent the new strategic business model declinator in CSR actions.

Our research has taken into account the state of the art of eight multinational companies to bridge the gap between cosmetics industry, CSR, and circular economy, because of the importance of the cosmetics industry with a worldwide turnover of about 550 billion with an annual growth of 5.8%. Our study and observations can be synthesized in a model based on the three pillars of the CSR (social, economy, and environment) but that finds solid ground in the CE strategies for integration of that areas.

In particular, MNCs need to use a common approach based on CE to offer a new way of thinking about a sustainable economy.

The advantages of a model integrating CSR and CE are significant for MNC. Adopting such a strategic model could be costly in the short term but it allows a new business model approach in the mid-term able to:

- Enhance company's image;
- Improve investors' interest in the company;
- Improve employee's loyalty;
- Attract new investors.

At the same time, however, some problems may still limit or discourage a CE approach, mainly is smaller companies. In particular, shareholders could fear potential costs increase in order to support changes in their business model.

## 6. Conclusions and Future Research Directions

This paper contributes to our understanding on the relation between CSR and CE and it assesses the state of the art of MNC's on CE by analyzing their nonfinancial reporting. Our results provide both theoretical and practical contributions to the literature.

First of all, our analysis shows that it is possible to integrate CSR and CE information disclosure in a single report communicating companies' circular strategies.

Moreover, results emerging from companies' CSR reports can be easily observed and used as a benchmark by many other organizations of different size. Cosmetics multinationals, driven by an ever-increasing focus on sustainability issues, tend to look for new business models oriented to circularity, rethinking the way they design cosmetics and personal care products in closed-loop cycles [55].

Nevertheless, in some cases, the circular approach is not clearly stated and supported by quantified objectives and actions.

In particular, the most important areas of actions seem to be: (i) How to replace existing packaging with sustainable alternative materials and (ii) how to raise customer awareness on recycling and reuse.

The design phase is correctly perceived as essential by MNCs as it stands at the bottom of the entire circular process. Furthermore, the use of sustainable green materials in the manufacturing phase appears to be already largely used.

As a whole, the analysis reveals a good level of attention of MNC to CE, in some cases made explicit in their CSR reports and in other cases still hidden and less communicated to stakeholders.

These analyses should be extended to smaller organizations to verify whether their behavior is consistent with a CE approach.

These results will bring the scientific community and the companies in the cosmetic industry to a better understanding on the move toward a circular model in which the return on investment is not only economic, but also social.

Nevertheless, some limitations and methodological issues must be reported. The interpretation of the results must consider the limit of a research methodology based only on secondary sources (mainly CSR reports). Moreover, a small sample of eight MNCs has been analyzed. Future research should refer to a larger sample of cosmetic companies including medium-sized firms. We also want to approach the research question with different, less descriptive methodologies including semi-structured interviews or questionnaires to deepen our knowledge of CSR and CE relations in managerial approaches. In particular, a new study could be developed to evaluate the perception of CSR and CE practices by managers and consumers and how they influence managerial choice and changes in companies' business model.

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**Conflicts of Interest:** The authors declare no conflict of interest.

## Appendix A

**Table A1.** Data sources (source: Authors' elaboration).

<b>L'OREAL GROUP</b>	
(1)	Company website: <a href="https://loreal-dam-front-corp-en-cdn.damdy.com/">https://loreal-dam-front-corp-en-cdn.damdy.com/</a>
(2)	Annual report: "2018 Progress Report"
	○ <a href="https://loreal-dam-front-corp-en-cdn.damdy.com/ressources/afile/178943-24f07-resource_pdf-sbwa-progress-report-en.pdf">https://loreal-dam-front-corp-en-cdn.damdy.com/ressources/afile/178943-24f07-resource_pdf-sbwa-progress-report-en.pdf</a>
(3)	Specific Reports: "Sharing beauty with all The L'Oréal Sustainability Commitment"
	○ <a href="https://www.loreal.sg/csr-commitments/sustainability-achievements">https://www.loreal.sg/csr-commitments/sustainability-achievements</a>
	○ <a href="https://www.globalreporting.org/information/news-and-press-center/Pages/This-months-Featured-Reports-%E2%80%93-spotlight-on-LOr%C3%A9al.aspx">https://www.globalreporting.org/information/news-and-press-center/Pages/This-months-Featured-Reports-%E2%80%93-spotlight-on-LOr%C3%A9al.aspx</a>
	○ <a href="https://www.loreal.com/loreal-sharing-beauty-with-all/edito">https://www.loreal.com/loreal-sharing-beauty-with-all/edito</a>
	○ <a href="https://loreal-dam-front-corp-en-cdn.damdy.com/ressources/afile/170934-b994c-resource_pdf-cop-2017-en.pdf">https://loreal-dam-front-corp-en-cdn.damdy.com/ressources/afile/170934-b994c-resource_pdf-cop-2017-en.pdf</a>
	○ <a href="https://conseil-emballage.org/en/interview-of-philippe-bonningue-%E2%80%8Eglobal-director-of-sustainable-packaging-development-at-loreal/">https://conseil-emballage.org/en/interview-of-philippe-bonningue-%E2%80%8Eglobal-director-of-sustainable-packaging-development-at-loreal/</a>
	○ <a href="https://www.google.it/search?tbm=bks&amp;hl=en&amp;q=group+oreal+all+documents+of+sustainability">https://www.google.it/search?tbm=bks&amp;hl=en&amp;q=group+oreal+all+documents+of+sustainability</a>
	○ <a href="https://www.europeanchamber.com.cn/en/past-events-archive/14177/Sustainable_Business_Talk_Corporate_Social_Profitability_with_L_Oreal">https://www.europeanchamber.com.cn/en/past-events-archive/14177/Sustainable_Business_Talk_Corporate_Social_Profitability_with_L_Oreal</a>
	○ <a href="https://www.ptcommunity.com/wire/loop-industries-expands-cosmetics-sector-l-or-al-group">https://www.ptcommunity.com/wire/loop-industries-expands-cosmetics-sector-l-or-al-group</a>
<b>CLARINS GROUP</b>	
(1)	Company website: <a href="http://www.groupeclarins.com">http://www.groupeclarins.com</a>
(2)	Annual Report: "Report 2016"
(3)	Specific Reports: "Responsible Beauty"
	○ <a href="http://www.groupeclarins.com/sites/clarins/files/uploads/files/BeauteResponsable2016ENGGroupeClarins.pdf">http://www.groupeclarins.com/sites/clarins/files/uploads/files/BeauteResponsable2016ENGGroupeClarins.pdf</a>
	○ <a href="https://www.beautypackaging.com/issues/2016-01-01/view_features/clarins-responsible-beauty/">https://www.beautypackaging.com/issues/2016-01-01/view_features/clarins-responsible-beauty/</a>
	○ <a href="http://www.groupeclarins.com/en/group/values">http://www.groupeclarins.com/en/group/values</a>
	○ <a href="https://www.clarin.eu/content/vision-and-strategy">https://www.clarin.eu/content/vision-and-strategy</a>
	○ <a href="http://lrec.elra.info/proceedings/lrec2010/pdf/679_Paper.pdf">http://lrec.elra.info/proceedings/lrec2010/pdf/679_Paper.pdf</a>

Table A1. Cont.

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**GUERLAIN GROUP**


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- (1) Company website: <https://www.guerlain.com>
  - (2) Annual report: *“Our Committent 2018-2019”*
  - (3) Specific Reports: *“Sustainable Development Report 2018-2019”*
    - [https://www.guerlain.com/sites/default/files/pdf/Rapport\\_DD\\_Guerlain\\_EN.pdf](https://www.guerlain.com/sites/default/files/pdf/Rapport_DD_Guerlain_EN.pdf)
    - <https://r.lvmh-static.com/uploads/2014/10/extract-from-the-2018-reference-document-environment-sustainability.pdf>
    - <https://www.lvmh.com/news-documents/news/guerlain-and-the-environment-3-questions-for-laurent-boillot/>
    - <https://www.lvmh.com/news-documents/news/guerlain-holds-third-edition-of-bee-university-at-unesco-headquarters-in-paris/>
    - <https://www.loreal.com/sustainability>
    - <https://conseil-emballage.org/en/interview-with-sandrine-sommer-sustainable-development-and-csr-director-at-guerlain/>
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**SHISEIDO GROUP**


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- (1) Company website: <https://corp.shiseido.com>
  - (2) Annual Report: *“Report 2018/12”*
  - (3) Specific Reports: *“Sustainability Realizing A Better World Through Social Value Creation Our Commitment”*
    - <https://corp.shiseido.com/en/sustainability/rights/procurement.html>
    - <https://corp.shiseido.com/en/news/detail.html?n=00000000002447>
    - <http://vigeo-eiris.com/looking-in-the-mirror-at-sustainability-luxury-goods-and-cosmetic-sector-meets-halfway-esg-contributions-to-sustainabil>
    - <https://www.unglobalcompact.org/participation/report/cop/create-and-submit/advanced/430114>
    - [https://www.csrhub.com/CSR\\_and\\_sustainability\\_information/Shiseido-Company-Limited](https://www.csrhub.com/CSR_and_sustainability_information/Shiseido-Company-Limited)
    - <https://www.moodiedavittreport.com/opinion-the-role-of-a-strong-vision-in-travel-retail/>
    - <https://www.gcimagazine.com/business/management/sustainability/Shiseido-Selected-for-Inclusion-in-ESG-Investment-Indexes-488291011.html>
    - <https://www.marketscreener.com/SHISEIDO-COMPANY-LIMITED-6492328/news/Shiseido-unite-for-SPICE-to-collectively-shape-the-future-of-sustainable-packaging-26624904/>
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Table A1. Cont.

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**LUSH GROUP**


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- (1) Company website: <https://it.lush.com/>
  - (2) Annual Report: *“Report 2018”*
  - (3) Specific Reports: *“Lush Cosmetics Ltd. Quick Scan”*
    - <https://uk.lush.com/article/our-environmental-policy>
    - <https://www.coursehero.com/file/12128452/CSR-lush-cosmetics-/>
    - <https://mitheringsfrommorningside.files.wordpress.com>
    - <https://uk.lush.com/article/our-environmental-policy>
    - <https://core.ac.uk/download/pdf/38108412.pdf>
    - [https://www.lushusa.com/stories/article\\_our-environmental-policy.html](https://www.lushusa.com/stories/article_our-environmental-policy.html)
    - <https://www.theguardian.com/business/2007/apr/13/retail2>
    - <https://www.ethicalconsumer.org/company-profile/lush-cosmetics-ltd>
    - <https://www.insider-trends.com/30-things-you-didnt-know-about-lush-cosmetics/>
    - <https://www.referralcandy.com/blog/lush-word-of-mouth-marketing/>
- 

**YVES ROCHER GROUP**


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- (1) Company website: <https://www.yves-rocher-fondation.org>
  - (2) Annual Report: *“Report 2018”*
  - (3) Specific Reports: *“S’Engager pour la Biodiversité”*
  - (4) <https://engagespourlanature.biodiversitetousvivants.fr/>
  - (5) <https://www.youtube.com/watch?v=ZGsl1BTLMCw>
  - (6) <https://www.yves-rocher.it/it/marca-yvesrocher/eco-concezione>
  - (7) <https://st.ilsole24ore.com/art/moda/2019-05-27/yves-rocher-premia-donne-che-promuovono-sostenibilita-143556.shtml>
  - (8) <https://www.bioecogeo.com/yves-rocher-bellezza-e-sostenibilita-ambientale/>
  - (9) <https://www.vogue.it/bellezza/tendenze-news/2016/07/13/yves-rocher-cosmetica-ecologia-sostenibilita-diritti-delle-donne>
  - (10) <https://cosmopolo.it/2020/01/22/yves-rocher-lancia-il-lifting-naturale-lifting-vegetal/>
  - (11) <https://it.france.fr/it/bretagna/articolo/yves-rocher-eco-cosmetica-esclusiva>
-

Table A1. Cont.

PIERRE FABRE GROUP	
(1)	Company website: <a href="https://www.fondationpierrefabre.org">https://www.fondationpierrefabre.org</a>
(2)	Annual Report: "Report 2018"
(3)	Specific reports: "Protecting biodiversity"
	<ul style="list-style-type: none"> <li>○ <a href="https://www.pierre-fabre.com/en/our-group/our-commitments/acting-ethically">https://www.pierre-fabre.com/en/our-group/our-commitments/acting-ethically</a></li> <li>○ <a href="https://www.pierre-fabre.it/sites/www.pierre-fabre.it/files/code_of_ethics_0.pdf">https://www.pierre-fabre.it/sites/www.pierre-fabre.it/files/code_of_ethics_0.pdf</a></li> <li>○ <a href="https://www.fondationpierrefabre.org/en/current-initiatives/for-efficient-and-sustainable-ehealth/">https://www.fondationpierrefabre.org/en/current-initiatives/for-efficient-and-sustainable-ehealth/</a></li> <li>○ <a href="https://www.pierre-fabre.com/en/news/pierre-fabre-evaluated-by-independent-body-ecocert-environment-at-the-excellence">https://www.pierre-fabre.com/en/news/pierre-fabre-evaluated-by-independent-body-ecocert-environment-at-the-excellence</a></li> <li>○ <a href="https://ita.calameo.com/books/004954070ca2a7008136d">https://ita.calameo.com/books/004954070ca2a7008136d</a></li> <li>○ <a href="http://origin.pierre-fabre.be/en/governance-0">http://origin.pierre-fabre.be/en/governance-0</a></li> </ul>
CHANEL GROUP	
(1)	Company web-site: <a href="http://services.chanel.com">http://services.chanel.com</a>
(2)	Annual report: "Report 2018"
	<ul style="list-style-type: none"> <li>○ <a href="http://services.chanel.com/i18n/en_US/pdf/Chanel_CSR_0305_Proof_180620_for_web.pdf">http://services.chanel.com/i18n/en_US/pdf/Chanel_CSR_0305_Proof_180620_for_web.pdf</a></li> </ul>
(3)	Specific reports: "Governance For Responsibility and Sustainability"
	<ul style="list-style-type: none"> <li>○ <a href="https://books.google.it/books?id=kfMnrHoNNa8C&amp;pg=PA463&amp;lpg=PA463&amp;dq=CHANEL+ALL+DOCUMENTS+OF+SUSTAINABILITY&amp;source=bl&amp;ots=kIiWepars&amp;sig=ACfU3U3kKf1bkwu0mTISw4fmEKI84zY6Mw&amp;hl=en&amp;sa=X&amp;ved=2ahUKewiZ0dHQq4joAhUF2aQKHZr9AosQ6AEwAnoECAoQAQ#v=onepage&amp;q=CHANEL%20ALL%20DOCUMENTS%20OF%20SUSTAINABILITY&amp;f=false">https://books.google.it/books?id=kfMnrHoNNa8C&amp;pg=PA463&amp;lpg=PA463&amp;dq=CHANEL+ALL+DOCUMENTS+OF+SUSTAINABILITY&amp;source=bl&amp;ots=kIiWepars&amp;sig=ACfU3U3kKf1bkwu0mTISw4fmEKI84zY6Mw&amp;hl=en&amp;sa=X&amp;ved=2ahUKewiZ0dHQq4joAhUF2aQKHZr9AosQ6AEwAnoECAoQAQ#v=onepage&amp;q=CHANEL%20ALL%20DOCUMENTS%20OF%20SUSTAINABILITY&amp;f=false</a></li> <li>○ <a href="https://www.csrhub.com/CSR_and_sustainability_information/CHANEL-SA">https://www.csrhub.com/CSR_and_sustainability_information/CHANEL-SA</a></li> <li>○ <a href="https://goodonyou.eco/how-ethical-is-chanel/">https://goodonyou.eco/how-ethical-is-chanel/</a></li> <li>○ <a href="https://www.businessoffashion.com/articles/news-analysis/chanel-looks-to-green-technology-investments">https://www.businessoffashion.com/articles/news-analysis/chanel-looks-to-green-technology-investments</a></li> <li>○ <a href="https://www.fondationchanel.org/en/the-foundation/">https://www.fondationchanel.org/en/the-foundation/</a></li> <li>○ <a href="https://www.slideshare.net/BriannaNguyen4/chanel-csr-mgmt-320-business-ethics">https://www.slideshare.net/BriannaNguyen4/chanel-csr-mgmt-320-business-ethics</a></li> <li>○ <a href="https://www.cosmeticsdesign-europe.com/Article/2020/02/14/Chanel-says-luxury-beauty-and-sustainability-must-merge-at-ADF-PCD-Paris">https://www.cosmeticsdesign-europe.com/Article/2020/02/14/Chanel-says-luxury-beauty-and-sustainability-must-merge-at-ADF-PCD-Paris</a></li> <li>○ <a href="https://luxurymanagement24.wordpress.com/2019/02/06/15614/">https://luxurymanagement24.wordpress.com/2019/02/06/15614/</a></li> <li>○ <a href="https://www.environmentalleader.com/2018/12/chanel-sustainable-packaging-sulapac/">https://www.environmentalleader.com/2018/12/chanel-sustainable-packaging-sulapac/</a></li> <li>○ <a href="https://ukdiss.com/examples/brand-management-of-chanel.php">https://ukdiss.com/examples/brand-management-of-chanel.php</a></li> </ul>

**Table A2.** Main concepts analysis (source: Authors' elaboration).

Report		Pages	Keywords							Ratios	
Company	Year	Type of document	N° Pages	Circular Economy	Recycling/ Reuse	Zero Waste/ Reduction in Waste	Water/ Energy Consumption	Gas Emission	Soil Use/ Biodiversity	C-Ratio	Social/ Environmental Indicators
L'Oreal	2019	Integrate-Financial/non financial report	236/400	7	32/12	08/05	34/21	27	4/32	NO	YES quantitative
Clarín	2018	CSR report	64	1	25/01	0/1	4/6	11	6/32	NO	YES descriptive
GUERLAIN	2018	CSR report	54	0	1	1	3/2	11	0	NO	YES descriptive
Shiseido	2018	Dedicated web site on sustainability	ND	ND	ND	ND	ND	ND	ND	ND	ND
Lush	2019	Lush approach to CE-dedicated report	33	1	33/2	0	0	0	0	NO	YES
YVES ROCHER	2018	CSR report	32	2	10/05	3/2	0	0	2	NO	NO
PIERRE FABRE	2018	Dedicated web site on sustainability	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chanel	2018	CSR report	76	5	18	3	29	0	1/5	NO	NO





## References

1. Barrena Martínez, J.; López Fernández, M.; Romero Fernández, P.M. Corporate social responsibility: Evolution through institutional and stakeholder perspectives. *Eur. J. Manag. Bus. Econ.* **2016**, *25*, 8–14. [CrossRef]
2. European Commission Green Paper: Promoting a European Framework for Corporate Social Responsibility. Commission of the European Communities. 2001. Available online: [10.1017/CBO9781107415324.004](https://ec.europa.eu/economy_finance/101017/CBO9781107415324_004) (accessed on 18 March 2020).
3. EU A Renewed EU strategy 2011-14 for Corporate Social Responsibility. 2011. Available online: [https://www.europarl.europa.eu/meetdocs/2009\\_2014/documents/com/com\\_com\(2011\)0681\\_/com\\_com\(2011\)0681\\_en.pdf](https://www.europarl.europa.eu/meetdocs/2009_2014/documents/com/com_com(2011)0681_/com_com(2011)0681_en.pdf) (accessed on 17 June 2020).
4. Leandro, A.; Paixao, S. Corporate Social Responsibility and Circular Economy: Two ways, same destinations? An outlook on both concepts and cases from Portugal. In Proceedings of the Congrès avniR, Lille, Portugal, 7 November 2018.
5. Geissdoerfer, M.; Savaget, P.; Bocken, N.M.P.; Hultink, E.J. The Circular Economy—A new sustainability paradigm? *J. Clean. Prod.* **2017**, *143*, 757–768. [CrossRef]
6. Murphy, D.; Ng'ombe, A. Corporate Social Responsibility. In *Corporate Social Responsibility and Urban Development*; Palgrave Macmillan: London, UK, 2009; pp. 7–33. [CrossRef]
7. Nemtanu, M. Corporate social responsibility for cosmetics companies. *Work. Pap. Ser. Soc. Responsib. Ethics Sustain. Bus.* **2012**, *1*, 33–34.
8. European Directive 2014/95/EU. Available online: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014L0095> (accessed on 18 March 2020).
9. Deegan, C. The legitimising effect of social and environmental disclosures—A theoretical foundation. *Account. Audit. Account. J.* **2002**, *15*, 282–311. [CrossRef]
10. Cho, C.H.; Michelon, G.; Patten, D.M. Impression management in sustainability reports: An empirical investigation of the use of graphs. *Account. Public Interest* **2012**, *12*, 16–37. [CrossRef]
11. Milne, M.J.; Kearins, K.; Walton, S. Creating adventures in wonderland: The journey metaphor and environmental sustainability. *Organization* **2006**, *13*, 801–839. [CrossRef]
12. Unerman, J.; Bebbington, J.; O'Dwyer, B. *Sustainability Accounting and Accountability*; Routledge: New York, NY, USA, 2010.
13. Boiral, O. Accounting for the unaccountable: Biodiversity reporting and impression management. *J. Bus. Ethics* **2016**, *135*, 751–768. [CrossRef]
14. Diouf, D.; Boiral, O. The quality of sustainability reports and impression management. *Account. Audit. Account. J.* **2017**, *30*, 643–667. [CrossRef]
15. Bansal, P.; Kistruck, G. Seeing is (not) believing: Managing the impressions of the firm's commitment to the natural environment. *J. Bus. Ethics* **2006**, *67*, 165–180. [CrossRef]
16. Morita, Y.; Matsui, T.; Takishita, Y.; Kato, S.; Machimura, T. Analysis of corporate responsibility change for biodiversity conservation before and after cop10. *J. Japan Soc. Civ. Eng. Ser. G* **2012**, *68*, II\_383–II\_393. [CrossRef]
17. Millon, D. Corporate social responsibility and environmental sustainability. In *Company Law and Sustainability: Legal Barriers and Opportunities*; Sjøfjell, B., Richardson, B.J., Eds.; Cambridge University Press: Cambridge, UK, 2015.
18. Bogner, G. Respect for Nature. *Ethicspolicy Environ.* **2011**, *14*, 147–149. [CrossRef]
19. Varvaresou, A.; Papageorgiou, S.; Tsirivas, E.; Protopapa, E.; Kintziou, H.; Kefala, V.; Demetzos, C. Self-preserving cosmetics. *Int. J. Cosmet. Sci.* **2009**, *31*, 163–175. [CrossRef] [PubMed]
20. Sahota, A. *Sustainability: How the Cosmetics Industry Is Greening Up*; John Wiley & Sons: New York, NY, USA, 2013. [CrossRef]
21. Francke, I.C.M.; Castro, J.F.W. Carbon and water footprint analysis of a soap bar produced in Brazil by Natura Cosmetics. *Water Resour. Ind.* **2013**, *1–2*, 37–48. [CrossRef]
22. White, G.R.T.; Sarpong, D.; Ndrecaj, V. Sustainable Packaging. *Int. J. Soc. Ecol. Sustain. Dev.* **2015**, *6*, 31–40. [CrossRef]
23. Dimitrova, V.; Kaneva, M.; Gallucci, T. Customer knowledge management in the natural cosmetics industry. *Ind. Manag. Data Syst.* **2009**, *109*, 1155–1165. [CrossRef]

24. Bary, M.; Cashore, B.; Clay, J.; Fernandez, M.; Lebel, L.; Lyon, T.; Whelan, T. Towards Sustainability—The Roles and Limitations of Certification. Final Report. Available online: <https://www.resolve.ngo/docs/report-only.pdf> (accessed on 18 March 2020).
25. Kalmykova, Y.; Sadagopan, M.; Rosado, L. Circular Economy from review of theories and practice to development of implementation tools. *Res. Conserv. Recycl.* **2018**, *135*, 190–201. [[CrossRef](#)]
26. Saidani, M.; Yannou, B.; Leroy, Y.; Kluzel, F.; Kendall, A. A taxonomy of circular economy indicator. *J. Clean. Prod.* **2018**, *207*, 542–549. [[CrossRef](#)]
27. Pottering, J.; Ekkert, M.; Worrell, E.; Hanemaijjer, G. *Circulare Economy Measuring Innovation in Products Chains*; PBI Netherlands Environmental Assessment Agency: The Hague, The Netherlands, 2016.
28. Boken, N.M.; Olivetti, A.; Cullen, J.M.; Potting, J.; Lifset, R. Taking the circularity to the next level a special issue on the *Circular Economy*. *J. Ind. Ecol.* **2017**, *21*, 476–482. [[CrossRef](#)]
29. EASAC European Academy Science Advisory Council. *Indicators for Circular Economy Policy Report 30*; EASAC European Academy Science Advisory Council: Halle, Germany, 2016.
30. Murray, A.; Skene, K.; Haynes, K. The circular economy: An interdisciplinary exploration of the concept and application in a global context. *J. Bus. Ethics* **2017**, *140*, 369–380. [[CrossRef](#)]
31. Schroder, P.; Limille, A.; Desmond, P. Making the circular economy work for human development. *Resour. Conserv. Recycl.* **2020**, *156*, 104688. [[CrossRef](#)]
32. Bonet, D.; Petit, I.; Lancini, A. L'Economie Circulaire: Quelles Mesures De La Performance Economique, Environnementale Et Sociale? *Rev. Française Gest. Ind.* **2014**, hal-01676972. Available online: <https://hal.archives-ouvertes.fr/hal-01676972> (accessed on 22 June 2020).
33. Yang, Y.; Chen, L.; Jia, F.; Xu, Z. Complementarity of circular economy practices: An empirical analysis of Chinese manufacturers. *Int. J. Prod. Res.* **2019**, *57*, 6369–6384. [[CrossRef](#)]
34. Esken, B.; Franco-García, M.L.; Fisscher, O.A.M. CSR perception as a signpost for circular economy. *Manag. Res. Rev.* **2018**, *41*, 586–604. [[CrossRef](#)]
35. Stewart, R.; Niero, M. Circular economy in corporate sustainability strategies: A review of corporate sustainability reports in the fast-moving consumer goods sector. *Bus. Strategy Environ.* **2018**, *27*, 1005–1022. [[CrossRef](#)]
36. Turoń, K.; Czech, P. Circular Economy in the Transport Industry in Terms of Corporate Social Responsibility Concept. *J. Corp. Responsib. Leadersh.* **2017**, *3*. [[CrossRef](#)]
37. Daú, G.; Scavarda, A.; Scavarda, L.F.; Portugal, V.J.T. The healthcare sustainable supply chain 4.0: The circular economy transition conceptual framework with the corporate social responsibility mirror. *Sustainability* **2019**, *11*, 3259. [[CrossRef](#)]
38. Meinel, C.; von Thienen, J. Design Thinking. *Inform. Spektrum* **2016**, *39*, 310–314. [[CrossRef](#)]
39. Prendeville, S.; Bocken, N. Sustainable Business Models through Service Design. *Procedia Manuf.* **2017**, *8*, 292–299. [[CrossRef](#)]
40. McDonough, W. Design for the Triple Top Line: New Tools for Sustainable Commerce. *Corp. Environ. Strategy* **2002**, *9*, 251–258. [[CrossRef](#)]
41. Swedberg, J. Sustainable Design; Fabric Architecture. 2003. Available online: <https://fabricarchitecturemag.com/> (accessed on 22 June 2020).
42. Bom, S.; Jorge, J.; Ribeiro, H.M.; Marto, J. A step forward on sustainability in the cosmetics industry: A review. *J. Clean. Prod.* **2019**, *225*, 270–290. [[CrossRef](#)]
43. Andrews, T. Reflections on “The Discovery of Grounded Theory. *Grounded Theory Rev. Int. J.* **2007**, *6*, 55–60.
44. Cutcliffe, J.R. Methodological issues in grounded theory. *J. Adv. Nurs.* **2000**, *31*, 1476–1484. [[CrossRef](#)] [[PubMed](#)]
45. Baker, C.; Wuest, J.; Stern, P.N. Method slurring: The grounded theory/phenomenology example. *J. Adv. Nurs.* **1992**, *17*, 1355–1360. [[CrossRef](#)] [[PubMed](#)]
46. Strauss, A.; Corbin, J. Grounded theory methodology: An overview. In *Handbook of Qualitative Research*; Denzin, N.K., Lincoln, Y.S., Eds.; Sage: London, UK, 1994; pp. 273–285.
47. Bocken, N.; Miller, K.; Evans, S. Assessing the environmental impact of new circular business models. In Proceedings of the Conference New Business Models—Exploring a Changing View on Organizing Value creation, Toulouse, France, 16–17 June 2016.
48. De los Rios, I.C.; Charnley, F.J.S. Skills and capabilities for a sustainable and circular economy: The changing role of design. *J. Clean. Prod.* **2017**, *160*, 109–122. [[CrossRef](#)]

49. Rogetzer, P.; Silbermayr, L.; Jammernegg, W. Sustainable sourcing including capacity reservation for recycled materials: A newsvendor framework with price and demand correlations. *Int. J. Prod. Econ.* **2019**, *214*, 206–219. [[CrossRef](#)]
50. Cinelli, P.; Coltelli, M.B.; Signori, F.; Morganti, P.; Lazzeri, A. Cosmetic Packaging to Save the Environment: Future Perspectives. *Cosmetics* **2019**, *6*, 26. [[CrossRef](#)]
51. Morganti, P. New horizon in cosmetic dermatology. *J. Appl. Cosmetol.* **2016**, *34*, 15–24.
52. Hampshire, K.; German, R.; Pridmore, A.; Fons, J. Electric Vehicles from Life Cycle and Circular Economy Perspectives. Available online: <https://www.eea.europa.eu> (accessed on 18 March 2020).
53. De Römph, T.J.; van Calster, G. REACH in a circular economy: The obstacles for plastics recyclers and regulators. *Review of European. Comp. Int. Environ. Law* **2018**, *27*, 267–277. [[CrossRef](#)]
54. Simon, B. What are the most significant aspects of supporting the circular economy in the plastic industry? *Resour. Conserv. Recycl.* **2019**, *141*, 299–300. [[CrossRef](#)]
55. Bourguignon, D. Closing the Loop New Circular Economy Package. European Parliamentary Research Service, 2016. Available online: [https://www.europarl.europa.eu/RegData/etudes/BRIE/2016/573899/EPRS\\_BRI\(2016\)573899\\_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2016/573899/EPRS_BRI(2016)573899_EN.pdf) (accessed on 18 March 2020).



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