Circular Economy and Corporate Social Responsibility: Towards an Integrated Strategic Approach in the Multinational Cosmetics Industry

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Abstract

Sustainability become, in recent years, an important part of corporate management philosophy. It is communicated through mandatory and non-mandatory reports that identify specific objectives and disseminate best practices to achieve the Sustainable Development Goals (SDGs). In this context Corporate Social Responsibility (CSR) and the Circular Economy (CE) can be integrated despite having a different theoretical focus. The paper aims to discuss "if" and "how" cosmetic luxury brands are improving their environmental sustainability through new integrated strategies, using the different theoretical concepts of CSR and CE, driver of cleaner production. The research analyses the CSR reports of eight well-known Multinationals in Cosmetics (MNCs) to verify how they pursue the typical dimensions of CSR (environmental, social, and economic) and if CE is part of their corporate strategies. We found evidence of a good level of attention by MNCs to circularity in their CSR reporting. In particular, we found companies' CSR reports communicate multiple objectives typical of a circular approach (eco-design, reuse, low energy consumption, zero emissions). The main contribution of this study is supporting the integration of CE and CSR dimensions in MNCs managerial choices. It also contributes to the understanding on the relation between CSR and CE and assesses the state of art of MNCs in this field making it possible take a step towards an increasingly integrated approach to circularity.

Keywords: corporate social responsibility; circular economy; cosmetics industry; cleaner production; sustainability; reports

1. Introduction

The increasing complexity and turbulence of the environment make it necessary for companies to develop competitive management models aimed to make profits but also to meet the expectations of society and stakeholders in a long-term view (Barrena Martínez et al., 2016).

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 a voluntary basis"* (European Commission, 2001). Later, Rexhepi et al. (2013) affirmed that improvements in the CSR process can be referred to as *"social innovation"*. In recent years, the concept of CSR has enlarged to embrace multiple dimensions. Camilleri (2016) spoke of "CSR 2.0", linking CSR to improvements in economic performance, operational efficiency, higher quality, innovation, and competitiveness, making businesses capable of being socially and environmentally responsible whilst pursuing their profit-making activities. In this way, CSR has ended up including sustainability and environmental issues, which bring it closer to the Circular Economy (CE) approach.

CE concept means many different things to different people. Kirchherr et al. (2017) gathered 114 CE definitions and coded them on 17 dimensions. Their findings indicate that *"the CE is most frequently depicted as a combination of reduce, reuse and recycle activities, whereas it is oftentimes not highlighted that CE necessitates a systemic shift"*. This systemic shift means a transition from a linear economy to a CE (Kumar Sharma et al., 2021), which is able to reduce the demand for virgin raw materials and leave room for models of reuse and recycling of products (Kuo and Chang, 2021). This represent a valid opportunity to respond to the challenges of the future at the economic and employment level (Prieto-Sandoval et al., 2018). In this context, a targeted action programme that addresses people, the planet, and prosperity is Agenda 2030, under which "Objective 12", on responsible consumption and production, outlines the necessity of a transition to a CE through efficient use of resources, reduction and subsequent reuse of waste, and the implementation of a

new model of economics. Agenda 2030 also stresses that, in order to implement this change of mentality, disclosure on sustainability practices should be provided in annual reports.

Since 2016, in line with the Legislative Decree no. 254/2016 implementing the European Directive 2014/95/EU, CSR reports have been mandatory for large companies (more than 500 employees and 40,000,000 euros of net revenue), while for companies with less than 250 employees, the preparation of non-financial statements remains a voluntary act. These reports communicate non-financial information describing a firm's strategies, activities, and results in relation to environmental, social, and governance aspects of the business. In addition, they have to disclose the policies implemented for new business management, as well as the due diligence and key performance indicators used. This information can be included in the company's annual statements, or may constitute a separate document as required by legislation. Consequently, an increasing number of companies are making Sustainable Development Goals (SDGs) part of their business strategies, with a significant change in the way they run their business.

In order to bring out the relationships between CSR and sustainability models, it is essential to take into account circularity as a growth factor impacting companies' business models (Marco-Fondevila et al., 2021). The attention paid to the CE has so far focused on the use of secondary raw materials (Schreck and Wagner, 2017), reuse and recycling of products (Grohens et al., 2013), life cycle extension (Tukker, 2015), the minimisation of waste (Wang et al., 2015), industrial symbiosis (Homrich et al., 2018), and renewal of materials (Ghisellini et al., 2016).

While a lot has been written on CSR, the issues related to connections between CSR and CE strategies have been little investigated, and represent a gap in the literature, as does the possible implications of matching the two areas in integrated reporting (Upadhyaya et al., 2021).

Some authors have focused on this theme, suggesting companies in the luxury sector can, through the different theoretical CSR and CE concepts, achieve success not only because of a better reputation and corporate strategy factors, but also because of the positive impacts on the

environment and stakeholders (Donato et al., 2019). Other authors have tried to identify the possible implications for multinational companies and the possible meeting points with the CE, and how CSR can use the principles of circularity to implement the two strategies at the management-organisational level (Esken et al., 2018). Turoń and Czech (2017) highlight how the circular economy and sustainability practices can provide a solid basis for the implementation of CSR in the transport and logistics industries. Leandro and Paixao (2018) have started combining the concepts of CSR and CE more strongly. They claim that CSR is the corporate management philosophy and set of practices that best frame Sustainability while the CE draws on the purest values of CSR and puts them into practice and both help to achieve SDGs and sustainable behavior in general, both for citizens, institutions and companies.

Our study aims to bridge the gap in the literature regarding the possible interaction between the areas of CSR and the CE in the cosmetics industry, for the transition to a new, more sustainable business model. In particular, we want to propose a theoretical framework for the integration of CSR and CE concepts that have still a different theoretical focus, through their riding elements. Eight Multinationals in Cosmetics' (MNCs') CSR reports are analysed to try to understand if these companies are pursuing a clearly circular approach, or at least if they include some dimensions of circularity in their reports.

Our research questions are the following:

1. *Are CSR and CE interconnected concepts in MNCs' CSR reports?*
2. *Is an integrated strategic approach (CSR and CE) able to ensure MNCs a more sustainable production process?*

The remainder of the paper is organised as follows: Section 2 examines the relevant literature. Section 3 presents the research methodology. Section 4 contains the findings from the CSR report analysis and discusses the obtained results. Section 5 addresses the implications (for theory, practice

and policymaking) of the research, and finally Section 6 presents the conclusions and limitations of the paper, identifying future research activities.

2. Literature Review

CSR has fully interested the MNCs cosmetics sector, being sensitive to consumer demand for products with a low environmental impact, often accompanied by organic certifications that guarantee the reliability of the formulations (Varvaresou et al., 2009; Sahota, 2013).

Environmental sustainability is a key concept in cosmetics, arising from companies' CSR reports, that is well defined and part of the value chain of the company's business model. The numerous certifications owned by MNCs show how companies promote eco-compatible solutions, following strict quality and environmental standards, and also adopt practices of waste reduction, CO_2 reduction, adoption of eco-design, adoption of ISO certifications, and packaging reduction (Bary et al., 2012).

Ellen MacArthur Foundation (2012) defines CE as "*an industrial system that is restorative or regenerative by intention and design".* According to Moreno et al. (2016), *"most academic and grey literature on the circular economy has focused primarily on the development of new business models, with some of the later studies addressing design strategies for a circular economy, specifically in the area of resource cycles and design for product life extension"*. In circular design, particular attention is paid to the economic and social aspects, as well as the environmental, by creating and optimizing new business models for the transition to a circular economy (Prendeville and Bocken, 2017).

The circular design concept also applies to the cosmetics sector. In fact, if we could design from the beginning durable products whose packaging is also easily reusable, recyclable, and easily disassembled, we would combat obsolescence while preserving products and materials to produce maximum value. The importance of design and the role of designers in creating increasingly

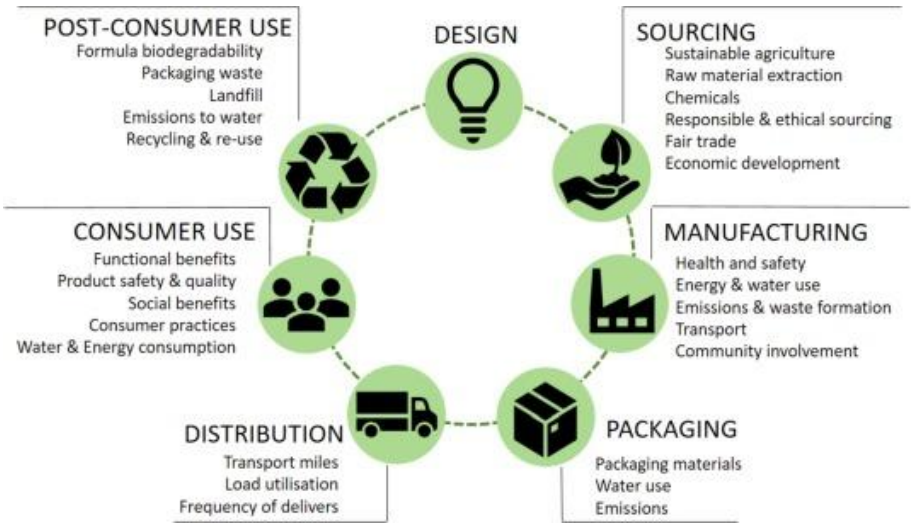
sustainable models have been much discussed in the academic world and elsewhere, in order to propose an alternative and responsible way of designing (Ramani et al., 2010; Romli et al., 2015). Sustainable design takes into account the effects of environmental and social protection and long-term economic development (Pascu and Nedea, 2013). Some of the designs that could be applied in the cosmetics industry for the transition to circular models concern durability (Bocken et al., 2016). All of this can be translated into environmental, social, and economic terms, and then passed on for the benefit of society. At the same time, a criticality is found by some authors in the packaging of current cosmetic products, wherein packaging waste such as plastic is not properly recycled (Issara et al., 2014). Chemicals in cosmetics will also need to be replaced by sustainable materials. New skills and competencies are needed, supported by policies, that can raise manufacturers' awareness of new circular design practices (Charter, 2018), alongside financial incentives for the implementation of innovation for the transition to the circular economy. Companies are showing an increasing interest in this new economic model.

From previous literature contributions, it seem possible to foresee a trend of integration between CSR and CE concepts. Only few authors already tried to establish a theoretical framework for the integration of these concepts that have still a different theoretical focus, through their riding elements.

According to Bonet et al. (2014), *"The CE is a new economic model reconciling the economy and environmental preservation in a social approach"*. Consequently, what is missing in the literature is an exploration of the synergistic effects between CSR and CE. Esken et al. (2018) showed how CSR can use the principles of circularity to implement new strategies at the managerial-organizational level and tried to identify the possible implications of CE policies for multinational companies. He offers a proposition on how to use CSR perception as a signpost for the CE and fuel further researches in this direction. In the cosmetics industry circularity seems to permeate the organization integrating the corporate social responsibility with new practices and procedures

involving employees, suppliers and users (Dimitrova et al., 2009). The integration of CSR and CE concepts is well represented also in the Bom et al. (2019) model. These authors, through an analysis on the sustainability of cosmetic products, showed that the identification and management of multiple environmental, economic, social, and safety aspects for consumers in cosmetic industries is not immediate. They affirm that *"the cosmetics industry needs to adapt and innovate, to design products and processes that can improve the sector's sustainability, acting across the entire value chain", and that "it is essential to understand which factors to consider when aiming for sustainability"*. The authors summarize the essential factors in a model identifying seven dimensions (Figure 1): i) Design. ii) Sourcing. iii) Manufacturing. iv) Packaging. v) Distribution. vi) Consumer use. vii) Post-consumer use.

Figure 1. Cosmetic product life cycle with a sustainable approach (Bom et al., 2019).



In our opinion, the Bom et al. (2019) model combines elements of CSR (economic development, community involvement, and consumer practices) with a circular approach, which starts from the "design" of new processes and introduces innovative practices in areas of activity (sourcing,

manufacturing, packaging, distribution, consumer use, post-consumer use), in reference to the 9R model of CE (Kirchherr et al., 2017) (Table 1).

Table 1. The correlation between Bom et al. (2019) model dimensions and 9R model (of CE) strategies (Kirchherr et al., 2017) (source: authors' elaboration).

		Bom et al. (2019) model dimensions						
		Design	Sourcing	Manufacturing	Packaging	Distributions	Consumer use	Post-consumer use
9R model (of CE) strategies (Kirchherr et al. 2017)	R0 - Refuse	X	X	X	-	-	X	X
	R1 - Rethink	X	X	X	X	X	X	X
	R2 - Reduce	X	X	-	-	-	-	X
	R3 - Reuse	X	X	-	-	-	-	X
	R4 - Repair	X	X	-	-	X	-	X
	R5 - Refurbish	X	X	-	-	-	-	X
	R6 - Remanufacture	X	-	-	-	-	-	X
	R7 - Repurpose	X	-	-	X	-	-	X
	R8 - Recycle	X	-	X	-	-	-	-
	R9 - Recover	X	-	-	-	-	-	X

For this reason, it can be considered a first attempt of drawing a theoretical framework to integrate CSR and CE concepts.

In this paper, we apply the seven dimension of the Bom et al. (2019) model as an interpretative lens to analyse MNCs' CSR reports, and verify if an approach based on circularity has been implemented by these companies.

3. Materials and Methods

This paper uses a grounded approach to "observe" and "interpret" the behaviour of cosmetic multinationals through the analysis of CSR reports and other internal and external documents, looking for existing interconnections between CSR and the CE.

The research hypothesis is that CSR and CE, despite having still different theoretical focus, have many over riding elements. To test this hypothesis, a relevant literature analysis was carried out, and then a secondary data review was implemented through the analysis of the CSR reports of eight well-known MNCs.

The choice of the sample was not random, but guided by the criterion of "representativeness". In particular, the companies identified were those most active in CSR practices and reporting. We assumed that by observing these companies, it would be possible to achieve insight into "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. To interpret firms' behaviours, seven areas of the companies were examined, in line with the Bom et al. (2019) model. These areas included 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, Pièrre Fabre Group, and Chanel Group.

For each firm, the CSR reports and other documents and information on the company were taken from the company websites. Other information was obtained from social media and official annual reports of the companies.

A qualitative approach was also adopted in order to examine recurrent objectives, actions, and processes, leading to hypothesizing conclusions after the study of real situations (Yin, 2009).

In particular, this analysis aimed to verify, for each company, if a circular approach is combined with their CSR strategies. A company was judged on whether they are oriented to circularity when, in its CSR report, it adopts or pursues the majority of these objectives (Kirchherr et al., 2017):

i) Adopt a circular design or eco-design.
ii) Quantified environmental objectives (reduction of emissions, water consumption, waste etc.).
iii) 100% vegetal origin of products in its manufacturing.
iv) Refilling and reusable packaging.
v) CO_2 reduction (until zero emissions) in product distribution.
vi) Promoting responsible use of products.

vii) Zero waste in landfill or more than 90% recycling.

4. Results and Discussion

The section presents the results and discussion of our analysis, to answer the two research questions:

1. *Are CSR and CE interconnected concepts in MNCs' CSR reports?*
2. *Is an integrated strategic approach (CSR and CE) able to ensure MNCs a more sustainable production process?*

The reports analyzed show that the majority of MNCs mention circularity in their CSR reports, however only few of them provide clear CE objectives (L'Oréal Group, Chanel Group, Lush Group). The majority companies do not explicitly state their CE strategies, showing a more traditional and linear business model.

As seen, CSR and CE practices have been observed in relation to seven areas of activities. The area of "Design" is perceived as a fundamental factor for products upstream, such that 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 MNCs analyzed; nevertheless, in some cases, it is not linked to specific objectives. The area of "Sourcing" provides clear statements of preservation actions for the environment and biodiversity. All the companies aim for environmental preservation but with different objectives, such as commitment to reducing CO_2 emissions, waste, water consumption, and/or plastic use. In addition, all the companies have multiple certifications. Environmental certifications are fundamental because they force organizations to implement planning strategies and control systems. The "Manufacturing" area seems to be particularly relevant for companies mainly interested in finding vegetable-based raw materials for their production. Organizations may declare their future objective to achieve an

increasing use of raw materials of natural or organic origin, of between 80% and 100%. Only two of them (Shiseido Group and Yves Rocher Group) state an objective of 100% vegetable origin of their products. In the area of "Packaging", all the analyzed companies are strongly convinced that reducing the volume, weight, packaging, and materials their products are made of can be an important step to reduce their impact on the environment, but only some of them (in particular L'Oréal Group, Guerlain Group and Shiseido Group) are committed to using refillable containers; this is also in light of new consumer trends that see single-use containers as wasteful and no longer necessary. All of the companies seem also committed to reducing disposable plastic packaging, switching to those made from recycled materials that can be an alternative to plastic, with recyclability targets of around 100%. The "Distribution" factor is relevant to companies that pay particular attention to the reduction of CO_2 during transportation of the products. In particular, L'Oréal and Guerlain state an objective of achieving zero emissions of CO_2. This factor has a significant impact on the environment and sustainability in this sector, and has led to consideration of alternative ways to optimize transport, such as car sharing, carpooling, and electric vehicles. 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, risk reduction, ability to meet the needs of stakeholders with an increase in profits, and improved brand reputation, which leads to an increase in sales. The "Post-Consumer Use" factor involves the reduction of waste in landfills. In particular, three companies (L'Oréal Group, Guerlain Group and Yves Rocher Group) state an objective of zero waste in landfills, and more than 90% recycling. Other companies state a lower recycling objective (by almost 50%). The use of biodegradable plastic is taken into consideration by some companies.

All these actions are in line with what is considered in the literature a circular approach (Kirchherr et al., 2017) but some MNC's shows a stronger commitment toward circularity.

It is interesting to observe that none of the companies from this sample use the circularity ratios presented in the literature, while some companies adopt other sustainability ratios (L'Oréal Group, Guerlain Group, Clarins Group, Lush Group).

Table A1 (in the appendix) shows that the companies analyzed have commonalities in their strategies and are (on average) oriented towards circularity; nevertheless, they use different reporting strategies, in some cases using dedicated websites, and in other cases producing dedicated reports. Only in one case (L'Oréal Group) were financial and non-financial reporting presented in single document.

As reported in Table A2 (in the appendix), the presence of high environmental attention and a strong circular approach seems to be greater for three of the observed companies: L'Oréal Group, Guerlain Group and Yves Rocher Group. They particularly seem to be more clearly questioning the traditional business model.

It seems possible to affirm that there is an increasing desire for improvement and refinement of environmental practices, using CSR reports as a tool to disclose information on CE strategies.

Moreover, CSR strategic actions seems to converge towards a new circular business model (see Table A1 in the appendix). In this context, CSR reports seem to be an adequate tool to support CE disclosure in the cosmetics industry.

These results support the possibility to include CE in CSR reports, wherein circularity should represent a new strategic business model declinator in CSR actions.

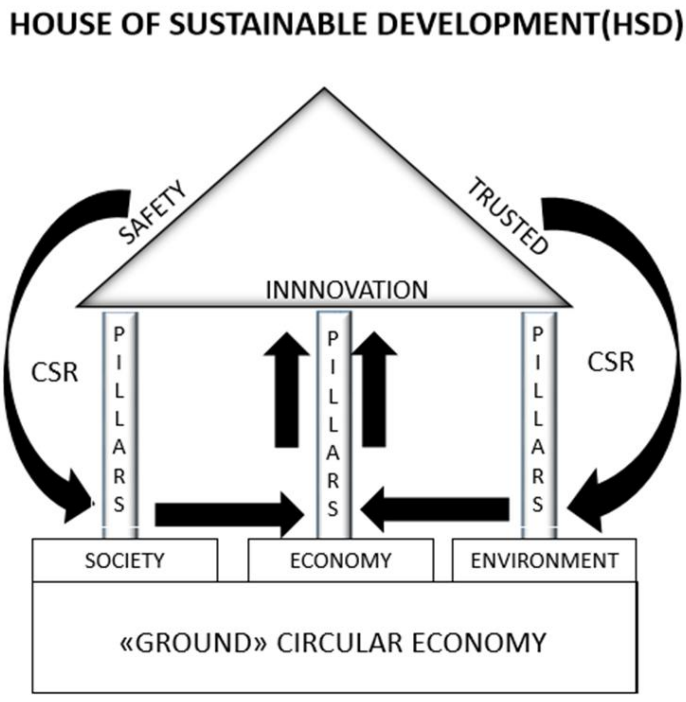
Moreover, this integrated approach ensures a more sustainable production process that, as explained in CSR reports, includes: i) the reduction of emission, water consumption and waste; ii) the use of 100% vegetal origin of products; iii) the use of refilling and reusable packaging; iv) the aim of CO_2 reduction, until zero emission.

Our study and observations can be synthesized in a model based on the three pillars of CSR (social, economy and environment), that finds solid ground in the CE strategies for integration of those areas.

In particular, MNCs need to use a common approach based on the CE to offer a new way of thinking about a sustainable economy. It is possible to conclude that the three pillars of CSR - social, economy, and environment - can find solid ground in the circular economy for integration between these three areas, as represented in Figure 2.

Figure 2 schematizes the construction of a common house for sustainable development, to represent and clarify the concept of correlation of the elements between them. The "land" where the whole building is based is represented by the circular economy model. The pillars of CSR and the coverage of the common elements of safety, trust, and innovation complete and define the new way of thinking about the economy as sustainable.

Figure 2. House of sustainable development: a sustainable economy model based on CSR and the circular economy (source: authors' elaboration).



Moreover, our opinion, there can be significant competitive advantages for companies adopting an integrated model of CSR and CE, such as:

i) enhancement of the company's image;

ii) improvement of the interest of investors in the company;

iii) loyalty of employees;

iv) recall of investors from various sources;

v) production of clean and renewable energy through the environmental CSR program.

At the same time, however, some problems may still limit or discourage CSR and CE integration. Some of these could relate to the approval of shareholders, who may see potential cost increases in order to support new business model, or the divergence of ideas about corporate objectives where the main purpose of shareholders is still focused on profit. Often, the corporate microcosm is not yet ready to face the challenges at a national and international level, when a long-term strategic view is needed to combine economic and environmental objectives. In the long run, CSR and CE integrated approach can reduce costs through the lower use of raw materials and longer product life, creating a valid alternative to the current linear model.

5. Implications

The paper has several implications for theory, practice and policymaking, as described in the following subsections.

5.1. Implications for Theory

CSR is an established business management and governance model based on satisfying the expectations of stakeholders. Edward Freeman's Theory of Stakeholders argues that a company's stakeholders include all those who represent interrelated groups whose goal is corporate and long-term strategy. From the perspective of CSR, if a company does not pay particular attention to all interested parties, this company will be doomed to fail. Such theoretical grounding is at the basis

also of the CE phenomenon, an emercing phenomenon takes into account all the stakeholders involved and aims to benefit the whole society. Being CE a recent phenomenon, several studies have explored how to favour the diffusion of such approach. Recent studies have to theoretically arguing an interconnection between CSR and CE and call for additional theoretical and empirical research in this direction (Bom et al., 2019; Esken et al., 2018; Leandro and Paixao, 2018; Bonet et al., 2014). Few studies have provided empirical outcomes so far.

In this we contribute to the call for further studies on the above-mentioned topics by evidencing how stakeholders' theory is a theoretical lens common to CSR and CE approaches, and which can therefore be effectively used to understand how the two phenomena are correlated. None of the previous studies have exploited this theoretical grounding so far, which is indeed crucial to fully grasp the interconnections of the two phenomena.

In addition, we also provide empirical evidence of how CSR may favour CE by adopting an exploratory, qualitative research design.

A further contribution of the study is represented by the way, through which we assessed the transition towards circularity, i.e. with the model that was recently proposed by Bom et al. (2019). This study evidenced how such framework can be effective to properly assess the level of CE adoption by firms. In fact, it is strictly connected with the 9R model proposed by Kirchherr et al. (2017).

A further contribution of the study is the context in which the analysis has been conducted. Indeed the cosmetics sector represent a relevant case study due to the technological advancements and the great attentions put by all the stakeholders, which allow making the outcomes more generalizable than previous studies.

5.2. Implications for Practice

Considering the benefits that CE can bring to companies, stakeholders and the whole society there is an increasing managerial interest towards embracing this new approach. However, the shift from

linear economy towards CE can imply several costs for organizations. In light of this, the outcomes of this research can be extremely relevant for a managerial audience as they highlight how the efforts undergone in CSR can be beneficial.

In fact, the entrepreneur pays particular attention to sustainability practices alongside those of social responsibility as a factor of corporate profit and brand improvement. The customer's propensity to purchase sustainable materials and products also leads the entrepreneur to refine the management practices of circularity models. Even the reuse of materials and their recycling leads to a double financial advantage for the customer and for the company compared to the purchase of a new product or product parts. For these reasons, a large number of customers and more in general stakeholders, are increasingly attentive to sustainability issues enhanced by both CSR and CE, and therefore they can be mutually reinforcing. Our study have theoretically and empirically evidenced CSR can be a useful lever to encourage the adoption of CE and for companies it is better to start with CSR first and then be already on the road to reach structured models of CE. Therefore, companies that have already implemented CSR practices can realize to be ready for the transition towards CE, as on average half of the practices should be already in place. Moreover, companies that have not started yet the transition neither towards CSR nor towards CE may be motivated to do so jointly as the costs for enhancing CSR will be useful also to embrace circularity. We are confident that such result can be extremely useful to spread the diffusion of CE, and also further adoption of CSR, among organizations.

5.3. Implications for Policymaking

Considering the pressing Grand Challenges that our society is facing, policymakers are looking for ways to tackle them. Towards this aim, this study evidences that favouring the emergence of CSR have as a secondary effect also that of benefiting the transition towards CE. In such a way it is possible to benefit all the pillars of sustainability, i.e. economic, social and environmental, both though CSR and CE.

A better knowledge of the determinants of interconnection of the CSR towards the CE could allow policymakers to elaborate a more effective communication and decision-making process and the creation of action policies. The competitiveness of organizations can lead to comparative advantages that can improve export levels of some food products for some countries The CSR strategy and the CE model can be useful for policy adoption also external companies and to limit the use of the resources necessary for the implementation of socially responsible policies. Strategic development and competitive advantage go hand in hand. The application of CSR policies arise specifically and is characteristic of Multinationals for any development of circular models that are put in place to improve the perception of benefits that can also bring to the community. Transparency and accountability policies can be communication factors towards the community to highlight the correct operation of the organization and to verify how the CSR practices incorporated within CE models can increase their circularity.

6. Conclusions, Limitations and Future Research Directions

This paper contributes to our understanding of the relationship between CSR and the CE. It assesses the state of the art MNCs in this field, making it possible take a step towards an increasingly integrated and implemented approach to circularity that, in the future, could be extended to smaller companies.

The analysis reveals a good level of integration between CSR and CE strategies, with enlarging of the CSR scope to embrace environmental issues and sustainability objectives. These results will bring the scientific community to a better understanding on the move towards a circular model, in which the return on investment is also social and not only economic.

Moreover, we respond to the concern raised in the literature regarding whether different assessment tools impact sustainability performance by suggesting the use of integrated reporting, combining CSR and CE strategies. In particular, we consider CSR reports as the tool to provide a contribution

to circular design communication through an integrated approach that concentrates clear objectives of circularity and sustainability within already existing documents.

The results of the CSR report analysis show the attention of MNCs to circularity. The majority of the observed companies mention “circular design” as an essential element for implementing new models of circularity. Other area of attention to a circular approach concern the need to replace existing packaging with sustainable alternative materials and to implement a series of actions to raise customer awareness.

Nevertheless, some limitations and methodological issues must be reported. The interpretation of the results must consider the limitations of a research methodology based only on secondary sources (mainly CSR reports). Moreover, only a small sample of eight MNCs was analysed.

Future research will consider a larger sample of cosmetic companies, including middle size firms, and will investigate in depth also through interviews the managerial shift toward a circular business model. Finally, we will investigate how CSR and CE communication can influence companies image and purchasing choices.

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Appendix

Table A1. Comparative analysis on circular design and CSR (source: authors' elaboration).

		COMPANIES							
BOM ET AL. (2019) MODEL DIMENSIONS	**CRITERIA**	**L'Oreal Group**	**Clarins Group**	**Guerlain Group**	**Shiseido Group**	**Lush Group**	**Yves Rocher Group**	**Pièrre Fabre Group**	**Chanel Group**
Design	Mention of circular and eco-design (YES/NO/NOT SPECIFYED)	YES	YES (eco-design)	YES (eco-design)	YES (eco-design)	YES (visual and eco-design)	YES (eco-compatible design)	YES (eco-conception, eco-design)	YES (circular design, eco-design)
Sourcing	Clear preservation actions of environment and biodiversity stated (YES/NO/NOT SPECIFYED)	YES	YES	YES	YES	YES	YES	YES	NO

	Quantifyed objectives stated (YES/NO/NOT SPECIFYED)	YES (target of a 60% reduction in 2020 of the environmental footprint, waste, CO2 emissions, water consumption per unit of finished product, and a 20% reduction in emissions from product transport)	NOT SPECIFYED	YES (100% carbon neutral target by 2028)	YES (approximately 96% of the materials used for the SUPER MiLD bottles and approximately 34% for refill packs are sugarcane-derived polyethylene and thus CO2 emissions were successfully reduced by approximately 188 tons)	YES (saving about 65 tons of Carbon Dioxide and 90 tonnes of virgin plastic, or 800 barrels of oil, each year)	YES (from 2010 reduced CO2 emissions by 10% and 17% water consumption)	YES (monthly reduction in CO2 emissions of 5.7 tonnes)	NO
	Certifications (YES/NO/NOT SPECIFYED)	YES (ISO 14001, BS OHSAS 18001)	YES (ISO 14001, ISO 50001)	YES (ISO 14001)	YES (FSC-certified, ISO 14001, LCA,"Carbon Offsetting Scheme")	YES (ethical buying certification) cruelty-free	YES (ISO 9001, ISO 14001, SAS 18001, certification cruetly-free)	YES (ISO 9001, ISO 13485, ISO 22716, ISO 14001, Ecocert 26000, PEFC)	YES (RSPO certified)
Manufacturing	Vegetable origin (YES/NO/NOT SPECIFYED)	YES	YES	YES	YES	YES	YES	NO	NO
	Other quantifyed objectives stated (YES/NO/NOT SPECIFYED)	YES (55% raw material vegetable origin)	YES (88% raw material vegetable origin)	YES (95% ingredients natural origin by 2021)	YES (100% using vegetable raw materials)	YES (100% vegetarian)	YES (all products are composed, with percentages close to 100%, of ingredients of natural origin)	YES (70% ingredients natural origin)	YES

Packaging	Refilling and reuse packaging (YES/NO/NOT SPECIFYED)	YES	YES	YES	YES	YES	YES	NO	YES
	Reducing packaging volume (YES/NO/NOT SPECIFYED)	YES	YES	YES	YES	YES	YES	NO	YES
	Other quantifyed objectives stated (YES/NO/NOT SPECIFYED)	YES (sustainable packaging by 2025)	YES (the percentage of recyclable materials in product packaging, such as glass or cardboard, is already 63%)	YES	YES (by 2030 100% of the resin currently using for containers and packaging to sustainable plastic will be replaced)	YES (90%, by weight, of packaging material is recycled and the company aims to have 100% of packaging recyclable or compostable)	YES (the packaging of many products is made of 100% recycled plastic)	YES	YES (the packaging of products accounts for half of the emissions)
Distribution	Clear actions/projects reducing CO2 stated (YES/NO/NOT SPECIFYED)	YES	YES	YES	YES	YES	YES	YES	YES
	Other quantifyed objectives stated (YES/NO/NOT SPECIFYED)	YES (in the gradual process that will lead it to zero net emissiones by 2050)	NOT SPECIFYED	YES (savings of 7 tonnes of CO2 per year in transport, 100% electric lorries)	YES (redution a total of approximately 7,300 tons of CO2 emissions)	YES (carrier bags are made with 100% post-consumer recycled paper, saving 100 tonnes of Carbon Dioxide each years, reduction of 450,000 litres of water using solid products)	YES (10% reduction of CO2 emissions)	YES (13% reduction in the impact of greenhouse gases linked to packaging)	NOT SPECIFYED

Consumer use	Clear actions/projects stated (YES/NO/NOT SPECIFYED)	YES (it can be seen in the numerous projects have carried out in support of gender policies, including L'Oréal Italia-Per le Donne e Scienza, support for the Community of San Patrignano and "La Forza e il sorriso" iniziative)	YES (company allows the Arthritis Foundation to devote all of its donations to Research, and supports women with cancer)	YES (Solidarity and collaboration with associations ONG in the word)	YES (HeForShe, a solidarity campaign for gender equality launched by UN Women in 2014, its goal is to encourage men and women around the world to take voluntary action to achieve a gender equal society)	YES (company donates the proceeds of the charity pot cream to groups and associations in the environmental, human rights and animal protection fields)	YES (company supports the Yves Rocher Foundation and its actions in favour of women of which Yves Rocher Italy fully shares the same values)	YES (company was one of the promoters of Tarn Entreprendre, an association that helps the creation of new businesses, it has supported the creation of 430 jobs since its creation in 1997)	YES (60,000 women and girls have benefited from better access ti health care services)
Post-consumer use	Achieved zero waste objective or almost 90% reclying (YES/NO/NOT SPECIFYED)	YES	YES	YES	YES	YES	YES	YES	YES
	Other quantifyed objectives stated (YES/NO/NOT SPECIFYED)	YES (the objective is to send zero waste to landfill)	NOT SPECIFYED	YES (95% recycling and re-use targets for materials)	YES (reduce approximately 85% - weight ratio - of disposed plastic)	YES (recycled paper from potato starch, 100% biodegradable)	YES (100% of rinse-off products have easily biodegradable formulas)	YES (shampoo with 50% recycled PET)	NOT SPECIFYED

Table A2. Orientation to circularity (source: authors' elaboration).

	BOM ET AL. (2019) MODEL DIMENSIONS						
	Design	**Sourcing**	**Manufacturing**	**Packaging**	**Distribution**	**Consumer use**	**Post-consumer use**
COMPANY	Circular design or eco-design of its processes	Environmental objectives quantified (i.e. reduction of emission, water consumption, waste)	100% vegetal origin of products	Refilling and reusable packaging	Objectives of CO2 reduction (until zero emission)	Promote a responsible use of products	Zero waste in landfill or more the 90% recycling
L'Oreal Group	yes	yes	no	yes	yes	no	yes
Clarins Group	yes	no	no	no	no	no	no
Guerlain Group	no	yes	no	yes	yes	no	yes
Shiseido Group	no	yes	yes	yes	no	no	no
Lush Group	yes	yes	no	no	no	no	no
Yves Rocher Group	yes	yes	yes	no	no	no	yes
Pièrre Fabre Group	no	yes	no	no	no	no	no
Chanel Group	yes	no	no	no	no	no	no