

# Sustainable Development and Corporate Social Responsibility: a bibliometric analysis of International Scientific Production

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***Desenvolvimento Sustentável e Responsabilidade Social Corporativa: uma análise bibliométrica da produção científica internacional***

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**Abstract:** Corporate social responsibility has been discussed with the objective of improving the understanding of the performance of organizations in the context of sustainable development. But, what are the highlighted problems in current scientific literature and where are they pointing to? This study analyzed international scientific publications related to Sustainable Development and Corporate Social Responsibility, providing a map of published studies. The bibliometric analysis of studies published in Web of Science from 1998 to 2015 found 197 articles, written by 402 authors, linked to 246 institutions from 43 countries. Looking for relevance criteria and currentness, literature analysis organized the studies into two groups: the most mentioned and the most recent articles. Through the analysis of the main contributions of these publications, it was possible to identify seven key problems: Ontology, Factors for adoption of sustainable initiatives, Performance evaluation, Social and/or environmental impacts, Sustainability reports, Education and Sustainability as a strategy. Opportunities for future research on each problem are suggested.

**Keywords:** Sustainable development; Corporate social responsibility; Bibliometrics.

**Resumo:** *Tem-se discutido a Responsabilidade Social Corporativa buscando-se aumentar a compreensão sobre o papel das empresas no contexto do Desenvolvimento Sustentável. Mas quais as problemáticas em evidência atualmente e para onde apontam? Este trabalho analisou as publicações científicas internacionais relacionadas às temáticas Desenvolvimento Sustentável e Responsabilidade Social Corporativa, proporcionando um mapa dos estudos publicados. A partir da análise bibliométrica das pesquisas publicadas na Web of Science entre 1998 e 2015, foram localizados 197 artigos, escritos por 402 autores, vinculados a 246 instituições de 43 países. Buscando critérios de relevância e atualidade, organizaram-se os artigos em dois grupos: artigos mais citados e artigos mais recentes. Foram analisadas as principais contribuições dessas publicações, identificando-se sete problemáticas principais: Ontologia; Fatores para adoção de iniciativas de sustentabilidade; Avaliação de desempenho; Impactos sociais e/ou ambientais; Relatórios de sustentabilidade; Ensino; e Sustentabilidade como estratégia. Para cada problemática são sugeridas lacunas para futuras pesquisas.*

**Palavras-chave:** *Desenvolvimento sustentável; Responsabilidade social corporativa; Bibliometria.*

## 1 Introduction

The concern about meeting the needs of the present generation without affecting the ability of future generations to meet their own needs characterizes the concept of sustainable development. The role of organizations as agents that usufruct the existing resources, being, because of that, responsible for their use in a sustainable way, is part of this concern and is presented under the Corporate Social Responsibility theme.

Since the beginning of that discussion until the present days, the plurality of terms related to the sustainability theme has grown (Lyra et al., 2009; Laruccia, 2012; Souza & Ribeiro, 2013). By focusing

on the theme, researchers and academics also extend the diversity of new subjects and key problems. The research question of this paper emerges in that context: what problems are in evidence in international scientific production and where do they point to? Therefore, the purpose of this paper is to analyze international scientific publications related to Sustainable Development and Corporate Social Responsibility, providing a map of the problems found on the studies published on those areas.

The choice of the words Sustainable Development and Corporate Social Responsibility attempted

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to delimit the plurality of terms, focusing on the intersection between sustainable development and the role of the organizations inside it, expressed in the term Corporate Social Responsibility. The option for international scientific production analysis was based on the emphasis given to international publications in references by Brazilian researchers themselves (Souza & Ribeiro, 2013; Iritani et al., 2015). Besides, international journals have a greater circulation and prestige because they are published in English (Goulart & Carvalho, 2008). That way, a bibliometric analysis of the studies published from 1945 to 2015 in the *Web of Science – Social Sciences Citation Index* (SSCI) database was conducted.

The results have shown that such literature is relatively recent, and that there has been a continuous and growing interest in the elaboration of studies on sustainable development and corporate social responsibility since 2009. Journals with more published articles, journals with more citations and authors with more citations, among others, were identified. The final analysis verified seven problems, into which the publications were classified, and it points out the main contributions of each one of them. Finally, this article offers an overview of the studies on Sustainable Development and Corporate Social Responsibility, presenting a taxonomy of the problems that are present in the current literature and insights for future research.

The structure of this article includes, besides this introduction, four other sections. Section 2 presents some aspects that describe the sustainable development and corporate social responsibility field. Section 3 describes the methodological procedures adopted for the accomplishment of this paper. In sections 4 and 5, the main results are presented. Section 6 suggests a discussion about the identified problems and section 7 exposes the final considerations, followed by the list of references used in this paper.

## 2 Sustainable Development and Corporate Social Responsibility

The concept of sustainable development has been put into discussion since 1960, when the Biosphere Conference took place in Paris and the appearing of the Club of Rome Non-Governmental Organization occurred, in 1968 (Barros, 2007).

In the 1980's, the United Nations restarted the debate about environmental issues, and Norway's prime minister, Gro Harlem Brundtland, led the World Commission on Environment and Development, to study the subject. The final document was called *Our Common Future*, also known as the Brundtland Report, which proposes sustainable development as that one which aims to meet the needs of the present generation without comprising the ability of future

generations to meet their own needs (Brundtland, 1987).

The concern about social and environmental issues, inserted in the context of sustainable development, reflects in the organizations through Corporate Social Responsibility. According to Carroll (1979), the organizations' social responsibility includes four dimensions: economic, legal, ethical and discretionary that the society has of the organizations at a particular point in time. In the same way, Elkington (1997) proposes the Triple Bottom-Line model that suggests that organizations interpret sustainability through the integration of three dimensions: economic, environmental and social.

The authors here rescued may be seen as a background for understanding sustainable development and corporate social responsibility concepts. However, literature indicates the diversity of concepts and, consequently, the diversity of problems presented in the most recent publications. Research on national and international scientific production, on different themes, has been conducted to provide maps of the developed knowledge (Bignetti & Paiva, 2002; Melo & Andreassi, 2010; Souza & Ribeiro, 2013).

More specifically about the themes of this research, in an analysis of Brazilian publications on the corporate social responsibility area in the Meetings of ANPAD, from 1997 to 2007, Moretti & Campanário (2009) pointed out the reproduction of the same ideas and little scientific maturity from the authors on the theme. Observing the collaboration patterns in the sustainability field, Yarime et al. (2010) point out that it is growing and tends to be carried out among countries that are geographically closer. Different themes were identified in the mapping conducted by Lu & Liu (2014), which aimed to understand the fundamental roles of knowledge diffusion on corporate social responsibility, such as: relation between social responsibility and corporate financial result, social issues involved like social response capacity, social responsibility comprehending economic, legal, ethical and discretionary dimensions in the company business' performance. In the mapping on corporate sustainability, conducted by the authors Montiel & Delgado-Ceballos (2014), topics like corporate social responsibility, corporate social performance, environmental strategies and environmental performance are frequently found. The results show that corporate sustainability is still in development and different objects of study may emerge for deepening knowledge.

Those last two studies converge with our goal of understanding which issues are in evidence in international scientific production. We seeked a more quantitative overview, presenting, for example, which journals had more published articles, which journals had more citations and which authors had a greater

publication, as well as a more qualitative overview, by analyzing each publication in order to identify the problems and main contributions. In the next section of this article, we explain the development of the bibliometric study.

### 3 Methodological procedures

This research is characterized as descriptive, with qualitative approach. The bibliometric techniques make it possible to employ indicators to establish forecasts and trends of the scientific production in different fields of research (Machado, 2007; Lazzarotti et al., 2011), making it possible to perform analyses of the relevant articles in areas and themes of research (Santos et al., 2011). Based on the works of Crossan & Apaydin (2010) and Tranfield, Denyer & Smart (2003), the study was carried out in two stages: (1) Systematic search and (2) Systematic analysis of the literature, which are described next.

#### 3.1 Stage 1: systematic search of the literature

During this phase, the database was defined, as well as the keywords, the search field and the refinement filters. The definition of which literature will be analyzed is fundamental, because it defines the research scope and impacts in its validity (Singleton & Straits, 1999). The choice of the *Web of Science – Social Sciences Citation Index (WoS-SSCI)* considered the fact that it is one of the most extensive database of periodicals revised by representative pairs and recognized by the international scientific community, with a focus on the academic and scientific production of the areas associated with the applied social sciences, besides incorporating bibliometric and citation analysis tools, aligned with the use of bibliometric procedures (Crossan & Apaydin, 2010; Brambilla & Stumpf, 2012; Kurtz et al., 2013; Watanuki et al., 2014). The totality of articles located in it was considered. It was accessed from the Capes Periodicals Portal (*Portal de Periódicos da Capes*), covering the period from 1945, the first year available in the database, to October 2015. The terms used as search criteria were Corporate Social Responsibility AND Sustainable Development, and were searched in topics, which permit locating the terms in the titles, keywords and abstracts in the articles.

By following those procedures, 360 publications were found. Next, for search refinement, the search area filter was applied, where we considered Business and Management, and types of documents Articles and Review, resulting in 199 articles. Only articles in English were considered, ending with 197 articles. Their data was imported to the HistCite® software, which helped in the analysis.

#### 3.2 Stage 2: literature systematic analysis

The articles were organized in two groups: the most cited articles and the most recent articles. The objective was to identify relevant and current articles on the research theme.

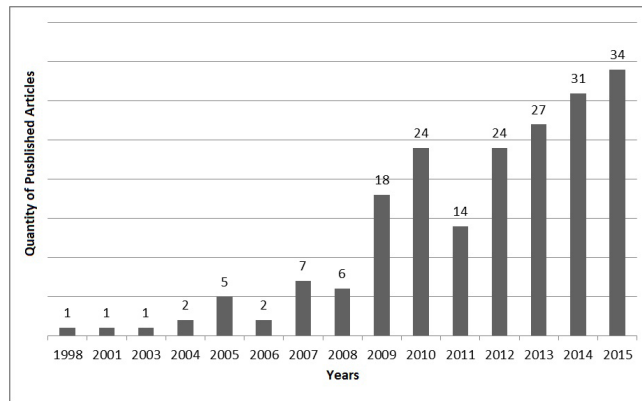
In the group of the most cited articles, we selected the 13 most cited ones, and they correspond to 50% of the total of citations. The group of the most recent articles initially considered all of the articles published from 2013 to 2015. That criterion was used based in other studies such as Crossan & Apaydin (2010) and Kurtz et al. (2013). Because they are recent publications, in which the number of citations is usually not significant and is not intended to select relevant articles on one theme (Crossan & Apaydin, 2010), the criterion adopted for selection was filtering the articles published from 2013 to 2015 in journals that had at least two publications on the theme. Twenty journals were considered, resulting in 75 articles.

All of the articles were read in full and the methodological approach, the set of problems and the main contributions of each one were analyzed.

### 4 Results of the literature systematic search

We found 197 articles on sustainable development and corporate social responsibility. Those researches are published in 51 journals and have been written by 402 authors entailed to 246 institutions, located in 43 different countries. The articles cite 10578 references and 681 keywords.

Figure 1 presents the distribution of publications in time. The first published article on sustainable development and corporate social responsibility was called “Corporate Environmental Responsibility” (Desjardins, 1998). The author promotes a debate of business ethics specialists and environmental philosophers, relating the subjects to corporate social responsibility. The author emphasizes that the social responsibility of companies derives from ethical responsibilities and points out the fragility of incorporating moral limits in corporate activities, as well as environmental concerns, based on the value of the market economy. The second oldest article was “Sustainable development: The ethics support the economics”, by Payne & Raiborn (2001). In that article, they highlight that the companies are in a process of awareness of environmental aspects, through the companies’ positioning in the value chain and the influence of their suppliers and clients. The entrepreneurial behavior when dealing with those issues is noticed through the choice of the productive process, that needs to go beyond compliance with the law, incorporating the implantation of their own environmental policy. According to the authors, that policy reflects in the organizational culture, where the



**Figure 1.** Annual distribution of publications on sustainable development and CSR (1998- 2015). Source: Elaboration by the authors, based on data from Web of Science – WoS.

managers are aware that the business ethics is a good business. For Payne & Raiborn (2001), it guarantees those companies' survival for the long term.

The elements discussed in those two most influent articles, such as ethics, environmental awareness, culture and economy value are still present nowadays, confirming that those issues remain as background for the discussion about (CSR) in the organizations.

Since 2003, there have been annual publications on that area, and 1999, 2000 and 2002 were the only three years when there were no publications, considering the totality of the presented period. Since 2009, it is possible to notice the increase in the number of publications on the themes, and in the last six years there have been a total of 154 publications, representing practically 78% of publications on sustainable development and corporate social responsibility.

Table 1 lists the journals and the quantity of publications and citations, and the cut-off point was at least two publications or citations per journal. The total sum of articles from the journals with more publications results in 166 articles, which corresponds to 84% of the total quantity of studies found in this research. The Journal of Business Ethics and Corporate Social Responsibility and Environmental Management, with 43 and 39 publications respectively, are the journals that published more articles regarding the sustainable development and corporate social responsibility themes. The Corporate Social Responsibility and Environmental Management journal presented the highest number of citations, followed by the Journal of Business Ethics. The number of citations was identified through the TCLS (Total Local Citation Score), which refers to the bibliometric indicator that measures the impact of a source, through the number of citations that it has received among the set of studies resulting from a search (197 articles). If a journal has one TCLS indicator of 4 citations, for example, it means that that journal has been cited by 4 out of the 197 analyzed articles. It is important to highlight that the two journals with more publications are also the two journals that had more citations.

## 5 Results of the systematic analysis of the selected articles.

In this subsection, the results are presented in two groups. The first group refers to the most cited articles and the second group refers to the most recent articles.

### 5.1 Group 1: most cited articles

Considering the studies selected in this group, the two most cited articles are: Corporate Social Responsibility theories: Mapping the territory by Garriga and Mele, published in 2004 and cited 18 times, and the article Corporations, stakeholders and sustainable development I: A theoretical exploration of business-society relations by Steurer, Langer, Konrad, and Martinuzzi, published in 2005, with 9 citations.

Both journals with higher number of citations and publications contain 6 out of the 13 most cited articles in the research, evidencing the strong concentration of those two journals in the theme.

In relation to the methodological approach, there are 8 qualitative studies and 5 quantitative studies. We identified five problems in the group of the most cited articles, they are: **Ontology** (3 articles), **Factors for adoption of sustainable initiatives** (2 articles), **Performance evaluation** (3 articles), **Social and/or environmental impacts** (3 articles) and **Sustainability Reports** (2 articles). Those issues are also present in the analysis of the most recent works and are detailed in section 5.2, which also presents the systematic analyses performed in the most recent articles.

### 5.2 Group 2: most recent articles

In the group of the most recent articles, we identified 28 articles published in 2015, 25 articles published in 2014 and 22 articles published in 2013. Two journals concentrate more than half of the publications on the theme. The Corporate Social Responsibility and



**Table 1.** Journals with more published and/or cited articles on the themes.

Journals	Quantity of Publications	Quantity of Citations
Corporate Social Responsibility and Environmental Management	43	57
Journal of Business Ethics	39	45
Business Strategy and The Environment	32	22
Management Decision	7	
Business & Society	6	2
Organization & Environment	6	7
Supply Chain Management-An International Journal	5	6
African Journal of Business Management	3	
Journal of Organizational Change Management	3	
Business Ethics-A European Review	2	
European Journal of Marketing	2	2
International Journal of Contemporary Hospitality Management	2	
International Journal of Technology Management	2	
Journal of International Management	2	
Journal of Management	2	14
Management International Review	2	
Organization Studies	2	
Total Quality Management & Business Excellence	2	
International Journal Of Consumer Studies	2	
Public Relations Review	2	
International Business Review		5
Scandinavian Journal of Management		4
Corporate Governance-An International Review		3
Entrepreneurship Theory And Practice		2

Source: Elaboration by the authors.

Environmental Management journal has 31% of the publications (23 articles), of which 8 articles were published in 2013, 7 articles were published in 2014 and 8 articles were published in 2015. The Business Strategy and The Environment journal also stands out when it comes to the quantity of most recent publications is, with 29% of the most recent publications on the theme (22 articles), containing 4 articles published in 2013, 8 articles published in 2014 and 10 articles published in 2015. The other 30 selected articles were published in the journals: Journal of Business Ethics (10 articles), Organization & Environment (5 articles), Business & Society (2 articles), Supply Chain Management-An International Journal (2 articles), International Journal of Contemporary Hospitality Management (2 articles), Management International Review (2 articles), Management Decision (1 article), Business Ethics-A European Review (1 article), Organization Studies (1 article), Total Quality Management & Business Excellence (1 article), International Journal of Consumer Studies (2 articles) and Public Relations Review (1 article).

The methodological approach applied in the most recent articles follows this distribution: 31 qualitative articles, 40 quantitative articles and 4 qualitative and quantitative articles. In this group, seven problems

were identified: **Ontology** (3 articles), **Factors for adoption of sustainable initiatives** (26 articles), **Performance evaluation** (16 articles), **Social and/or environmental impacts** (15 articles), **Sustainability Reports** (9 articles), **Teaching** (1 article) and **Sustainability as strategy** (5 articles).

## 6 Discussion

The systematic analysis of the literature enabled the identification of seven key problems on which the publications on the theme concentrate. Five out of those seven problems were found in the group of the most cited articles as well as in the group of the most recent articles: (1) Ontology, (2) Factors for adoption of sustainable initiatives, (3) Performance evaluation, (4) Social and/or environmental impacts, (5) Sustainability Reports. Two additional problems were identified in the group of the most recent articles: (6) Teaching and (7) Sustainability as strategy. After reading the 88 selected articles, we analysed the central aspects that were treated mainly in the objectives and results. The categories emerged in an inductive way, which were treated by open codification, resulting in the seven presented key problems.

The **(1) Ontology** problem contemplates 6 articles, which represent approximately 7% of the studies analyzed in this paper. The studies on that issue aim to define corporate social responsibility or corporate sustainability (Kolk et al., 2014), revealing the main concepts about the themes and also convergences and divergences the studies have considered (Garriga & Mele, 2004; Lu & Liu, 2014). That issue is characterized by the identification of the elements that define CSR and Sustainable Development, presenting some that are convergent, such as environmental resources and social equity, and others that express the author's most particular point of view. It is possible to notice broad definitions without a clear establishment of boundaries between CSR and Sustainable Development, making room for studies that seek to better delimit the interdependences between the themes and also a taxonomy for the field.

The **(2) Factors for adoption of sustainable initiatives** problem considers the articles that present factors that motivate the adoption of sustainability initiatives as central theme. That issue considers 28 articles, which correspond to practically 32% of the analyzed studies. Among the factors found in the respective articles, the stakeholders are in evidence because they are considered claimers next to the companies (Steurer et al., 2005; Dashwood, 2014; Horisch et al., 2014) and responsible for creating knowledge for the sustainable development (Siltaoja, 2014). Other articles are about who the different stakeholders are, such as civil society, activists, NGOs, clients and community (Mzembe & Meaton, 2014; Mahmood & Humphrey, 2013; Ingenbleek & Reinders, 2013; Burchell & Cook, 2013) and government. Another evident factor is the leadership of managers, once they have potential to internalize sustainability in the processes of organizational decision making (Nambiar & Chitty, 2014), besides being welfare promoters and important developers of the organizational culture (Alexander et al., 2014). The managers have a significant influence on the environmental performance in organizations (Oberhofer & Furst, 2013) and they are responsible for the integrated diffusion of information concerning sustainability (Frias-Aceituno et al., 2013). The managers' higher education was also shown as a factor that influences the adoption of sustainability initiatives (Barrena-Martinez et al., 2015). The context of small and medium-sized enterprises (SMEs) is favorable to the financial performance when the economic, social and environmental dimensions of corporate social responsibility are associated to the three specific capacities: shared vision, stakeholder management and proactivity (Torugsa et al., 2013), and it is a participative environment that allows the internalization of values, behaviors, beliefs and actions required for adopting Corporate Social Responsibility (Stewart & Gapp,

2014; Halme & Korpela, 2014). The relevance given by the literature when investigating the stakeholders' pressure and influence, with a more particular view to suppliers, clients and community, was clear in this issue, leaving a gap to future research when addressing other groups of stakeholders. The role of the leader and the managers in the adoption of sustainable initiatives is also highlighted. Other factors have been identified as well, but few research studies tried to investigate a relation among them. Another path for future research is to investigate the relations between the factors that have already been explored in the direction of quantitative studies that seek to identify dependent and independent factors, for example.

The next problem, **(3) Performance evaluation**, comprehends 19 articles, which represent approximately 22% of the articles analyzed in this study. That issue shows that the search for measuring and noticing the performance of corporate sustainability is present in the research studies. Some articles show that the relation between corporate social responsibility and economic result may be negative (Linder et al., 2014), at least when those performance indicators try to measure economic results in the short term (Lopez et al., 2007). However, most of the studies evaluate social responsibility performance, competitiveness and financial results as positive (Callan & Thomas, 2009; Wolf, 2013; Eisenbach et al., 2014; Hajmohammad & Vachon, 2014; Delmas et al., 2015). In the environmental sphere, we understand that the efforts made by the companies in terms of environmental protection improve their market values even more (Linder et al., 2014). Also, the green innovation, which includes technological improvements that save energy, prevent pollution, or permit waste recycling, is positively related to profitability (Aguilera-Caracul & Ortiz-de-Mandojana, 2013). The sustainability development and evaluation in supply chains may serve as tools to identify and assess the various economic, environmental and social performance indicators, and they help in the decision making process (Varsei et al., 2014). Even in times of economic crisis, the synergy between environmental and financial performance is still strong. Therefore, companies must continue to invest in sustainable projects in order to enhance relations with their stakeholders, and also to increase their economic profits (Gallego-Álvarez et al., 2014), after all, the consumers are more likely to buy products from companies that employ a self-benefit CSR positioning (Kim et al., 2014). That issue is clearly delimited with the purpose of investigating the correlation between financial performance and the implementation of sustainability initiatives, demonstrating that the results may be different considering the short and the long term. Some articles emphasize that the performance may be seen not only through the financial dimension. Therefore, future

research could propose a framework to identify the potential dimensions of performance related to sustainability.

The **(4) Social and/or environmental impacts** problem is another theme that contemplates the articles that investigated the social and environmental impacts that are found. In this issue, 18 articles were classified, representing around 20% of the analyzed articles. Corporate social responsibility contributes to the development of problem solutions in the most needy regions of the world, such as the development of institutions that contribute to social justice, environmental protection and poverty eradication (Dobers & Halme, 2009), through the companies having policies that include gender equality, formal representation of workers, income distribution for local communities and elimination of child labor (Naeem & Welford, 2009; Zhu et al., 2014). Some studies focused on specific groups like indigenous people (Nikolakis et al., 2014) and communities after mining activity (Littlewood, 2014). Multinational enterprises are companies that have a specific role, in which the social and environmental impacts of their business are not seen as a problem, but as part of the solution of problems in that sphere (Kolk & Van Tulder, 2010). Through the implantation of an environmental management system, the results show the potential of corporate social responsibility, when that system is integrated into the business strategy of multinational enterprises, once it delivers social and environmental improvements in countries where the multinationals are located (Garcia-Rodriguez et al., 2013). It is interesting to observe that issues related to environmental preservation and social equity are treated according to the role of the organizations and how they impact society. Understanding how society receives those impacts and responds to them is another angle that can be researched and may help orientate the corporate social responsibility practices in organizations.

Another problem is **(5) Sustainability Reports** and contemplates 11 out of all the articles analyzed and their representativeness is around 13%. The application of sustainability reports is motivated by the company's social and cultural factors and has an influence on the intensity of communication between countries. It is understood that the reports can be better prepared (Fifka & Drabble, 2012), and they require aggressive efforts to be better established (Amran et al., 2014). The GRI guidelines, for example, are still rarely spread and applied, but it is emphasized that the environmental responsibility is very important for the companies, even more than the social dimension (Steurer & Konrad, 2009). It is clear that adjustments should be made in sustainability reports, but the importance of their use is also highlighted, since their publication by the companies provides a broader

explanation of business performance, by describing the company's dependence and impact on different resources, their relationships (Frias-Aceituno et al., 2014), and it is recommended that the company hire an auditor to assure the information in the sustainability reports (Sierra et al., 2013). Comparison among companies may emerge by means of sustainability disclosures, through reports (Mio & Venturelli, 2013). That is, an index to measure sustainability is developed, considering that the elaboration of reports on corporate social responsibility affects the companies' decision making process (Zorio et al., 2013), and the application of sustainability reports is understood as a demonstration of the companies' awareness about the impacts that their products and processes may environmentally and socially cause (Guziana & Dobers, 2013). This problem is characterized by highlighting the importance of sustainability reports as means of communication, transparency, compliance and governance within organizations. Therefore, investigating the relationship between the use of sustainability reports and organizational performance assessment (another problem identified) may be a topic for future research.

The **(6) Teaching** problem counted with only 1 article, which represents approximately 1% of the analyzed articles. That problem shows how much corporate social responsibility still needs to be explored at a higher degree in courses and subjects of business schools, especially for considering it a relevant theme which the academy may explore by teaching (Doh & Tashman, 2014). A promising trail for multidisciplinary research studies between Business Administration and Education is exploring the themes as subjects that may be incorporated to the curriculum in the educational system and also their barriers, consequences and challenges.

The last problem classified in this research is **(7) Sustainability as Strategy** and includes 5 articles, corresponding to approximately 5% of the analyzed studies. Sustainability as strategy may be oriented to corporate governance and management, comprehending the economic, ecological and social spheres (Beckmann et al., 2014), and it is very helpful for internal and external analyses of the business. The use of ISO 26000 is also indicated to get the best implementation of sustainability strategy (Hahn, 2013). It is also observed that there are many challenges in order to understand sustainability as strategy, but its economic, environmental and social dimensions belong to the measurement of the suppliers' performance, and it is possible for sustainability initiatives to be a corporate strategy (Moralí & Searcy, 2013). Sustainability as strategy is seen as an organizational behavior in adopting proactive environmental strategies (Carballo-Penela & Castromán-Diz, 2015). In this regard, the proposition of maturity models for



integrating sustainability to the corporation strategy, defining required characteristics at each level, is a suggestion for researchers of this area.

## 7 Final considerations

The present study collaborates for the understanding of research studies that are being developed in sustainable development and corporate social responsibility area, through the exposition of the scenery of the research studies on those themes, considering their characteristics, contributions and issues they encompass.

It is possible to identify that the studies include different nationalities, such as: The Netherlands (Ingenbleek & Reinders, 2013); Sweden (Linder et al., 2014); Italy and United Kingdom (Mio & Venturelli, 2013); Asian countries (Scholtens & Kang, 2013), specifically Kazakhstan (Mahmood & Humphrey, 2013) and African countries (Mzembe & Meaton, 2014). However, no studies were found in Brazil or in any other country in South America, so it is an opportunity for future research.

The analysis of the 88 selected articles in the group of the most cited articles (13 articles) and most recent articles (75 articles) offers an overview of the research on Sustainable Development and Corporate Social Responsibility, presenting a taxonomy of the problems presented in the current literature and identifying insights for future research. (Figure 2).

The quantity of articles on the problem (2) Factors for adoption of sustainable initiatives calls attention. The problems that emerge in the group of the most recent articles - (6) Teaching and (7) Sustainability as strategy, may point to an important path not only for future research, but also for the development of society. On the one hand, we have already found

reinforcement in articles here analyzed on the problem (2) Factors for adoption of sustainable initiatives, where the implantation of corporate social responsibility is associated to the specializations in management and business that the managers have (Huang, 2013), increasing the possibility of a more strategic view of sustainability. On the other hand, promoting the view of sustainable development and CSR as disciplines to be incorporated to the educational system curriculum is very important to increase society's awareness in relation to issues that involve the continuity of environmental resources, as well as providing better social conditions in a more equalitarian way. Similarly, conducting a deeper research on sustainability as corporate strategy may lead organizations to a higher maturity level in their relationship with Corporate Social Responsibility practices, going from reactive behaviors and punctual actions to a greater interaction of social and environmental practices to the business strategy. Behind this, a growing awareness concerning the subject may be possible, in which attitudes of respect for others and for the environment start being a rule and not an exception. The stakeholders' influence is present in studies on various issues, such as: Factors for adoption of sustainable initiatives, Performance evaluation, Social and/or environmental impacts, Sustainability reports, Teaching and Sustainability as strategy, evidencing the importance of the theory of the stakeholders as theoretical lens on the research studies on the theme.

Finally, it is possible to notice that future research may be developed adopting different methodological approaches. Conceptual articles and theoretical essays on the problematic areas (1) Ontology and (6) Teaching may be developed in order to investigate the interdependences among the themes and suggest

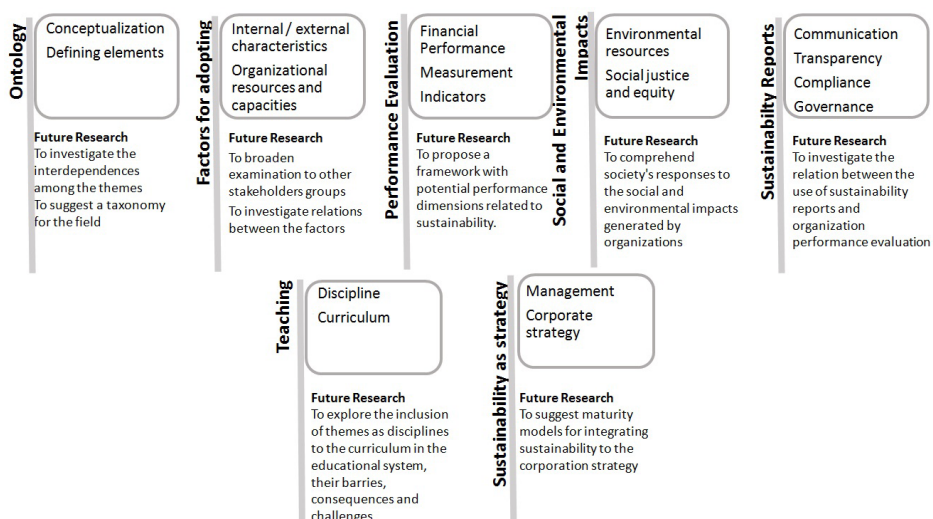


Figure 2. Issues and insights for future research. Source: Elaboration by the authors.



a taxonomy for the field or explore the inclusion of the themes as disciplines to the curriculum in the educational system, suggesting a syllabus model. Qualitative approaches may attend the (4) Social and/or environmental impacts problem, extending the examination of such impacts. The current research studies them according to the organizations' role and how they impact society. Understanding how society receives those impacts and responds to them is another perspective to be researched. The (2) Factors for adoption of sustainable initiatives and (5) Sustainability reports problems may adopt quantitative approaches testing assumptions that correlate or identify dependence relationships between the factors for adoption of sustainability initiatives or between the use of sustainability reports and organization performance variables. The problematic areas (3) Performance evaluation and (7) Sustainability as Strategy could adopt mixed approaches (qualitative and quantitative) to suggest frameworks with potential performance dimensions related to sustainability or maturity models for integrating sustainability to the company's strategy.

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