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CSR and logistics: A bibliometric and systematic review of SCOPUS database from 1997 to 2021

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Abstract

This bibliometric and systematic study aims to contribute to the ongoing debate on the link between CSR and Supply Chain. The objective is to analyze a large number of documents in a simple and reliable way by examining the relationship between articles, citations, and keywords, thus providing detailed scientific information. Through a preliminary study of the literature «scoping study», we developed the search query by juxtaposing the two terms «SOCIAL RESPONSIBILITY» and «SUPPLY CHAIN». Following its deployment on the SCOPUS database chosen for its quality of coverage of the different research fields and after several manipulations of automatic and manual filters, we have kept 2950 documents. The data of the selected articles were exported in Bibtex format to be analyzed on the free software developed in the R environment bibliometrix. Thanks to its toolbox, we were able to generate visualizations of the annual evolution of scientific production, the most important journals, the most contributing authors, the most active countries, the most cited articles, and the leading themes. In addition to the visualizations, a systematic analysis of the 10 most cited articles was performed. The analysis of these documents allowed us to have an idea about the evolution of the research structure and to identify its tendencies. The results reflect a very important gain of interest and maturity in this field based on a deep theorization. The results also reflect the interest given to the economic and environmental aspects, unlike the social dimension which does not attract enough attention from the scientific community. Despite the methodological limitations that may impact our research, notably the risk of irrelevance in picking words for the query, and the risk of coverage related to the choice of the database. This study will allow the scientific community to clearly identify literature gaps that can be considered opportunities to deepen our thinking.

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Résumé

Cette étude bibliométrique et systématique vise à contribuer au débat en cours sur le lien entre la RSE et la chaîne d'approvisionnement. L'objectif est d'analyser un grand nombre de documents d'une manière simple et fiable en examinant la relation entre les articles, les citations et les mots-clés, fournissant ainsi des informations scientifiques détaillées. À travers une étude préliminaire de la littérature, nous avons développé la requête de recherche en juxtaposant les deux termes "SOCIAL RESPONSIBILITY" et "SUPPLY CHAIN". Suite à son déploiement sur la base de données SCOPUS choisie pour sa qualité de couverture des différents domaines de recherche et après plusieurs manipulations de filtres automatiques et manuels, nous avons conservé 2950 documents. Les données des articles sélectionnés ont été exportées au format Bibtex pour être analysées sur le logiciel libre développé dans l'environnement R bibliometrix. Grâce à sa boîte à outils, nous avons pu générer des visualisations de l'évolution annuelle de la production scientifique, des revues les plus importantes, des auteurs les plus contributeurs, des pays les plus actifs, des articles les plus cités, et des thèmes phares. En plus de ces visualisations, une analyse systématique des 10 articles les plus cités a été réalisée. L'analyse de ces documents nous a permis d'avoir une idée sur l'évolution de la structure de la recherche et d'identifier ses tendances. Les résultats reflètent un gain très important d'intérêt et de maturité dans ce domaine basé sur une théorisation profonde. Les résultats reflètent également l'intérêt accordé aux aspects économiques et environnementaux, contrairement à la dimension sociale qui n'attire pas suffisamment l'attention de la communauté scientifique. Malgré les limites méthodologiques qui peuvent impacter notre recherche, notamment le risque de non-pertinence dans le choix des mots de la requête, et le risque de couverture lié au choix de la base de données. Cette étude permettra à la communauté scientifique d'identifier clairement les lacunes de la littérature qui peuvent être considérées comme des opportunités pour approfondir la réflexion.

Mot clés : Responsabilité sociale de l'entreprise, chaine d'approvisionnement, durabilité, logistique.
Classification JEL : M14
Type du papier : Recherche Théorique

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1. Introduction

Every organization is affecting individuals or groups while operating. Based on the stakeholder theory developed by R.E Freeman (1984), the terms «groups» and «individuals» refer to customers, suppliers, stockholders, employees, political groups, governments, media, communities, and so on.

The evolution of this theory over years gave birth to a variety of concepts that falls under its umbrella. Knowing that the most discussed concept is corporate social responsibility (CSR), we can also mention here as cited by R. Edward Freeman et al. (2010), corporate social performance (CSP) (Carrol, 1979; Wartick & Cochran, 1985; Wood, 1991), corporate social responsiveness (Ackerman, 1975, Ackerman & Bauer, 1976, Sethi, 1975), corporate citizenship (Wood and Logsdon, 2001; Waddock, 2004), corporate governance (Jones, 1980; Freeman & Evan, 1990; Evan & Freeman, 1993; Sacconi, 2006), corporate accountability (Zadek, Pruzan & Evans, 1997), sustainability and the triple bottom line (Elkington, 1997), and corporate social entrepreneurship (Austin, Stevenson, Wei-Skillern, 2006).

Due to the environmental issues that are of growing concern to nations under the impact of human activities on the habitability of the planet and its preservation for future generations, and other factors, more companies recognized tacitly the environment, the employee, and the consumer as key actors. Consequently, on the one hand, more managers are shifting away from the idea considering that the sole responsibility of the company was to provide a maximum financial return to shareholders, over a new vision that advocates the achievement of a balance between their commitments to all the stakeholders. On the other hand, researchers and academics have recognized the shift from a simple conceptualization of social, environmental, or economic issues treated in a fragmented way to the integration of all these elements in a broader concept called sustainability through CSR (Carter and Jennings, 2002).

CSR was identified in the literature differently depending on the author's vision. For example, in 1960, Keith Davis proposed the concept of CSR, stating that it refers to «corporate decisions and actions for reasons at least partially beyond the direct economic or technical interest of the firm. At about the same time, Eells and Walton (1961, pp 457-458) stated that the concept refers to «the problems that arise when the corporate enterprise casts its shadow on the social scene, and to the ethical principles that should govern the relationship between the enterprise and society. In 1971, the Committee for Economic Development was the first to include both economic and non-economic aspects in the definition of social responsibility using the three-circles approach. This approach shows that (moving from the inner to the outer circle), the first circle includes the basic economic functions, the second

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includes the economic functions that must be carried out in light of changing values and social priorities, and the final circle incorporates the set of decisions that must be adopted for better integration into the improvement of the social environment.

To enrich this concept, Carroll (1979) suggests that a company can be qualified as socially responsible, only, when it manages to meet four types of obligations, including the most fundamental ones, namely economic ones. For this author, CSR is composed of:

- The economic responsibility based on the idea of profit maximization,
- The legal responsibility that calls for corporate compliance with the laws and regulations promulgated by federal, state, and local governments, which constitute the basic rules,
- The ethical responsibility reflecting the actions and activities prohibited by society without being formally written by the legislator,
- The philanthropic responsibility that encompasses the actions that make it possible to provide financial and human resources to the community and to improve their quality of life.

Murphy and Poist (2002), emphasized the need for socially beneficial outcomes in addition to economically beneficial ones. Among the researchers who advocate this idea is Elkington (1998) who presents his triple bottom line theory. This construct calls for the achievement of a balance in the form of the intersection between environmental, social, and economic performances. According to him, managers can achieve sustainability which is a broader concept than CSR. This can be attained by abolishing the habit of randomly identifying social and environmental activities and hoping it doesn't affect economic performance. In fact, it is important to think about new methods that allow for the identification of activities that improve economic performance by avoiding those that do not fall within the intersection (R. Carter and P. Liane Easton, 2011).

Since the 1950s, CSR has definitely been a hot topic. First definitions were restricting its operationalization to humanitarian fields, then slowly evolved to business, environmental, and social contexts. In other words, corporate social responsibility transformed considerably to carry out the social responsibility of overcoming the detected issues (Ismail, 2009).

Perhaps the different contexts of the development of these concepts, and whether it is Carroll's social responsibility pyramid, the CED's concentric circles, or Elkington's triple bottom line, these constructs offer us a framework allowing understanding the evolving nature of economic, social, and environmental performances. The implementation of these responsibilities may vary depending on the size of the company, the philosophy of the management, the strategy of the company, the characteristics of the industry, the state of the economy, and other conditions including the activity and

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function within the company through which it wants to implement these concepts (Archie B. Carroll, 1991). Consequently, the magnitude of its impact will strongly vary.

This article aims to provide an overview of the research on the issue of CSR integration in the supply chain through a bibliometric review followed by an analysis of the 10 most important articles in this field. By achieving this, we will be answering the following questions. How has research on CSR integration in the supply chain evolved? Who are the leading authors of advancing CSR and supply chain research? Which countries are pioneers in this field of research? And what are the most important research topics in this field?

2. Methodology

This section will be dedicated to the presentation of the scientific methods and tools applied in our study. The objective of this study is to provide a synthesis of the literature as an answer to a specific question through a rigorous and reproducible process of collection, refinement, and analysis of the evolution of the literature about the link between corporate social responsibility and supply chain.

In order to carry out this review, we first proceeded with a bibliometric analysis, which plays the role of a statistical tool. It helps evaluate the quantity and quality of publications that deal with the topic under study (Ellegaard & Wallin, 2015). It consists of first starting with planning the analysis, conducting it, and then reporting the results (Tranfield, Denyer, & Smart, 2003).

The planning of the analysis was done through a scoping review (Tranfield et al., 2003). This study consisted of examining part of the available literature to pinpoint the most used keywords, key concepts, results, and systematic reviews already carried out. As a result, ten articles were identified and read in order to identify the keywords that will be used for data collection step.

The data used for this study is from Scopus database. The choice of this database is justified by the quality and quantity of its publications on a wide range of academic research areas through journals published by international publishers such as Elsevier, Springer, Taylor and Francis, EmeraldInsight and IEEE, as well as the completeness of the details provided for each publication, i.e., bibliographic information on authors, citations, journals, submitting institutions, and others, knowing that these elements constitute the basis of bibliometric analysis.

The data was obtained through a formulated query of related keywords using the boolean connector «AND», as presented in Table 1:

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Table 1: Research query parameters

Data source	Scopus
Searching fields	Title, abstract, and keywords.
Final query	(«Social responsibility») AND («Supply chain»)

Source: Authors

It is important to choose carefully the searching criteria for their significant influence on the results. This can lead to a highly polluted sample with content related to medical, nursing, and social science. To ensure the data collected is low contaminated (Zhu and Hua, 2016; Zemigala, 2019) and precisely reflects the academic field of CSR/SC, we limited our search to («Social Responsibility») and («Supply Chain»), as these two phrases are central to the discussion of this paper.

The initial search performed resulted in a selection of 7505 documents. Several documents in this dataset were irrelevant to our study. This implies a second sort based on eligibility criteria. The inclusion criteria considered are 1) the document must be written in English 2) the document must be in the category «Review» or «Article» and 3) the document must belong to the fields: «Business», «Management», «Accountability».

This screening allowed us to exclude 3655 papers that did not meet the established criteria. Then, in order to continue conducting a rigorous selection process, other exclusion criteria were adopted. These were 1) the exclusion of documents that dealt with one of the two concepts studied and excluding the other. 2) the exclusion of documents that deal with both concepts out of the context of business companies. To achieve this sorting, it was sometimes necessary for us to proceed manually by reading the summary, the keywords, and sometimes parts of the content in order to ensure the relevance of the documents.

This second wave of exclusion allowed us to finally retain 2950 articles that met the objectives of the study, covering the period from 1997 to 2022.

The data of the retained articles were exported in Bibtex format in order to submit it to an analysis under the Bibliometrix package which is the latest free software developed in the R environment to perform a systematic mapping of the scientific literature (Aria & Cuccurullo, 2017). This software provides a complete toolbox to build and visualize bibliometric results based on citations, authors, journals, and references. It allows classifying and present the collected data through a descriptive analysis to study the size, growth trend of publications, the geographical distribution of authors and submitting institutions, etc. Moreover, it also allows for the analysis of direct citations,

author co-citations, co-occurrences, similarity visualization, bibliographic country linkage, etc.

These different results analyzed in a thorough, illustrative, and synthetic way has allowed us to generate information that promotes the deepening of knowledge in the research area linking social responsibility and supply chain, to easily transmit ideas while identifying future fields of investigation.

3. Results:

In this section, performance and science mapping analysis are exposed for a better understanding of this research field. Performance analysis is a descriptive method based on the examination of the contributions of research constituents (authors, countries, journals…) (Cobo, 2011). For science mapping, it aims to examine the relationships between research constituents (Cobo, 2011).

3.1. Annual Scientific Production

If a community attaches interest to a topic, logically, the number of publications will show an increasing movement. As shown in Figure 1, the annual scientific production indicator shows an increasing trend going from 1 document (1997) to 517 documents (2021). The annual growth rate is about 23.32% with more than 67% of the documents published in the last 5 years (2017-2021).

Figure 1 Annual scientific production
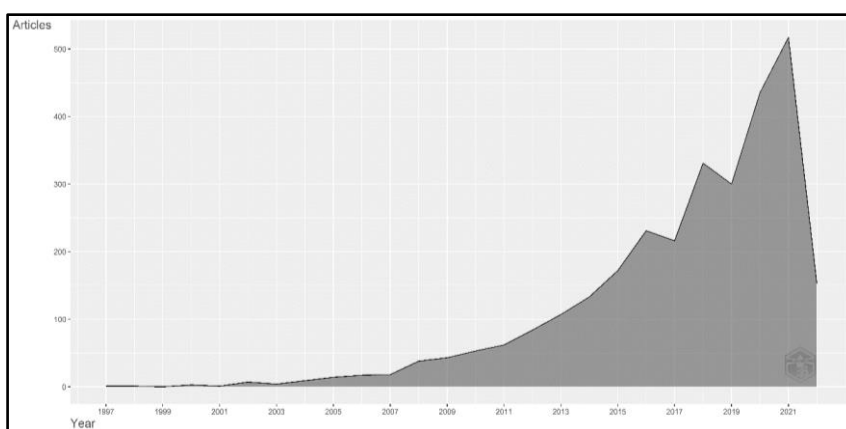
Source: Authors

3.2. Most relevant sources

The 2950 documents were retrieved from 418 sources. The top twenty of them gather 1693 documents (65% of the analyzed scientific production) as shown in Figure 2. Moreover, we can note that the journal of «Cleaner Production» is

by far the most important source with 453 documents (15%), followed by the «International Journal of Production Economics» with 176 documents (6%), then «Supply Chain Management» journal with 140 documents (5%), «Business Strategy and the Environment» with 116 documents (4%) and finally the «International Journal of Production Research» with 106 documents (3,59%). These five journals alone account for 33,59% of the analyzed dataset.

Figure 2 Sources ranking by number of documents
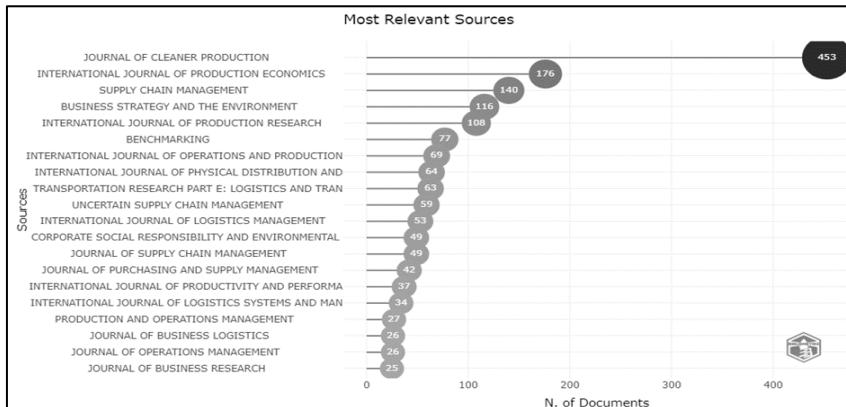
Source: Authors

Relevance can also be assessed based on the H-index. As shown in figure 3, the journal «Journal of Cleaner Production» has the highest impact with an H-index of 91. Followed by «International Journal of Production Economics» with an H-index of 66 and «Supply Chain Management» with an H-index of 49.

Figure 3 Sources ranking by impact index H
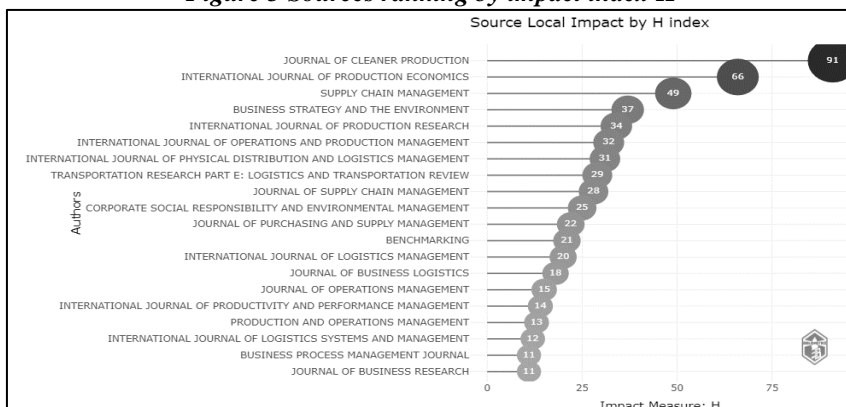
Source: Authors

3.3. Most relevant authors

There are many ways to determine the quality of publications. We have the total and average number of citations, number of documents, fractionalized number of documents, Hirsch index, and more. In this paper, the retrieved documents were published by 5349 authors with an average of 1.91 authors per document. The next table shows the 20 most important authors in this research field.

Table 2 Relevant authors

Authors	Articles	Articles fractionalized	H_index	Total citations
SARKIS J	47	17,10	34	7839
SEURING S	41	16,73	27	7756
GOVINDAN K	33	10,88	28	5026
GUNASEKARAN A	24	7,00	19	2802
SVENSSON G	23	15,99	16	1199
ZHU Q	23	7,08	21	3428
GOLD S	21	7,65	15	2368
CARTER CR	20	8,67	18	5411
LIU Y	19	5,21	12	504
LUTHRA S	19	4,95	13	1007

Source: Authors

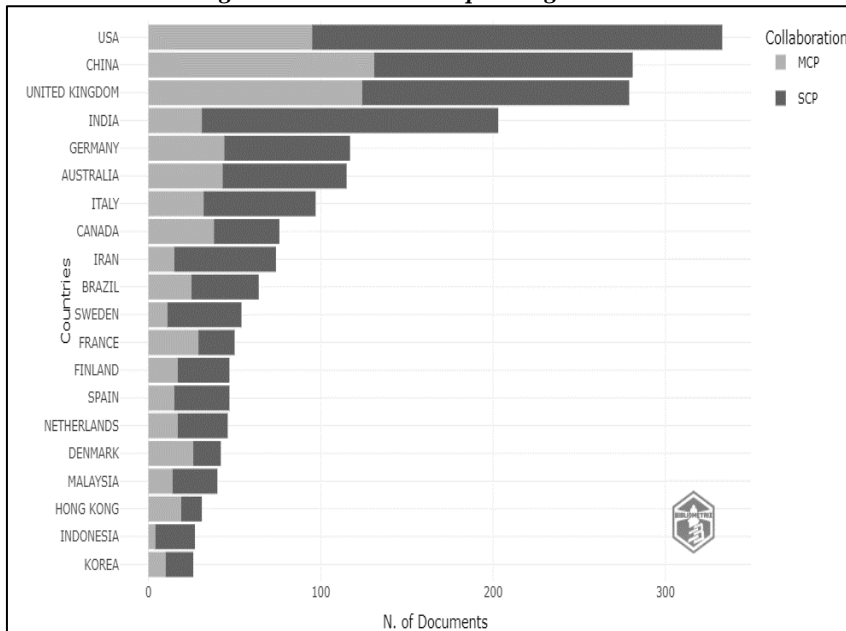### 3.4. Countries' scientific production

Scientific production on corporate social responsibility in the supply chain context emerges from all continents of the world, especially from 84 countries. The United States of America has the greatest share of publications with 989 documents which is 33,52% of the analyzed scientific production. In the second place, we have in the United Kingdom with 758 documents, then China with 694 documents.

What we can note here is that Africa is almost absent, with a total of 139 documents, which is almost 4,71% of the analyzed selection, with a slight contribution to the clarification of this research field by countries like South Africa (53 documents), Morocco (19 documents), Nigeria (18 documents), Egypt (13 documents) which is low if we compare with countries from other continents.

If we stratify countries by the number of total citations and citations per article, we assert that the USA rank first with a total of 24387 citations and an average of 73,23 citations per article. The second and third countries (UK and Germany) have respectively 13599 and 11241 citations with 48,74 and 96,08 citations per article (figure 6). The top 20 countries list includes 9 European countries, 7 Asian countries, 2 North American countries, one South American country, and one Australian country. We note again the absence of the African continent in the top 20 contributing countries.

In terms of collaboration, we can distinguish between a single country publication (SCP) which refers to documents published by authors from the same country, and multiple country publications (MCP) which refer to documents published by authors belonging to different countries. Documents with single country contributors are 1515, which is 51,35% of total documents. While there are 882 documents from multiple countries contributors. The remaining documents had no affiliation. Figure 4 shows that China followed by the UK had the greatest percentage of multiple countries' publications. While the USA had the biggest percentage of single country publications. Finally, more than 29,89% are referenced by authors from multiple countries.

Figure 4 Author's corresponding countries
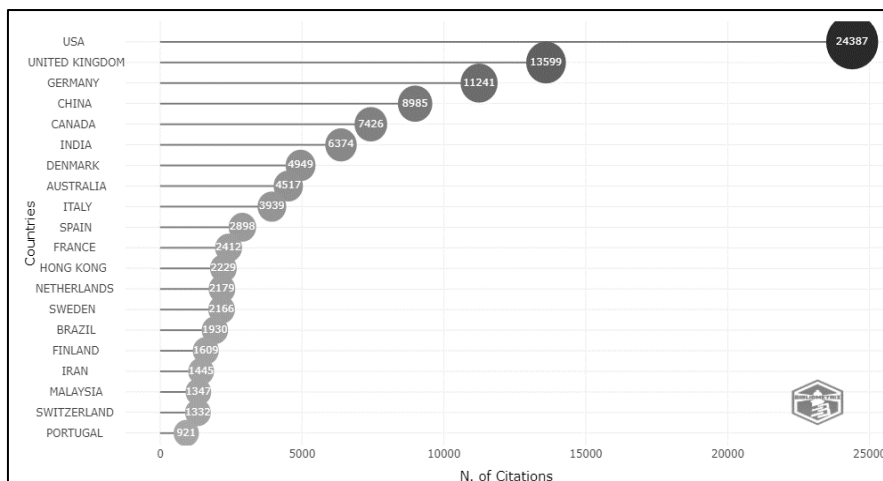

Source: Authors

Figure 5 Scientific production in the world
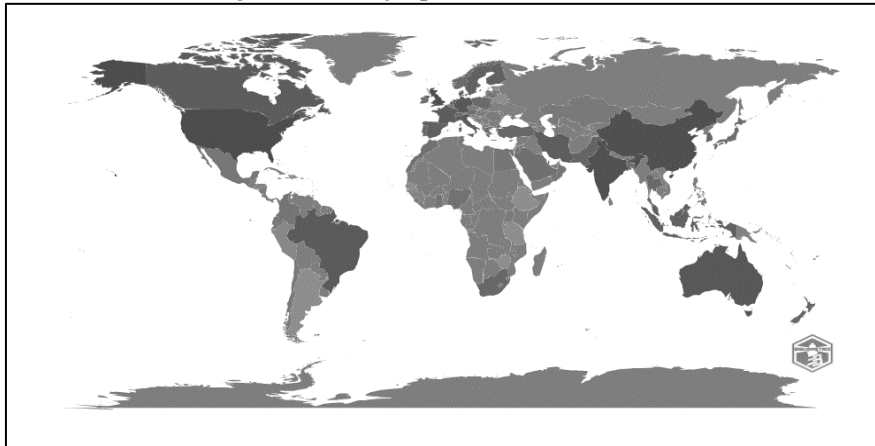
NB: Dark grey: high scientific production, light grey: low scientific production.

Source: Authors

Figure 6 Most cited Countries
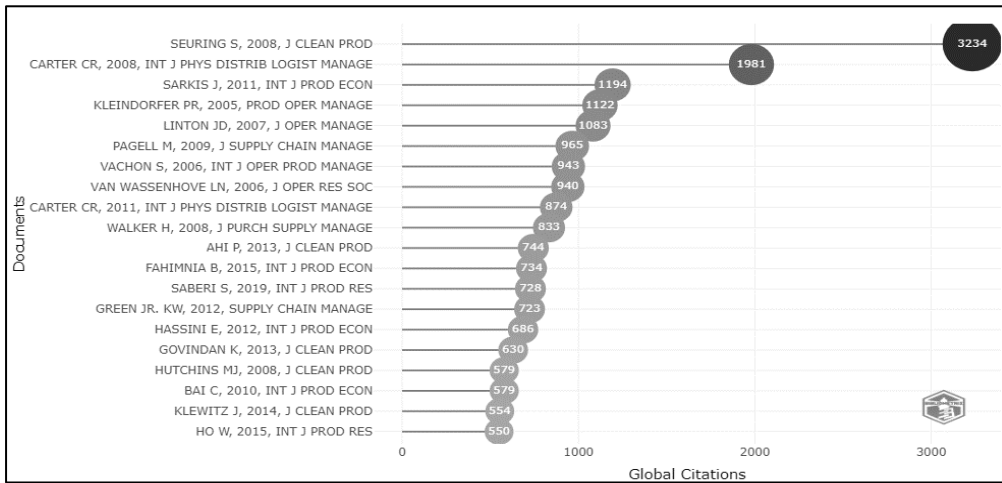

Source: Authors

3.5.   Most cited articles

Citation analysis is a basic method that reflects intellectual linkages formed when one publication cites the other (Appio, Cesaroni, & Di Minin, 2014) and most objective one to analyze a publication's impact (Pieters & Baumgartner, 2002; Stremersch, Verniers, & Verhoef, 2007). In this analysis, the impact of a publication is determined by the number of citations that it receives. It gives a clear view of the most influential publications in the CSR and SC research field. Therefore, using citations, we can get a better understanding of the intellectual dynamics of the studied field.

In this section, we analyze the most cited articles in journals covering business and management areas in Scopus. The top 20 articles on the use of corporate

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social responsibility in supply chains are shown in figure 7. The most cited article is titled «From a literature review to a conceptual framework for sustainable supply chain management» published by Seuring S and Martin Müller (2008) in the journal «Cleaner Production». It has been cited 3254 times (29th March 2022). Moreover, 4 more articles from the top 20 cited articles were published in the same journal, and another 4 of them were published in the «International Journal of Production Economics».

Figure 7 Top cited documents

Source: Authors

The articles mentioned in the top 20 discussed various issues related to corporate social responsibility and supply chain that cannot be reported in detail here. However, we will be presenting some key points of the top 10 of them (Table 3).

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Table 3 Analysis of top 10 cited articles

Authors	Purpose	Methodology	Key findings
Seuring (2008) **(Germany)**	Offering a literature review on sustainable supply chain management. Offering a conceptual framework to summarize the research in this field.	Literature review, content analysis.	The conceptual framework is fragmented into 3 parts: Triggers for sustainable supply chain management, supplier management for risks and performance, and supply chain management for sustainable products. Sustainable supply chain management has to take into account a wider range of issues and, therefore, look at a longer part of the supply chain. Sustainable supply chain management deals with a wider set of performance objectives, thereby taking into account the environmental and social dimensions of sustainability. There is a much-increased need for cooperation among partnering companies in sustainable supply chain management.
Carter (2008) **(USA & Germany)**	Introducing the concept of sustainability to the field of supply chain management and demonstrating the relationships among environmental, social, and economic performances within a supply chain management context.	Literature review and conceptual theory building.	A conceptual framework of Sustainable supply chain management based on the triple bottom line theory. Sustainability is achieved when environmental, social, and economic performances are met together. 7 Propositions to discuss in further papers to develop the framework.

Sarkis (2011) (USA & China)	Developing a green supply chain management framework and identifying questions that will bring more about GSCM practicing.	Literature review under nine broad organizational theories	1. The organizational theory helps investigate more GSCM practices. 2. Even if some theories are already applied, there are still good opportunities and significant questions for future research. 3. There are also good questions for new theories examining GSCM. 4. Researchers can develop theories to explain other organizational issues in GSCM fields.
Kleindorfer (2009) (USA)	Reviewing 50 issues of Production and Operations Management journal.	Literature review	The POM journal's evolution towards sustainability was marked by three important fields: 1. Green product and process development 2. Lean and green OM 3. Remanufacturing and closed-loop supply chains. And, the modelers must revisit the classical models to cope with the people and the planet-related issues.
Linton (2007) (Canada)	Providing a background to better understand current trends of operations management, and the research opportunities and challenges it presents.	Literature review	The most important trends linking the Supply chain to sustainability are 1. Product design, 2. Manufacturing by-products, 3. By-products produced during product use, 4. Product life extension, 5. Recovery process at end-of-life.
Pagell (2009) (Canada)	Developing a testable model of the necessary elements to create a sustainable supply chain, by answering two research questions: what are	Theory building is based on a series of case studies of exemplars	This study suggests that the practices that lead to a more sustainable supply chain are equal parts best practices in traditional supply chain management and new behaviors, some of which run counter to existing accepted, ''best'' practices. The study shows 5 key bundles to achieve sustainability: 1.

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	leaders in sustainable supply chain management doing that is different from leaders in traditional supply chain management? Are there patterns of behaviors across these exemplar firms that can be used to build a theoretical and testable model of an integrated sustainable supply chain?	through semi-structured interview protocol.	Commonalities, Cognitions, and Orientations, 2. Ensuring Supplier Continuity, 3. Reconceptualizing the Chain, 4. Supply Chain Management Practices, 5. Measurement. 8 propositions were suggested for further comprehension.
Vachon (2006) **(USA & Canada)**	Using the collaborative paradigm to examine antecedents of green supply chain practices.	Linear regression for testing hypotheses based on 84 surveyed plants.	Technological integration with primary suppliers and major customers was positively linked to environmental monitoring and collaboration. For logistical integration, a linkage was found only with the environmental monitoring of suppliers. Finally, as the supply base was reduced, the extent of environmental collaboration with primary suppliers increased.
Vanwassenhove (2005) (France)	Examining the complexities of managing supply chains in humanitarian settings. And outline strategies for better preparedness and achieving agility, adaptability, and alignment	Case Studies	Achieving readiness needs many parameters. 1. 5 key elements: Human resources, Knowledge management, Process management, Resources, Community, 2. effective coordination, 3. Cross learning possibilities. 4. Public-Private partnerships.

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	for better disaster management.		
Carter (2011) (USA)	Conducting a systematic review of the sustainable supply chain management (SSCM) literature in the principal logistics and supply chain management journals, across a 20-year time frame.	Systematic review	Sustainable supply chain management has evolved from standalone research in social and environmental areas to the beginnings of sustainability as a convergence of perspectives based on the triple bottom line research.
Walker (2008) (UK)	Exploring factors that drive or hinder organizations to implement green supply chain management initiatives.	Literature review and interviews from seven different private and public sector organizations.	Organizations appear to have a variety of drivers and barriers to green supply chain management practices. For internal drivers: Organizational factors. For external drivers: Regulation, customers, competition, and society and suppliers. For internal barriers: Costs, lack of legitimacy. For external barriers: Regulation, poor supplier commitment, industry-specific barriers.

Source: Authors

The common main idea of the top 10 cited articles is about the movement toward a new perspective taking into consideration multiple dimensions instead of the standalone approach considering either social dimension, environmental dimensions, or economic one (Carter & Easton, 2011). Authors of some papers called it sustainable supply chain management; others called it green supply chain management. They both refer to a new philosophy based on the triple bottom theory called «sustainability». This concept, unlike CSR, is a holistic construct based on recognition of the interrelationships among topics such as the environment, diversity, human rights, philanthropy, and safety, and its application to supply chain management (Carter and Jennings, 2002). Having sustainability as a main idea of the top 10 cited articles can be explained by the fact that this concept is a broader conceptualization of CSR (Murphy & Poist, 2002).

3.6. Thematic Analysis

This section has the aim of drawing a conceptual analysis. In a bibliometric review, it is usual to extract semantic links between author-defined keywords to represent the vital takeaway points of research in order to monitor the progress of a particular research field (Mao & Mooney, 2015). Bibliometrix tools were used to find out the most commonly encountered terms in keywords of retrieved documents. Figure 8 visualizes thematic networks between keywords, leading to 4 clusters. We note that the thematic network visualization shows many similar author- keywords with slight variations, such as «reverse logistics», «reverse supply chain», or «closed-loop supply chain». For the first cluster (Red), some keywords of interest to researchers can be related to the link between supply chain and financial performance such as (sales, profitability, commerce, costs, investments, finance, cost reductions, reverse logistics, recycling, outsourcing, channel coordination). With regards to supply chain management philosophy (Blue), shown keywords in the visualization belong to a field that describes what should be done in the supply chain to let it be performant such as (risk management, innovation, risk assessment, corporate strategy, environmental policy, product development, strategic planning, performance assessment, management practice). The third cluster (Green) reflects some of the sustainability of achieving aspects such as (sustainable supply chains, economic and social effects, environmental impact, life cycle, social sustainability, circular economy, triple bottom line, waste management, corporate sustainability, multi-objective optimization, sustainability performance). Lastly, the fourth cluster (Purple) is more centered specifically on the environmental dimension. It can be said because of keywords shown such as (green supply chain management, environmental performance, environmental sustainability, pollution control, environmental

regulations, environmental protection, laws and legislation, green manufacturing, cleaner production, quality control, and environmental issues).

Figure 8 Thematic map
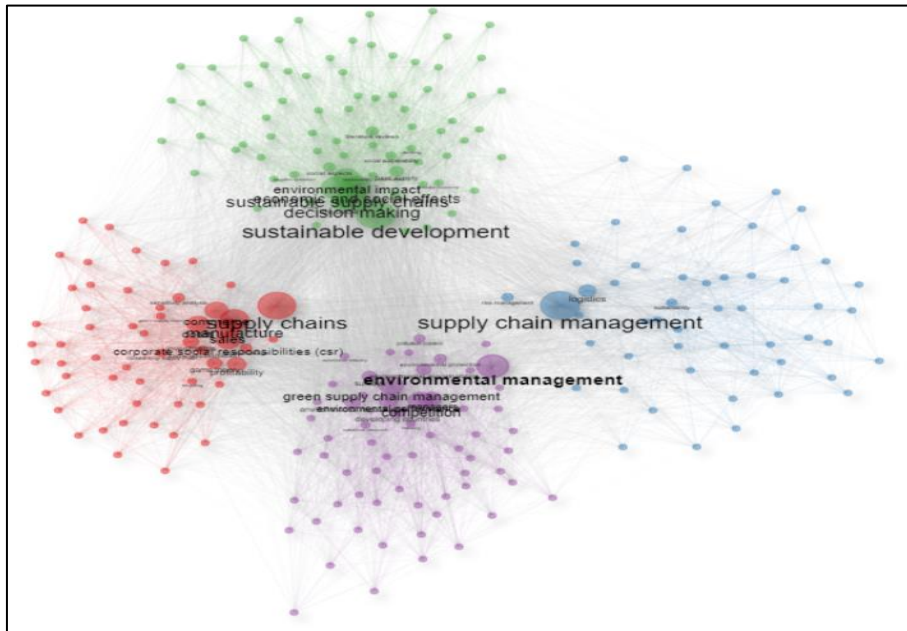
4. Discussion:

The bibliometrics is crucial for building insight into publication and collaboration patterns and exploring the intellectual structure of the research field (Kumar et al, 2021). Although CSR and supply chain have been widely written about, this article systematically reviews literature in this area and identifies opportunities for future research and empirical studies.

This study provides a comprehensive and methodical overview of the most influential and productive publications in the world, the scientific journals in the field under study, and their authors between the years 1997 and 2021, based on the contents of Scopus database. These results are useful to identify the main trends in the research area considered and show that it is a field in which interest and development are increasing, with an increase in the number of publications following an annual growth rate of 23,32%.

The figures on CSR and supply chain research show that it is no longer in its infancy. It is also important to note that the issues addressed are diversified. When analyzing the top 10 cited papers, we observe that sustainability is a key component. This means that research is no longer oriented toward one

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dimension at a time, but researchers are more aware of the importance of the links between the three fundamental dimensions (economic, social, and environmental).

This can be explained by the fact that businesses are taking into account new issues that impact their performance and competitiveness such as the implementation of new legislation on financial reporting and accountability, labor, environmental, health and safety, product and service compliance, and other issues, which are not only pushing them to align themselves properly with international best practices but also researchers and academics to explore these new parameters. Researchers are focusing more on the link between the mentioned dimensions in order to determine activities with a strong positive impact. In fact, activities reflecting CSR, have been considered with no financial rewards (Walley & Whitehead, 1994). That's why more papers are made to analyze how a business can be socially, environmentally, and economically performant at the same time.

Also, we can note that the integration of CSR was studied in relation to the functions of the supply chain. The functions that emerged were most often: supplier management, customer management, production, packaging, transportation, recycling, and sometimes reverse logistics. This shows the wide variety of discussed issues and the maturity of the CSR and supply chain field which is seeking now to build theories for a better conceptualization.

The integration of the CSR approach in the supply chain has always had the objective of enabling the company to grow and maintain control over business risks and therefore maximize the creation of shared value for stakeholders. This can't be done without having in-depth knowledge about this field. This is why it is important to focus research on issues such as the creation and implementation of codes of ethics and conduct within the global supply chain, strengthening communication mechanisms between supply chain partners, the promotion of audits to verify compliance levels of companies and activities, the integration of socially responsible approaches in daily tasks, continuous improvement, security, information sharing, productivity to manage crisis situations, constant and adaptive alignment with a sustainable strategy focused on the medium and long term, etc.

Despite the new tendency toward sustainability, papers about social aspects and the integration of the three dimensions are still rare (Seuring, 2008). It is, still, evident that research is still dominated by green/environmental issues, especially with all the alerts about the earth's conditions.

As such, sustainable development is a rich area for academic research that has the potential to affect future government policy, and current production operations and identify new business models.

Through these orientations, research in this field will allow managers to better evaluate, in addition to the economic and financial implications, the social and

environmental implications in the development of products and services following a serious consideration of concepts such as eco-design, life cycle, and recycling, to have a better global and specific strategic planning of each function of the supply chain, to facilitate integration with other actors through partnerships since a climate of trust can be established by adhering to the principles of sustainability and finally to better position itself in relation to the implications of legislative changes by taking part and considering them as engines of attraction and not as barriers to performance.

5. Conclusion:

The objective of this paper was to provide an overview of CSR and its association with the supply chain. This paper is one of the means for researchers to better visualize the state of CSR and the supply chain research field, which requires additional efforts to address issues that cut across social and environmental dimensions. It is also a way to reflect the reality of this research field in order to encourage governments, NGOs, and associations to mobilize for its further development through reflections on possible legislative improvements aimed at improving society and preserving the environment.

However, the chosen techniques and decisions to perform this study are critical and very influential. Therefore, some limitations deserve to be highlighted. First of all, bibliometric analyses have several typical limitations. One of the limitations is using data from a single database (Scopus). In addition, this study is limited to scientific articles and limited the search phrases to «Social Responsibility» and «Supply Chain», which helped limit pollution in the dataset (Kajikawa et al., 2007), while, these keywords might not be too relevant. As a result, the analyses may not fully cover all available documents (Li et al., 2020) and may lead to an incomplete list of articles related to the CSR/SC academic field. These limitations can be addressed in future research by extending the coverage of databases and types of documents and using similar terms.

Following these limitations, it is more interesting to collect data from different databases because they may have different results and conclusions (Zemigala, 2019). It will also be interesting to use more relevant keywords and integrate different languages and types of documents, and submit it to more bibliometric tools (e.g., bibliographic linkage, co-citation analysis) in order to analyze in-depth, the structure of this research field by identifying more specific clusters.

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