

Review

# Mapping the Knowledge of CSR and Sustainability

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**Abstract:** This paper focuses on two concepts frequently used and studied by researchers: corporate social responsibility (CSR) and sustainability. In recent decades, many authors have questioned the relevance and connection between the two topics. A bibliometric analysis will be carried out with SciMAT over the period 2003–2021, to understand the evolution and relationship of the aforementioned terms, but also to show the relevance of the link between the different clusters, and to observe the breakdown of the driving themes over the period 2003–2021. The final purpose is to draw conclusions and indicate possible trends that will drive the path of CSR and sustainability, thus increasing scientific knowledge. The results show that the number of articles related to CSR and sustainability is steadily increasing and that the main driving themes have been CSR, sustainability and environment. Furthermore, a link between CSR, sustainability and business has been found in the analysis of the different thematic networks. The future direction of the research could be marked by a further development of the new driving themes, among which stakeholder focus and branding image stand out.

**Keywords:** CSR; sustainability; SciMAT; evolution; bibliometric analysis; corporate sustainable responsibility



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## 1. Introduction

Today, interest groups or stakeholders have become more demanding and play an increasingly important role, conditioning the actions of companies and exerting considerable pressure through their demands. Companies have ceased focusing exclusively on the search for shareholders' profit, and have begun to research society's assessment of the social responsibility of companies and the sustainability of their actions and decisions; hence, they must analyze and incorporate the needs and well-being of stakeholders into their objectives. Then, the new objective of companies is not economic profit, but the generation of value in a globalized world [1]. In addition, with information and communication technologies, the opinion and influence of users become more relevant, as consumers can group together and denounce abuses by companies in organizations created for this purpose, such as the Consumers and Users Organization or BeeDigital, the latest organization dedicated to the publication of comments and reviews on an organization's way of operating or products [2].

This is a new challenge that companies must face—bilateral communication between organizations and society. Companies should be informed of social movements and concerns and recognize them, integrating them into their business culture. Sustainability reports have become the document par excellence that companies publish for accountability to stakeholders. The scope of its relevance transcended borders as the Global Reporting Initiative standardized a model for sustainability reports. The concern for sustainability

and CSR is becoming more and more prominent, and numerous scholars have published more and more articles related to these concepts. For this reason, the key question is to know the relationship between CSR and sustainability, since according to the results of our longitudinal analysis, CSR is a preliminary stage to achieve sustainability.

Sustainability as a concept has undergone different interpretations and is the subject of debate. Thus, Málovics et al. [3] examine the requirements of strong sustainability in relation to the role of business in influencing current consumption patterns. The extent to which the use of natural resources and the environment is possible, given the current level of economic activity, is highlighted. Studies on the social dimension of sustainability have gained priority within sustainable development, although there is no clear agreement or precision on its meaning [4]. According to Vallance et al. [5], the interest in the social part of sustainability stems from the failure to achieve meaningful goals. Other authors focus on the concept of “corporate sustainability” [6].

Concerning CSR, throughout history, scholars have encountered some challenges trying to define concepts such as CSR, since it is not subject to a single definition; hence, each individual can interpret it in a different way, according to Van Marrewijk [7], quoting scholars such as Göbbels [8] and Votaw and Sethi [9].

Andriof and McIntosh [10] started to use the term “corporate social responsibility” to expand the scope, impact and relationships that organizations had with clients and society in general. Subsequently, the European Commission [11] issued a statement in which it clarified that CSR was the result of a voluntary application of social and environmental aspects in the day to day activities of companies, in addition to promoting communication with stakeholders.

Van Marrewijk wrote three different proposals to try to define CSR [7]. In a first version, and following Brooks’ [12] and Klatt’s [13] arguments, the term responsibility could be replaced by accountability, although, as Van Marrewijk himself affirms, it is still too broad an interpretation. The second proposal talks about the grouping of not only environmental but also social aspects to corporate sustainability. To achieve the ultimate goal of sustainability, the company must have configured and respected CSR—that is, CSR is an intermediate phase to achieve sustainability. Finally, the writer makes a point about what he considers CS (corporate sustainability)—that is, the creation of value and social aspects—while CSR links it to values, sustainability and communication with stakeholders. In conclusion, CSR is a concept with different interpretations directed towards the development, awareness, and commitment of companies.

Following this difficulty in defining CSR, Kleine and Von Hauff [14] cited Van Marrewijk [15], who argued that the concept of sustainability enriched the definitions established for CSR until then. They mentioned Dyllick and Hockerts [16], who affirmed that corporate sustainability entailed attending to and satisfying the needs of internal and external stakeholders. Dyllick also mentioned the importance of coordinating the economic, environmental, and social spheres. Both scholars clarify that sustainability is a subconcept of CSR.

In parallel, the relationship between both terms was discussed when scholars such as Topal et al. [17] did not focus exclusively on the present, establishing that the survival of economic, social, and ecological systems is necessary to persist into the future for future generations and to continue adapting to such a dynamic and changing environment. To achieve this goal, organizations must respect the needs of nature and society, and these scholars emphasize the duty of companies to protect the environment and our surroundings by using CSR to promote ecological sustainability [17].

To study the correlation between sustainability and how organizations are managed, the author in [18] talks about the benefits provided by sustainability. Companies must be proactive and analyze the environment to detect the best opportunities for the best sustainable strategy. To do this, they create a reference framework that will study how factors related to sustainability affect the different levels of management of a company.

They focus on the fit between organizational culture (mission, vision) and commitment to sustainability [18].

Ashrafi et al. [19] show that an increasing number of organizations that prepare reports and implement sustainable practices, in addition to acting by evaluating risk or environmental conditions, began to study the idea about the possible convergence between CSR and sustainability. Thus, a CSR model which integrated sustainability was created, showing the relationship of both terms as the ultimate goal of the company. These scholars emphasize that the connection between CSR and sustainability, as well as the difficulty of defining or separating the terms, is reflected in the reports prepared by the organizations. Again, CSR is mentioned as a transition stage to achieve sustainability, although it is clarified that in some situations, both concepts are similar. Moreover, in 2020, scholars such as Ashrafi et al. [20] considered the term proactivity in the context of sustainability. The scholars want companies to be sustainable and responsible and to integrate CSR with sustainability into their practices. In addition, these choices must be in line with the client's needs, since both CSR and sustainability are considered bases of action in the corporate world. In all the studies mentioned, we found the following common elements (Table 1).

**Table 1.** Common elements in featured articles.

Common Point	Brief Explanation
Difficulty defining CSR [3,7,10,14,15,19]	In all the articles, the scholars emphasize the breadth of the term CSR, marked by its ambiguous nature, which complicates its interpretation.
Triangle of sustainability [10,14,16,20]	An integration of social, economic and environmental elements is required to walk towards sustainable development.
CSR integration and sustainability [10,14,15,19]	The relationship between CSR and sustainability arouses such interest that scholars exclusively dedicate a section to it in their articles to comment on the integration of both concepts.
Proactivity [14–16,18–20]	The resolution of problems before they occur is gaining more relevance, which is demonstrated in the content of the documents, since the search for opportunities and orientation to change in companies is necessary.

Source: Own elaboration based on WOS data.

## 2. Materials and Methods

### 2.1. Data Collection

To carry out the bibliometric analysis of CSR and sustainability, the main collection of the Web of Science (WOS) database was used, from the search for the field labels: “CSR” or “Corporate Social Responsibility” and “Sustainability” in the search parameters title (TI), author’s keywords (AK), plus keywords (KP) and abstract (AB). The WOS search was carried out on 4 March 2021, with no time limit, considering articles written in English; concerning the database, the Science Citation Index Expanded (SCIE), Social Sciences Citation Index (SSCI) and Emerging Sources Citation Index (ESCI) were included. Out of 530 results extracted from WOS, 258 articles were exported to the SciMAT software, discarding the rest because they were not directly related to the subject of this work.

In summary, the period studied is from 2003 to 2021, which has been represented in Figure 1. This subject is very current since, from 2003, it started to be published about. Furthermore, between 2003 and 2007, there is a small amount published compared to the rest of the years included in the analysis. The year 2020 has the highest volume of documents, with a total of 69 articles, followed by 2018 with 31, and then, 2019 with 26 articles. Despite the fluctuations, we have appreciated that both sustainability and CSR continue to be thematic areas in the focus of attention of many scholars, which is why the debate on these topics is still alive and has great scientific interest.

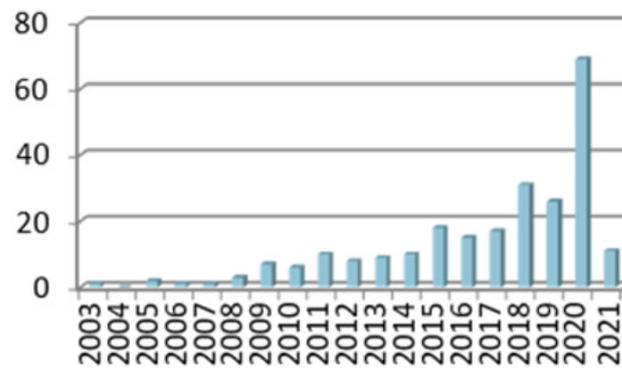


Figure 1. Number of articles published per year.

In order to be able to appreciate the evolution and prepare a longitudinal analysis of CSR and sustainability, the downloaded documents were divided into the following periods (Table 2).

Table 2. Selected periods.

Period	Position Graphics	Number of Items
2003–2014	1	58
2015–2017	2	50
2018–2019	3	57
2020–2021	4	93

Source: Own elaboration from SciMAT data.

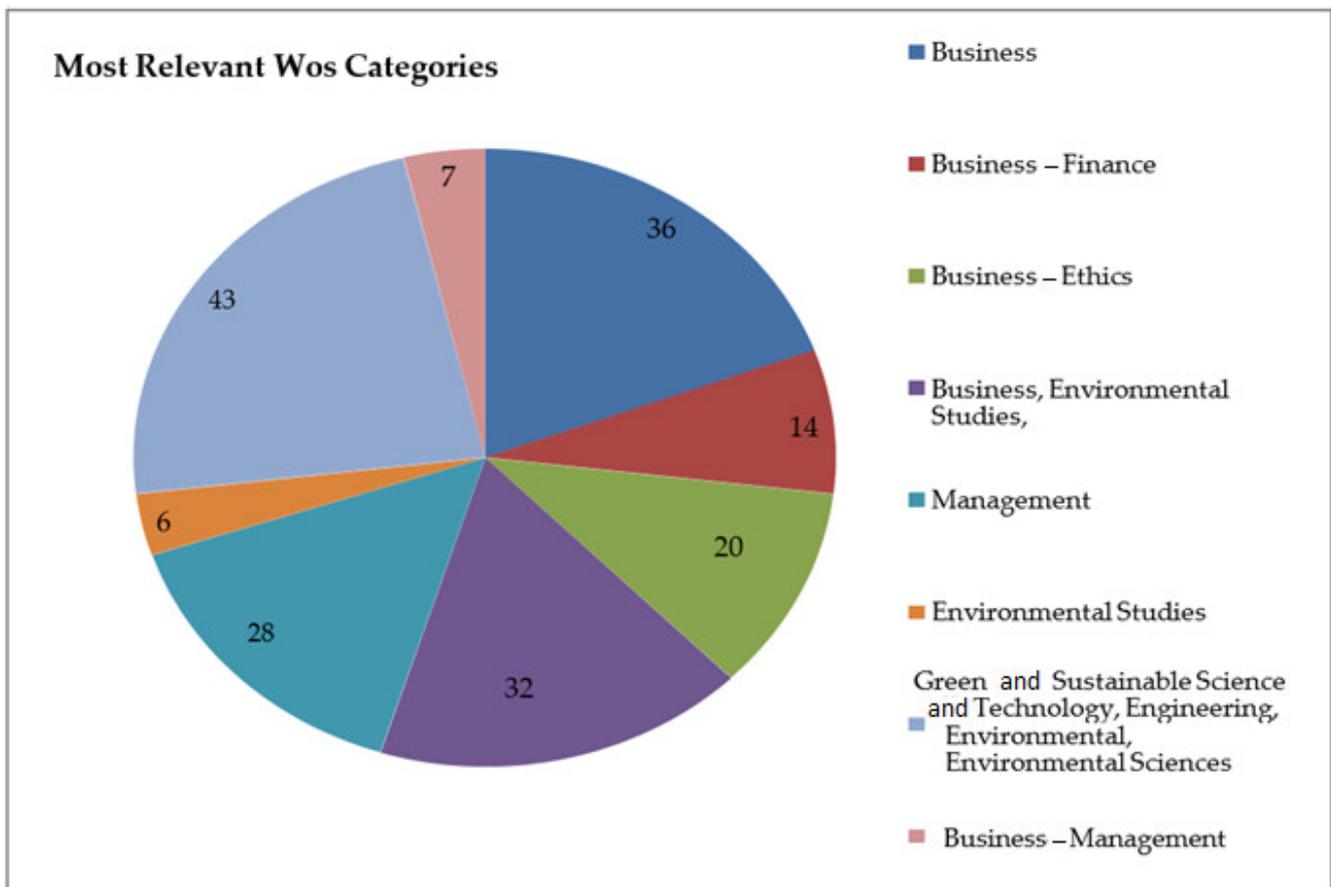
The choice of the width of the intervals was the result of comparing the number of articles published in those years, although it should be noted that since the year 2018, the number of articles has increased compared to the year 2003. Of the four periods, the last one has more papers, specifically with 80, followed by the first period, then the third, and finally, the period between 2015 and 2017.

## 2.2. Methodology

The bibliometric analysis was carried out using the SciMAT program, a software to obtain the trajectory of scientific knowledge [21]. The program examines the documents that form the knowledge base of the project, collecting the keywords of the articles and of the scholars to detail their evolution. After having this base, the software allows you to view the results, which are divided into two sections: the longitudinal analysis and the analysis by period. The first shows the evolution of the topics and keywords throughout all the selected periods. The second provides strategic diagrams with classification of the topics and the composition of the thematic networks in each of the time intervals that compose the sample.

## 3. Sample Analysis

We will begin by examining the categories most used in our sample. The word “business” has a strong presence, since the field analyzed is economics. Companies are essential for the production of goods and services. In addition, there is a stronger concern for the environment and sustainability, as these terms are in several categories. Thus, more and more scholars desire to explore the antecedents, limits, opportunities, and strategies related to the “environment”, and connected to “management”—that is to say, the way of managing, administering, and directing companies (Figure 2).



**Figure 2.** Most relevant WOS categories. Source: Own elaboration based on WOS data. Note. The most relevant categories equal 186 articles; the graph does not include the total of articles (256).

Next, we investigated which journals were most concerned about CSR and sustainability; therefore, Table 3 displays the journals with more publications on this matter.

**Table 3.** Journals with 3 or more publications.

Journals	Published Articles
Sustainability	32
Corporate Social Responsibility and Environmental Management	27
Journal of Business Ethics	17
Journal of Cleaner Production	11
Social Responsibility Journal	6
Business Strategy and the Environment	4
Corporate Reputation Review	4
Sustainability Accounting Management and Policy Journal	4
Sustainable Development	4
Business & Society	3
International Journal of Business Performance Management	3
Journal of Business Research	3
Meditari Accountancy Research	3
Responsible Management in Asia: Perspectives on CSR	3

Source: Own elaboration based on WOS data.

Numerous publishers publish articles focused on CSR and sustainability, since, from the sample, 240 different journals have published and reported on these issues. Furthermore, today's society gives special importance to CSR and the environment, which justifies that some journals incorporated these same terms in their own titles, specializing in them. The terms "CSR", "sustainability", "companies" and the "environment" are already key and are integrated into these editorials.

#### 4. Bibliometric Analysis with SciMAT

##### 4.1. Process

We used SciMAT version 1.1.04 to prepare the bibliometric analysis, a scientific analysis tool that gives us the possibility of monitoring the evolution of CSR and sustainability. After importing the WOS data into the program, we obtained the knowledge database necessary for the scientific maps.

##### 4.2. Evolution of Keywords

Both CSR and sustainability are broad and highly researched concepts; it is essential to study the evolution of those terms that are considered key in this bibliometric analysis. We are going to see how they have been modified and what their trends have been throughout the periods analyzed (Figure 3).

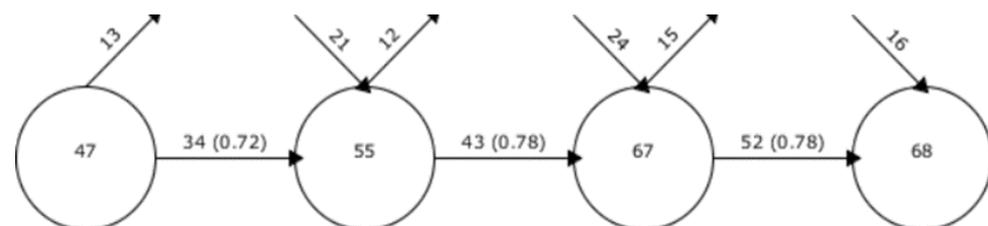


Figure 3. Evolution of keywords. Source: SciMAT.

Each circle represents a period of time; therefore, since we selected four time intervals, they are represented by their corresponding circles. Throughout the analysis being carried out, the periods are in chronological order; thus, the first circle starting from the left corresponds to the period from 2003 to 2014, the second circle includes the period 2015–2017, the third shows the years elapsed from 2018 to 2019, and the last one, located on the right, is the one belonging to the time interval from 2020 to 2021.

Furthermore, we can see that each circle contains a number—that is, the total number of keywords for the period. A growing trend in the number of keywords is displayed from one period to the next, going from forty-seven to sixty-eight in all the chosen years—that is, an increase of almost forty-five percent concerning the interval 2003–2014.

Thirty-four keywords out of the forty-seven that made up the 2003–2014 period continued to be used in the subsequent period, so the remaining thirteen words were no longer used from 2015 to 2017. Not only has the number of keywords grown during all time intervals, but the number of keywords shared from one period to the next has also increased, going from thirty-four shared words to fifty-two between the third and fourth periods.

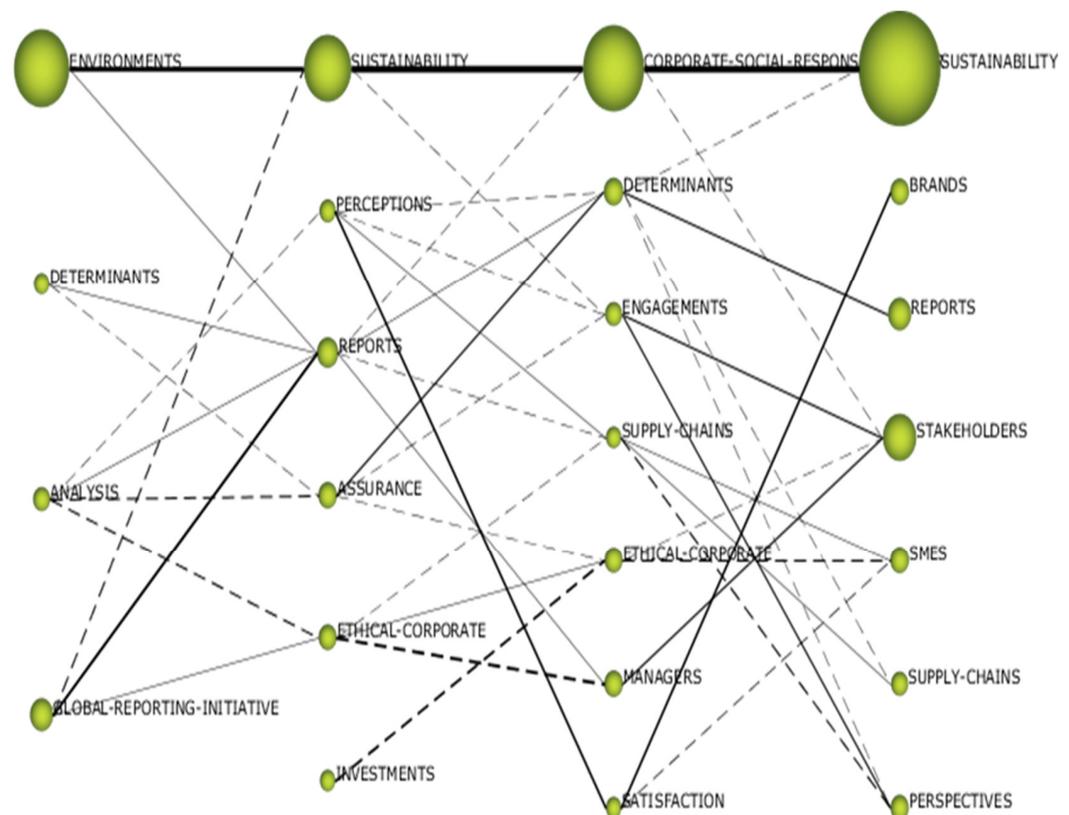
The stability index is reflected in parentheses, as can be seen in the diagram; it evolved from 0.72 to 0.78 from the first to the second period, to then remain stable during the last selected time intervals. This last issue may be a consequence of a greater specialization in the knowledge of CSR, as well as of sustainability. This could have promoted the use of certain keywords and their consolidation in the lexicon of the field studied.

##### 4.3. Longitudinal Analysis

We try to expand the knowledge of CSR and sustainability by carrying out a bibliometric analysis. Therefore, the longitudinal analysis produces a very visual map that shows

the evolution of these terms in relation to the keywords of the documents under analysis. In this sense, it will be possible to visualize the evolution of the groups or clusters and subgroups formed in SciMAT. These groups correspond to the different lines of research followed in each of the periods.

Figure 4 shows the relevance and evolution of the groups of topics throughout the period under study, but only for those articles that contain two or more keywords. We can appreciate the existence of four columns—each one reflects a period of time—starting from the left and moving to the right side, the interval 2003–2014 is the first column, following chronological order. We observe that none of the groups repeated in all four periods analyzed, although some appear on two occasions, such as the report, determinants, ethical-corporate, or sustainability groups.



**Figure 4.** Longitudinal map of the selected sample. Source: SciMAT.

The most solid line of evolution is the one that relates to the environment, then sustainability, to move to focus on CSR, before finally refocusing on sustainability. One could argue that this thematic evolution is quite significant since a close relationship between CSR and sustainability is manifested, and the former was linked to sustainability for decades, until, finally, in recent years, leading to the same concept. In addition, the volume of the nodes in the graph represents the number of articles associated with these topics, and we see how from the second period to the last, the number of documents associated with the word “sustainability” increased, gaining strength from 2020 to 2021. Of all the links from the previous graph and if we consider the totality of years that make up the sample, the most investigated topic is sustainability, followed by CSR and the environment.

The width of the lines varies depending on the inclusion index so that if the line is very thick, the link between the two themes is more representative than if the line were thin. The thickest line is the one that connects the CSR issue with sustainability from the period 2018–2019 to the period 2020–2021; this reinforces the already mentioned evolution that is being experienced from CSR towards sustainability.

It is worth mentioning other connections such as the lines that relate perception to satisfaction and brands. Since consumers have expectations about products, and, comparing those preconceptions with the perception they have had of the product or service, their satisfaction would change radically, which, in turn, will condition the image that customers have of companies and their brands.

On the other hand, sustainability reports and accountability are highly integrated elements in the actions of organizations, and the writing of sustainability reports catapulted through the international initiative called the Global Reporting Initiative. This link is exposed with the line that joins both terms from 2003–2014 to 2015–2017. Finally, the appearance of the reports again in the last period is appreciated.

There are other themes linked by dotted lines as they do not share the same name directly. The relationship between investments made by companies and corporate ethics is striking. Another discontinuous line links business ethics with the administration and management of the company. This is because the decisions taken by organizations must be consistent with their principles, ethical values and culture, i.e., it is in practice that they will demonstrate whether their actions are a true reflection of the ethics with which they wish to be associated.

Finally, it is worth highlighting the appearance of the stakeholder group—that is, interest groups—which is shown for the first time in the 2020–2021 period. Compared with the rest of the topics, the circle representing the stakeholder group is of a larger size, which means that, in the last two years, interest groups have been the central theme of many of the selected articles.

#### 4.4. Analysis by Period

SciMAT also facilitates an analysis by period, so that we can focus on and more extensively study the results obtained within each time interval. The graph's strategic map makes interpretation and understanding of the periods easier.

##### 4.4.1. Period 2003–2014

The strategic map is represented by two axes—the horizontal is given by the centrality, and the vertical by the density. Centrality measures the relevance of the external connections of the subject in question with others—that is, its consideration in the generalized development of CSR and sustainability. However, density refers to the level of internal cohesion of the group investigated. Consequently, it is the internal pressure of those keywords of the subject. The union between the grades of low or high density and the low or high centrality establish four quadrants: driving or motor themes (high centrality and high density), highly developed and isolated topics (high density and low centrality), emerging or declining topics (low density and low centrality) and, finally, basic and transversal topics (low density and high centrality) [21]. The most relevant keyword and developed topic are always located in the upper-right quadrant of the top (Figure 5).

Figure 6 represents the results of the count of documents that incorporate the thematic areas of our field of study. There are four major thematic areas in the following order of relevance: the environment, the Global Reporting Initiative, analysis, and determinants.

The analysis group is also on the edge where it could only go from belonging to peripheral themes (upper left quadrant) to being a motor theme (upper right quadrant) or vice versa, depending on its use by researchers in the coming years. As shown in Table 4 the environment is the most central issue of the four topics.

To understand what other themes are especially linked to the main theme (environment), we are going to study the composition of this cluster (Figure 7).

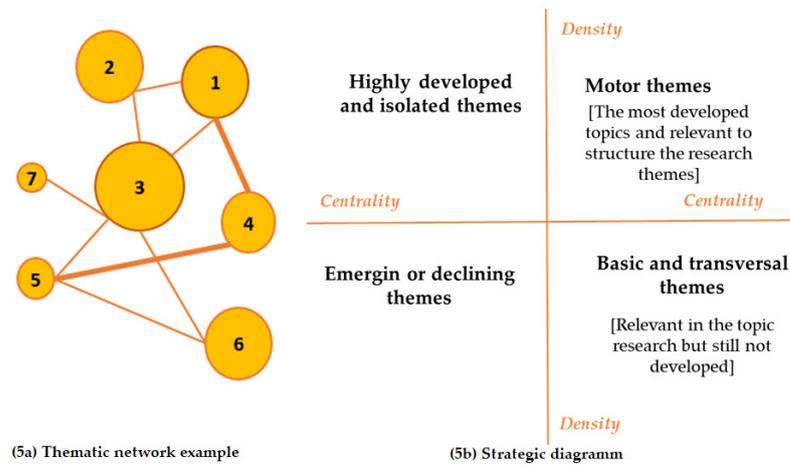


Figure 5. The strategic diagram and example of a thematic network. Based on: [21].

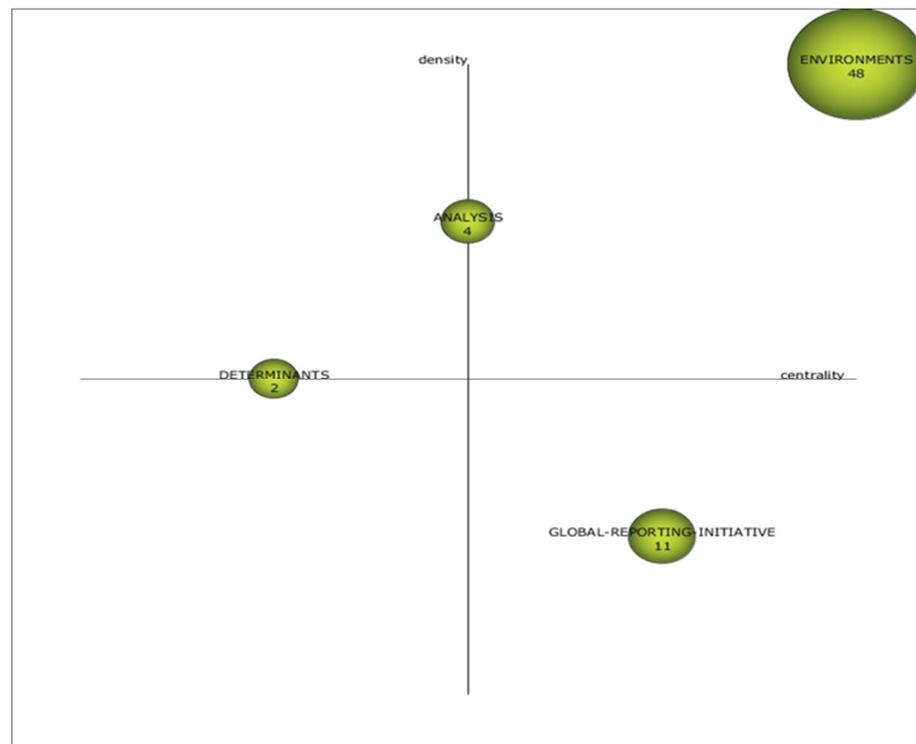
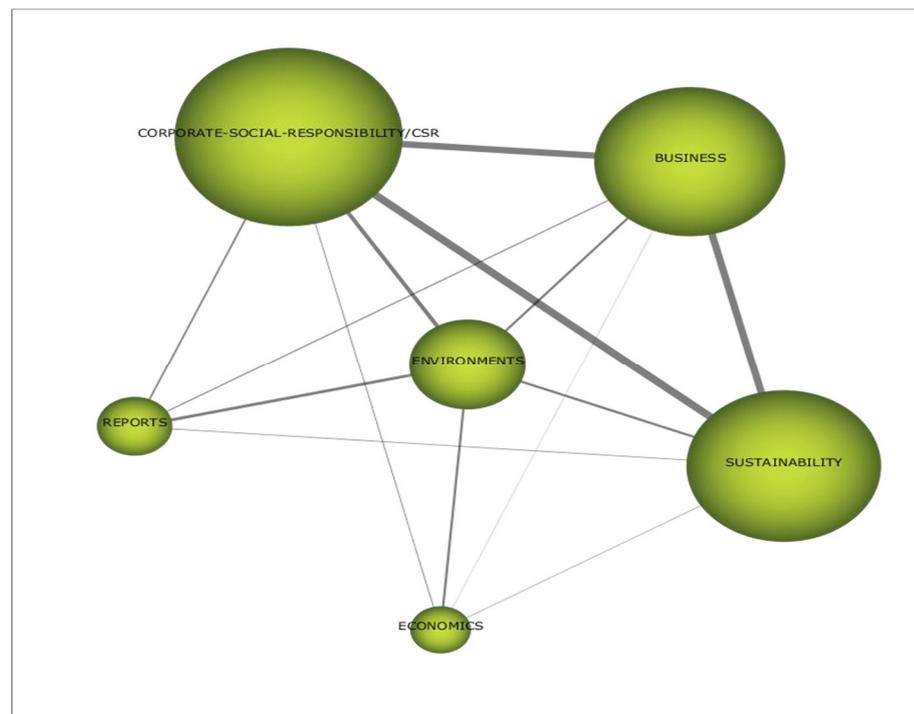


Figure 6. Strategic map according to the number of documents. Source: SciMAT.

Table 4. Centrality and density of the themes.

Cluster	Centrality	Density
Environment	71.4	67.93
Determinants	32.51	28.24
Analysis	34.68	39.17
Global Reporting Initiative	56.91	12.56

Source: Own elaboration from SciMAT data.



**Figure 7.** Thematic area of the environment during the period 2003–2014. Source: SciMAT.

We can observe the relationship of the environment with five more themes: CSR, business, sustainability, the economic sphere and the reports that companies carry out. The nodes with the highest volume are CSR, sustainability and business, so that the three topics are joined by thicker lines that form a triangle. To deepen the analysis of the weight of the internal links between the nodes in the previous figure, Table 5 is attached, ordered from highest to lowest weight, but only nodes that had a weight greater than or equal to 0.30 will be included. We can see how the most noticeable relationship is that between sustainability and CSR, reaching a weight of 0.78 from 2003 to 2014, which, from the beginning, shows us that both terms already had an enormous degree of connection. The second relationship with the highest weight, 0.72, is the one that links CSR with companies, since it is the latter who must choose if they want to be socially responsible companies and, it can be seen that from the beginning of the period studied, there was already a concern for the actions carried out by the organizations.

**Table 5.** Weight of internal ties from 2003 to 2014.

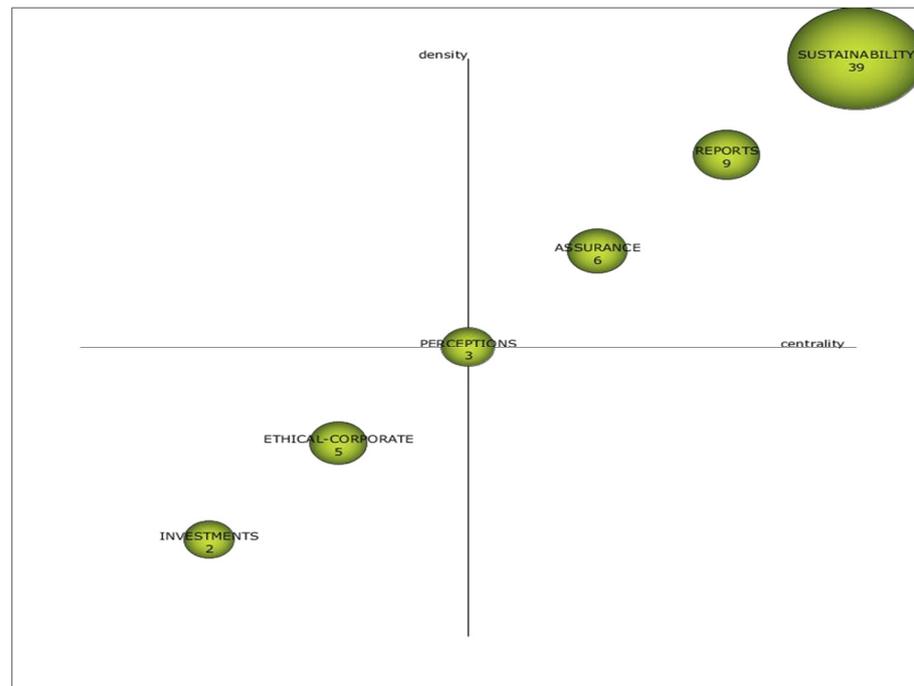
Node A	Node B	Weight
Sustainability	CSR	0.78
CSR	Business	0.72
Sustainability	Business	0.66
Environment	CSR	0.39
Reports	Environment	0.32

Source: Own elaboration from SciMAT data.

The data in Table 5 confirm the union through the triangle, so that the third with the highest volume is the link between the sustainability node and the business node, with a total of 0.66.

#### 4.4.2. Period 2015–2017

A strategic diagram provided by SciMAT for the period 2015–2017 is shown in Figure 8. In total, the program informs us of six different topics for the 2015–2017 period: sustainability, reports, reliability, perceptions, corporate ethics and investments.



**Figure 8.** Strategic map of 2015–2017. Source: SciMAT.

On the one hand, there are three driving themes: sustainability, reports and assurance. The sustainability group is present in a total of thirty-nine documents of the fifty that make up the sample in this period. It raises scientific interest in 78% and it is the content that enjoys the greatest centrality and density, which implies that it was essential for the development of sustainability and CSR during this period of time. Although reporting and assurance issues are considered driving issues, they do not have as high a centrality and density as sustainability. However, the reports are more towards the upper-right corner than assurance. On the other hand, the graph informs us that there are two declining or emerging clusters that need a greater degree of research; these are corporate ethics and investments.

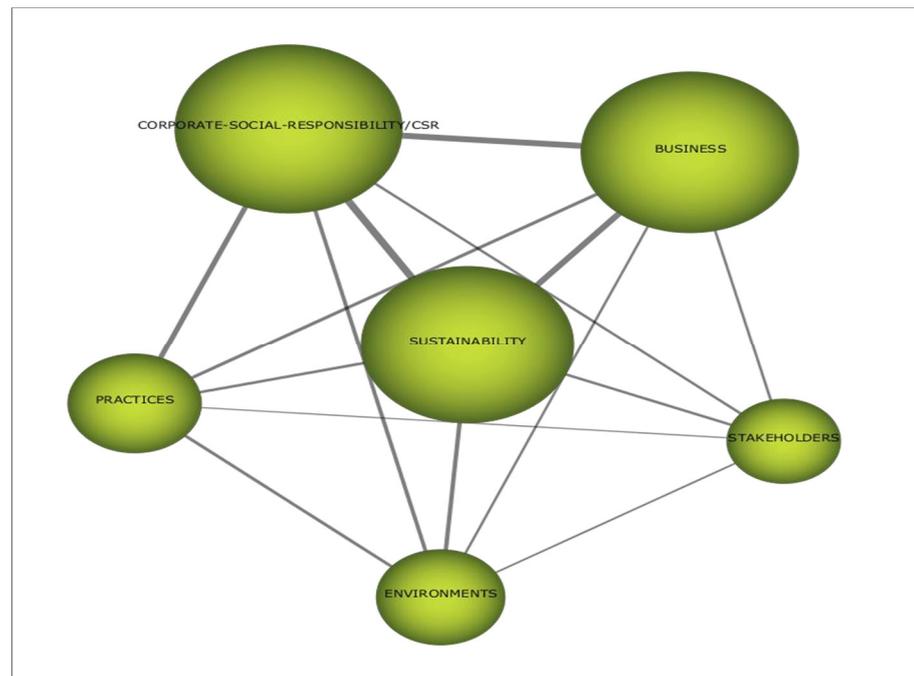
The results of the centrality and density values of the clusters are displayed in Table 6.

**Table 6.** Centrality and density of the topics from 2015 to 2017.

Cluster	Centrality	Density
Sustainability	124.08	94.65
Perceptions	48.2	34.72
Reports	87.41	37.38
Assurance	56.93	35.72
Ethical corporate	48.15	8.33
Investments	29.71	5.71

Source: Own elaboration from SciMAT data.

Next, the decomposition of the main cluster for the period, sustainability, will be displayed (Figure 9).



**Figure 9.** Thematic area of sustainability during the period 2015–2017. Source: SciMAT.

In this period, sustainability is a set of relationships with the clusters: CSR, business, stakeholders, environments, and practices. The topics that have the interconnection are those linked by the thickest lines, which are sustainability, business, and CSR, these being the nodes with the highest volume and, as mentioned for the previous period, they return to be united in a triangle. To inquire about these connections, analysis of the weight of the internal links of the nodes in the previous figure is attached, for those clusters whose relationship exceeds a weight of 0.35 (Table 7).

**Table 7.** Weight of internal ties from 2015 to 2017.

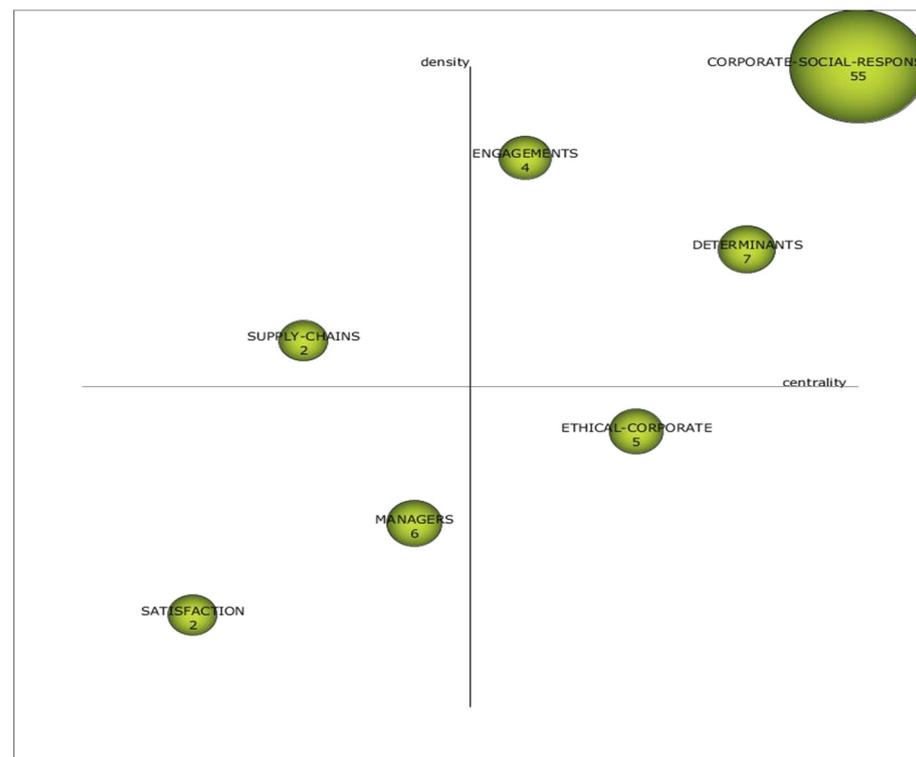
Node A	Node B	Weight
Sustainability	CSR	0.72
CSR	Business	0.69
Sustainability	Business	0.61
Practices	CSR	0.49
Sustainability	Environment	0.39
Practices	Business	0.36
Environment	CSR	0.36

Source: Own elaboration from SciMAT data.

The greatest relationship is between sustainability and the CSR, with a weight of 0.72, which once again emphasizes the close link that remains latent between both terms. Although, the stakeholder group does not have internal links that have a weight greater than 0.35. This is important since researchers study it and relate it to sustainability, which starts being a notorious issue during the period.

#### 4.4.3. Period 2018–2019

Next, Figure 10 shows the strategic map resulting from the analysis carried out in SciMAT for the time interval between 2018 and 2019.



**Figure 10.** Strategic map for 2018–2019. Source: SciMAT.

You can see the appearance of seven clusters in total: CSR, determinants, engagements, ethical corporate, managers, satisfaction and the supply chains. The driving themes during this period are CSR, determinants, and engagements. In the years 2018 and 2019, scientific research mainly focused on CSR, since a total of fifty-five articles—that is, 96.4% of the fifty-seven documents—contained aspects related to CSR.

The determinants are also among the driving themes because the researchers wanted to know the reasons that drive organizations to make their decisions, as well as their commitment. Regarding the engagement, it can be seen how it has a much higher density than its centrality, so that perhaps in the future, it could become a peripheral issue.

Corporate ethics is a basic theme, as it contributes to CSR and sustainability, although it is still quite generic. In this period, managers and satisfaction have become emerging or declining issues, but if the manager's cluster increases its centrality value, it could become a basic issue.

Finally, there is also a peripheral issue in this time interval—the supply chain—which has gradually been making its way, but still does not have enough relevance; although, if it loses density, it would become an emerging issue.

Table 8 details the centrality and density values of the themes of the selected interval. In the 2018–2019 period, the cluster that represents the main driver is CSR, so its composition will be analyzed with Figure 11.

CSR is related to five themes during the years 2018 and 2019: business, sustainability, disclosures, the environment and the practices of organizations. Again, a triangle linked by the thicker lines can be observed, which links CSR with companies and with sustainability, these three being the nodes with the highest volume and, therefore, with the greatest relevance. The links between the environment and companies, CSR, and sustainability are gaining thickness; they are becoming more strongly integrated within the field study, strengthening their links with the mentioned clusters.

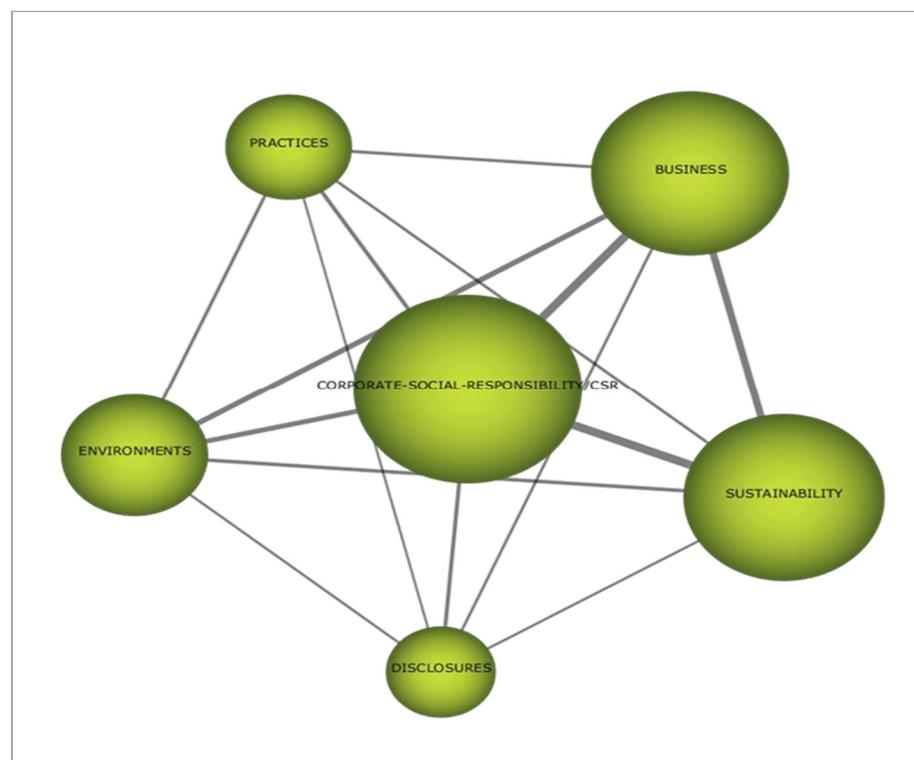
Table 9 shows the values of the weights greater than 0.35 of the CSR relationships with the rest of the keywords. As in previous periods, the relationship with the greatest weight

is that between sustainability and CSR, with 0.85, followed by the one that links CSR with companies, this being 0.8, and the one that links to sustainability with companies (0.66).

**Table 8.** Centrality and density of the topics from 2018 to 2019.

Cluster	Centrality	Density
CSR	134.22	106.84
Determinants	58.22	31.63
Engagements	48.22	32.21
Supply chain	39.5	29.17
Corporate ethics	50.14	15.33
Administrators	47.12	9.84
Satisfaction	26.73	8.89

Source: Own elaboration from SciMAT data.



**Figure 11.** CSR subject area during the 2018–2019 period. Source: SciMAT.

**Table 9.** Weight of internal ties for 2018–2019.

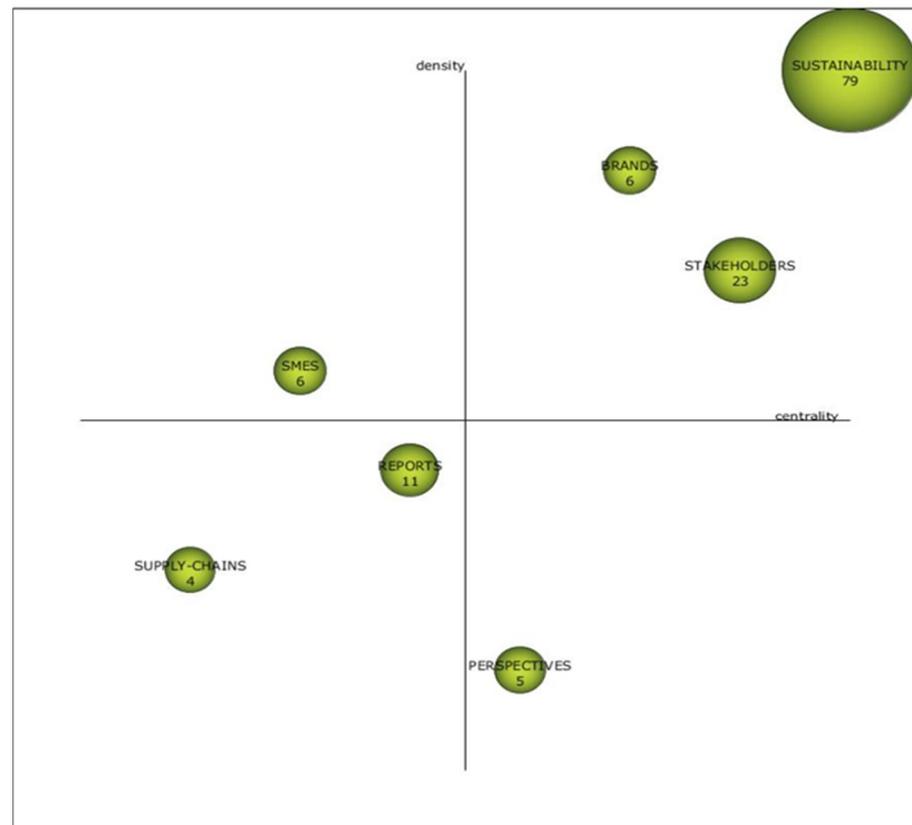
Node A	Node B	Weight
Sustainability	CSR	0.85
CSR	Business	0.80
Sustainability	Business	0.66
Environment	Business	0.54
Environment	CSR	0.52
Sustainability	Environment	0.38
Practices	CSR	0.37

Source: Own elaboration from SciMAT data.

In turn, the environment is present in this period, weighting 0.54 with business, and 0.52 with CSR, which shows that the term is taking hold in the analysis carried out. The practices developed by the organizations are the focus of attention, since these practices must be carried out with CSR.

#### 4.4.4. Period 2020–2021

During the 2020–2021 period, the strategic diagram (Figure 12) shows us three driving themes, although sustainability stands out, due to its greater density and centrality.



**Figure 12.** Strategic map for 2020–2021. Source: SciMAT.

As shown in Figure 12, sustainability ends up being the main protagonist of the last chosen interval, since it could be related to 79 documents of the 80 that make up the total articles of the period, which implies a development of sustainability in 98.75% of documents. Moreover, for the first time, two driving themes appear: interest groups–stakeholders– and brands. The demands and interests of the interest groups have become very relevant in recent years, since scholars have decided to study them as they are an essential factor to take into account in the decision making of an organization, which is why it has become the second most researched topic. In turn, brands refer to matters related to business reputation, which has also become a main topic from 2020 to 2021. Perspectives appear in the lower-right quadrant, a basic topic, which is part of the foundation of CSR and sustainability; it needs to be examined in more depth, and it is related to the way in which companies can focus on their issues and their way of thinking.

Moreover, two emerging or declining themes can be distinguished: the reports written by organizations and the supply chain. Regarding the supply chain, if we compare the strategic map of the previous period with this one, an evolution of the cluster can be seen, from the upper-left quadrant to the lower-left quadrant; then, it loses relevance.

Finally, as a peripheral issue, we find SMEs, which highlights that the scholars also care about small- and medium-sized companies. However, if its density were to decrease, it would become an emerging theme.

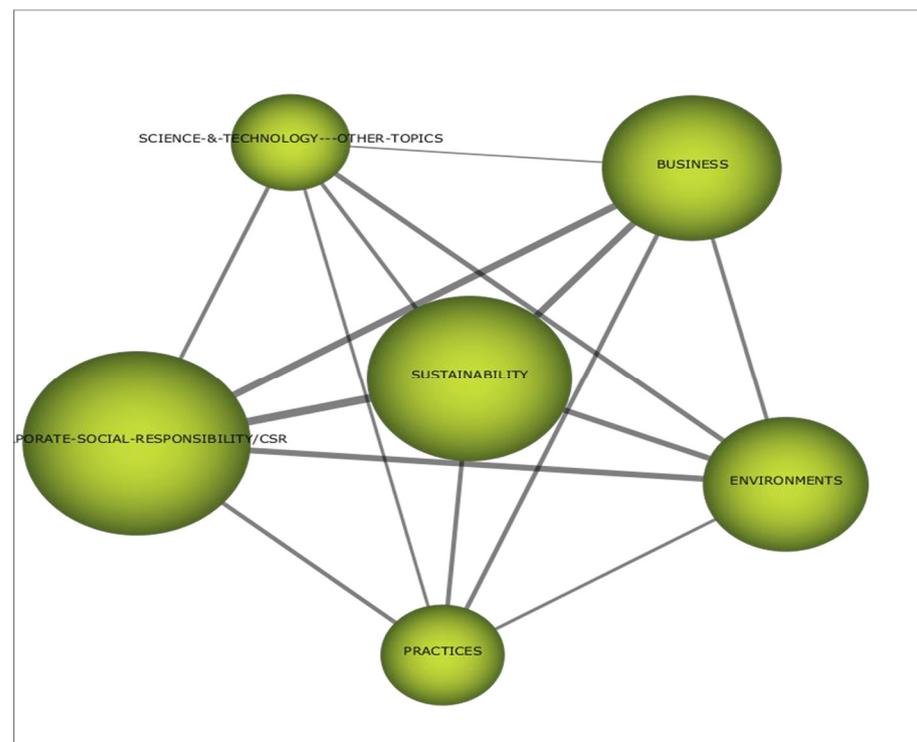
In order to know exactly the values of the internal and external cohesion of these topics, the following table is displayed (Table 10).

**Table 10.** Centrality and density of the 2020–2021 themes.

Cluster	Centrality	Density
Sustainability	155.03	118.71
Brands	65.04	45.52
Reports	50.12	14.83
Stakeholders	121.22	17.82
SMEs	36.12	15.00
Supply chain	31.21	8.56
Perspectives	55.48	5.74

Source: Own elaboration from SciMAT data.

Next, the cluster that represents the main engine theme will be decomposed (Figure 13). Sustainability connects with five different clusters: business, the environment, practices, CSR and the relationship between science and technology with another field of study. The three nodes with the highest volume are CSR, followed by sustainability and companies.



**Figure 13.** Thematic area of sustainability during the period 2020–2021. Source: SciMAT.

As in previous periods, the triangle that connects CSR with sustainability and business is still present, but more thick lines appear that link the environment with CSR and sustainability; the cluster of environment becomes more relevant in this last time interval, and its link with the subject analyzed is highlighted.

Some researchers try to find correlations and unions between different subjects or fields so that, in this network, a new group of sciences, technologies, and other themes appears, in which keywords of several topics have coincided.

Finally, Table 11 shows the weight of the internal links between the clusters of the previous thematic network, greater than 0.5, will appear.

**Table 11.** Weight of internal ties for 2020–2021.

Node A	Node B	Weight
Sustainability	CSR	0.85
CSR	Business	0.71
Sustainability	Business	0.65
Environment	CSR	0.63
Sustainability	Environment	0.59
Environment	Science, technology and other subjects	0.51

Source: Own elaboration from SciMAT data.

Once again, the weight that marks the relationship between sustainability and CSR dominates, with a value of 0.85 for the 2020–2021 period. The existing union between CSR and companies once again continues to position itself as the second highest weight, specifically with 0.71, followed by 0.65, the link between sustainability and companies. As mentioned above, the environment is increasingly present and linked to scholars' research, showing the relationship with CSR is 0.63, and the union of the sustainability node with the environment is 0.59.

## 5. Discussion and Conclusions

Due to the concerns of society and the demands in terms of accountability towards organizations, there has been a greater concern for CSR and sustainability [22]; companies have stopped focusing exclusively on economic benefit, and have begun to integrate them into their culture to commit to society [23].

This change in companies and their commitment to the demands of interest groups has increased sustainability reports. Scholars who have decided to investigate the subject contribute to the scientific field in question [24].

The literature review has revealed the difficulty in defining CSR and the existence of a strong link between CSR and sustainability, with some scholars claiming that CSR is an intermediate phase to achieve sustainability, which has become the ultimate goal of companies in these years [7].

To understand these concepts and see their path, the SciMAT program was used to perform bibliometric analysis following Rodríguez-Fernández et al. [25] who recommend the use of said software to increase the knowledge of the evolution of the study of the CSR in its relationship with sustainability.

At first, using the data provided by WOS, we see an increase in the number of articles related to sustainability and CSR, especially highlighting the year 2020, so the last time interval is the most numerous as far as documents are concerned.

With the analysis of the keywords, the scientific interest in CSR and sustainability began to show. Not only did the number of keywords increase from one year to the next, but terms were maintained from one period to the next. Later, scholars found the terms used to gain a foothold in the field of study. Therefore, the stability index remained at the same value from 2018–2019 to 2020–2021.

As a result of the longitudinal analysis, we observed how the relationship between CSR and sustainability was crucial, since the lines that link both concepts were the thickest, having an inclusion index higher than the rest of the topics. In addition, there are themes associated with some articles, with those being the clusters with the highest volume: sustainability, followed by CSR, and the environment. It was also possible to verify the

evolution of these terms in such a way that in the first period, the environment node would become the second time interval in sustainability, to later be linked to CSR and also to sustainability. Finally, interest groups appeared for the first time in the 2020–2021 period, characterized by having a large volume.

Next, to carry out a more exhaustive analysis, the sample was investigated by period. In conclusion, the most important clusters of the longitudinal analysis represent the principal theme in their corresponding periods, standing out from the rest of the areas. When the motor theme is broken down, a triangle that linked CSR with business and sustainability can be observed, united by very thick lines, which appeared in the four periods.

Therefore, CSR is a very open topic, which has evolved towards sustainability, and this relationship between both terms becomes more than noticeable with the results of this bibliometric analysis. Research in the coming years could focus on a more in-depth study of the stakeholders. The last period shows that the cluster became one of the main themes, forming part of the driving themes and also gaining weight in a short time, so its trend could be determined by greater bilateral communication between them and the companies. Additionally, the reputation and image that society has of organizations were positioned as a driving issue that, in the future, could be essential, since companies are increasingly interested in their interest groups having the best image of them, and that they are associated with as many values and ethical actions as possible. Finally, in 2018–2019, the environment took center stage, and its relationship with CSR and sustainability was strengthened, a fact that will increase from 2020 to 2021. All these trends can complement and help in the advancement and development of the CSR and sustainability theme.

In summary, the effect of brand image in emerging economies in relation to consumer behavior, how CSR influences reputation and brand equity building, as well as business performance are among the main lines of research. In addition, and related to stakeholders, it would be of great value to further develop the role of stakeholder pressure in relation to the CSR of multinationals operating in developing countries, with a detailed analysis taking into account the age and size of the subsidiary.

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