

# Mapping the Literature on Corporate Sustainability and Public Policies

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## Abstract

*This paper aims to overview the main topics discussed in the academic papers related to public policies and corporate sustainability. Based on the literature, our scope is to set up a framework for future research on public policies and corporate sustainability by constructing bibliometric networks. The study will evidence the authors with some of the most important research in this field, based on the citations of their papers, and the countries with the highest number of publications and citations. Through the VOSviewer software we studied the topic of corporate sustainability and public policy based on keywords, citations, geographical distribution, and authorship. After observing 289 papers indexed in Web of Science, we found as frequent keywords corporate social responsibility, sustainable development, performance, management, legitimacy, or disclosure. The highest number of papers were published in American Journals, but also in England, Australia and Canada, but the most cited papers were the American and Canadian ones. Finally, T. Sueyoshi and M. E. Porter are the most cited authors for papers on corporate sustainability and public policy.*

**Key words:** corporate sustainability, public policies, VOSviewer, bibliometric mapping, network  
**J.E.L. classification:** Q56, Z18, Y91

## 1. Introduction

The idea of bibliometric mapping has been developed over the last couple of decades. Starting from the broad literature, it offers academics a means of exploring the core literature on specific topics to systematize it. A brief way of evidencing important studies is to create the citation reports in different databases, such as Web of Science. However, the broad platforms seem to increase the complexity in realising a bibliometric analysis, and thus different methods and special software programs were developed to support the construction of a bibliometric map (Tao et al., 2020).

We aim to analyse and build a framework of the research on public policies and corporate sustainability. The idea started from the concept of Corporate Social Responsibility (CSR) which implies that companies contribute to the development of the society, ensuring that their operations do not affect the environment. While companies try to ensure a good relationship with all their stakeholders, developing a CSR strategy, CSR recently became a priority for governments.

Based on the bibliometric analysis provided by the VOSviewer software, our paper aims to present a rough overview over the main topics discussed in papers related to the relationship between public policies and corporate sustainability, and evidence the authors with some of the most important research in this field, based on the citations of their papers. Also, countries with the highest number of publications and citations will be evidenced.

## 2. Literature review

According to the European Commission (2001), CSR represents a means for companies to contribute to a better society and a cleaner environment. If governments promote social and environmental practices, citizens and businesses would act more responsibly. Accordingly, the 21<sup>st</sup>

century brought an emphasis on how public sectors could enable the environment for CSR by making it compulsory through legislation, supporting partnerships by engaging various stakeholders with similar needs, and promoting the guidelines to reach CSR and therefore sustainability (Fox et al., 2002). According to Lepoutre et al. (2004, in Albareda et al., 2007), governments play a crucial role in managing strategic uncertainty and presenting the tools for public actions to diminish the insecurity and negative effects. Some of the public actions to be undertaken are informational campaigns, agreements or incentives, business reporting, etc.

Related to the role of the public sector in CSR, the concept of private-public partnership for CSR emerged. This presumes that the partnership aims to resolve problems in the society and promote coordination within companies, non-profit organisations, and public administration (Albareda et al., 2007). Accordingly, governments should be viewed as a collaborator of the private sector. Besides, CSR should be viewed as a process through which companies manage social and environmental impacts based on the relationships with their stakeholders.

In the context of the welfare state, Midttun (2005) described three governance models for the development of CSR, as the social development based on social responsibility should consider the perspectives of the different characteristics in the business environment, civil society, and government. Therefore, the European Commission realised a series of official documents on CSR related to building up a European framework for CSR (European Commission, 2001), or describing the roles businesses may have on the development of the society or on the economic development (European Commission, 2002, 2006).

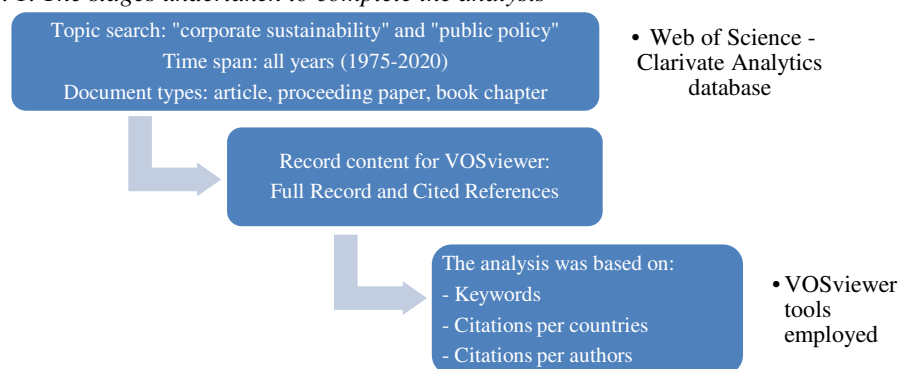
The new rules and regulations regarding CSR did have a positive effect, making businesses more conscious of their role in society, and more aware of the necessity of following a CSR strategy. Since the beginning of the new century, the EU policymakers considered a series of public policies to sustain and promote CSR, on the contrary to the ignorance towards CSR promoted by the US public policies. Aaronson and Reeves (2002, in Albareda et al., 2007) consider this contrasting behaviour due to a more flexible business environment in Europe, where businesses tend to work with governments to improve the social conditions, compared to the companies established in the US, which are more reluctant to CSR public policies.

The vast literature on the topic indicates that CSR is expanding in Europe, being more implicit under its voluntary approach. Accordingly, over the past years, the values of the organisations adapted, resulting in requirements to address economic, political, and social issues. Overall, the relationship between government and CSR indicates new roles for public administration, constant dialogue with stakeholders, and a voluntary nature from the businesses' initiatives.

### 3. Research methodology

The growth trend in the topic of sustainability made us consider a bibliometric analysis, as a statistical method to assess and organise the papers developed on the relationship between corporate sustainability and public policies. As VOSviewer is accessible for free, we decided to study this topic based on keywords, citations, geographical distribution, and authorship. The network analysis will allow us to identify the relationship within territories, authors, and specific concepts, evaluating occurrences, collaboration, and co-citation.

Figure no. 1. The stages undertaken to complete the analysis



Source: Author's process after Mihit et al. (2019)

The stages employed in extracting the papers for the bibliometric analysis are exemplified in the first figure. Considering two concepts in the topic field of Web of Science, we chose to search for articles, proceeding papers, and book chapters on “corporate sustainability” and “public policy”. The Web of Science database returned 289 academic papers on these topics. The details (records and references) were collected through a .txt file which was uploaded in the VOSviewer software for realising the analysis.

## 4. Findings

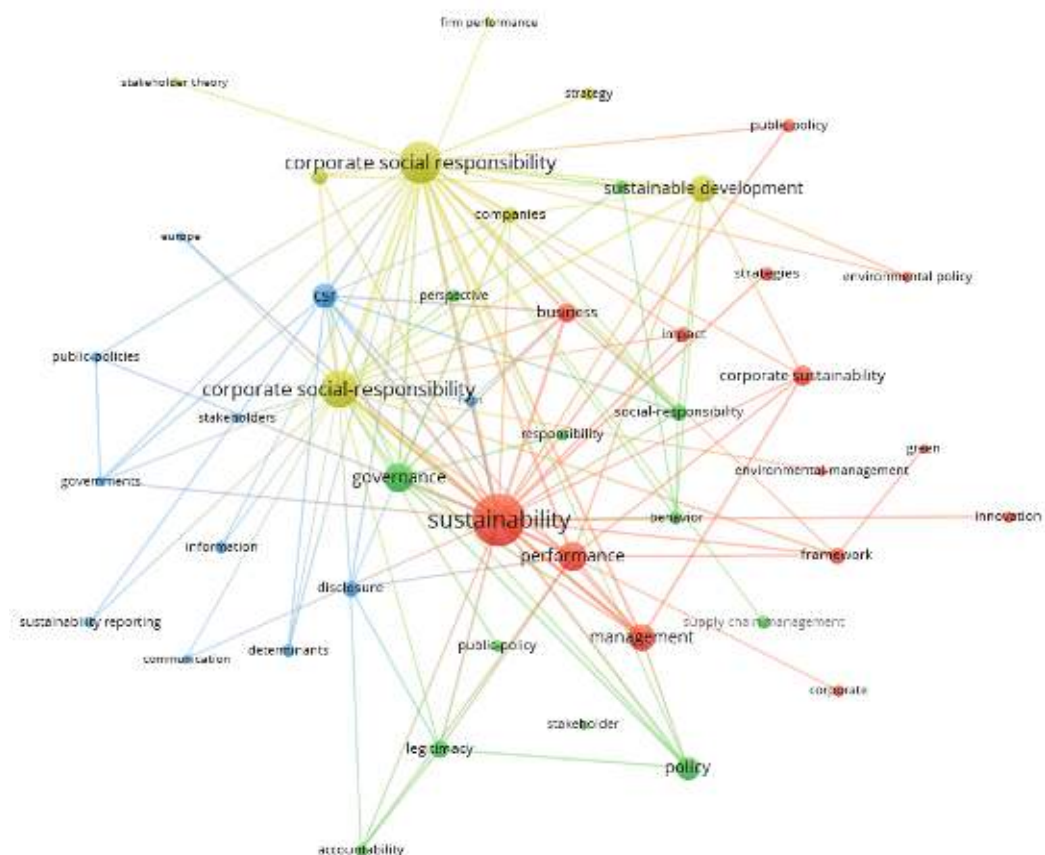
### 4.1. Keywords analysis

The keywords analysis quantifies the distribution of the most frequent keywords occurring together in the articles reviewed. In the first stage of our analysis we wanted to emphasise the most important concepts discussed in papers related to corporate sustainability and public policies. Therefore, after analysing the 289 papers considered from Web of Science, the VOSviewer software evidenced 45 keywords.

Figure 2 indicates the main keywords and the relationships between each other. All the figures returned from VOSviewer have a series of features, and in the case of keywords network, they are the following:

- the larger the dots and the concepts fonts are, the more often the keywords were mentioned;
- the thicker the line, the more often the keywords were together in the same paper;
- the smaller the distance between the dots, the stronger the relationship between the concepts;
- finally, the different colors are related to the clusters returned by the software.

Figure no. 2. The keywords network visualisation



Source: Author’s computation through VOSviewer

Considering our case, four clusters were identified by employing a rate of six occurrences of keywords. The cluster components are detailed in the first table and the keywords network, being evidenced through different colors.

Table no. 1. Clusters of keywords

	<b>Cluster 1</b> (red)	<b>Cluster 2</b> (green)	<b>Cluster 3</b> (blue)	<b>Cluster 4</b> (yellow)
1	Business	Accountability	Communication	Companies
2	Corporate	Behavior	CSR	Corporate social responsibility
3	Corporate sustainability	Financial performance	Determinants	Corporate social-responsibility
4	Environmental policy	Governance	Disclosure	Firm performance
5	Environmental-management	Legitimacy	Europe	Industry
6	Framework	Perspective	Firm	Stakeholder theory
7	Green	Policy	Governments	Strategy
8	Impact	Public-policy	Information	Sustainable development
9	Innovation	Responsibility	Public-policies	
10	Management	Social-responsibility	Stakeholders	
11	Performance	Stakeholder	Sustainability-reporting	
12	Public policy	Supply chain management		
13	Strategies			
14	Sustainability			

Source: Author's computation through VOSviewer

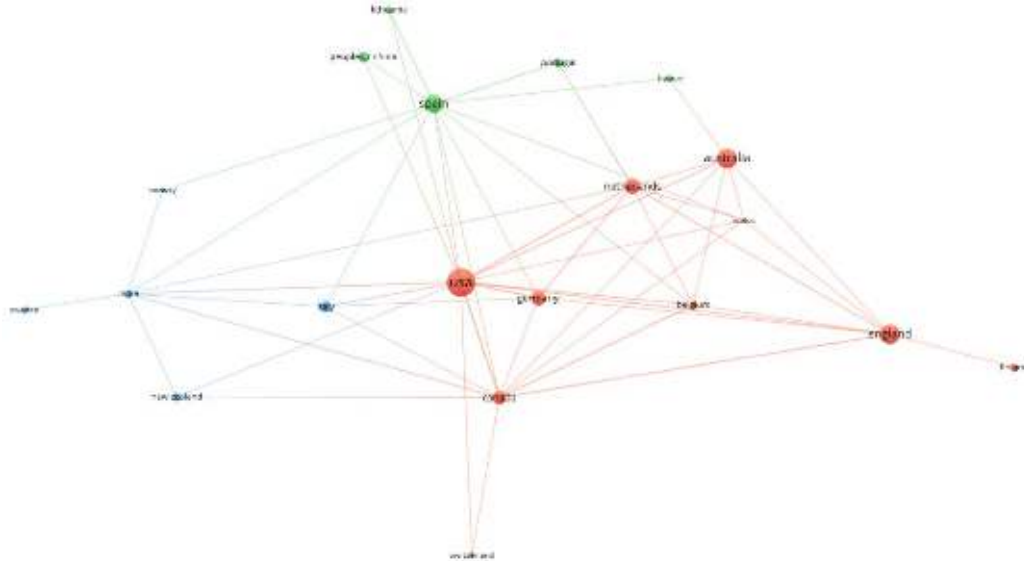
From the list of articles considered, the top keywords are "corporate social responsibility" (with 149 occurrences in the forms "corporate social responsibility", "corporate social-responsibility", or "CSR"), "sustainability" (with 96 appearances), "performance" and "governance" (each with 37 occurrences), and "management" and "sustainable development" (each with 34 occurrences). The terms "legitimacy", "business", "framework" and "industry" are also a frequent focus (15 or 17 occurrences) for the papers on corporate sustainability and public policies indexed Web of Science.

From all the keywords clusters, the fourth one does not relate to policy concepts, being centered on companies but also on sustainable development, which might relate to both levels, corporate, and society. The other three clusters have references to policies in general, public policies, frameworks, and governments. In our view, the first cluster is more related to business and public policy aspects working towards innovation and in an eco-friendly manner to achieve better management and performance and most important, sustainability. The second cluster emphasises how accountable companies are to achieve good governance by following the policies and conform to rules and regulations. The third cluster is underlying the importance of sustainability reporting and the importance of public policies and government in CSR.

#### 4.2. Citations per countries analysis

The citations per country analysis emphasises the relationships between researchers and the network built up through research teams. In this analysis, the dots represent countries and the thickness and distance of the line evidence the degree of collaboration between researchers. This is the second stage of the analysis, in which we consider a minimum of three documents and three citations for a country. From the 289 papers considered, the VOSviewer software evidenced a set of 20 countries.

Figure no. 3. The citations per countries network visualisation



Source: Author's computation through VOSviewer

We can observe from Figure 3 that the United States is the center of the network. The VOSviewer software identified 57 documents and 2,362 citations, having the highest link strength in the citations network. It is followed by Canada, from the same cluster as the USA, where 17 documents on corporate sustainability and public policies were identified, with 1,203 citations. The software identified 31 documents for England and Australia, with 626 and 359 citations, respectively. From the network, we can observe that these top countries in terms of the number of publications and also citations are in the same cluster. The least documents on corporate sustainability and public policies were in Wales, Norway, Switzerland, and Sweden, where up to 5 papers indexed Web of Science were detected. Although not many documents were published in these developed countries on the topic of sustainability and public policy, the number of citations is very large for Wales (135 citations) and Norway (105 citations).

The citations per countries analysis returned three clusters. They are described in Table 2, illustrating the countries where researchers keep the strongest collaborations.

Table no. 2. Clusters of citations per countries

	Cluster 1 (red)	Cluster 2 (green)	Cluster 3 (blue)
1	Australia	France	India
2	Belgium	Lithuania	Italy
3	Canada	China	New Zealand
4	England	Portugal	Norway
5	Finland	Spain	Sweden
6	Germany		
7	Netherlands		
8	Switzerland		
9	USA		
10	Wales		

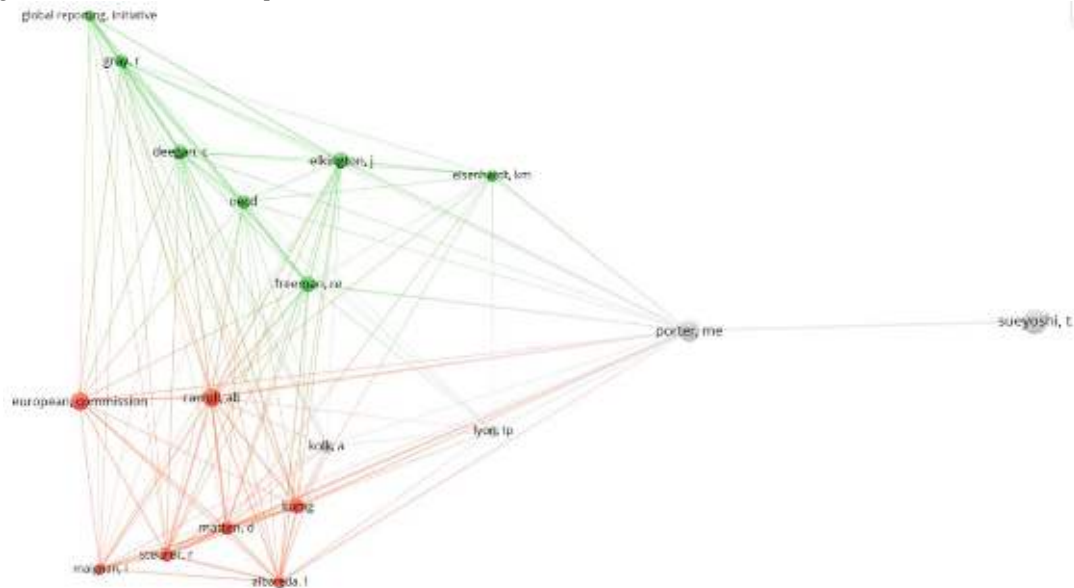
Source: Author's computation through VOSviewer

From the distance and lines thickness presented in the second figure, we may assume that the strongest collaborations are between researchers in the USA and Germany and The Netherlands and Australia being all in cluster 1. The distance between clusters is quite large, indicating a clear delimitation of clusters. The first cluster includes some of the most developed countries around the world (USA, Germany, England, The Netherlands etc.). The second cluster is composed of Mediterranean countries but not entirely. The shortest line indicates a collaboration between Spain and China.

### 4.3. Citations per author analysis

The citations per author analysis reveal the most cited first authors of the scientific articles on corporate sustainability and public policies indexed Web of Science. The VOSviewer returned 18 authors based on the filters imposed: a minimum of two papers per author (as the first author), and at least 20 citations for every paper. According to the VOSviewer results presented in Figure 4, the top-cited authors in this analysis are Michael E. Porter, with 64 citations and 202 links, and Carroll Archie B. with 49 citations and 193 links. A large number of citations for papers on corporate sustainability and public policy topics was also revealed for the European Commission (46 citations and 81 links) and Sueyoshi Toshiyuki (82 citations and 42 links), but in these cases, the relationships with other authors, part of the VOSviewer network, are less strong, hence the fewer correspondent links.

Figure no. 4. The citations per author network visualisation



Source: Author's computation through VOSviewer

Two clusters were evidenced in the citations per author analysis, and four of the 18 authors returned by the software were not included in any cluster, as detailed in Table 3.

Table no. 3. Clusters of citations per author

	<b>Cluster 1</b> (red)	<b>Cluster 2</b> (green)	<b>no cluster</b> (grey)
1	Albareda I	Deegan C.	Kolk A.
2	Carroll A.B.	Eisenhardt K.M.	Lyon T.P.
3	European Commission	Elkington J.	Porter M.E.
4	KPMG	Freeman R.E.	Sueyoshi T.
5	Maignan I.	Global Reporting Initiative	
6	Matten D.	Gray R.	
7	Steurer R.	OECD	

Source: Author's computation through VOSviewer

From the network visualisation, in the first cluster, we observe a strong relationship between Maignan I., Steurer R., Matten D, and one of the global network of professional firms providing audit, tax and advisory services (KPMG). In the second cluster, the strongest relationship is between the Global Reporting Initiative and Gray R., but also between OECD and Deegan C., and OECD and Freeman R.E. It is also worth mentioning that the top author previously mentioned, Porter M., is not part of a cluster, but it was cited by many of the authors in the network presented as the lines indicate.

## 5. Conclusions

Based on the analysis of the keywords, the papers studying the relationships between corporate sustainability and public policies often discuss the following topics and concepts: corporate social responsibility, sustainable development, performance, management, legitimacy, disclosure or sustainable reporting. Therefore, we consider based on this study that research on corporate sustainability should be linked to CSR, performance, sustainable development, sustainable reporting, while the public policies should be related to management, disclosure, and legitimacy, or sustainable development in terms of economy and society.

From the 289 papers analysed, most of them were published in American Journals and were also highly cited, which reveals an interest in publishing this topic, although the regulations in the US do not impose CSR as much as in Europe. Other papers on sustainability and public policy were frequently published in English, Australian and Canadian journals. From these, the later ones had the highest number of citations, although the number of papers published was about half of those in England and Australia.

Finally, for the citations per author, we mention Sueyoshi Toshiyuki and Michael E. Porter as the most cited authors for papers on corporate sustainability and public policy. However, papers realised by the European Commission or professional firms providing audit, tax, and advisory services are very important in this field, presenting the latest regulations, but also predicting potential challenges and changes in the field.

## 6. Acknowledgement

This work was cofinanced from the European Social Fund through Operational Programme Human Capital 2014-2020, project number POCU/380/6/13/125015 "Development of entrepreneurial skills for doctoral students and postdoctoral researchers in the field of economic sciences".

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