

# Bibliometric analysis of publications on corporate social responsibility and COVID-19

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## Abstract

**Research background:** The global pandemic caused by COVID-19 has affected to vary degrees the way of life of global society and the country's economies. Subsequent social, economic, and political crises inevitably provoke part of the scientific community to focus their research interest, towards COVID-19 impact. The pandemic may have encouraged companies and policy makers to further revise the existing corporate social responsibility, apart from adjusting to the ongoing crisis and what is more to establish resilience for similar future shocks.

**Purpose of the article:** The purpose of the current research is to perform bibliometric analyse on the scientific papers linking COVID-19 regarding the corporate social responsibility and to elaborate the basis for future research. The aim of the article was derived from the fact that so far there are limited if no research done on the topic.

**Methods:** The main method applied in the current study is the bibliometric, which identified 186 relevant articles in the Web of Science and 172 in Scopus databases. The information resources of both databases were used in order to gain the databank required for the research by selecting the following keywords: "Social corporate responsibility" and "COVID-19". The results have been visualised and analysed via VOSviewer.

**Findings & Value added:** The findings include bibliometric analysis on the existing knowledge on corporate social responsibility during the COVID-19 crisis. The research can be used as a model for data analysis of similar type of research.

**Keywords:** *corporate social responsibility; COVID-19; bibliometric analysis; VOSviewer*

**JEL Classification:** *M14; C01; C38*

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## **1 Introduction**

Following three COVID-19 waves and enduring the forth wave, since the first officially reported by the Chinese government to the World Health Organization (WHO) (World Health Organization, 2021) on December 31, 2019, the world has already realized that the virus is a part of our daily life. Initially, there was a common pattern of reaction among official institutions and private enterprises which included the gathering and communication of information, marketing aimed at reassurance, efforts to sell to domestic markets, price cutting, a search for cost savings and greater efficiency, rationalization, capacity reduction and staff redundancies. Furthermore, in response to the rapid spread of the Coronavirus (COVID-19), with 232 636 622 infected and 4 762 089 of deaths and tens of thousands in intensive-care hospitalizations (World Health Organization, 2021), a large number of regions and countries have been put under severe pressure to curb the crisis. Policy makers are confronted in this situation with the problem of balancing public health considerations, with the economic costs of a persistent lockdowns (Gros, Valenti, Valenti, & Gros, 2020).

Towards the end of 2019 and particularly in the beginning of 2020 the world of the economy was severely disrupted by the unnatural disaster COVID-19 hence economic stakeholders has been struggling, trying to cope with the pandemic. The pandemic has clearly brought a historic public health crisis to the world, and its negative impacts directly extend to the global economy (Yu, et al., 2020). No particular business is immune to this pandemic (Lee, 2020), even more all economic stakeholders were suddenly facing the uncertainty in their operational activities (Terták & Kovács). Scientists have observed that the COVID-19 has had negative impact on the private and public sectors, further putting organisations corporate social responsibility (CSR) significance to the test (He & Harris, 2020; Kramer, 2020; Lee, 2020). Some researchers, consider CSR as fixed concept (Yevdokimova, Zamlynskyi, Minakova, Biriuk, & Ilina, 2019), while others have clearly recognized the evolutionary nature of CSR over time (Carroll, 1999; Windsor, 2006; Agudelo, Jóhannsdóttir, & Davídsdóttir, 2019). Particularly, CSR is viewed as a normative perspective and organisations should be socially responsible because it is just the right thing to do (Donaldson & Preston, 1995; Durana et al., 2020). Lately, a few suggestions have been raised that socially responsible organizations can use CSR as an instrument to improve their performance and resilience (Jensen, 2002; Waldron, Navis, Karam, & Markman, 2020). Consequently, COVID-19 will reshape organizations perceptions and practices of CSR and may provoked them to develop a more strategic aspect of CSR.

Provocatively, so far no bibliometric analysis of publications on CSR and COVID-19 has been collaborated in the most important scientific research repositories, namely the Web of Science (WOS) and Scopus. Bibliometric analysis is a statistical method which could transform quantitative data via mathematical ways (Chen, Dubin, & Kim, 2014). Moreover, it could also access the studies quality, analysis the key areas of research and help develop the directions of future studies. The WOS and Scopus online databases include vast amount of important research papers. The repositories also provide built-in analysis tools to produce scientifically sound figures and tables. What is more, the search results from WOS and Scopus could be exported to a software like VOSviewer for further analysis (Yu, et al., 2020).

So far has been evident that, the COVID-19 pandemic could not be fully controlled and more knowledge is going to be obtained from the above mentioned databases. Hence, a bibliometric analysis on topic such as CSR and COVID-19 could be of valuable asset for future publications. Therefore, the authors were provoked to obtain an analysis on how the global knowledge of corporate social responsibility regarding the COVID-19 has been evolved so far.

## 2 Methods and methodology

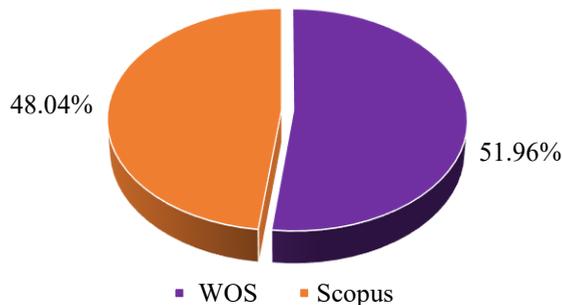
The global knowledge about corporate social responsibility with relation to the COVID-19 published in 2020 up to 20 September 2021 were derived in the WOS and Scopus collection databases. What is more, it was observed that the first publications are from 2020, due to the pandemic outbreak in the last months of 2019, when the greatest emergence of scientific knowledge accumulated. The search words applied to identify the closest matching publication included “corporate social responsibility” and “COVID” and applied as the keyword in the title, abstract and key words.

This study has used secondary data for obtaining bibliometric databank. The databank for the publications that meet the requirements consisted of year of publication, language, journal, title, author, keywords, document type, abstract and counts of citation were exported into RIS format. The date of the retrieval was 20th September 2021. VOSviewer (version 1.6.17) was applied to analyse the Co-authorship and Co-occurrence. In addition, for visual presentation of some of the results are used tabular and graphical method.

## 3 Results and discussion

### 3.1 Bibliometric analysis of publication output

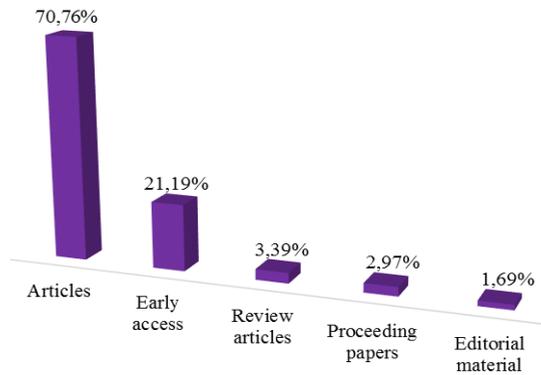
The period of the bibliometric analysis encompasses from 01.01.2020 to 20.09.2021. Through out the mentioned period, in the renowned databases WOS and Scopus we have established respectively 5 259 and 4 772 which sum up to a total of 10 031 scientific publications on the topic related to corporate social responsibility (CSR). The scientific publications on the main topic CSR, related to the COVID-19 pandemic in both databases are 358, as 186 (51.96%) are in WOS and 172 (48.04%) are in Scopus.



**Figure 1.** Publications in WOS and Scopus on CSR related to COVID-19 in percentage.

Source: author’s own collaboration based on WOS and Scopus data (2021)

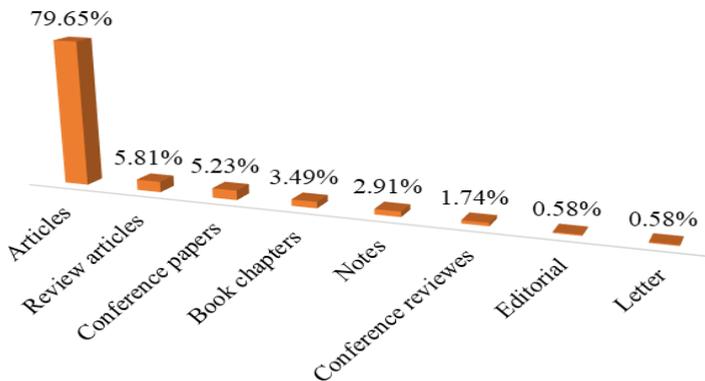
The data fed of the bibliometric research performed on “Web of Science Core Collection” includes 167 articles, 8 review articles, 7 proceeding papers and 54 other forms of publications including early access and editorial materials.



**Figure 2.** Type of publications in WOS on CSR related to COVID-19 in percentage.

Source: author's own collaboration based on WOS data (2021)

Regarding, "Scopus" database the distribution is as follows: 137 articles, 10 review articles, 9 conference papers and 16 other forms of publications including book chapters, notes, conference reviews, editorial and letter.



**Figure 3.** Type of publications in Scopus on CSR related to COVID-19 in percentage.

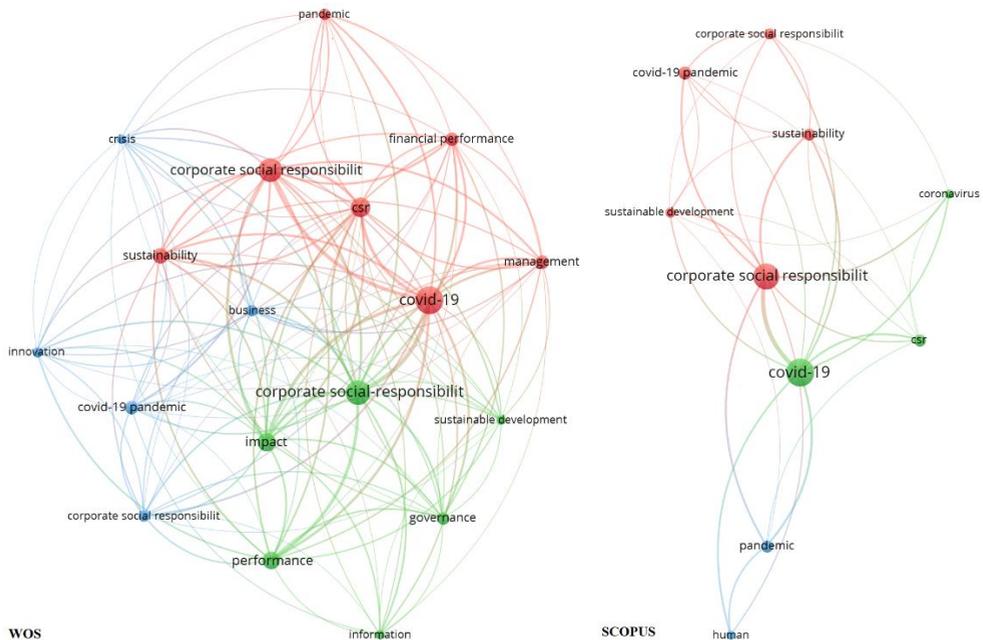
Source: author's own collaboration based on Scopus data (2021)

Moreover, of a specific interest is the distribution of the scientific publications by years. Consequently, the results of the bibliometric analysis demonstrate that for 2020 in "Web of Science Core Collection" there are 53 publications on the topic of CSR related to COVID-19 as to 20 September 2021 their number is 133. In reference to "Scopus" database in 2020 the publications on the previous mentioned topic are 46, as in 2021 their number increase with 126 new publications.

Furthermore, approximately all the publications in the WOS core database were written in English (181), followed by Spanish publications (4) and 1 in French. In comparison, the publications in Scopus are as follows: 169 in English and 3 in Spanish.

### 3.2 Bibliometric analysis of the keywords

As evident from the VOSviewer maps, the keywords provided by authors of publications which occurred for more than 10 times in the WOS core and Scopus database were loaded in the final analysis. Of the 1 922 keywords, 28 met the threshold altogether. The most keywords that appeared in WOS core collection were “corporate social responsibility” (total link strength 138) and “COVID-19” (total link strength 87), “CSR” (total link strength 43) which had a strong link to “impact”, “performance” and “sustainability” (Figure 4). The most keywords that appeared in Scopus were “COVID-19” (total link strength 131), “corporate social responsibility” (total link strength 131) and “CSR” (total link strength 26) which had a strong link to “pandemic”, “sustainability” and “sustainable development” (Figure 4).



**Figure 4.** Keyword relationship.

Source: author’s own collaboration based on WOS and Scopus data (2021)

The relatedness of items is determined based on the number of documents in which they occur together.

### 3.3. Bibliometric analysis of the co-authorship

As a result of the conducted analysis, it was ascertain that during period (01.01.2020-20.09.2021) in the WOS database, the author with the most publications is Radka Macgregor Pelikanova (Pelikanova, Cvik & MacGregor, 2021; Pelikánová, Němečková & MacGregor, 2021) from Metropolitan University Prague, Czech Republic Her publications are 4, as the most cited publication in which she is a co-author is “Addressing the COVID-19 challenges by SMEs in the hotel industry - a Czech sustainability message for emerging economies” (2 citations). It is noteworthy that in Scopus, the author with the most publications in co-authorship is again Radka Macgregor Pelikanova with 4 publications, as her most cited publication, in which she is a co-author is “CSR statements in international and Czech luxury fashion industry at the onset and during the COVID-19 pandemic-slowing down the fast fashion business?” (1 citation). What is more, the same article has been indexed in both

databases. The relatedness of items is determined based on their number of co-authored publications.

### 3.4. Bibliometric analysis of the publications' citations

The top 5 most cited publications on the topic CSR related to COVID-19 are listed in Table 1.

**Table 1.** Setting Word's margins.

Database	Title	Year of Publication	Number of Citations	Year of Citations	
				2020	by 20 September 2021
WOS	The impact of Covid-19 pandemic on corporate social responsibility and marketing philosophy.	2020	148	34	114
	The COVID-19 pandemic and organisational commitment of senior hotel managers.	2020	41	3	38
	Effects of tourism CSR on employee psychological capital in the COVID-19 crisis: from the perspective of conservation of resources theory.	2020	32	1	31
	Covid-19, societalization, and the future of business in society.	2020	26	5	21
	Groundwater contamination with the threat of COVID-19: Insights into CSR theory of Carroll's pyramid	2021	12	0	12
Scopus	Understanding employee responses to COVID-19: a behavioral corporate social responsibility perspective.	2020	24	4	20
	The COVID-19 pandemic and organisational commitment of senior hotel managers.	2020	46	2	44
	Corona Crisis and Inequality: Why Management Research Needs a Societal Turn.	2020	40	8	32

	The impact of Covid-19 pandemic on corporate social responsibility and marketing philosophy.	2020	178	37	141
	Effects of tourism CSR on employee psychological capital in the COVID-19 crisis: from the perspective of conservation of resources theory.	2020	42	3	38
Total	-	-	589	97	491

Source: author's own collaboration based on WOS and Scopus data (2021)

The average citations per item of the top 5 most cited articles is 51.8 for WOS and respectively for Scopus – 66. In addition, the total of citation made by the observed top 5 publications is 589 as in WOS are 259 and in Scopus have been generated by 71 more. Even that the analysis of the top 5 publications cited have been made by 20 September 2021, by the numbers is evident that they exceed 4 times the citations generated in 2020. The h-index of the 5 most cited publications in both databases is 5.

Regarding the most cited authors in both databases, the results of the analysis show that H. He from Alliance Manchester Business School, The University of Manchester and L. Harris from Birmingham Business School, University of Birmingham have 178 citations in WOS and 148 in Scopus from their joint article “The impact of Covid-19 pandemic on corporate social responsibility and marketing philosophy”. The last mentioned article is the most cited in both databases.

### 3.5. Bibliometric analysis of subject areas

On the subject the bibliometric analysis concerning the subject areas, it was established that in WOS the 5 areas in which the most publications refer to Business economics (105), Environmental sciences ecology (39), Science technology other topics (39), Social sciences other topics (24) and Communication (8). In Scopus the distribution of the subject areas is as follows: Business, Management and Accounting (88), Social Sciences (72), Economics, Econometrics and Finance (36), Environmental Science (33) and Energy (30).

The most preferred researched topics in both databases are related to Business economics and Business, Management and Accounting. The least studied in the WOS database are history, law, social work, sociology, urban studies and many others, in which there is only one publication, as in the Scopus are agricultural and biological sciences, health professions, nursing, pharmacology, toxicology and pharmaceuticals.

### 3.6. Bibliometric analysis of journals titles

As to the bibliometric analysis of journals titles, three journals which are all indexed in both databases have the most publications, related to the topic of CSR and COVID-19, namely Sustainability, Corporate Governance: The International Journal of Business in Society and International Journal of Hospitality Management. It is noteworthy that three times more publications have been published in the first journal.

## 4 Conclusion

The aim of this article was to systematize and analyse the existing literature on CSR as a main topic related to the current COVID-19 pandemic. To this end, a bibliometric analysis of 530 publications was performed. Our findings indicate that comparing to 2020 in 2021 the academia has a growing interest in CRS related to COVID-19 – evidenced by the increased number of publications. Although, compared to the total number of publications with main topic CSR, those associated with COVID-19 are far lesser number. Therefore, we could sum up that academia interest in CSR has not been greatly influenced by the COVID-19. This may lead us to assumption that the area covered by the topic could be built on. Nevertheless, the analysis on publications citations stroked us the most with that apart from the fact that one publication was the most cited in both databases, the same publication generated 326 citations altogether just for the short period of one year.

We should bear in mind that for the reviewed period the theme COVID-19 has been included in almost every scientific conference but due to the WOS and Scopus indexing policy we may expect the number of the publications interconnected to CSR and COVID-19 can be increased. Therefore, the current research can be applied as a model for data analysis of similar type of research.

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