

A Bibliometric Insight Into Corporate Social Responsibility Reporting

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ABSTRACT

Purpose- Over the past decade, there has been a rise in the public's interest in learning about corporations' efforts to improve their social and environmental footprints. The purpose of this study is to use Bibliometric analysis to provide a summary of relevant studies and emerging trends in the field of Corporate Social Responsibility Disclosure/Reporting. Top nations, authors, and document categories; most-used keywords; most-cited documents; co-authorship analysis; frequently-used keywords; and trends in the most-cited documents were the primary areas of attention.

Design/methodology/approach- The relevant information were extracted from the database of Scopus using the key terms i.e. CSR Reporting, Corporate Social Responsibility Disclosure, and Corporate Social Responsibility for the period 2000 to 2022. A total of 686 documents were retrieved. Utilizing Biblioshiny R software, we created a graphical representation and mapping of the published literature for our study.

Findings- Findings of research revealed that the majority of the publications are articles and the number of publications is on the rise. The U.S.A. (United States of America), the United Kingdom (U.K.), and Spain all contributed significantly to the research. With 1580 citations, Dhaliwal, Tsang, and Yang have the most cited publication.

Originality/value- This study helps to know the trend and provides the direction for future research, as it provides the analytical literature review of previous studies.

Keywords- Corporate Social Responsibility, Corporate Social Responsibility Disclosure, CSRD, Biblioshiny, Bibliometric.

Paper type Review article

1. INTRODUCTION

The idea of Corporate Social Responsibility (CSR) was emerged in the 1950's. The field of Corporate Social Responsibility has expanded as people become more worried about environmental degradation, global warming, climate shifts resource depletion, etc. (Kueh, Hou, Liu & Yu, 2020). CSR is a crucial strategy that helps the company achieve its goal of enhancing economic, environmental, and social responsibility (Du et al., 2011). Over time, the charitable aspect of CSR has become required and mandatory (Carroll, 2008). Various authors have defined CSR in different ways, such as Zhang et al. (2019) who defined CSR in three dimensions (economic, social, and environmental) and Carroll (1979) who defined CSR as. "The social responsibility of business comprises the economic, legal, ethical, and discretionary expectations that society has at a given time of organisations" (p.500). When it comes to CSR, the main focus is on ensuring that the company's self-interest is in harmony with the pressures of its environment. CSR encompasses a wide range of activities that keep businesses sympathetic to their social welfare responsibilities. According to Carroll (1991), there are four key duties associated with a company's CSR initiative: Economics, Law, Ethics, and Activism.

1.1 Development of CSR concept overtime

Figure 1. The evolution of CSR related ideas

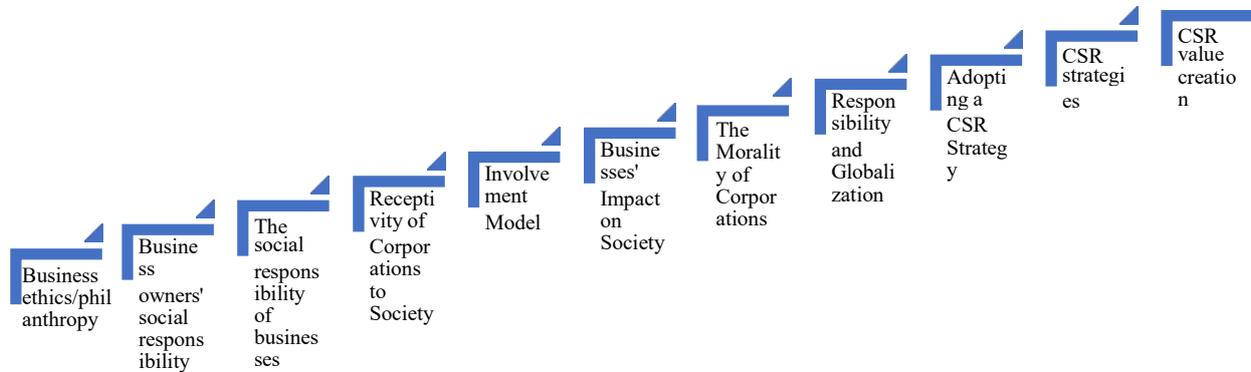


Figure. 2. CSR Scope



Source: Mohan,2003, p.74

There have been many studies in the past, some of which used bibliometric analysis. For example, Bosi et al. (2012) looked at the literature on social, environmental and governance (ESG) and sustainability reporting for previous 23 years. As an addition, Morales-Parragué et al. (2022) used bibliometric analysis to shed light on the CSR idea. Through bibliometric study, Ferramosca et al. defined the development of CSR.

2. AIM OF THE STUDY

This study is an extension to the growing body of literature on the topic of CSR disclosure. It provides a comprehensive analysis of the literature, focusing on research into CSR and CSRD. We used a bibliometric approach to gain insight into the broad context of CSR and its underlying structures and trends, such as the most popular terms, the most influential authors, the most influential journals, the most common forms of citation, the most common forms of co-citation, the countries most likely to work together, and the thematic development and growth over time.

The article begins with a brief overview of the topic at hand and the stated purpose of the research. The second part of this paper presented a literature review, the study's objectives and research methodology, followed by a discussion and analysis of Bibliometric results, and the Last but not least, we have the summary and the suggestions for further study.

3. LITERATURE REVIEW

A number of studies have been done in the preceding years, as participants from around the globe remain to exert pressure on businesses to promote liability, especially with respect to social and environmental concerns (Pasko, Chen, Oriekhova, Brychko, & Shalyhina, 2021). There are various methodologies or criteria for evaluating sustainability expose. Social responsibility (human rights, labour practises, decent work, society,

product stewardship), economic and environmental sustainability as the important dimensions for CSR disclosure (Lambrechts et al.,2019). Tseng et al. (2020) conducted a comprehensive review of the studies conducted between January 1997 and September 2018, yielding valuable insights. Environment, as defined by IFAC (2012) and a research by Armstrong (2020), means being conscious of the detrimental effects of human population increase and climate change on the natural world.

Osobajo et al., (2022) performed a bibliometric literature evaluation of peer-reviewed research on social responsibility reporting published during the time span (1887-2022).

Khan (2022) examined the effects of corporate social responsibility reports on stock performance with a combination of bibliometric and meta-analytic techniques (1997-2020)

Nobanee et al. (2021) utilised a bibliometric analysis technique to examine the existing literature on the topic of sustainable practises and risk management.

Meseguer- Sanchez et al. (2021) evaluated the relationship between CSR and sustainability concepts and provided production and probable future study directions based on a bibliometric analysis (2002-2020)

Gao et al. (2021) used publishing metrics to look at the ESG literature that was already out there and come up with a research agenda for future studies.

Ye et al. (2020) utilised bibliometric technique with CiteSpace, retrieved from the WoS/SSCI database, to illustrate and analyse the sustainable development knowledge map of the CSR.

Table 1: Summary of extant reviews in the Corporate Social Responsibility disclosure domain (2000-2022)

AU	TI	SO	TC	DT	TCpY
"ALI W;FRYNAS JG;MAHMOOD Z,(2017)"	"DETERMINANTS OF CORPORATE SOCIAL RESPONSIBILITY (CSR) DISCLOSURE IN DEVELOPED AND DEVELOPING COUNTRIES: A LITERATURE REVIEW"	"CORPORATE SOCIAL RESPONSIBILITY AND ENVIRONMENTAL MANAGEMENT"	390	REVIEW	65.00
"CAMPBELL D; CRAVEN B;SHRIVES P,(2003)"	"VOLUNTARY SOCIAL REPORTING IN THREE FTSE SECTORS: A COMMENT ON PERCEPTION AND LEGITIMACY"	"ACCOUNTING, AUDITING & ACCOUNTABILITY JOURNAL"	218	REVIEW	10.90
"RAHMAN BELAL A,(2001)"	"A STUDY OF CORPORATE SOCIAL DISCLOSURES IN BANGLADESH"	"MANAGERIAL AUDITING JOURNAL"	218	REVIEW	9.91
"DIENES D;SASSEN R;FISCHER J, (2016)"	"WHAT ARE THE DRIVERS OF SUSTAINABILITY REPORTING? A SYSTEMATIC REVIEW"	"SUSTAINABILITY ACCOUNTING, MANAGEMENT AND POLICY JOURNAL"	170	REVIEW	24.29
"IDOWU SO;TOWLER BA,(2004)"	"A COMPARATIVE STUDY OF THE CONTENTS OF CORPORATE SOCIAL RESPONSIBILITY REPORTS OF UK COMPANIES"	"MANAGEMENT OF ENVIRONMENTAL QUALITY: AN INTERNATIONAL JOURNAL"	133	REVIEW	7.00
"NOBANEE H;ELLILI N,(2016)"	"CORPORATE SUSTAINABILITY DISCLOSURE IN ANNUAL REPORTS: EVIDENCE FROM UAE BANKS: ISLAMIC VERSUS CONVENTIONAL"	"RENEWABLE AND SUSTAINABLE ENERGY REVIEWS"	101	REVIEW	14.43
"PUCHETA-MARTÍNEZ MC;BEL-OMS I;OLCINA-SEMPERE G,(2018)"	"THE ASSOCIATION BETWEEN BOARD GENDER DIVERSITY AND FINANCIAL REPORTING QUALITY, CORPORATE PERFORMANCE AND CORPORATE SOCIAL RESPONSIBILITY DISCLOSURE"	"ACADEMIA REVISTA LATINOAMERICANA DE ADMINISTRACION"	34	REVIEW	6.80
"CUBILLA-MONTILLA MI;GALINDO-VILLARDÓN P;NIETO-LIBRERO AB;VICENTE GALINDO MP;GARCÍA-SÁNCHEZ IM,(2020)"	"WHAT COMPANIES DO NOT DISCLOSE ABOUT THEIR ENVIRONMENTAL POLICY AND WHAT INSTITUTIONAL PRESSURES MAY DO TO RESPECT"	"CORPORATE SOCIAL RESPONSIBILITY AND ENVIRONMENTAL MANAGEMENT"	21	REVIEW	7.00

"KHAN M;HASSAN A;HARRISON C;TARBERT H,(2020)"	"CSR REPORTING: A REVIEW OF RESEARCH AND AGENDA FOR FUTURE RESEARCH"	"MANAGEMENT RESEARCH REVIEW"	18	REVIEW	6.00
"CAHAYA FR;PORTER SA;TOWER G;BROWN A,(2012)"	"INDONESIA'S LOW CONCERN FOR LABOR ISSUES"	"SOCIAL RESPONSIBILITY JOURNAL"	18	REVIEW	1.64
"GUAN J;NORONHA C,(2013)"	"CORPORATE SOCIAL RESPONSIBILITY REPORTING RESEARCH IN THE CHINESE ACADEMIA: A CRITICAL REVIEW"	"SOCIAL RESPONSIBILITY JOURNAL"	17	REVIEW	1.70
"WATSON M;MACKAY J,(2003)"	"AUDITING FOR THE ENVIRONMENT"	"MANAGERIAL AUDITING JOURNAL"	15	REVIEW	0.75
"BONDI M,(2016)"	"THE FUTURE IN REPORTS: PREDICTION, COMMITMENT AND LEGITIMIZATION IN CSR"	"PRAGMATICS AND SOCIETY"	11	REVIEW	1.57
"TUAN A;DALLI D;GANDOLFO A;GRAVINA A,(2019)"	"THEORIES AND METHODS IN CSRC RESEARCH: A SYSTEMATIC LITERATURE REVIEW"	"CORPORATE COMMUNICATIONS"	9	REVIEW	2.25
"CONTRERAS-PACHECO OE;CLAASEN C,(2017)"	"FUZZY REPORTING AS A WAY FOR A COMPANY TO GREEN WASH: PERSPECTIVES FROM THE COLOMBIAN REALITY"	"PROBLEMS AND PERSPECTIVES IN MANAGEMENT"	5	REVIEW	0.83
"GUNAWAN J;TIN S,(2019)"	"THE DEVELOPMENT OF CORPORATE SOCIAL RESPONSIBILITY IN ACCOUNTING RESEARCH: EVIDENCE FROM INDONESIA"	"SOCIAL RESPONSIBILITY JOURNAL"	3	REVIEW	0.75
"PRATAMA K;LUBIS H;PRATAMA I;SAMSUDDIN SF;PRATAMI A,(2019)"	"LITERATURE REVIEW OF CORPORATE SOCIAL RESPONSIBILITY DISCLOSURE"	"JOURNAL OF ADVANCED RESEARCH IN DYNAMICAL AND CONTROL SYSTEMS"	3	REVIEW	0.75
"BYCHKOVA SM;KARELSKAIA SN;ABDALOVA EB;ZHIDKOVA EA,(2021)"	"SOCIAL RESPONSIBILITY AS THE DOMINANT DRIVER OF THE EVOLUTION OF REPORTING FROM FINANCIAL TO NON-FINANCIAL: THEORY AND METHODOLOGY"	"FOODS AND RAW MATERIALS"	2	REVIEW	1.00
"ALMEIDA R;PÉREZ-LÓPEZ JÁ;ABREU R,(2022)"	"DIGITAL CORPORATE SOCIAL RESPONSIBILITY REPORTING IN THE WATER INDUSTRY"	"WATER RESOURCES MANAGEMENT"	1	REVIEW	1.00
"SIDERI L,(2021)"	"LEVERAGING CSR FOR SUSTAINABILITY: ASSESSING PERFORMANCE IMPLICATIONS OF SUSTAINABILITY REPORTING IN A NATIONAL BUSINESS SYSTEM"	"SUSTAINABILITY (SWITZERLAND)"	1	REVIEW	0.50

4. OBJECTIVES/ RESEARCH QUESTIONS

The main goal of current research is to offer the present state of knowledge on Corporate Social Responsibility Disclosure, with the underlined research issues defining the scope of the research:

RQ1: What are the current trends in Corporate Social Responsibility Disclosure publications with respect to time, sources, disciplines, authors, affiliated nations, and institutions?

RQ2: What are the most influential papers and research topics in this field?

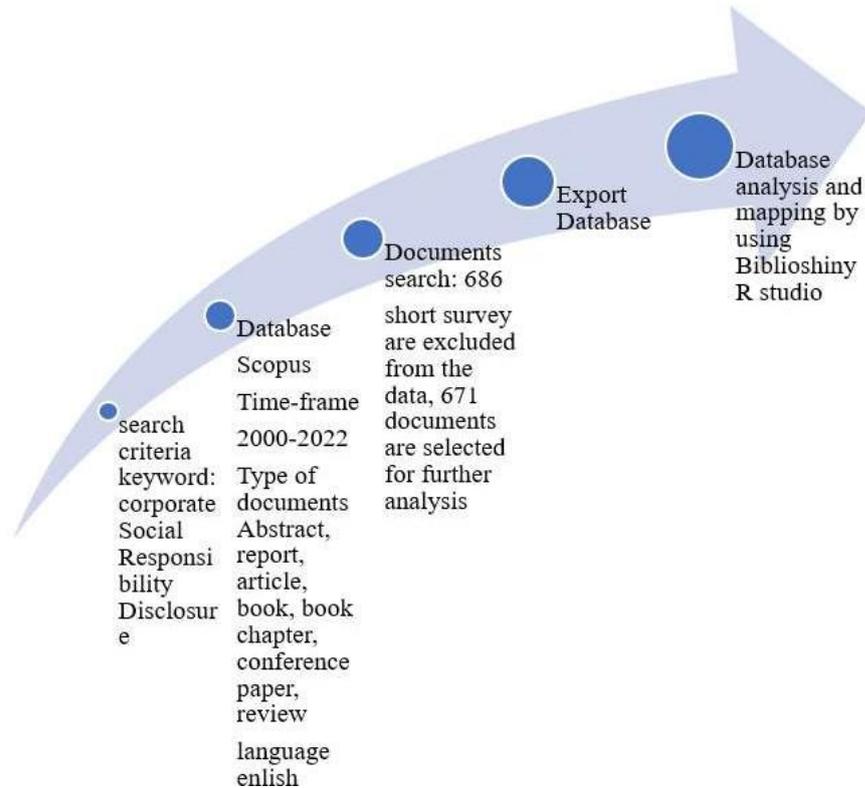
RQ3: What are the undiscovered areas and opportunities for further research?

5. METHODOLOGY

Bibliometrics is a field of information sciences and libraries that examines the basic features of historical research (Bradus,1987)., Often scientometrics known as the library and information sciences. Bibliometric analysis is a type of research that uses qualitative data to determine the literary pattern of a certain topic (Sarkar

and Searcy,2016). Scopus Database contains a large number of documents and citations for them (Boyack et al.,2018).

Figure 3: Scope, sample and period of study



6. RESULTS AND INTERPRETATION

6.1 This section provides the findings of prior studies about the disclosure of corporate social responsibility from 2000 to 2022. The results of the bibliometric study are generated from the Scopus database and a selection of 671 papers out of 686 available researches, as well as a large number of bibliographic databases, references and citations of CSRD publications. Types of Document , content of documents, and collaboration amongst authors are depicted in Figure 4.

Figure 4: Key Details of extracted documents by Scopus Database.

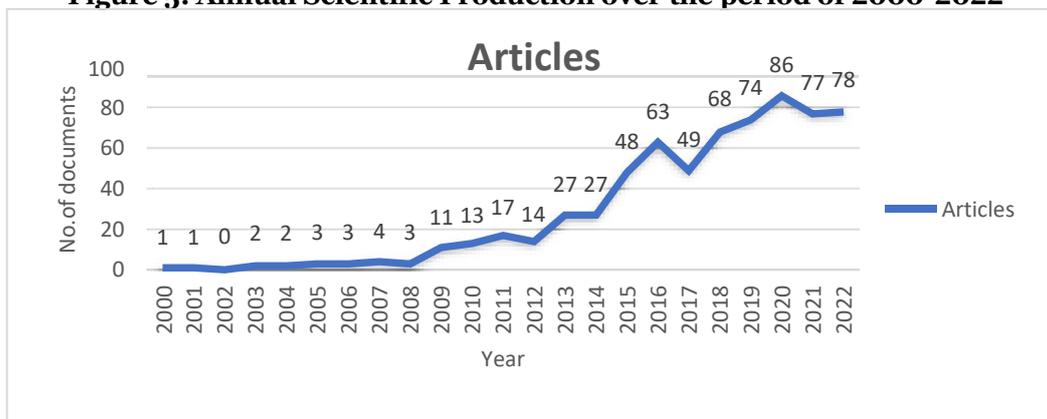
DOCUMENT TYPES	
<i>abstract report</i>	1
<i>article</i>	567
<i>book</i>	5
<i>book chapter</i>	43
<i>conference paper</i>	35
<i>review</i>	20



6.2 Trend of publications

Figure 5 is a summary chart showing the annual number of publications in the field of CSR, which may be used to gain insight into the field's growth pattern through time. The data reveal that the first article in current field was published in 2000, and that the no. of documents has steadily increased up until 2016, after which it has declined in a series of steps before rising again. This upward tendency suggests that these issues are receiving increased scholarly focus in the present and future.

Figure 5: Annual Scientific Production over the period of 2000-2022



(Source: Biblioshiny using Scopus database)

6.3 Highly cited articles

The most frequently cited articles' abstracts are displayed. Based on the data in the table, we can see that the work by Dhaliwal et al. titled "Voluntary Nonfinancial Disclosure and the Cost of Equity Capital: The Initiation Of Corporate Social Responsibility Reporting" has earned the most citations (1,580), followed by that of Jenkin et al. (577). CSR has emerged as a popular term in recent years. As seen in Table 2, the most-cited articles in this field are those that have previously done well in this area

Table 2: The summary of the most cited article (top 10 articles in total citations)

AU	TI	PY	SO	TC	DT	TCpY
“DHALI WAL DS;LI OZ;TSANG A;YANG YG”	“VOLUNTARY NONFINANCIAL DISCLOSURE AND THE COST OF EQUITY CAPITAL: THE INITIATION OF CORPORATE SOCIAL RESPONSIBILITY REPORTING”	2011	“ACCOUNTING REVIEW”	1580	ARTICLE	131.67
“JENKINS H;YAKOVLEVA N”	“CORPORATE SOCIAL RESPONSIBILITY IN THE MINING INDUSTRY: EXPLORING TRENDS IN SOCIAL AND ENVIRONMENTAL DISCLOSURE”	2006	“JOURNAL OF CLEANER PRODUCTION”	577	ARTICLE	33.94
“GAMERSCHLAG R;MÖLLER K;VERBEETEN F”	“DETERMINANTS OF VOLUNTARY CSR DISCLOSURE: EMPIRICAL EVIDENCE FROM GERMANY”	2011	“REVIEW OF MANAGERIAL SCIENCE”	447	ARTICLE	37.25

"ALI W;FRYNAS JG;MAHMOOD Z"	"DETERMINANTS OF CORPORATE SOCIAL RESPONSIBILITY (CSR) DISCLOSURE IN DEVELOPED AND DEVELOPING COUNTRIES: A LITERATURE REVIEW"	2017	"CORPORATE SOCIAL RESPONSIBILITY AND ENVIRONMENTAL MANAGEMENT"	390	REVIEW	65.00
"CHEN Y-C;HUNG M;WANG Y"	"THE EFFECT OF MANDATORY CSR DISCLOSURE ON FIRM PROFITABILITY AND SOCIAL EXTERNALITIES: EVIDENCE FROM CHINA"	2018	"JOURNAL OF ACCOUNTING AND ECONOMICS"	382	ARTICLE	76.40
"LYS T;NAUGHTON JP;WANG C"	"SIGNALING THROUGH CORPORATE ACCOUNTABILITY REPORTING"	2015	"JOURNAL OF ACCOUNTING AND ECONOMICS"	353	ARTICLE	44.12
"SAID R;ZAINUDDIN Y;HARON H"	"THE RELATIONSHIP BETWEEN CORPORATE SOCIAL RESPONSIBILITY DISCLOSURE AND CORPORATE GOVERNANCE CHARACTERISTICS IN MALAYSIAN PUBLIC LISTED COMPANIES"	2009	"SOCIAL RESPONSIBILITY JOURNAL"	346	ARTICLE	24.71
"HOLDER-WEBB L;COHEN JR;NATH L;WOOD D"	"THE SUPPLY OF CORPORATE SOCIAL RESPONSIBILITY DISCLOSURES AMONG U.S. FIRMS"	2009	"JOURNAL OF BUSINESS ETHICS"	318	ARTICLE	22.71
"PRADO-LORENZO J-M;GALLEGO-ALVAREZ I;GARCIA-SANCHEZ IM"	"STAKEHOLDER ENGAGEMENT AND CORPORATE SOCIAL RESPONSIBILITY REPORTING: THE OWNERSHIP STRUCTURE EFFECT"	2009	"CORPORATE SOCIAL RESPONSIBILITY AND ENVIRONMENTAL MANAGEMENT"	293	ARTICLE	20.93
"KHAN H-U-Z"	"THE EFFECT OF CORPORATE GOVERNANCE ELEMENTS ON CORPORATE SOCIAL RESPONSIBILITY (CSR); REPORTING: EMPIRICAL EVIDENCE FROM PRIVATE COMMERCIAL BANKS OF B"	2010	"INTERNATIONAL JOURNAL OF LAW AND MANAGEMENT"	291	ARTICLE	22.38

(Source: Biblioshiny using Scopus dataset)

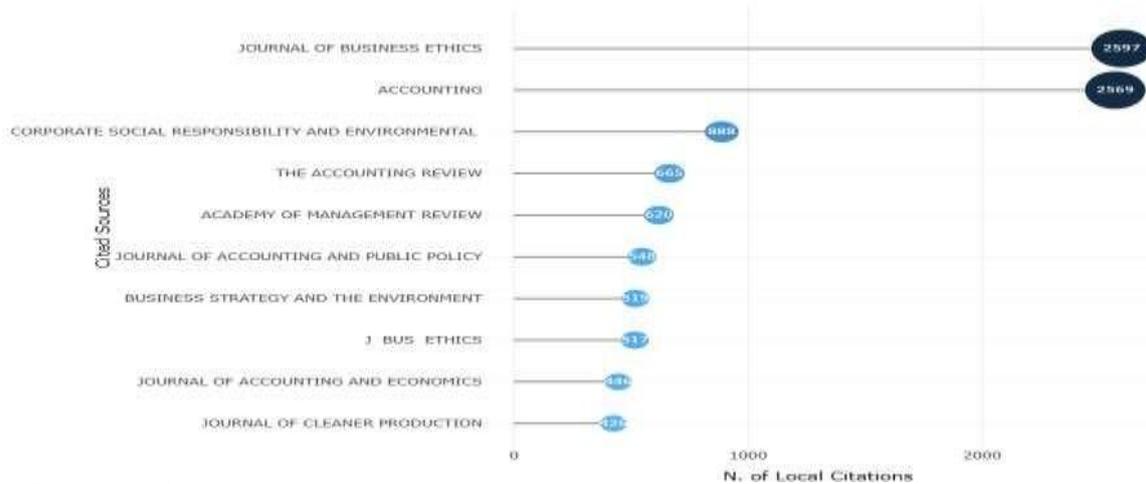
6.4 Most Relevant Sources

The sources most pertinent to the Corporate Social Responsibility Disclosure are displayed in Table 3. Table 3 reveals that Sustainability (Switzerland), with 54 articles, and Social Responsibility journal, with 31 articles, are the main sources in terms of number of articles. Figure 4 displays the most cited sources, with the Journal of Business Ethics and accounting sources at the top of the list with 2597 and 2567 citations, respectively.

Table 3: Most Relevant sources (in terms of articles)

Sources	Articles
SUSTAINABILITY (SWITZERLAND)	54
SOCIAL RESPONSIBILITY JOURNAL	31
CORPORATE SOCIAL RESPONSIBILITY AND ENVIRONMENTAL MANAGEMENT	29
JOURNAL OF CLEANER PRODUCTION	22
SUSTAINABILITY ACCOUNTING, MANAGEMENT AND POLICY JOURNAL	21
JOURNAL OF BUSINESS ETHICS	20
MEDITARI ACCOUNTANCY RESEARCH	11
CORPORATE GOVERNANCE (BINGLEY)	10
CSR, SUSTAINABILITY, ETHICS AND GOVERNANCE	10

Fig 6: Most local cited sources (in terms of citations)



(Source: Biblioshiny)

6.5 Local impact of Authors

Table 4 demonstrates the authorship effect. The top three, we find that the author PUCHETA-MARTINEZ MC has written 12 scientific works relevant to corporate social responsibility disclosure, and each of these 10 works has garnered at least 10 citations, resulting in a h-index 10 and a total 354 citations. Following it are the authors TSANG A and GALLEGO-ALVAREZ I, both of whom have a H index of 6.

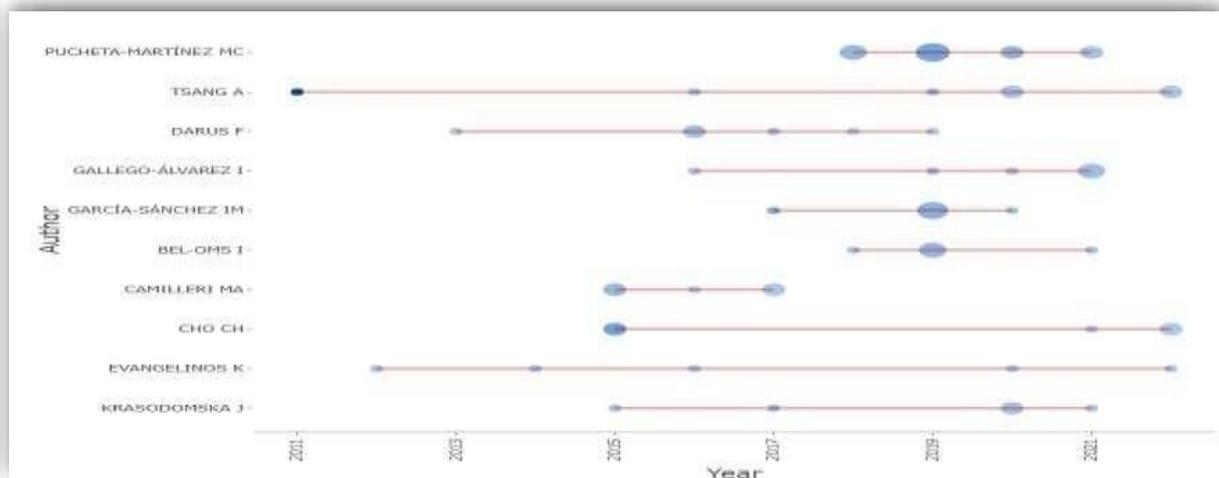
Table 4. top 10 local impact of authors during 2000-2022, TC (Total Citations), NP (Number of Papers) and PY (Publication Year Start)

Element	h_index	g_index	m_index	TC	NP	PY_start
PUCHETA-MARTÍNEZ MC	10	12	1.667	354	12	2018
TSANG A	6	7	0.462	1774	7	2011
GALLEGO-ÁLVAREZ I	6	6	0.75	146	6	2016
GARCÍA-SÁNCHEZ IM	5	6	0.714	323	6	2017
DARUS F	4	6	0.364	150	6	2013
BEL-OMS I	5	5	0.833	120	5	2018
MARTÍNEZ-FERRERO J	5	5	0.556	211	5	2015
EVANGELINOS K	4	5	0.333	105	5	2012
KRASODOMSKA J	4	5	0.444	161	5	2015
CAMILLERI MA	3	5	0.333	144	5	2015

6.6 Authors production overtime

To evaluate an author's contribution to a field, one must take into account both the influence and volume of their work. Figure 7 summarizes the top 10 authors over the last 22 years using both of these measures. Article output for a given time period was used to evaluate the author's output rate. Instead, the number of citations that were obtained annually served as a proxy for impact. TSANG A, PATTEN DM, and PUCHETA-MARTINEZ MC got the highest annual total of citations, whereas PUCHETA-MARTINEZ MC, TSANG A, and GALLEGO-ALVAREZ I are the most prolific authors. See the evolution of the output of the most prolific authors (Figure 7) below. Take note that the gloomier the circle, the more citations it has acknowledged per year, and the wider it is, the more articles the author has authored in that year.

Fig 7: Authors production overtime

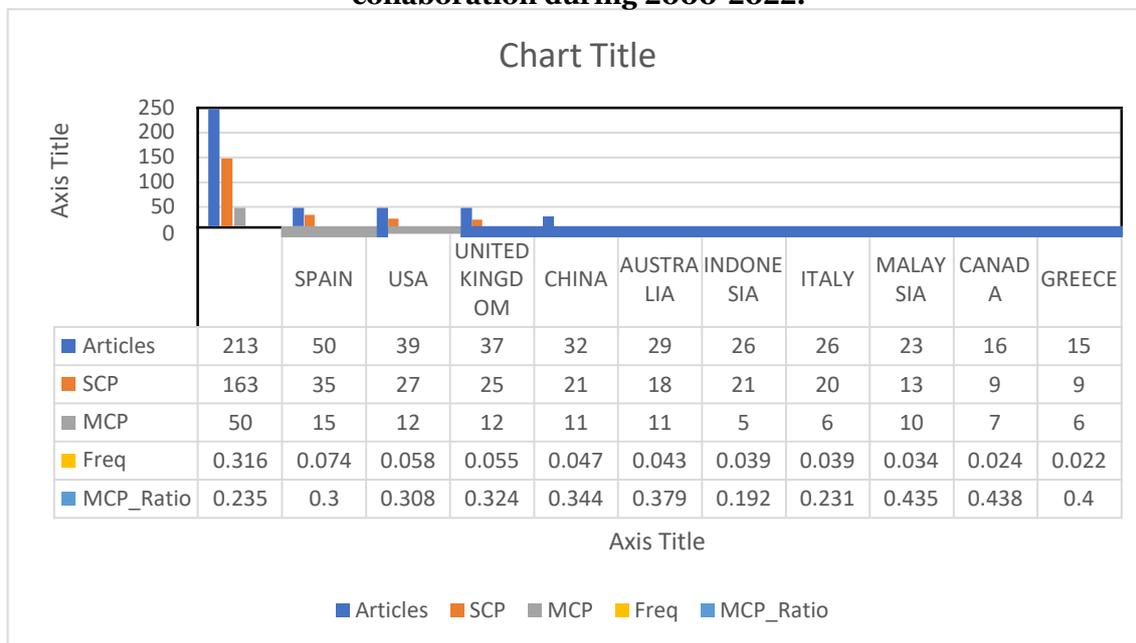


(Source: Biblioshiny, Based on Scopus dataset)

6.7 Corresponding Authors’ Countries

Countries of corresponding authors are indicated in Fig. 8 and the accompanying table. The corresponding author is the one who submits the article and handles all communication with the journal editor; his email address is listed as the primary point of contact on the first page of the publication (mattsson,p. et al.). First place in the top three goes to Spain, with 50 papers published in which the corresponding author was based in Spain. The United States comes in second with 39 papers published, while the United Kingdom comes in third with 37 publications and 27 UK-based corresponding authors. The United States, the United Kingdom, China, and Spain have the highest rates of international cooperation.

Figure 8: Corresponding author’s country. Intra-country (SCP) and inter-country (MCP) collaboration during 2000-2022.



(Source: Biblioshiny using Scopus dataset)

6.8 Countries scientific production

Table 5 and Figure 9 demonstrate the global breakdown of scientific publication rates according to country of affiliation. The top five countries are as follows: Spain (166 freq), the United States (156 freq), the U.K. (127 freq), Australia (199 freq), and Italy (133 freq) (116 freq).Figure 9: Countries scientific production

Country Scientific Production

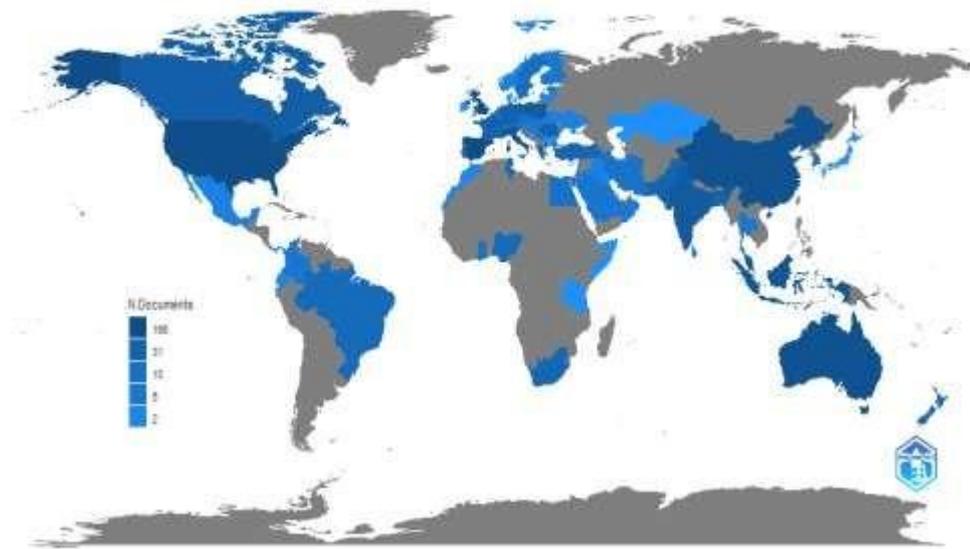


Table.5 Countries Scientific Production

Region Freq	SPAIN 166	USA 156	UK 127	AUSTRALIA 119	ITALY 116	CHINA 115	MALAYSIA 108	INDONESIA 81	POLAND 56	GREECE 53
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6.9 Most Frequent Words

Figure 10 depicts the terminology associated with corporate social responsibility disclosure. We discovered that some of the most frequently used terms are Corporate Social Responsibility (freq. 83), corporate social responsibilities (freq. 62), sustainable development (freq. 46), economic and social effects (freq. 41), and sustainability (freq. 38). Decision, benchmarking, and database are keywords that have been used to a lesser extent (freq. 5).

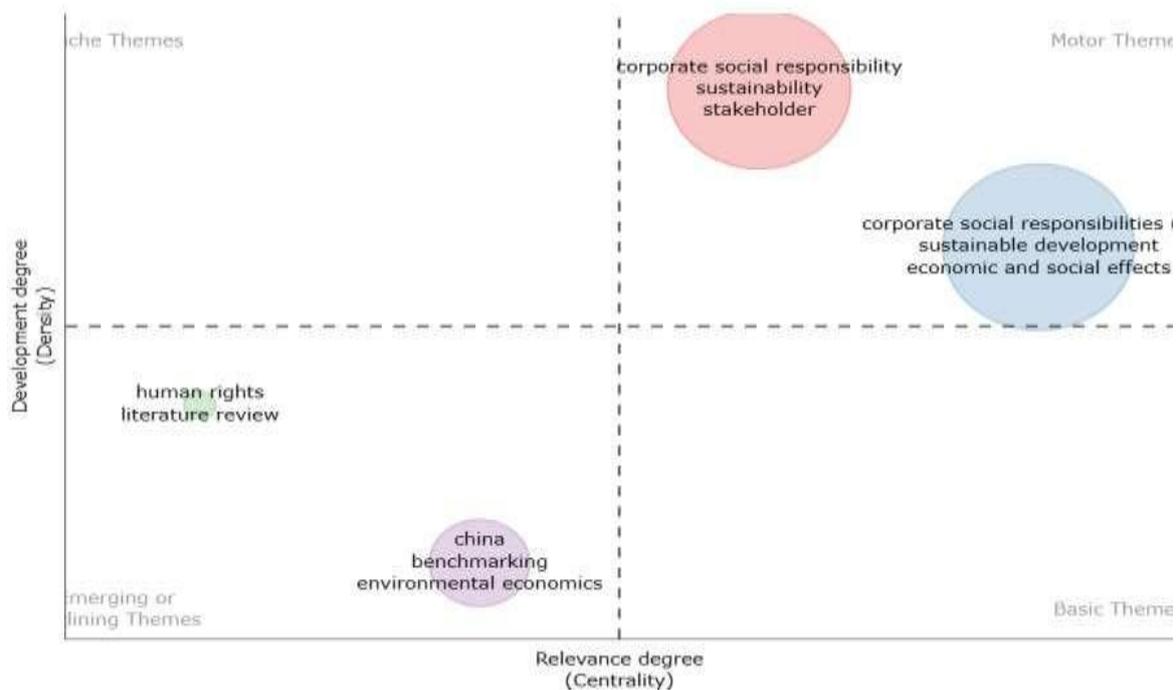
Figure 10: Keyword plus treemap



6.11 Thematic Map

Figure 13 depicts the framework of the Thematic diagram used in the analysis. The density is represented by the x axis, which reflects the proportion of relationships exist in it in relation to the maximum number of relationships that can exist. The density of every group's network ranges from 0 to 1, with 0 means no relationship exists between group members and 1 indicates that all group members are interrelated, being the maximum level of relationship that can exist between group members. Wasserman, S., and K. Faust (1994) Certainty is represented by ordinate axis, which is the characteristic that identifies the network nodes with the greatest no. of links, Wasserman, S., & Faust, K. (1994). More central actors may have an advantage over others in that they have more options to meet their needs, greater access to resources, and are viewed as less reliant.

Figure 13: Strategic diagram. TM parameters: Number of words (1-250), Field (Keyword PlusMin), Frequency of clusters (1-5), No. of Labels (for each cluster 1-3). Size of Label (0-0.2)



(Source: Biblioshiny)

The four quadrants of the strategic diagram are Motor Themes, Niche Themes, Emerging and Disappearing Themes, and Basic Themes.

In the top right quadrant, driving themes allude to well-developed and significant topics. The current study has identified two clusters consisting of three subthemes: the first cluster (Corporate social responsibility, sustainability, stakeholder), and the second cluster (stakeholder, sustainability) (corporate social responsibilities disclosure, sustainable development and economic and social effects).

Niche Themes: It is represented by upper left quadrant. This study has not identified any cluster under this quadrant.

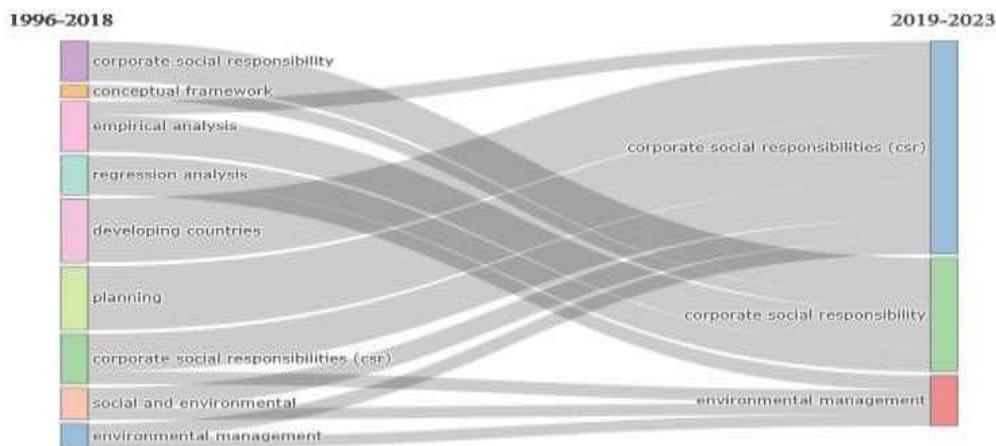
Emerging and fading motifs are depicted in the bottom left quadrant. This study identifies two clusters, namely the first cluster (human rights, literature evaluation) and the second cluster (china, benchmarking and environmental economics).

Basic themes: It is represented in the lower right quadrant. according to analysis no cluster lies in this quadrant.

6.12 Thematic evolution

Figure 14 show the thematic evolution of keywords. From 1996-2018 to 2019-2023 the keywords: corporate social responsibility, empirical analysis, conceptual framework, regression analysis, developing countries, planning, corporate social responsibilities(csr), social and environmental and environment management are followed by only 3 keywords: corporate social responsibilities (csr), corporate social responsibility and environmental management. This shows the further research in these fields.

Figure 14: Thematic evolution.

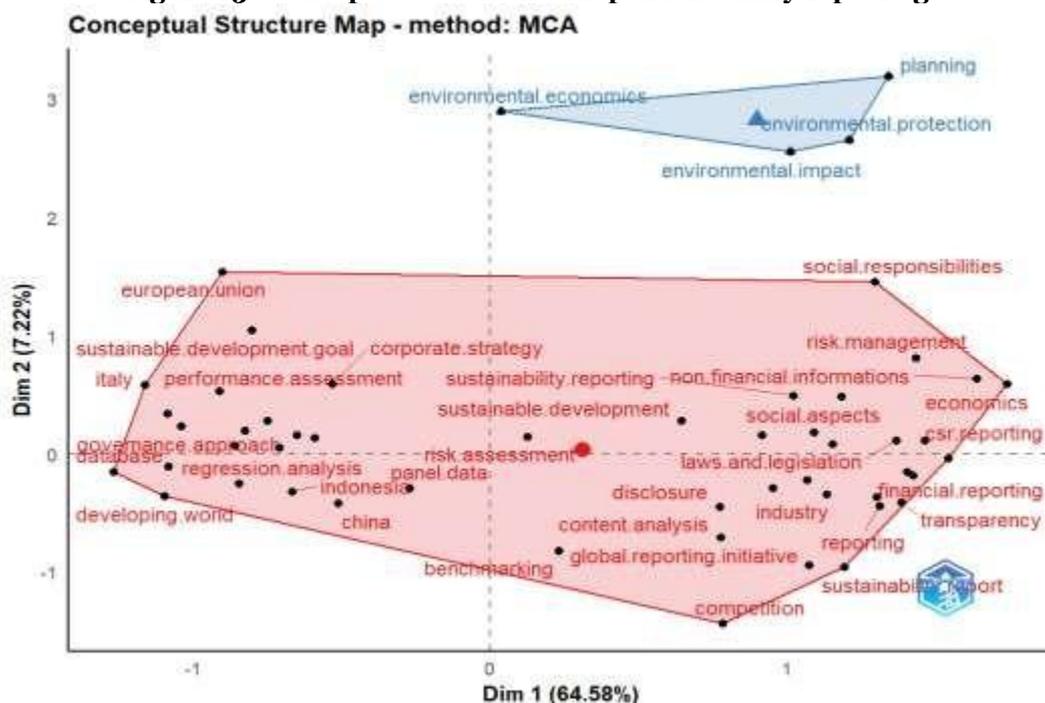


(Source: Biblioshiny R package)

6.13 Factorial analysis

When doing a bibliometric study, it is not enough to simply analyze keywords; one must also look at how often certain keywords appear in journal titles and abstracts. It does so by the use of network analysis, CA, or MCA (multiple correspondence analysis). In this case, MCA is employed to build a thematic map of the topic at hand, which is then used to classify texts into related sets that share common themes (Aria, and cuccurullo.2017). The multiple correspondence analysis conceptual structure map gathers the keywords while considering their similarity within the network. The division of frequently used keywords gathered into two clusters shown in figure 15. The keywords that are commonly used in research publications with common research themes are displayed in cluster 1 to the left and below of the conceptual structure map. Words like European union, sustainable development goal, governace approach, disclosure, social aspects, sustainable reporting, csr reporting, sustainable report and social responsibilities are used as keywords. On the other hand, in cluster 2 of the map's conceptual framework, terms like "environmental economics," "environmental protection," "environmental effect," and "environmental planning" can be found to the right. Both clusters' central keywords have received extensive coverage in recent studies, while those located closer to the clusters' peripheries indicate a more narrow focus for the underlying research (Aria, and Cuccurillo,2017).

Figure 15: Conceptual Structure Map. Biblioshiny R package

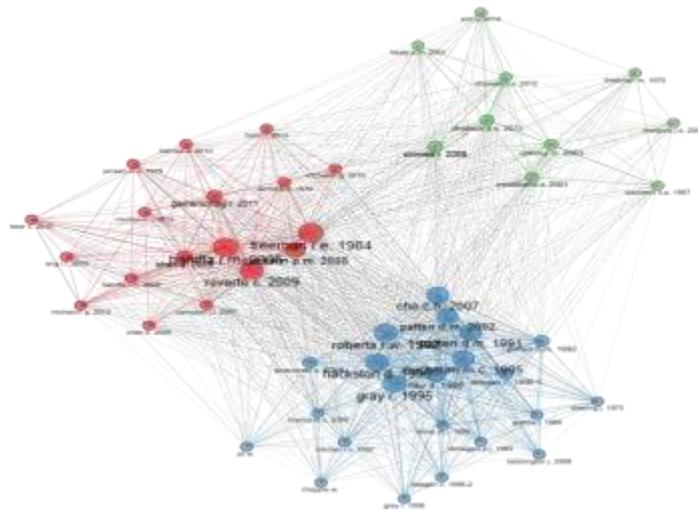


(Source: Biblioshiny)

6.14 Co-citation network

Co-citation represents the frequency with the two papers are cited together by another document (Small, 1973). In the bibliometric study, the most significant research documents in a specific topic determines the intellectual structure's strength. As a result, the greater the frequency with which two study documents are co-cited, the more linked they are in terms of the wide research topic (Culnan,1987). According to Pilkington and Fitzgerald (2006), documents with only a few citations are too fresh to have an impact on the study field; thus, research documents having at least 50 citations were evaluated for co-citation analysis. The size of the bubbles in the co-citation network represents the number of normalized citations received by each research document, and the thickness of the lines represents the frequency with which two linked publications are referenced together. Furthermore, the colour of the bubble denotes the cluster to which it belongs; in particular, bubbles of the same colour belong to the same cluster. The co-citation network depicts the theoretical underpinnings and architecture of the bond funds literature. We establish two clusters and analyse them based on the colour of the bubbles and the relevance of the papers.

Figure 16: Co-citation network

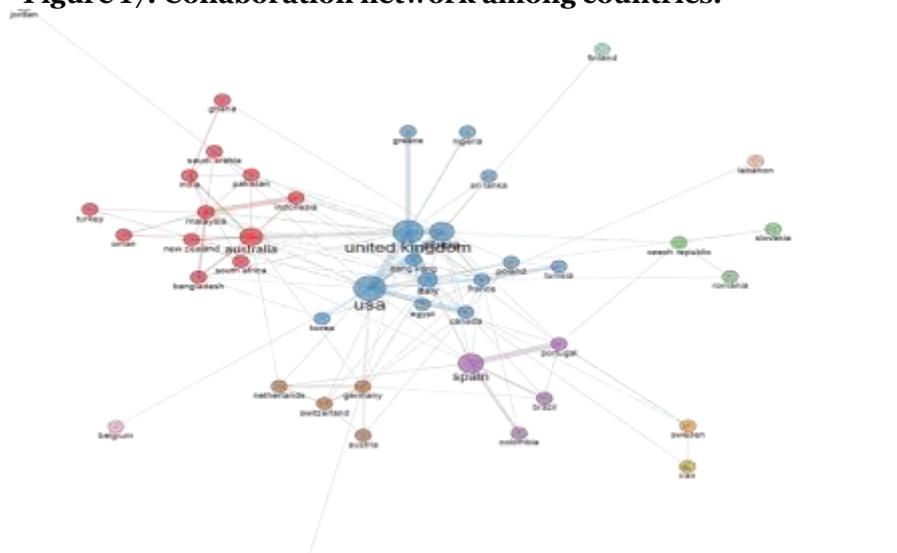


(Source: Biblioshiny R package)

6.15 Collaboration network of countries

Figure 17 depicts international collaboration in studies on corporate social responsibility. The thickness of the lines shows the frequency of collaboration; the thicker the ties from one country to the other, the more frequent the collaboration. The main contributors are the United Kingdom, the United States, China, and Spain. These countries, along with Canada, Hong Kong, and Indonesia, demonstrate increased collaboration.

Figure 17: Collaboration network among countries.



7. Conclusion

The primary goal of this work was to use bibliometric analysis of the existing (671 research papers from the scopus database) scientific literature to examine the development of the idea of corporate social responsibility disclosure from 2000 to 2022.

This analysis focuses primarily on the number of articles published, the authors and co-authors, the number of citations, the co-citation network, the most relevant sources, keyword analysis, countries' scientific production, factorial analysis, countries' collaboration network, and the thematic evolution of the concept of social responsibility of corporations.

Research article by Dhaliwal et al. has received highest no of (1580) citations. Sustainability (Switzerland) and Social Responsibility journal are the top sources in terms of no. of Articles. It also provided an overview of top 10 authors in the last 2 decades, PUCHETA-MARTINEZ MC, TSANG A and GALLEGO-ALVAREZ I are the most productive authors, while TSANG A, PATTEN DM AND PUCHETA- MARTINEZ MC received highest number of citations received each year. Spain with 166 freq. has topped the list in case of distribution of scientific production worldwide. We also found that some of the most frequent key terms are Corporate Social Responsibility (freq. 83), corporate social responsibilities (freq. 62). This research article is unique in the literature as it shows every aspect related to the available literature of CSR.

This analysis has some shortcomings that should be recognised. Firstly, a qualitative analysis disregards quantitative factors. In addition, the application of the other software tools to produce network maps may yield slightly diverse findings. Lastly, the use of alternative keywords, a different time span, research materials other than the articles considered, or the search of other databases could all affect the acquired results.

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