

THE ANALYSIS OF BIBLIOSHINY FOR THE ADVANCEMENT OF RESEARCH ON COLLABORATIVE GOVERNANCE

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ABSTRACT- *The investigation of collaborative governance involving government and non-government entities presents an intriguing area of study due to the existing research gap in the field of disaster management pertaining to the partnership between these two sectors. The objective of this study is to contribute insights that can inform the future direction of research on collaborative governance. The researcher conducted an investigation on the utilization of R Studio (specifically, Biblioshiny) and performed a comprehensive assessment of scientific literature pertaining to collaborative governance. This investigation involved the analysis and visualization of data from 135 examples across multiple sectors. Following a comprehensive review, the researcher has successfully identified significant variables that possess the potential to exert influence on collaborative governance. This identification was achieved through the utilization of data analysis and visualization techniques applied to a corpus of 135 documents authored by 377 scientists, which were sourced from 89 reputable journals published within the timeframe spanning from 2009 to 2023. It is worth noting that research pertaining to this subject matter has experienced a surge in interest since 2002, and this trend has persisted with an annual growth rate of 12.18%. The biblioshiny mapping results provide an overview of five prominent research themes in the field of collaborative governance management. These themes are identified based on the minimum five-word frequency and word count per year. The subjects encompassed in this discourse consist of governance approach models, climate change, decision-making processes, collaborative governance, and stakeholders. In recent years, esteemed academic publications such as the Journal of Public Administration Research and Theory, together with Public Administration Review, have played a pivotal role in promoting and fostering research on Collaborative Governance. The outcomes of this research can aid academics in providing a comprehensive analysis of the existing body of literature on Collaborative Management.*

Keyword : collaborative governance, bibliometric analysis, Biblioshiny

INTRODUCTION

There has been a growing advocacy among scholars in the field of public administration for increased emphasis on the implementation of governance mechanisms as a means to address the complex and challenging issues encountered

in public service delivery (Bianchi et al., 2021). Public services are inherently inter-organizational processes that necessitate the collective endeavors of all stakeholders involved in their provision, including the users, in order to generate value (Osborne et al., 2013) According to (Borgonovi et al., 2019), fragmentation frequently serves as a primary factor contributing to the lack of consistency in endeavors aimed at enhancing community results. Discrepancies between short-term outputs and long-term outcomes, as well as unanticipated side effects resulting from previously established policies, frequently arise as a consequence of particular groups' endeavors to address community issues.

Wicked problems are characterized by their dynamic and complicated nature, which makes it challenging to confine them within the bounds of a single organization. These problems involve multi-level, multi-actor, and multi-sectoral challenges, as highlighted by (Head & Alford, 2015; Pollitt, 2016), and. Collaborative governance refers to the practice of a public-sector institution engaging with various community stakeholders to facilitate a strategic learning process. This approach is designed to establish the concept of public value, identify its underlying factors, and determine the strategic resources necessary to influence community results (Ansell & Gash, 2008). The learning process facilitates the development of "robust" policies, which entail adopting an outcome-oriented perspective. This involves the collaborative design, production, and evaluation of policies by various community stakeholders, aiming to promote community resilience and sustained socio-economic development (Torring & Ansell, 2017). The perspective being discussed suggests the existence of a plural state, in which various actors work together to provide public services, as well as a pluralist state, in which numerous processes influence the policy-making system (Osborne, 2010).

In recent years, there has been a significant increase in research on collaborative governance in the fields of public policy, administration, and management. Scholars have been actively exploring the intricate connections between various factors that influence the likelihood of policy actors engaging in collaborative behavior. They have also examined the resulting outputs and outcomes of collaborative governance. This growth in research reflects a desire to

better understand the complexities of collaborative governance. (Ansell & Gash, 2008) In recent years, there has been a growing significance placed on advancing research on collaborative governance within disaster risk management (DRM). Numerous studies have demonstrated the indispensability of collaboration among stakeholders engaged in disaster management to mitigate the adverse consequences of disasters and enhance community resilience. Several emerging research areas in the field of collaborative governance include the analysis of collaboration between the public and private sectors in disaster management (Gilbert et al., 2011), as well as the study of the role played by communities in the context of collaborative governance. An assessment of the efficacy of the collaborative efforts of the public and non-public sectors in the realm of catastrophe management This study aims to identify the various factors that exert an effect on collaboration within the context of disaster management. Additionally, it seeks to analyze both successful and unsuccessful instances of collaboration in the field of disaster management.

Several scholars have examined the significance of studies on collaborative governance within the realm of corporate responsibility (Albareda et al., 2008). Previous scholarly literature on global governance has placed significant emphasis on various manifestations of collaborative governance. In this context, governance is conceptualized as a multifaceted process that involves the active participation of several actors, including government entities, businesses, civil society organizations, and research institutions (Ozdemir & Finkelstein, 2018). According to (Zadek, 2008) collaborative governance can be described as a framework in which multiple stakeholders engage in deliberative collaboration to establish rules of conduct that govern the parties involved in its development. This process may also involve a broader community of actors. Collaborative governance encompasses various aspects of rule-setting, such as signing, development, implementation, and enforcement, as outlined by (Fransen & Kolk, 2007). Several research findings indicate a correlation between collaborative governance and enhanced coordination and integration among stakeholders engaged in disaster management, resulting in increased effectiveness and efficiency of disaster management endeavors. Collaboration can additionally facilitate the augmentation

of community participation and engagement in the realm of disaster management, thereby enhancing individuals' preparedness and responsiveness when confronted with calamitous events. Nevertheless, the implementation of collaborative governance in the domain of disaster risk management (DRM) presents several obstacles, including limited resources and capacity, divergent perspectives among stakeholders, and insufficient dedication from the participating parties. Hence, continuing research endeavors aim to enhance comprehension of collaborative governance in disaster risk management (DRM) and devise strategies to surmount the accompanying obstacles.

According to (Ansell & Gash, 2008) collaborative governance can be classified as a form of governance. This notion emphasizes the significance of a collaborative approach between public and private actors (businesses) in a certain manner and framework that leads to the creation of lawful products, regulations, and policies that benefit the public or society. This concept demonstrates the significance of government. Public actors, such as governmental entities, and private players, such as corporate groups or firms, do not operate in isolation but rather collaborate synergistically to promote societal welfare. According to (Ansell & Gash, 2008) collaborative governance refers to a form of governance wherein both public and private actors engage in collective efforts, employing specific methods, to set regulations and guidelines for the provision of public goods. Collaborative governance can be classified as a distinct form of governance. Furthermore, an alternative perspective on collaborative governance was put forward by (Eriksson et al., 2020) indicating collaborative governance has been notably focused on promoting voluntary horizontal collaboration and fostering horizontal relationships among participants from multiple sectors. This emphasis arises from the recognition that the demands placed on public organizations often surpass their capacity and mandate, necessitating interaction and cooperation among diverse organizations engaged in public activities. Effective governance requires collaboration across government, organizational, and sectoral borders to address the growing needs of management. In contrast to the definition of collaborative governance as elucidated by (Blühdorn & Deflorian, 2019) it is

argued that collaborative governance encompasses not only the involvement of government and non-government stakeholders but also relies on the establishment of "multipartner governance." This multi-partner governance framework encompasses the private sector, civil society, and societal actors and is predicated on the synergistic interplay of stakeholder roles and the formulation of hybrid strategies, such as public-private and private-social collaborations.

In the foundational research done in this field, (Berardo et al., 2020) there are often references to how important and long-lasting it is for stakeholders who may not always have the same goals or interests to work together in public discourse. In general, the majority of research supports the idea that collaborative governance involves setting up structured interactions between different actors, including both government and non-government entities, across different sectors, hierarchical levels, and geographical regions (Scott & Thomas, 2017) Nevertheless, there remains a lack of consensus among scholars regarding the appropriate methodologies for investigating the complexities associated with collaborative governance (Zadek & Radovich, 2008) In light of the aforementioned context, the present study undertakes an examination of the existing body of literature about collaborative governance. The primary objective is to provide a comprehensive assessment of scholarly publications in the field of research on collaborative governance and its relationship to catastrophe risk. The review encompasses the period spanning from 2009 to 2023. Hence, the present study aims to address the following research questions:

1. What will be the overall trajectory of research on collaborative governance, as indicated by the number of publications and citations, from 2009 to 2023?
2. Which researchers or papers have had the greatest impact on the field?
3. What are the prevailing patterns of collaboration observed among writers and countries?
4. What are the relevant subjects, including topic trends, keywords, additional keywords, and themes, that are associated with this particular study area?

MATERIAL AND METHOD

Bibliometric methodologies, first developed by (Garfield & Sher, 1963), were employed in our study to discern patterns and influential factors within the body of published literature pertaining to collaborative governance. According to (Zupic & Čater, 2015) bibliometric techniques employ quantitative methodologies to analyze, assess, and track published research. These techniques aim to establish a systematic, transparent, and replicable review process, thereby enhancing the overall quality of reviews. Consequently, the task of locating pertinent papers within a specific field has grown increasingly challenging. The task at hand necessitates the creation of quantitative bibliometric methodologies that can effectively handle substantial volumes of data. These methodologies should be able to identify and prioritize the most influential works by evaluating their impact, as well as reveal the fundamental framework of the field. To achieve this, bibliometric techniques utilizing R Studio (specifically Biblioshiny) are employed. These quantitative approaches aim to describe, assess, and oversee published research in order to establish a systematic, transparent, and replicable review process. Ultimately, this endeavor seeks to enhance the overall quality of research (Zupic & Čater, 2015). Researchers commonly employ a valuable methodology wherein they get their results from bibliographic data obtained from fellow scholars in the respective field who express their perspectives through written works, citations, and collaborative efforts.

Academic researchers employ many methodologies, including the examination of published research, conducting keyword analyses from a specific database, and drawing from their pre-existing knowledge of the topic matter, in order to ascertain appropriate keywords for their ongoing research endeavors. The search queries encompassed the terms "collaborative governance" or "collaborative governance" in the title, abstract, and keywords, together with the terms "disaster risk" or "disaster risk." The search was conducted within the maximum time frame permitted by the database to ensure comprehensive coverage of potential articles. The documents obtained from this database were subjected to a filtering process in order to retrieve the necessary information, and afterwards they were integrated into

biblioshiny. To enhance the precision of estimations, this study examined papers and reviews written in English, focusing on the most reliable scientific contributions relevant to the subject matter. The obtained results, comprising 4106 samples, were further modified based on the frequency of citations. The methodology employed in this study encompassed the utilization of performance analysis and science mapping techniques. Performance analysis involves the comprehensive evaluation of publications, taking into consideration many factors such as the authors, countries of origin, and affiliated institutions. In contrast, the practice of science mapping uses bibliometric tools to discern patterns and developments within the realm of scientific study. Both approaches enhance the quantitative rigor of subjective literature judgments and offer empirical support for theoretically established categories in review articles.

Researchers utilized published research, keyword analysis from a single database, and their prior understanding of the subject to determine keywords for the current study. Search queries included TITLE-ABS-KEY ("collaborative governance" OR "collaborative governance") AND TITLE-ABS-KEY (disaster risk OR disaster risk), with the largest period allowed in the database to cover all potential articles. Documents from this database were filtered to extract the essentials, then imported into Biblioshiny. To obtain a more accurate estimate, articles and reviews published in English were analyzed by considering the most reliable scientific contributions to the knowledge base under study, and the results were adjusted for the number of citations, resulting in 4106 samples. The method consisted of performance analysis and science mapping. Performance analysis examines publications in terms of authors, countries, and institutions. In contrast, science mapping uses bibliometric tools to identify trends in scientific research. Both add quantitative rigor to subjective literature evaluations and provide evidence of theoretically defined categories in review articles.

RESULT AND DISCUSSION

Descriptive Analysis

The R Studio (Biblioshiny) software provided a comprehensive overview of bibliometric metadata statistics. The data encompassed a total of 377 authors and

135 documents. Notably, the number of documents exhibited significant growth, from 1 in 2009 to 37 in 2022. Furthermore, the analysis revealed an average annual publication rate of 12.18% and an average annual citation count of 23.35 per document. In recent times, the management of disaster risks has emerged as a significant concern for governmental entities. Hence, the rise in scholarly publications that undergo rigorous peer review signifies a global research endeavor that holds significant relevance for many stakeholders, encompassing individuals, organizations, and communities, in tackling intricate societal challenges.

Main Information

This study focuses on the performance of primary sources, journals, writers, institutions/affiliates, and countries in competitive action. To make the investigation easier, the researchers restricted their search to journal papers and pieces written in English. The use of a single language in this study was beneficial since it allowed for more efficient bibliometric analysis, which included comparing keywords, article sources, and affiliations. Table 1 displays significant data, such as the number of articles published each year and the average number of citations each year, which demonstrate a clear exponential trend. The analysis comes to a close with the articles that were processed using biblioshiny RStudio.

Table 1 Main Information

Description	Results
MAIN INFORMATION ABOUT DATA	
Timespan	2009:2023
Sources (Journals, Books, etc)	89
Documents	135
Annual Growth Rate %	12.18
Document Average Age	3.36
Average citations per doc	23.35
References	10006
DOCUMENT CONTENTS	
Keywords Plus (ID)	667
Author's Keywords (DE)	502
AUTHORS	
Authors	377
Authors of single-authored docs	23
AUTHORS COLLABORATION	

Single-authored docs	26
Co-Authors per Doc	3.08
International co-authorships %	31.85
DOCUMENT TYPES	
article	125
conference paper	2
review	8

Source: Output Rstudio

In Table 2, the researchers employed Bradford's Law, a theoretical framework that elucidates the correlation among published journals. (Russo Carroll et al., 2018) propose that Bradford's Law serves as a theoretical framework for understanding the distribution of scholarly literature inside subject-specific journals. This framework enables the calculation of data pertaining to the distribution of journal articles. According to (Brookes, 1977) Bradford's law posits that a significant majority of subjects tend to be concentrated inside core journal clusters, comprising approximately one-third of the total number of articles acquired. The subsequent one-third is allocated to medium journal clusters, while the remaining one-third is attributed to broad journal clusters. According to Bradford's rule, the initial cluster can be identified as a significantly prolific and conspicuous core zone, comprising 10 journals and encompassing a total of 136 studies.

Table 2 First cluster (core zone)

Element	h_index	g_index	m_index	TC	NP	PY_start
ENVIROMENTAL SCIENCE AND POLICY	8	8	1.000	342	8	2016
ECOLOGY AND SOCIETY	4	7	0.287	136	7	2000
SUSTAINABILITY (SWITZERLAND)	4	8	0.500	70	9	2016
AMERICAN REVIEW OF PUBLIC ADMINISTRATION	3	4	0.300	84	4	2014
ENVIROMENTAL POLICY AND GOVERNANCE	3	3	0.375	109	3	2016
LAND USE POLICY	3	3	0.273	102	3	2013
ADMINISTRATIVE THEORY AND PRAXIS	2	2	0.500	22	2	2020
CITIES	2	2	0.667	13	2	2021
INTERNATIONAL JOURNAL OF DISASTER RISK REDUCTION	2	2	0.400	20	2	2019
INTERNATIONAL JOURNAL OF ENVIROMENTAL RESEARCH AND PUBLIC HEALTH	2	2	0.400	19	2	2019

Total citations (TC), Number of publications (NP), Publication Year (PY).

Source: Output R Studio

Analysis of Documents

The analysis of the corresponding authors' countries reveals the top 10 countries, as depicted in Figure 1. China accounts for a total of 26 documents, out of which 8 involve collaboration with multiple countries. The United States produces 24 documents, with 18 of them being the result of multiple country collaborations. Sweden contributes 15 documents, out of which 8 involve collaboration with multiple countries. Among the ten highest-ranking countries, Bangladesh and Belgium are situated in the lowermost tier, with only one document pertaining to multiple country production. Following suit, Brazil also possesses a single document in this regard.

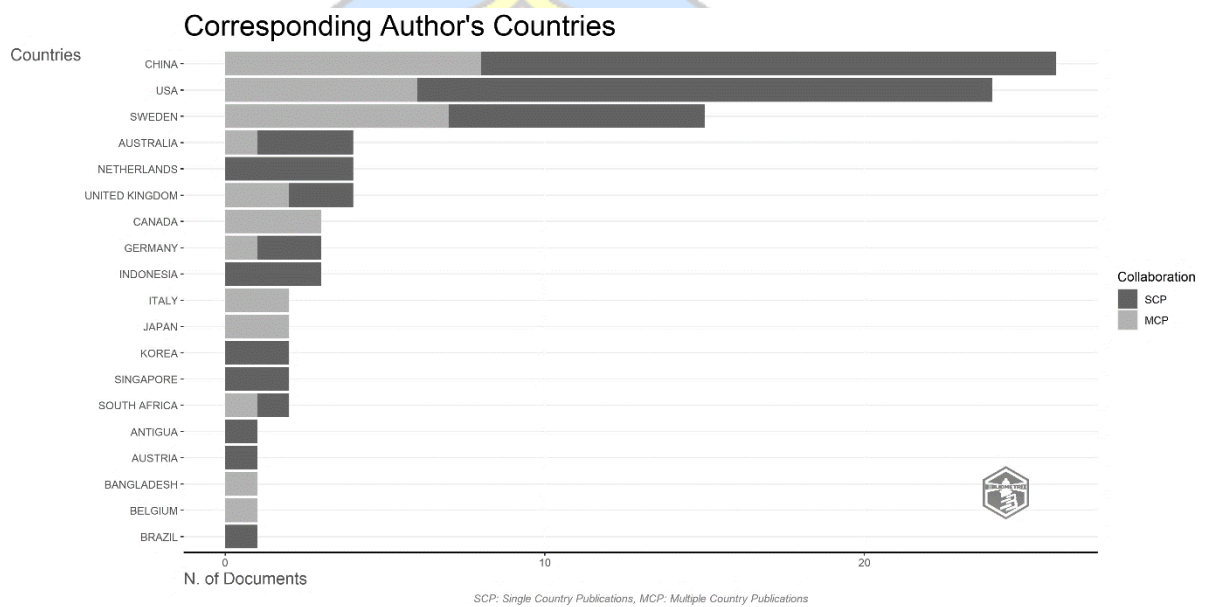


Figure 1 Corresponding Authors Countries

Source: Output Rstudio

The study conducted using Rstudio (Bibilioshiny) reveals that there are a total of 136 documents. On average, each document has 23.35 citations. Furthermore, the overall average rate of cited papers was found to be 3.36%. Table 3 presents the ten most frequently referenced documents, including the work of (Berkes & Ross, 2013) with a total citation count of 839, (Bodin et al., 2017) with a citation count of 458, and (Gerlak & Heikkila, 2011) with a citation count of 157. The research conducted by (Berkes & Ross, 2013) centers on the enhancement of community strengths and the promotion of resilience through the processes of empowerment and self-organization. This research pays particular attention to

various aspects such as human relationships, values and beliefs, knowledge acquisition and learning, social networks, collaborative governance, economic diversification, infrastructure development, leadership dynamics, and future perspectives.

Table 4 displays a compilation of 10 documents pertaining to the topic of "Collaborative Environmental Governance: Achieving Collective Action in Social-Ecological Systems" by (Bodin et al., 2017). The table includes information on the local citation score (2.84) and global citation score (12.50) associated with this work. Local citation refers to the frequency with which an author is referenced by other authors within their own scholarly community. According to (Bodin et al., 2017), the findings regarding the advantages and limitations of collaborative governance in collaborative management and governance are presented, indicating the existence of significant gaps in knowledge and the need for further research in some critical domains.

Table 3 Most Global Cited Dokumen

Paper	DOI	Total Citation	TC per Year	Normalized TC
BERKES F, 2013, SOC NAT RES	10.1080/08941920.2012.736605	839	76.27	2.83
BODIN, 2017, SCIENCE	10.1126/science.aan1114	458	65.43	2.30
GERLAK AK, 2011, J PUBLIC ADM RES THEORY	10.1093/jopart/muq089	157	12.08	1.58
WAMSLER C, 2017, ENVIRON SCI POLICY	10.1016/j.envsci.2017.03.016	91	13.00	0.46
BODIN, 2016, GLOBAL ENVIRON CHANGE	10.1016/j.gloenvcha.2016.10.004	80	10.00	2.12
CHALLIES E, 2016, ENVIRON SCI POLICY	10.1016/j.envsci.2015.09.012	58	7.25	2.12
WAMSLER C, 2020, CLIM CHANGE	10.1007/s10584-019-02557-9	55	13.75	4.05
BRINK E, 2018, ENVIRON POLICY GOV	10.1002/eet.1795	52	8.67	2.27
WAMSLER C, 2016, ENVIRON POLICY GOV	10.1002/eet.1707	51	6.38	1.35
HEAD BW, 2014, ECOL SOC	10.5751/ES-06414-190233	50	5.00	1.25

Source: Output Rstudio

Table 4 Most Local Cited Documents

Documents	DOI	Year	Local Citations	Global Citations	LC/GC Ratio (%)	NLC	NGC
BODIN, 2017, SCIENCE	10.1126/science.aan1114	2017	13	458	2.84	2.79	2.30
BODIN, 2016, GLOBAL ENVIRON CHANGE	10.1016/j.gloenvcha.2016.10.004	2016	10	80	12.50	4.74	2.12

WAMSLER C, 2016, ENVIRON POLICY GOV	10.1002/eet.1707	2016	4	51	7.84	1.80	1.35
KALESNIKAITE V, 2019, PUBLIC PERFORM MANAGE REV	10.1080/15309576.2018.1526091	2019	3	21	14.29	6.86	1.18
NOHRSTEDT D, 2016, ADM SOC	10.1177/0095399712473983	2016	3	27	11.11	1.42	0.72
GERLAK AK, 2011, J PUBLIC ADM RES THEORY	10.1093/jopart/muq089	2011	3	157	1.91	1.20	1.58
LIU Z, 2021, CITIES	10.1016/j.cities.2021.103274	2021	2	11	18.18	6.00	2.10
XING H, 2021, RISK ANAL	10.1111/risa.13586	2021	2	4	50.00	6.00	0.75
HEDLUND J, 2021, PEOPLE NAT	10.1002/pan3.10170	2021	2	13	15.38	6.00	2.48
BODIN, 2020, PEOPLE NAT	10.1002/pan3.10097	2020	2	11	18.18	8.40	0.81

Source: Output Rstudio

Authors

The analysis conducted in R Studio (biblioshiny) reveals that the authors who have made the most significant contributions in the field of collaborative governance are (Bodin et al., 2017) with 7 documents, (Bodin et al., 2022), and (Wamsler, 2004). with 5 articles each. Following closely in positions 4 and 5 are (Hermansson, 2019) and (Zhang & Yu, 2022), with three articles each. The subsequent positions, 6 to 10, are occupied by (Aoki, 2015), (Blythe et al., 2022), (Parker et al., 2020), (Becker, 2021), and (Bifulco et al., 2021), each with two documents.

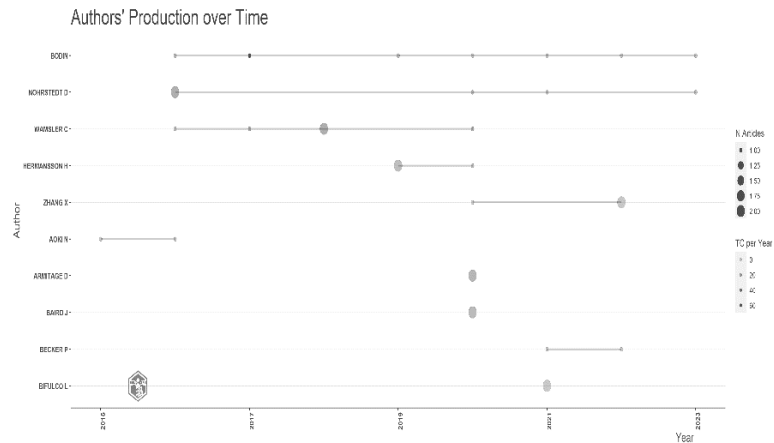
Table 5 Top 10 most active authors on Collaborative Governance

Authors	Articles	Articles Fractionalized
BODIN	7	3.23
NOHRSTEDT D	5	2.20
WAMSLER C	5	3.13
HERMANSSON H	3	2.17
ZHANG X	3	0.92
AOKI N	2	2.00
ARMITAGE D	2	0.28
BAIRD J	2	0.37
BECKER P	2	1.50
BIFULCI L	2	0.67

Source: Output R Studio

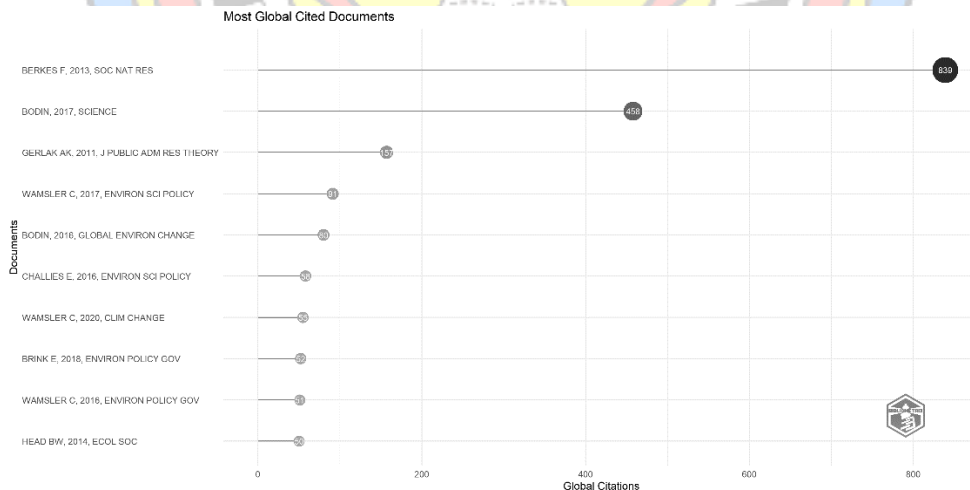
The data presented in Figure 2 illustrates the cumulative production of articles by various authors over a period of time. The top 10 writers, based on the number of articles generated, are identified as O. Bodin, Nohrst D., Wamsler C., Hermansson H., Zhang X., Aoki N., Armitage D., Baird J., Deslatte A., and Eckersley P. The

figure also provides information on the respective years in which these articles were produced.



Source: Output R Studio
Figure 2 Authors Production Overtime

The examination of the most often referenced documents on a global scale, as depicted in Figure 3, reveals that the top 10 writers are: The following academic references are cited: Berkes F, 2013; Bodin, 2017; Gerlak AK, 2011; Wamsler C, 2017; Bodin, 2016; Challies E, 2016; Wamsler C, 2020; Brink E, 2018; Wamsler C, 2016; Head BW, 2014. In light of the quantity of citations subsequent to publication.

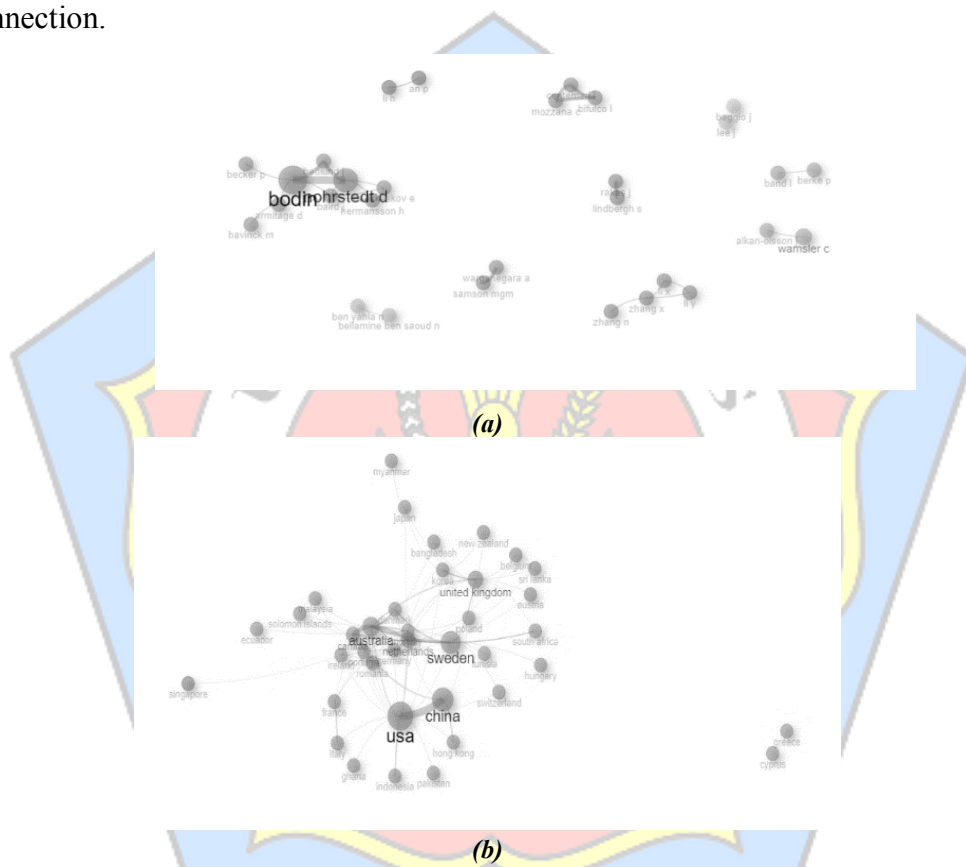


Source: Output RStudio
Figure 3 Most Global Cited Documents

Network Analysis Country and Co-authorship

Figure 4a presents a network study of co-authorship in the context of collaborative governance. The analysis of co-authors investigates the social

networks that are established among academics via their collaborative efforts in publishing academic papers. Consequently, the connections between authors are forged through their collective involvement in the publication process. We conducted an analysis on a group of eight authors who had collaborated on more than four articles. It was observed that the extent of collaboration among scholars was predominantly confined to their own nations. For instance, Zhang, X., Li, Y., Li, X., and Zhang, N., are from China and exhibit a heightened level of interpersonal connection.



Source : Output RStudio
Figure 4 (a) Authors Collaboration Network, (b) Collaboration Network Countries

The subsequent analysis employs the Collaboration Network Countries framework, as depicted in Figure 4b. In our study, we employed R Studio (specifically, the biblioshiny package) to facilitate data analysis. We utilized the feature within this software that allows for searching by countries in order to conduct our research. Based on the findings of this investigation, it can be concluded that the United States of America, China, and Sweden continue to maintain their positions as the leading Collaboration Network Countries.

Distribution of Most Productive Affiliations and Countries

The analysis conducted in the study titled "Most Productive Affiliation" reveals that there are a total of 26 institutions actively involved in producing publications pertaining to research on collaborative governance. Figure 5a presents the distribution of these institutions. Notably, the three most prominent affiliated institutions in terms of publication output are Uppsala University in Sweden, which has contributed 8 articles, followed by the University of California with 6 articles, and Beijing Normal University and Stockholm University, both of which have produced 5 articles each. In contrast, the countries that exhibit the highest levels of productivity, as depicted in figure 5b, include the United States, China, Sweden, and Australia.



Figure 5 (a) Distribution of Most Productive Affiliation, (b) Distribution of Most Productive Countries

Source: Output Rstudio

Analysis Trend

Figure 6a was generated to facilitate the examination of the 20 principal phrases within the Keywords Plus dataset. The Keywords Plus feature exhibits terms and phrases extracted from the title of the referenced article, which are afterwards employed to depict and evaluate its diverse sources. Keywords Plus is a distinguishing characteristic of Scopus, serving as a significant metric for the extraction of scientific information and concepts. It facilitates the process of searching for papers pertaining to specific subjects.

Figure 6b illustrates the prevailing themes associated with Collaborative Governance. This study examines the scholarly contributions on the topic of collaborative governance throughout the time frame of 2009 to 2023. This visual

representation illustrates the prominence and concentration of keywords in scholarly works, as denoted by their larger and more visually impactful typography. It also demonstrates the frequency of their co-occurrence with other sources, authors, and publications. Figure 6b displays the 8 most pertinent trend issues, wherein the governance approach (9%), climate change (6%), and decision making (6%) are ranked as the top three often encountered trend topics. The aforementioned terms, namely "Collaborative governance", "Disaster Risk management", and "Collaborative governance", are observed to be recurrently examined topics within the realm of study on Collaborative Governance, as evidenced by our Scopus search queries.

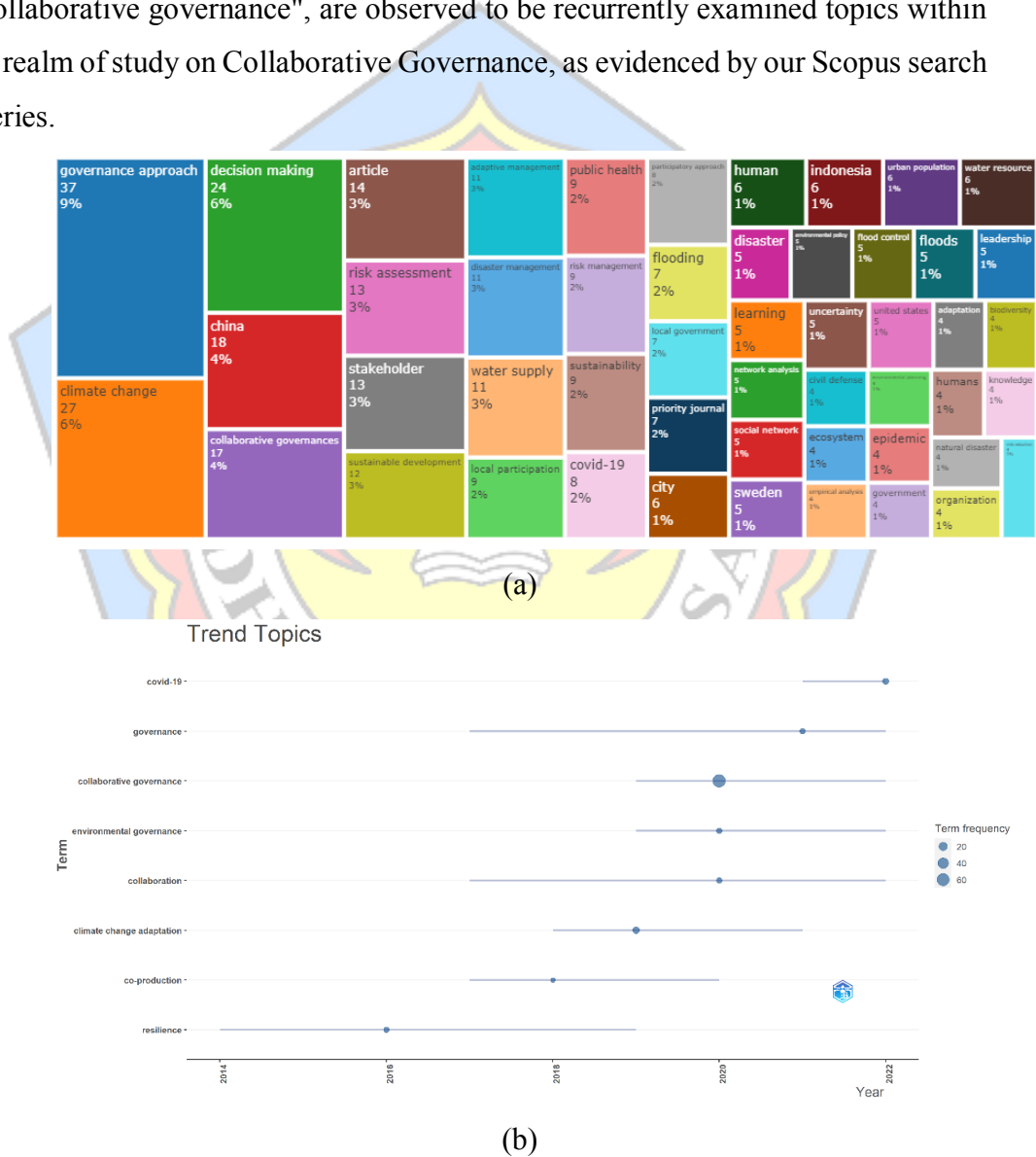


Figure 6 (a) keywords, additional keywords, and themes (b) document topic trends
Source: Output Rstudio

CONCLUSION

Finally, the bibliometric analysis performed in this study provides a comprehensive grasp of the topic of competitive action research. By mapping the conceptual framework and investigating a range of perspectives, including journals, publications, and authors, valuable insights have been gained. This research identifies gaps in the body of literature to guide future research and aid policymakers, academics, and practitioners in their decision-making processes. Despite these flaws, this study considerably advances knowledge in this field and contributes valuable new information to the field of competitive action. Policymakers can use these data to allocate resources and prioritize research activities, while researchers can use them to inform their research plans and identify untapped regions. Practitioners, such as educators and therapists, can use the evidence-based methodology of this study to improve guidance and instruction programs focused on developing competitive activity. This study acknowledges the association between cognitive competence and however, it is critical to emphasize that these conclusions are based on the data supplied and may not represent the full extent of the study on this topic. More research will be required to properly understand the significance of the detected trends and their possible repercussions.

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