Jurnal Manajemen Pelayanan Publik Vol. 08 No. 02, June 2024
http://dx.doi.org/10.24198/jmpp.v8i2.54621

Policy and Governance Publications in Southeast Asia During the Period 2012–2022: A Bibliometric Analysis

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ABSTRAK

Menemukan topik yang kini menjadi trending dalam Publikasi Kebijakan dan Tata Kelola di Asia Tenggara selama periode 2012 hingga 2022 menjadi tujuan dari analisis ini. Data diambil dari database Scopus dan dijalankan melalui alat Bibliometrix di perangkat lunak R. Setelah itu, mereka diimpor ke VOSviewer untuk dianalisis. Makalah, jurnal, penulis, negara, dan afiliasi paling signifikan dipilih di wilayah Asia Tenggara berdasarkan kriteria yang diperoleh dari analisis kutipan. Berdasarkan produktivitas ilmiah, Indonesia merupakan negara yang paling banyak menerbitkan kontribusi, diikuti oleh Malaysia dan Thailand. Meskipun topik dan kesimpulan penelitian yang paling relevan mungkin berupa kata kunci dan frasa, masih ada kemungkinan bahwa beberapa tema dan isu utama yang dibahas dalam buku ini tidak tercakup secara memadai dalam analisis kami. Untuk menghasilkan data ilmiah, penelitian selanjutnya juga harus melihat cluster penelitian yang relevan untuk pengembangan pola bibliometrik.

ABSTRACT

Finding the topic that is now trending in Policy and Governance Publications in Southeast Asia during the period 2012 to 2022 is the aim of this analysis. The data were taken out of the Scopus database and run via the Bibliometrix tool in R software. After that, they were imported into VOSviewer for analysis. The most significant papers, journals, authors, nations, and affiliations were chosen within the Southeast Asia area based on criteria obtained from citation analysis. Based on scientific productivity, Indonesia has published the most contributions, with Malaysia and Thailand following closely after. Though the research's most pertinent topics and conclusions are probably keywords and phrases, it's still possible that some of the major themes and issues discussed in the book aren't adequately covered in our analysis. To produce scientific data, future studies should also look at relevant research clusters for Bibliometric pattern development.

ARTICLE HISTORY
Submitted: 06 05 2024
Revised: 08 07 2024
Accepted: 12 07 2024
Published: 18 07 2024

KATA KUNCI
Kebijakan, Pemerintahan, Asia Tenggara.

KEYWORDS
Policy, Governance, Southeast Asia.

INTRODUCTION

The Asian region has been particularly interested in Policy and Governance Studies in recent years, both in terms of theoretical research and real-world applications. Understanding the current frameworks for governance and policy, as well as the growth trends in the Asian region, is crucial. Like many other subjects, Policy Governance publishes a large majority of its publications written by people from developed countries. Scientists working in the Asian region also contributed, though not as much as in previous years.

The discourse on Policy and Governance Publications in Southeast Asia for the period of 2012–2022 is covered in this article. Discourse comprehension and bibliometric analysis ((Lee,2020) (Mifrah, 2020) (Omoregbe et al., 2020) (Saravanan and Dominic, 2014)) are closely related. The latter refers to the synthesis of different frameworks and methods to analyze scientific publication quotations, which results in the development of various metrics to gain insight into the intellectual structure of a broad academic discipline and to assess the impact of individual fields of study ((Akhavan et al., 2016) (Putera et al., 2020)).

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Bibliometrics comprises various descriptive statistics for citation data and network analysis of authors, journals, institutions, nations, and keywords based on citation data and network analysis techniques. These are based on citation techniques and frequency analysis. In an area of study, this aids in the identification of research groups offers insight into current research interests, and identifies new subject patterns (Munim et al., 2020).

Finding current trends in the subjects included in the Publication on Policy and Governance in Southeast Asia During the 2012–2022 Period is the aim of this study. Particular research questions were developed to maintain the investigation's focus. In this bibliometric analysis, the following research questions are covered: In the field of bibliometric research, there are several concerns to take into account: (1) Which journal is the most productive? (2) Which top countries and institutions are the most productive? (3) Who are the most influential researchers in the field of Policy and Governance research? (4) What types of research topics are chosen by researchers in Policy and Governance research?

Literature Review

Bibliometric analysis is used to see the distribution of the number of publications and citations from various literature (Cortes et.al, 2004). Topics in bibliometric analysis can be explained both qualitatively and quantitatively (Roman et.al, 2012). Bibliometric indicators can provide a higher level of development of a science by looking at the nature and progress of the science in question. The reliability of bibliometric indicators is influenced by two main aspects, including the selection of databases, namely the number of bibliometric databases, several multi-disciplinary and others in certain areas and the identification of publications based on the address provided by the author (Devos 2011). Bibliometric indicators are stronger at higher levels of aggregation and are better suited for analyzing patterns in large groups (large research teams) and less suitable for individual evaluations or small research teams (Russell, J.M., Rousseau, 2015).

To search for bibliography as a database source, researchers can use Scopus. The selection uses Scopus, because Scopus is one of the databases (data centers) of scientific citations/literature owned by the world's leading publisher, Elsevier. Scopus was introduced to the general public in 2004. The data that take center stage in bibliometric analyses tend to be massive (e.g., hundreds, if not thousands) and objective (e.g., number of citations and publications, occurrence of keywords and topics), although their interpretation often relies on objective (e.g., performance analysis) and subjective (e.g., thematic analysis) evaluations established through informed Techniques and procedures (Donthu et al. 2021).

RESEARCH METHODS

Scopus is one of the most often utilized databases for this kind of research because it provides the necessary bibliometric data. Scopus is an article and citation archive for research findings that has undergone peer review and was founded by Elsevier. Additionally, it is a part of SciVerse from Elsevier (Tober, 2011). Information engineering, database management, and statistics have all seen significant technological advances since the creation of the bibliometric technique utilized in this study. Based on author keywords, title keywords, and keywords in addition to extra data from other sources, the bibliometric technique will categorize potential technological trends or research paths (Chen et al., 2016).

Recent advances in a particular topic are the main focus of research on bibliometric or scientometric analysis. The guidance and inspiration this work offers will be helpful for future research endeavors (Muhuri, Shukla, and Abraham, 2019). The scientific view, according to

Leydesdorff and Milojevi (2015), is a transdisciplinary quantitative method that gives language and communication in technology and research priority.

In addition to network studies based on citation data and network analysis methodologies of authors, journals, institutions, nations, and keywords, bibliometrics offers a variety of descriptive statistics for citation data. This makes it easier to locate research teams, detect new trends in the study of a given subject, and highlight areas of interest in the field right now (Munim et al., 2020). Since there were no human subjects in this study, formal approval from the institutional review board is not necessary.

The data was taken out of the Scopus database, run using Bibliometrix R for processing, and then loaded into VOSviewer for analysis. Based on the parameters we discovered via the citation analysis, we have identified the most important publications, journals, authors, countries, and affiliations worldwide.

The following four steps in our approach are conducted: three main methods are used to collect data: (1) systematic literature search; (2) bibliometric citation analysis for a thorough field evaluation; and (3) network analysis, which looks for patterns in publications, journals, studies, affiliations, countries, authors, and ship partnerships and linkages. The final and fourth phase (4) examines the possibilities of the earlier research and summarizes the findings.

Our inquiry is based on a selection of bibliographic data from Scopus, the most popular research database. It is desirable if research articles use the term "Policy Governance" in the title, abstract, or keywords. The search query string that was utilized is TITLE-ABS-KEY (policy AND governance) AND (LIMIT-TO (OA, "all")) AND (LIMIT-TO (PUBYEAR, 2022) OR LIMIT-TO (PUBYEAR, 2021) OR LIMIT-TO (PUBYEAR, 2020) OR LIMIT-TO (PUBYEAR, 2019) OR LIMIT-TO (PUBYEAR, 2018) OR LIMIT-TO (PUBYEAR, 2017) OR LIMIT-TO (PUBYEAR, 2016) OR LIMIT-TO (PUBYEAR, 2015) OR LIMIT-TO (PUBYEAR, 2014) OR LIMIT-TO (PUBYEAR, 2013) OR LIMIT-TO (PUBYEAR, 2012)) AND (LIMIT-TO (AFILCOUNTRY, "Indonesia") OR LIMIT-TO (COUNTRY AFIL, "Malaysia") OR LIMIT TO (AFIL COUNTRY, "Singapore") OR LIMIT TO (AFIL COUN-TRY, "Thailand") OR LIMIT TO (AFIL COUNTRY, "Viet Nam") OR LIMIT TO (AFIL COUNTRY)," Philippines") OR LIMIT-TO (AFIL STATE, "Cambodia") OR LIMIT-TO (AFIL STATE, "Myanmar") OR LIMIT-TO (AFIL STATE, "Laos") OR LIMIT-TO (AFIL STATE, "Brunei Darussalam ") OR LIMIT-TO (AFFILCOUNTRY, "Timor-Leste")) See less. When this query string is executed, 1000 documents are retrieved. The extracted bibliographic data for each of the 1000 articles in the collection comprises the following information: the name and title of the author, the abstract, the source, the cited references, the number of times the author is quoted, the document type, the keywords, and the conference information. Table 1 provides information on the 1000 publications that were published between 2012 and 2022 and were gathered from the Scopus database.

Table 1.
Main Information

Main Information	Description	Results
Timespan	Years of publication	2012 - 2022
Sources (Journals, Books, etc)	The frequency distribution of sources such as journals, books, etc.	470
Documents	Total number of documents	1000
Average citations per document	The average number of citations in each article	12,18
Keywords Plus (ID)	Total number of phrases that frequently appear in the title of an article's references	3387

Main Information	Description	Results
Author's Keywords (DE)	Total number of keywords	2985
Authors	Total number of authors	4318
Author Appearances	The author's frequency distribution	4959
Authors of single-authored documents	The number of single authors per article	96
Authors of multi-authored documents	The number of authors of multi-authored articles	4222
Authors per Document	The average number of authors in each document	4,32
Co-Authors per Documents	The average number of co-authors in each document	4,96
Collaboration Index		4,68

Source: Processed by the author

RESULTS AND DISCUSSIONS

1. Bibliometric Maps

After millions of documents were analyzed, information about author citations, bibliographies, and keywords was exported to Biblioshiny so that VOSviewer and Bibliometrix could be used. Biblioshiny is a bibliometrix for those who don't know how to code. It has an online-accessible graphical user interface and is driven by Bibliometrix. Although it is discussed in more detail below, bibliometrix was designed to be easily integrated with other R applications using the R programming language. developed, according to Moral-Munoz et al. (2020), by Massi-mo Aria, Corrado Cuccurullo, and Luigi Vanvitelli of the University of Campania in Italy.

The VOSviewer program has generated a concurrent keyword network that can be used for bibliometric studies. This tool is used to create maps, extract data, and group articles. Circle size and keyword usage are positively correlated in abstracts and titles. Consequently, the object's weight has an impact on both the circle's size and the product label.

The weight of the thing is represented by both the sign's size and the object's circle's circumference (Xie et al., 2020). Two nodes' power differential is proportional to how far apart they are from one another. Distance between authors is often connected with stronger relationships between them. The dotted line that separates the two keywords indicates that they are part of the same sentence (Liao et al. 2018). The frequency of co-occurrence between two nodes is the definition of link strength. Pinto, Pulgarn, and Escalona (2014) state that using a quantitative indicator is one way to comprehend the connection between these two nodes.

To quantify the degree of inter-country connectedness, co-authorship research counts the number of articles in which two affiliated countries have collaborated. Conversely, the overall weight of a relationship indicates the degree of a nation's connectivity with other nations. The connection strength between the authors' keywords indicates the number of articles that contain both keywords together. The user guide contains information about VOSviewer's features (van Eck and Waltman, 2010).

2. Top Jurnal

The selection of 1000 bibliometric research articles was published in 470 scholarly journals. Additionally, 28.5% of the study was published in 20 source venues (refer to Table 2). Under the "Policy and Governance" topic from 2012 to 2022, the Conferences and Proceedings entitled "IOP Conference Series: Earth and Environmental Science" from IOP Publishing Ltd. publisher was found to be the publication source that published the most articles (67 articles, or 6.7% of all papers published on this topic, with a total of 57 citations, and a quality of paper/citations of 0.85). According to this data, each published paper is cited just once. However, there are 36

publications from Sustainability (Switzerland) and 18 publications from Ecology and Society. There were fourteen publications from Forest and Society, Forests, and the International Journal of Environmental Research and Public Health; thirteen publications from the Journal of Physics: Conference Series; twelve publications from Global Environmental Change; eleven publications from Climate Policy and the E3S Web of Conferences; ten publications from the IOP Conference Series: Materials Science and Engineering; nine publications from Policy and Society; eight publications from Asian Social Science and the International Journal of The Commons. The other journals that have published six or more research on policy and governance are BMC Public Health, Corporate Ownership and Control, Forest Policy and Economics, International Journal of Energy Economics and Policy, BMJ Global Health, and Energy Policy. These journals make up the primary publishing channels for policy and governance research.

According to the mapping results of Table 2, the majority of the articles published in the 20 publication sites that publish "Policy and Governance" articles are published in conference proceedings (20%), with journals accounting for 80% of the articles. The highest number of "Policy and Governance" articles (up to 75% or 12 journals) are published in journals with Scopus quadrants Q1, Q2, and Q4. (as many as 12.5% or 2 journals). This suggests that the topic of interest covered in the article "Policy and Governance" is published in reputable journals (Q1). The source's subject areas are listed in Table 2 as follows: Environmental Science (26.31%), Social Science (18.42%), and Energy (10.52%). The following fields each made a 7.89% contribution: Earth and Planetary Sciences, Agricultural and Biological Science, Medicine, Economics, Econometrics, and Finance. The fields that provided the most (2.63 %) were Physics and Astronomy, Engineering, Materials Science, Arts and Humanities, and Business, Management, and Accounting. This suggests that "Policy and Governance" is a topic covered in the Environmental Science department and has expanded to include other social science disciplines.

Table 2.
Top 20 Publication Sources of "Policy and Governance"

Rank	Sources	Publishers	Type of Source	Scopus Quartiles	Number of Paper	Citations	Quality of Paper
1st	IOP Conference Series: Earth and Environmental Science (Earth and Planetary Sciences; Environmental Science)	IOP Publishing Ltd.	Conferences and Proceedings	-	67	57	0.85
2nd	Sustainability (Switzerland) (Energy; Environmental Science; Social Sciences)	MDPI AG	Journals	Q1	36	391	10.86
3rd	Ecology and Society (Environmental Science)	The Resilience Alliance	Journals	Q1	18	394	21.88
4th	Forest and Society (Agricultural and Biological Science; Environmental Science; Social Sciences)	Universitas Hasanuddin	Journals	Q1	14	105	7.5

Rank	Sources	Publishers	Type of Source	Scopus Quartiles	Number of Paper	Citations	Quality of Paper
5th	Forests (Agricultural and Biological Sciences)	MDPI AG	Journals	Q1	14	195	13.92
6th	International Journal of Environmental Research and Public Health (Environmental Science; Medicine)	MDPI Multidisciplinary Digital Publishing Institute	Journals	Q2	14	39	2.78
7th	Journal of Physics: Conference Series (Physics and Astronomy)	IOP Publishing Ltd.	Conferences and Proceedings	Q4	13	4	0.30
8th	Global Environmental Change (Environmental Science; Social Sciences)	Elsevier Ltd.	Journals	Q1	12	745	62.08
9th	Climate Policy (Earth and Planetary Sciences; Environmental Science)	Taylor and Francis Ltd.	Journals	Q1	11	246	22.36
10th	E3S Web of Conferences (Earth and Planetary Sciences; Energy; Environmental Science)	EDP Sciences	Conferences and Proceedings	-	11	6	0.54
11th	IOP Conference Series: Materials Science and Engineering (Engineering; Materials Science)	IOP Publishing Ltd.	Conferences and Proceedings	-	10	10	1
12th	Policy and Society (Social Sciences)	Elsevier Ltd.	Journals	Q1	9	179	19.88
13th	Asian Social Science (Arts and Humanities; Economics, Econometrics and Finance; Social Sciences)	Canadian Center of Science and Education	Journals	Q4	8	35	4.37
14th	International Journal of The Commons (Social Sciences)	International Association for the Study of the Commons	Journals	Q1	8	205	25.62
15th	BMC Public Health (Medicine)	BioMed Central Ltd.	Journals	Q1	7	126	18
16th	Corporate Ownership and Control (Business, Management and Accounting)	Virtus Interpress	Journals	Q4	7	15	2.14

Rank	Sources	Publishers	Type of Source	Scopus Quartiles	Number of Paper	Citations	Quality of Paper
17th	Forest Policy and Economics (Agricultural and Biological Sciences; Economics, Econometrics, and Finance; Environmental Science; Social Sciences)	Elsevier	Journals	Q1	7	192	27.42
18th	International Journal of Energy Economics and Policy (Economics, Econometrics and Finance; Energy)	EconJournals	Journals	Q2	7	10	1.42
19th	BMJ Global Health (Medicine)	BMJ Publishing Group	Journals	Q1	6	17	2.83
20th	Energy Policy (Energy; Environmental Science)	Elsevier BV	Journals	Q1	6	116	19.33

Source: Processed by the author

3. Most impactful articles

According to our current research, the 10 most influential papers are now undergoing evaluation (Table 3). Breakthrough research is identified and highlighted using bibliometric indicators like Global Citation (GC) and Local Citation (LC) that reflect recent or ongoing studies. The Biblioshiny for Bibliometrix application was utilized in the execution of this investigation. The table below lists the papers that have received the most citations, as determined by GC and LC. By comparing GC with LC, it is feasible to find pertinent research that was cited the most in 1000 studies and beyond. With a GC of 149 and an LC of 7, the 2019 paper Governing Autonomous Vehicles: Emerging Responses for Safety, Liability, Privacy, Cybersecurity, and Industry Risks is thought to be the most significant in the field of Policy and Governance research. The two orders of governance failure: Design mismatches and policy capacity challenges in modern governance (2014) and Transaction costs, power, and multi-level forest governance in Indonesia (Gallemore, Caleb et al.) are two other noteworthy research. (Table 3)

Table 3.
The Most Impactful Articles

Rank	Document	Year	Source Title	Publishers	Local Citations	Global Citations	LC/GC Ratio (%)
1st	Governing autonomous vehicles: emerging responses for safety, liability, privacy, cybersecurity, and industry risks. (Taeihagh and Lim 2019)	2019	Transport Reviews	Routledge	7	149	4,70
2nd	Transaction costs, power, and multi-level forest governance in Indonesia. Ecological Economics. (Gallemore et al. 2015)	2015	Ecological Economics	Elsevier	6	35	17,14
3rd	The two orders of governance failure: Design mismatches and policy capacity issues in modern governance. (Howlett and Ramesh 2014)	2014	Policy and Society	Elsevier Ltd.	6	59	10,17
4th	Climate policy integration in the land use sector: Mitigation, adaptation, and sustainable development linkages. (Di Gregorio, Nurrochmat, et al. 2017)	2017	Global Environmental Change	Elsevier Ltd.	5	76	6,58
5th	Policy Response, Social Media and Science Journalism for the Sustainability of the Public Health System Amid the COVID-19 Outbreak: The Vietnam Lessons. (La et al. 2020)	2020	Sustainability (Switzerland)	MDPI AG	4	129	3,10
6th	Securing a Just Space for Small-Scale Fisheries in the Blue Economy. (Cohen et al. 2019)	2019	Frontiers in Marine Science	Frontiers Media S.A.	4	92	4,35
7th	Multi-level governance and power in climate change policy networks. (Di Gregorio et al. 2019)	2019	Global Environmental Change	Elsevier Ltd.	4	85	4,71
8th	Perceptions across scales of governance and the Indonesian	2017	Global Environmental Change	Elsevier Ltd.	4	60	6,67

Rank	Document	Year	Source Title	Publishers	Local Citations	Global Citations	LC/GC Ratio (%)
	peatland fires. (Carmenta et al. 2017)						
9th	How institutions and beliefs affect environmental discourse: Evidence from an eight-country survey on REDD+. (Di Gregorio, Gallemore, et al. 2017)	2017	Global Environmental Change	Elsevier Ltd.	4	23	17,39
10th	Formalization as Development in Land and Natural Resource Policy. (Putzel et al. 2015)	2015	Society and Natural Resources	Taylor and Francis Ltd.	4	56	7,14
11th	The REDD+ policy arena in Vietnam: participation of policy actors. (Pham et al. 2014)	2014	Ecology and Society	The Resilience Alliance	4	34	11,76
12th	Enabling factors for establishing REDD+ in the context of weak governance. (Korhonen-Kurki et al. 2014)	2014	Climate Policy	Taylor and Francis Ltd.	4	53	7,55
13th	Adaptive governance of autonomous vehicles: Accelerating the adoption of disruptive technologies in Singapore. (Tan and Taeihagh 2021)	2021	Government Information Quarterly	Elsevier Ltd.	3	9	33,33
14th	Renting legality: How FLEGT is reinforcing power relations in Indonesian furniture production networks. (Maryudi and Myers 2018)	2018	Geoforum	Elsevier BV	3	26	11,54
15th	Multisectoral governance for health: challenges in implementing a total ban on chrysotile asbestos in Thailand. (Kanchanachitra et al. 2018)	2018	BMJ Global Health	BMJ Publishing Group	3	8	37,50
16th	Cloud Computing in Singapore: Key Drivers and Recommendations	2018	Politics and Governance	Cogitatio Press	3	14	21,43

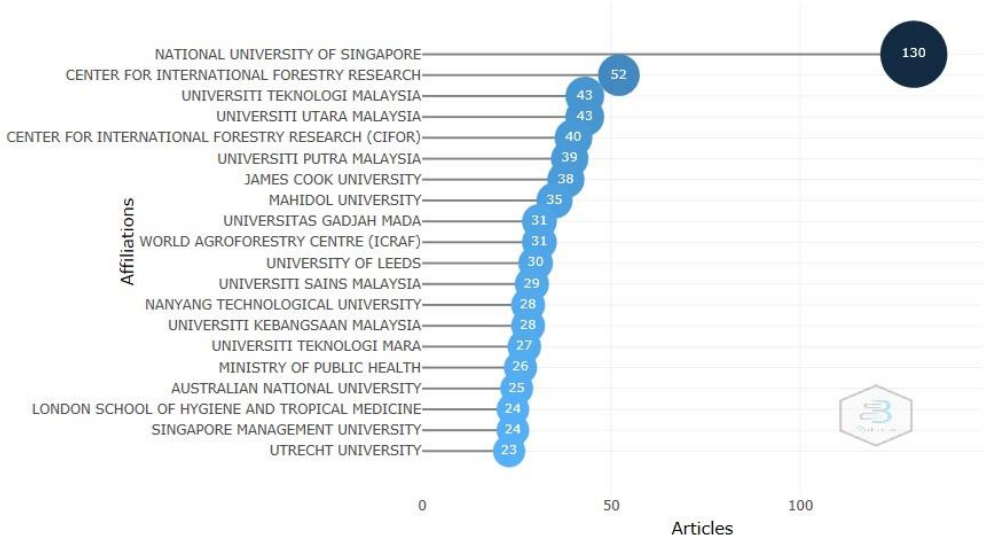
Rank	Document	Year	Source Title	Publishers	Local Citations	Global Citations	LC/GC Ratio (%)
	for a Smart Nation. (Ng 2018)						
17th	Certify and shift blame, or resolve issues? Environmentally and socially responsible global trade and production of timber and tree crops. (Mithöfer et al. 2017)	2017	International Journal of Biodiversity Science, Ecosystem Services and Management	Taylor and Francis Ltd.	3	21	14,29
18th	Framing national REDD+ benefits, monitoring, governance, and finance: A comparative analysis of seven countries. (Vijge et al. 2016)	2016	Global Environmental Change	Elsevier Ltd.	3	42	7,14
19th	From governance to government: The strengthened role of state bureaucracies in forest and agricultural certification. (Giessen et al. 2016)	2016	Policy and Society	Elsevier Ltd.	3	62	4,84
20th	Multilevel governance challenges in transitioning towards a national approach for REDD+: evidence from 23 subnational REDD+ initiatives. (Ravikumar et al. 2015)	2015	International Journal of the Commons	International Association for the Study of the Commons	3	42	7,14

Source: Processed by the author

4. Most relevant affiliations

The affiliations of the most pertinent researchers with published bibliometric studies are shown in Figure 1. The top three universities are spread across Malaysia, Indonesia, and Singapore. The National University of Singapore leads the field with 130 papers, followed by the Center for International Forestry Research in second place with 52 articles and Universiti Teknologi Malaysia in third place with 43 articles. These associations are specifically concentrated on the study of policy and governance. Leading educational institutions and research facilities can also be found in the United Kingdom (University of Leeds, London School of Hygiene and Tropical Medicine), Australia (James Cook University, Australian National University), Thailand (Mahidol University, Ministry of Public Health), Kenya (World Agroforestry Centre), and the Netherlands (Utrecht University).

Figure 1.
The most relevant affiliations



Source: Processed by the author

5. Most impactful authors

The authors' publications define the research field. The writers with the greatest impact on the field of Policy and Governance study are listed in Table 4. With 43 publications between them, the top three writers are Brockhaus M, Van Noordwijk M, and Di Gregorio M. Howlett M, Phelps J, and Tangcharoensathien V each contributed thirty-one, eight, and 10 publications, total, to this compilation. This collection includes six, eight, and seven publications from Fabinyi M, Moeliono M, Ramesh M. Lebel L, Legido-Quigley H, and Allison Eh each contributed five publications to this collection, totaling fifteen publications. Seven publications by Maryudi A are included in this compilation. Patcharanarumol W, Carmenta R, and Giessen L each contributed six publications to this collection, for a total of eighteen publications. Cerutti Po has 16 publications, Cheah Py has four, Coker R has four, and Dany V has four publications in this collection.

Table 4.
The most impactful authors

Rank	Element	h_index	g_index	m_index	TC	NP	PY_start
1st	Brockhaus M	13	18	1,444	637	18	2014
2nd	Van Noordwijk M	12	12	1,091	753	12	2012
3rd	Di Gregorio M	10	13	1,111	515	13	2014
4th	Howlett M	8	13	0,8	497	13	2013
5th	Phelps J	7	8	0,7	323	8	2013
6th	Tangcharoensathien V	7	10	0,636	168	10	2012
7th	Fabinyi M	6	6	0,857	180	6	2016
8th	Moeliono M	6	8	0,667	178	8	2014
9th	Ramesh M	6	7	0,667	200	7	2014
10th	Lebel L	5	5	0,625	496	5	2015

Rank	Element	h_index	g_index	m_index	TC	NP	PY_start
11th	Legido-Quigley H	5	5	0,556	83	5	2014
12th	Maryudi A	5	7	1	93	7	2018
13th	Patcharanarumol W	5	6	0,455	99	6	2012
14th	Allison Eh	4	5	0,444	160	5	2014
15th	Carmenta R	4	6	0,444	121	6	2014
16th	Cerutti Po	4	4	0,4	147	4	2013
17th	Cheah Py	4	4	0,5	75	4	2015
18th	Coker R	4	4	0,444	46	4	2014
19th	Dany V	4	4	0,444	46	4	2014
20th	Giessen L	4	6	0,5	93	6	2015

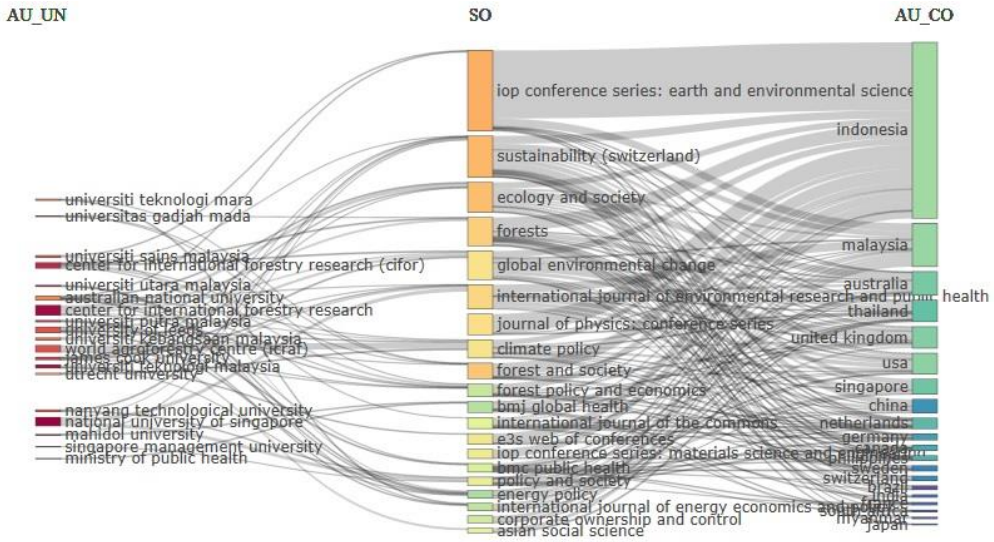
*Ranking by the number of publications (NP). We present authors with a minimum of six relevant publications. (Total Cititation (TC), Start Year of Publication (PY_start)).

Source: Processed by the author

6. Three-fields plot

It is crucial to take into account the interconnection of research subjects, journals, and countries. Consequently, Figure 2 presents an intriguing three-field plot that illustrates the connections among the Policy and Governance study's key publishing country (on the right), source outlets (in the middle), and affiliations (on the left). It was found that the majority of Indonesian authors are featured in international conference series related to earth and environmental research. The National University of Singapore and the Center for International Forestry Research have supplied most of the papers. The passage from the most pertinent institutions to the most pertinent journals and the most often occurring Keywords Plus was also displayed by the three-field plot.

Figure 2.
The three-fields plot



Source: Processed by the author

7. Keyword co-occurrences analysis

Next, we look for keyword co-occurrences in the author's text using VOSviewer. Keyword co-occurrence provides further support for scientific research by accurately characterizing research clusters within a field of study (Li et al., 2016). The VOSviewer program has generated a network of terms associated with "Policy and Governance" to identify co-occurrences. With VOSviewer, you may map objects, access data, and organize stuff.

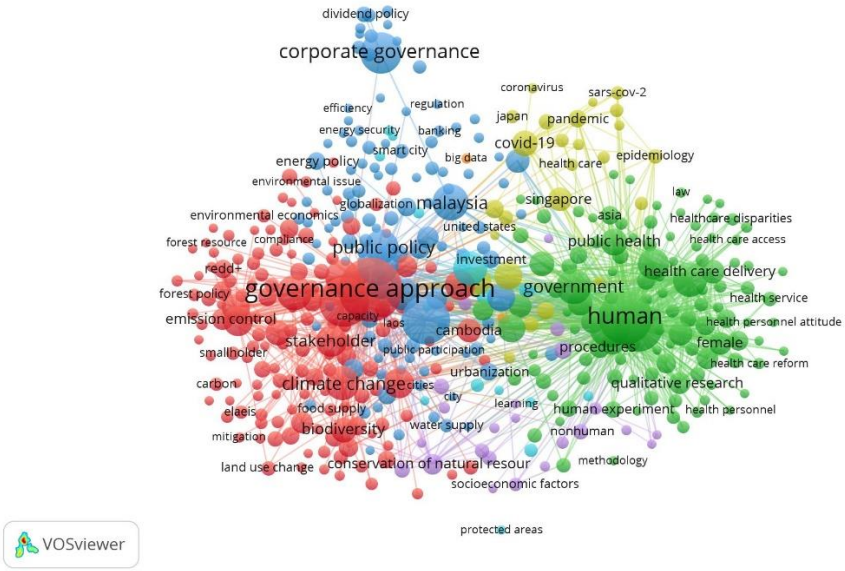
The circle's diameter and the frequency at which the author's keywords occur are negatively correlated. As such, the product label's size and the circle that encircles it are determined by the item's weight. The heavier the item, the greater the mark and the circle surrounding it (Xie et al., 2020). The separation between the two nodes reveals the disparity in their powers.

For example, closer proximity indicates a greater bond. The two important phrases are connected by a dashed line, implying that they appear together (Liao et al., 2018). The frequency at which the two nodes occur together is determined by the strength of their relationship. Pinto et al. (2014) suggest that the connection between the two nodes might be viewed as a numerical index.

After taking into consideration citation frequency and other factors, we utilized the VOSviewer program to evaluate the outputs from the Scopus database and identify the most often occurring terms. One can regulate the frequency of a keyword based on 1, 5, 10, or other occurrences. Bibliometric maps are visualized using the program VOSviewer (https://www.vosviewer.com), which was created by Van Eck and Waltman in 2010. This software generated three different visualizations of the bibliometric mapping: an overlay visualization, a network visualization (Figure 3), and a Figure 4 view. With the VOSviewer, keywords can be arranged into various clusters. The weights given to the events are displayed in the bullets.

After extracting the terms and abstract fields and applying full counting with a minimum of 5 occurrences, we obtained 5656 terms and 447 items that satisfy the criterion. Common terms such as "human," "Indonesia," "humans," "governance," "sustainable development," "corporate governance," "article," "Malaysia," "government," "environmental policy," "sustainable development," "climate change," "health care policy," and "policymaking" were omitted. Here, seven clusters have been found. The first cluster (red, 149 keywords) shows that the terms "governance approach" (200 occurrences), "Indonesia" (121), and "environmental policy" (62) are the most frequently occurring. The human (141 occurrences), human (118 occurrences), and government (60 occurrences) were the focal points of the second cluster (green, 117 keywords). The third cluster (blue, 116 terms) contained references to corporate governance (84 occurrences), Malaysia (67 occurrences), and governance (116 occurrences). The fourth cluster, which is yellow and has 25 terms, is associated with Singapore (29 occurrences), Vietnam (40 occurrences), and COVID-19 (33 occurrences).

Figure 3.
Author keywords co-occurrences network visualization



Source: Processed by the author

The conservation of natural resources (22 occurrences), India (16 occurrences), and integrated strategy (13 occurrences) were the focal points of the five clusters (purple, 23 keywords). Decentralization (14 occurrences), knowledge (13 occurrences), and policy-making (57 occurrences) were the topics of the sixth cluster (light blue, 15 keywords). The seventh cluster (orange, two keywords) concentrated on big data (6 occurrences) and agricultural workers (7 occurrences).

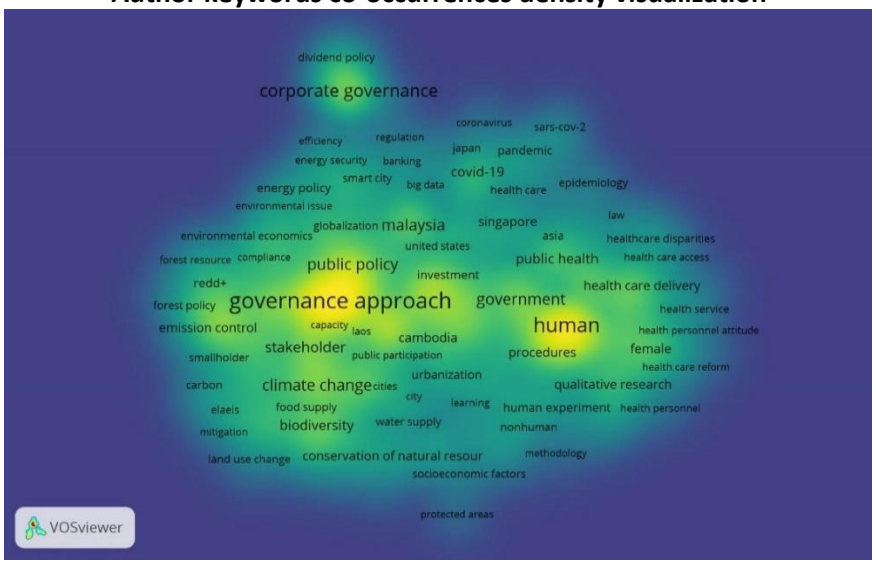
VOSviewer allows for the viewing of author keyword density (see Figure 4). The color of each node in the keyword density visualization plate varies according to the node item's density. Put otherwise, the quantity of objects in a node's environment determines its color. According to Liao et al. (2018), keywords are more common in red areas than in green ones; nevertheless, they are less common in green areas than in red areas. In Figure 4, the research publications are displayed graphically. The term "corporate governance" is used less frequently than other terms and is linked to efficiency, divided policy, environmental issues, energy policy, public engagement, and big data. Even while this is a relatively new subject, what other authors have done is starting to get interesting.

The frequency of publication distribution for the journals that deal with this topic and related concerns is shown in this figure (Figure 5) (Secinaro et al., 2020). The graph illustrates the result of the Loess regression, however. In this study, the quantity and timeliness of journal publications are regarded as variables. This approach allows the function to assume an unbounded distribution, meaning that in cases where the data is close to zero, it will be able to assume values lower than zero. It produces a more aesthetically pleasant impression and highlights the break in the publication's duration (Jacoby, 2000).

Our investigation revealed that, over a particular time frame, the author's keywords tended to show up more frequently. From 2012 to 2022, there were more main-term events annually, as Figure 5 illustrates, although some of them evolved more quickly than others during this time. The terms "article," "climate change," "decision making," "environmental policy," "governance

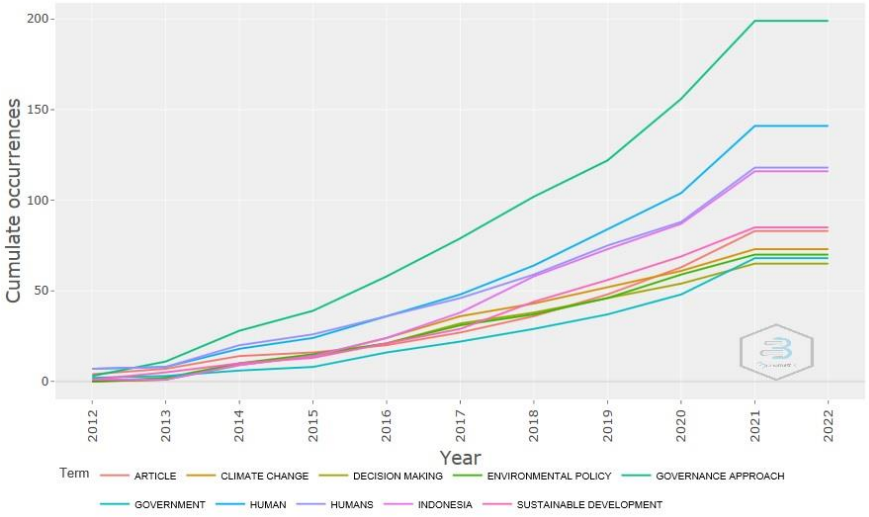
approach," "government," "human," "humans," "Indonesia," and "sustainable development" were those that witnessed the most increases in usage over time.

Figure 4.
Author keywords co-occurrences density visualization



Source: Processed by the author

Figure 5.
Word Growth.

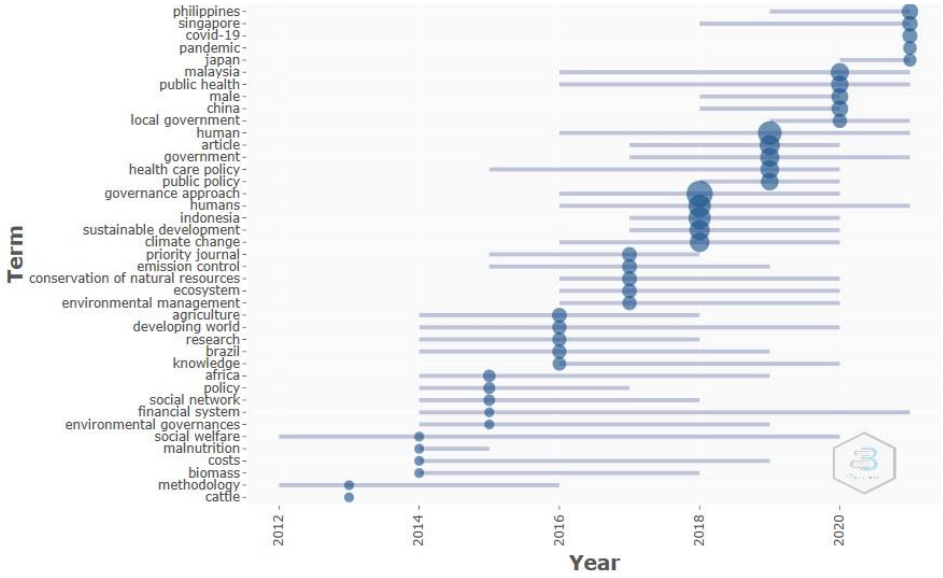


Source: keywords plus analysis using bibliometrix R-package

8. Trend topics

Using keyword analysis, Figure 6 presents the most important patterns from 2012 to 2022. Our analysis reveals that there have been fifteen popular subjects to look into over the last three years (2012–2022).

Figure 6.
Trend topics on Policy and Governance research



Source: Processed by the author

The analysis found that the subjects of human, article, government, health care policy, and public policy accounted for the bulk of articles published in 2019. In 2020, popular issues were China, Malaysia, public health, men, and local government. The domains of the Philippines, Singapore, COVID-19, Pandemic, and Japan have been reinstated in 2021. In 2022, COVID-19 will remain an intriguing topic for scientific investigation.

9. Collaboration world map

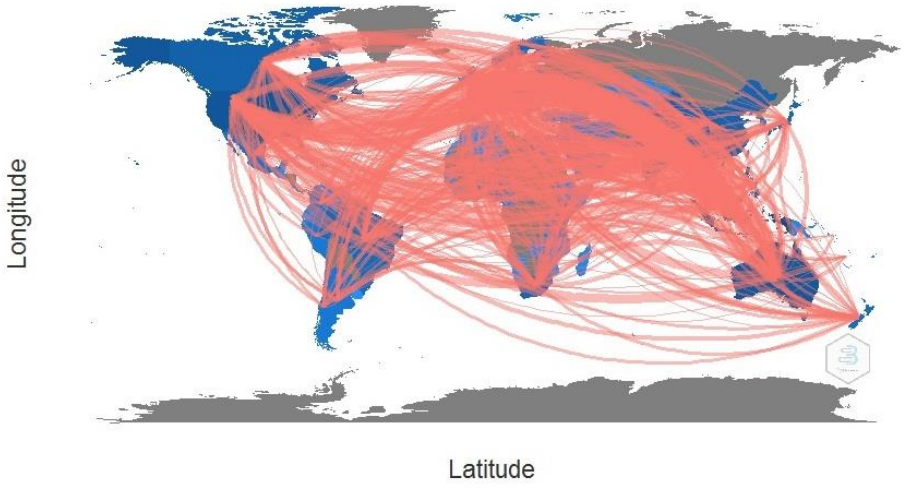
Figure 7 shows the global collaborations that have occurred. On the map, the color blue stands for global cooperation in scientific research. In addition, the degree of cooperation among the writers is indicated by the pink line that links the states. It's exciting to see which countries have participated in these kinds of alliances, particularly the ones with the most publications on governance and policy. The investigation's conclusions show that the United States and Indonesia have collaborated with the United Kingdom. Lastly, Singapore and the United Kingdom have collaborated 33 times.

Table 5.
The top ten country collaboration

Rank	From	To	Frequency
1st	USA	United Kingdom	52
2nd	Indonesia	United Kingdom	43
3rd	Indonesia	USA	41
4th	United Kingdom	Australia	41
5th	Indonesia	Australia	35
6th	Malaysia	Australia	35
Rank	**From**	**To**	**Frequency**
7th	Malaysia	United Kingdom	35
8th	USA	Singapore	35
9th	Indonesia	Netherlands	33
10th	United Kingdom	Singapore	33

*Analysis by biblioshiny for bibliometrix.
Source: Processed by the author

Figure 7.
Country collaboration map (2 min edges)



Source: Processed by the author

CONCLUSIONS

This study presents a comprehensive overview of works on Policy and Governance, combining bibliometric analysis with a methodical approach to content analysis. To compile this bibliography, we examined the 1000 items in the Scopus database, which were produced by 4222 multi-author papers with pieces published in 470 different journals. The following subsections will provide an overview of the key findings, guided by the four objectives listed in the section on research questions.

1. Key journals, articles, countries, affiliations, and authors

The three main high-quality journals that publish studies on policy and governance are the IOP Conference Series: Earth and Environmental Science, Sustainability (Switzerland), and Ecology and Society. The two orders of governance failure: Design mismatches and policy capacity issues in modern governance, as well as Governing Autonomous Vehicles: Emerging Responses for Safety, Liability, Privacy, Cybersecurity, and Industry Risks, Transaction Costs, Power, and Multi-Level Forest Governance in Indonesia, are considered the most influential articles by the LC. The academic institutions that publish the most publications annually include Universiti Teknologi Malaysia, the National University of Singapore, and the Center for International Forestry Research. Based on scientific productivity, Indonesia has published the most, with Malaysia and Thailand following closely behind. The most influential authors are Brockhaus M (h-index: 13), Van Noordwijk M (h-index: 12), and Di Gregorio M (h-index: 10), in order of the number of publications.

2. Future research directions

Research findings and meta-analyses have enabled a deeper understanding of Policy and Governance. There isn't a complete picture of the policy and government trends and issues that have been the subject of empirical investigation up to this point because there aren't enough study perspectives and research efforts on each topic. Though keywords and phrases are likely the most important themes and study findings, probably, some of the primary patterns and difficulties discussed throughout the text are inadequate as a result of our analysis.

There are some intriguing points of view in the study, but the researcher should also be aware of some potential weaknesses. To get a list of original research publications that have been published and indexed by Scopus, the researcher first utilizes certain keywords. This method has, nevertheless, been extensively used in previous bibliometric research. Despite being one of the largest databases for crediting scientific research, not all readily available sources are included in Scopus. This result is consistent with the study's exclusions.

Even the most exact search term, nevertheless, won't be enough to locate every paper on the scientific subject. Notwithstanding these limitations, the study provides insightful analyses of a wide range of topics associated with popular policy and governance literature, along with practical applications of the data. Future research should take into account research teams looking into pertinent policy and governance issues, such as public involvement, energy policy, environmental concerns, corporate governance, and dividend policy.

Author contributions: NK: Conceptualization, Investigation, Formal analysis, and Writing—original draft. BR: Writing—review and editing, funding acquisition, Project administration, Supervision. C: Methodology, Resources. DS: Data curation and Software. RSM: Visualization, Validation, and Redactional check. All authors have read and agreed to the published version of the manuscript.

Conflicts of interest: No potential conflict of interest relevant to this article was reported.

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