

Bibliometric Analysis of Public Policy Research in Indonesia 2011-2021

Azwar Aswin^{1*}, Madya Putra Yaumil Ahad², Metha Claudia Agatha Silitonga³, Rori Gusparirin⁴

^{1,2,3,4} Research Center for Public Policy, Badan Riset dan Inovasi Nasional Republik Indonesia

*Corresponding author: azwa002@brin.go.id

ABSTRACT

The aim of this study was to analyze the bibliometric characteristics of research works on public policy in Indonesia during the last ten years (2011-2021) by foreign and Indonesian authors. This study utilized Scopus database and retrieved 128 scientific publications from international authors focusing on public policy in Indonesia. The publications are examined based on several indicators including: publication trends, contribution of countries, journals, institutions, authors, top cited articles, and keyword analysis. The results show that during the last decade, there has been significant growth in the number of publications, with Indonesia as the country with the most published research works. Meanwhile, the influential institution affiliations publishing works about public policy in Indonesia are University of New South Wales, Australia and Vanderbilt University from the United States. Besides that, the top influential journal publishers are Development in Practices (UK) and Forest Policy and Economics (Netherlands). Based on the number of publications, Indonesian authors hold the top position, meanwhile, foreign authors were identified as the writers with the largest number of article citations. The most-cited article in public policy research in Indonesia focuses on education policy and published in International Journal of Educational Development. However, four of the top ten articles with the most citations are published in Forest Policy and Economics.

Article Info :

Article History :

Received : July 8, 2022
Revised : August 22, 2022
Accepted : September 22, 2022

Keywords:
bibliometric analysis;
indonesia; public policy

INTRODUCTION

Indonesia was among the top 24 countries for scientific publishing in 2018. From 1998 to 2018, Indonesia's global standings showed extraordinary growth compared with Iran and Malaysia (Elango & Oh, 2022). All types of scientific publications increased significantly between 2008 and July 2018, with journal articles rising from four to 79 in 2017 and papers in international conference proceedings rising from zero to 44 (Achwan, Ganie-Rochman, Alamsyah, & Triana, 2020). According to Scimago data, the number of

publications from Indonesia increased fivefold between 2000 and 2020 in all subject categories (Putera, Suryanto, Ningrum, & Widianingsih, 2020). Horta's analysis of worldwide publishing in higher education finds a phenomenal rise between 2011 and 2015, which he attributes partly to rising national policy pressure on academics to publish in globally indexed journals, especially high-impact journals (Horta, 2018). This surge in journal article publishing is also attributable to the increase of peripheral international journals (Frandsen, 2017).

Over the last two decades, the proliferation of scientific publications in Indonesia has allowed scholars to investigate subjects or topics in detail through bibliometric analysis. Some researchers have begun to use bibliometric analysis in the public policy academic arena. There are trends from previous studies that can be mapped.

First, the research used bibliometrics to investigate certain countries' governmental policies (Akbar, Arisaktiwardhana, & Naomi, 2020; Crumpton, Medeiros, Ferreira, Sousa, & Najberg, 2016; Cui & Zhang, 2018; Huang et al., 2015; Wu, Wang, He, Huang, & Dong, 2021). Second, the study used bibliometric analysis to evaluate scholarly publications related to public policy (Adams, Lind Infeld, Wikrent, & Bintou Cisse, 2016; Morkunas, Moore, & Duncan, 2019; Nafi'ah, Roziqin, Suhermanto, & Fajrina, 2021; Zahra et al., 2021). Third, the research used bibliometrics to examine big data analytics in public policy (El-Taliawi, Goyal, & Howlett, 2021; Suominen & Hajikhani, 2021). Moreover, the study used bibliometric analysis to investigate a specific topics in public policy, such as green deal policy, energy conservation, and energy efficiency (Ziabina & Pimonenko, 2020), medical tourism (Virani, Wellstead, & Howlett, 2020), and forest fire controlling policy (Rahmah, 2022). Lastly, the study used bibliometrics to map studies, trends, developments, and the status of scientific production in public policy (Pedro, Souza, Garzaro, Cirani, & Souza, 2021; Putera, Pasciana, & Zubaidah, 2021; Ruthes, 2017).

To add details, Putera, Pasciana, and Zubaidah (2021) conducted a bibliometric study to investigate trends and improvements in management and public policy during the past two decades (2000-2019). However, their research is conducted worldwide and is not limited to public policy. It is insufficient to provide detailed information regarding public policy research works in Indonesia. In addition, public policy is a vast and expanding area.

In recent years, the area of public policy has become more diverse and expansive. Public policy study spans several fields and various policy domains (El-Taliawi et al., 2021). Since the general approach is a multidisciplinary field with many methodologies, variables, and actors involved in this process (Ruthes, 2017). Interdependencies among problems in related policy fields appear to be increasing at an increasing rate in the first decade of this century (Dunn, 2018).

However, previous research indicates that a systematic analysis of the current state of public policy in Indonesia is limited. Gaining a better understanding of public policy research in Indonesia would provide helpful information for scholars interested in this subject for their future studies. Thus, this paper aims to provide an overview of research on public policy in Indonesia from 2011 to 2021.

This study addresses three questions: 1) How do analyze trends in public policy research works in Indonesia, 2) Who are the countries, journals, organizations, and authors with the most contributions to public policy research in Indonesia based on

several documents/articles and citations, 3) Which articles are most influential related to public policy research in Indonesia.

METHOD

The bibliometric analysis approach is used in this study. Bibliometrics helps provide datasets that policymakers, academics, and other stakeholders may utilize to enhance the quality of research (Hamidah, Sriyono, & Hudha, 2020). The bibliometric method is also a comprehensive and reliable way of studying and evaluating scientific publications to comprehend the growth of a specific topic (Baharuddin, Nurmandi, Qodir, Jubba, & Syamsurrijal, 2022; Nafi’ah et al., 2021). All data used in this study were taken from the Scopus database on June 16, 2022. Scopus, database was searched by utilizing two keywords: “Public Policy” and “Indonesia” in the last ten years (2011-2021). The search resulted in the discovery of 441 items without employing a filter.

Three filters were implemented to present more reliable data. The first is for the topic area restricted to “Social Sciences.” The second is that articles, conference papers, book chapters, and books are utilized as sources. And the third criterion is that only English is used in the report. Lastly, only published works written in English are used.

From 2011 to 2021, 128 articles were published using these three criteria. In addition, all search results data is saved to a CSV (Excel) file, which is then processed and examined using the VOSviewer program version 1.6.18. VOSviewer is a tool for displaying and analyzing trends in bibliometric maps (van Eck & Waltman, 2010). This program can display and depict bibliometric visual maps with unique data. Using VOSviewer in this research, the following sorts of analyses were conducted:

- a. Co-authorship, with the unit of analysis: countries, author
- b. Co-occurrence, with the unit of analysis: author keyword
- c. Citation, with the unit of analysis: document, source
- d. Bibliographic Coupling, with the unit of analysis: record, source, author, countries.

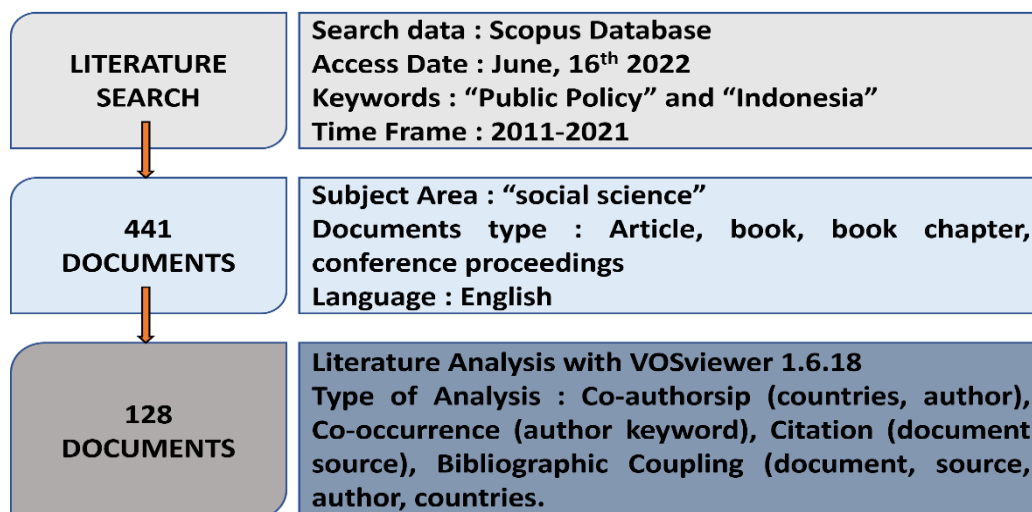


Figure 1. Data Collection Process

RESULTS AND DISCUSSION

Publication Trends

Over the last decade (2011-2021), research on public policy in Indonesia has produced 128 Scopus indexed documents (journal article, conference paper, book, book chapter), with the highest number of publications in 2021 of 24 pieces and the fewest publications in 2011 with four documents. Based on Figure 2, it can be stated that the publications rose significantly from 10 in 2018 to 23 in 2019.

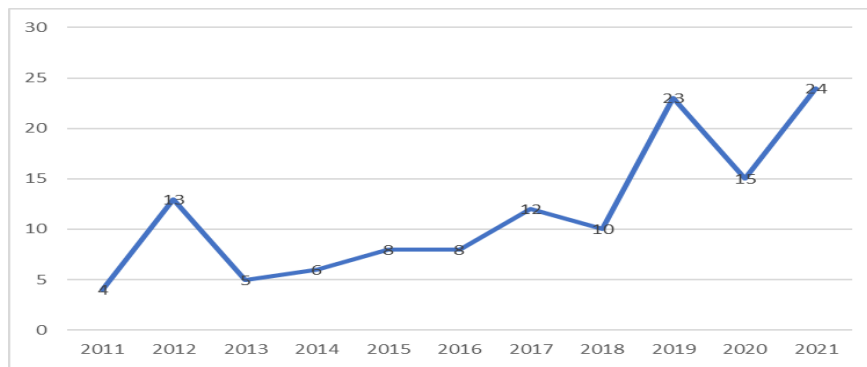


Figure 2. Publication Trends

The Influential Countries of Publication

Writers from 27 different countries published one hundred twenty-eight publications that became the topic of the study. The following is a list of the top ten countries regarding the number of publications and citations for “Public Policy in Indonesia.”

Table 1. Top 10 Countries of “Public Policy in Indonesia”

Based on number of documents					Based on number of citations				
Rank	Country	Documents	Citations	C/A	Rank	Country	Documents	Citations	C/A
		A	C				A	C	
1	Indonesia	73	327	4.48	1	Indonesia	73	327	4.48
2	United States	15	258	17.20	2	United States	15	258	17.20
3	Australia	15	93	6.20	3	Australia	15	93	6.20
4	Netherlands	7	83	11.86	4	Netherlands	7	83	11.86
5	Japan	5	35	7.00	5	France	2	37	18.50
6	Malaysia	5	21	4.20	6	Japan	7	35	5.00
7	United Kingdom	4	20	5.00	7	South Korea	2	35	17.50
8	Singapore	3	3	1.00	8	Norway	3	27	9.00
9	Norway	3	27	9.00	9	Canada	2	27	13.50
10	Germany	3	26	8.67	10	Germany	3	26	8.67

Source: Scopus, 2022. Processed by Author

According to Table 1, Indonesia ranks first among the top ten nations regarding the number of publications and citations. Seventy-three published publications have been cited 327 times. The United States, Australia, and the Netherlands are placed second through fourth. In terms of the number of publications and citations, there is no difference between the three countries. There are variances in the order of nations in ranks 5-9 depending on journals and sources. Based on the number of publications, Japan is rated fifth, followed by Malaysia, the United Kingdom, Singapore, and Norway. France, Japan, South Korea, Norway, and Canada are placed 5-9 in terms of the number of citations. Germany ranks 10 in the number of publications and the number of sources, with three papers cited 26 times. When viewed from the level of collaboration between countries, of the 27 countries that publish related to “Public Policy in Indonesia,” there are 18 countries that have collaborated.



Figure 3. Network Visualization of the Most Productive Countries Publishing “Public Policy Research in Indonesia”

The Influential Journal of Publication

There are discrepancies in ranking across publishing sources depending on the number of articles and citations. *Journal Development in Practice* ranks first based on the number of publications, with ten items. The following themes of articles from this journal explore economic-socio-political issues such as the practice and process of implementing environmental policy and sustainable development policy.

The journal *Asian-Pacific Economic Literature* comes in second with six items published. Then, in third place is the journal *Forest Policy and Economics*, which has five publications but is rated first in citations with 147. *Asian-Pacific Economic Literature* publishes article research focused on the human capital development, market economic, and monetary policy issues facing developing countries of the East Asia region and the Pacific island countries. The published articles of *Forest Policy and Economics* focused on economics research relating to forests, forested landscapes, and relevant forest legal policies in Indonesia. It indicates that the report “public policy in Indonesia” has been widely published in journals focusing on the economic field.

Journal Development in Practice is ranked second in citations, with 40 sources. *Journal/Book Asian-Pacific Economic Literature* comes in third with 36 citations. These three journals are among the top three prominent journals of publication. However, their rankings fluctuate depending on the number of articles and sources.

Table 2. Top Publication Sources of “Public Policy in Indonesia”

Based on the Number of Articles						Based on the Number of Citations					
Rank	Name of Journal/Book	Number of Articles	Number of Citations	Average	SJR-21 h-index	Rank	Name of Journal/Book	Number of Citations	Number of Articles	Average	SJR-21 h-index
		A	C	C/A				C	A	C/A	
1	Development in Practice	10	40	4.00	45	1	Forest Policy and Economics	147	5	29.40	73
2	Asian-Pacific Economic Literature	6	36	6.00	23	2	Development in Practice	40	10	4.00	45
3	Forest Policy and Economics	5	147	29.40	73	3	Asian-Pacific Economic Literature	36	6	6.00	23
4	Journal of Legal, Ethical and Regulatory Issues	3	2	0.67	13	4	Environmental Science and Policy	34	2	17.00	126
5	Environmental Science and Policy	2	34	17.00	126	5	Tobacco Control	28	2	14.00	129
6	Tobacco Control	2	28	14.00	129	6	Cities	26	2	13.00	102
7	Cities	2	26	13.00	102	7	Asian Politics and Policy	9	2	4.50	14
8	Asian Politics and Policy	2	9	4.50	14	8	Jurnal Komunikasi: Malaysian Journal of Communication	9	2	4.50	10
9	Jurnal Komunikasi: Malaysian Journal of Communication	2	9	4.50	10	9	Journal of Legal, Ethical and Regulatory Issues	2	3	0.67	13
10	Academic Journal of Interdisciplinary Studies	2	1	0.50	6	10	Academic Journal of Interdisciplinary Studies	1	2	0.50	6

Source: Scopus, 2022

The Influential Organizations of Publication

Referring to the author’s organization network, from 2011 until 2021, 321 authors from 244 organizations had written 128 articles on the “Public Policy in Indonesia” theme. VOSviewer visualization based on co-authored by organizations and had a relationship with other organizations is depicted in Figure 3. There is only one color, and the red color indicates the relationship among organizations. It is also seen that only 11 organizations have a relationship with each other. Meanwhile, “CSIRO Agriculture and Food” shows a close relationship with the “Development Policy Centre” in the middle and has relationships with other organizations from the different subject areas of research.

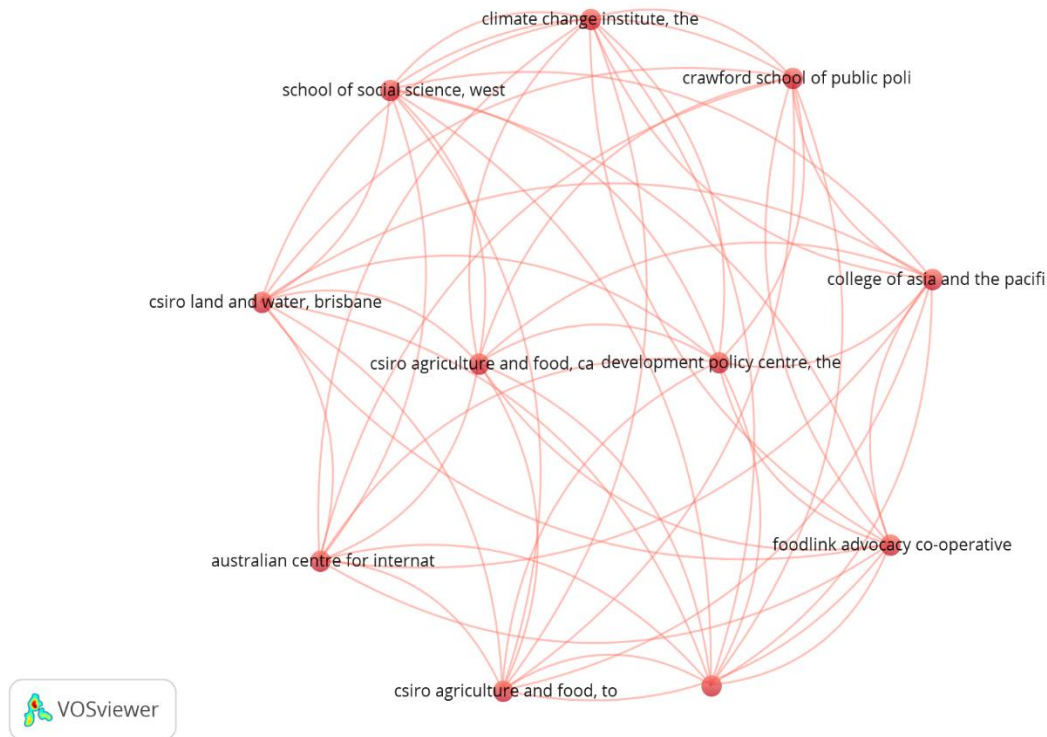


Figure 3. Author Network Among Organizations

Furthermore, authors from organizations in Australia dominate in writing articles about public policy in Indonesia and contribute significantly in terms of the number of pieces produced. Comparatively, writers from Indonesia’s organizations were included in the top ten based on the number of articles delivered but did not get too many citations or publications. This phenomenon also occurred before 2021; authors from many Australian organizations have done many studies about Indonesia. No other country has the same depth or breadth of expertise on Indonesia in its universities and research centers as Australia (Mackie, 2007).

University of New South Wales, Australia, was the organization that wrote the most articles about public policy in Indonesia during 2011-2021, which produced three pieces with the most citations with a total of 10 citations. Meanwhile, the following highest citation was Vanderbilt University from the United States, with 77 citations from 1 article. The Bandung Institute of Technology from Indonesia is the second most article produced with two pieces. The Center for International Forestry, Indonesia, is the fourth most cited, with 34 times based on one paper. At the same time, other Indonesian organizations follow with 68 citations from 2 articles. The top 10 citations and the number of documents by the author’s organizations are depicted in the table below.

Table 3. The Influential Organizations of Publication

Based on the number of documents					Based on the number of citations				
Rank	Organization	Docu-ments	Cita-tions	C/A	Rank	Organization	Docu-ments	Cita-tions	C/A
		A	C				A	C	
1	University of New South Wales, Australia	3	10	3.33	1	Vanderbilt University, United States	1	77	77
2	Bandung Institute of Technology, Indonesia	2	26	13.00	2	International Food Policy Research Institute, United States	1	38	38
3	Australian Centre for International Agriculture Research, Australia	1	7	7.00	3	World Bank, United States	1	38	38
4	Climate change institute, The Australian National University, Australia	1	7	7.00	4	Center for International Forestry, Indonesia	1	34	34
5	College of Asia and The Pacific, The Australian National University, Australia	1	7	7.00	5	Faculty Economics, University of Mataram, Indonesia	1	34	34
6	Crawford School of Public Policy, Australian National University	1	7	7.00	6	Forestry Study Program, University of Mataram, Indonesia	1	34	34
7	Csiro Agriculture and Food, Canberra, Australia	1	7	7.00	7	Korea Forest Research Institute, South Korea	1	34	34
8	Csiro Agriculture and Food, Townsville, Australia	1	7	7.00	8	Northern Arizona University, United States	1	34	34
9	Csiro Land and Water, Australia	1	7	7.00	9	University of Arizona, United States	1	34	34
10	Development Policy Centre, The Australian National University Australia	1	7	7.00	10	Institute for Sustainable Development And International Relations (IDDRI), France	1	34	34

Source: Scopus, 2022

Citation Network Among Authors

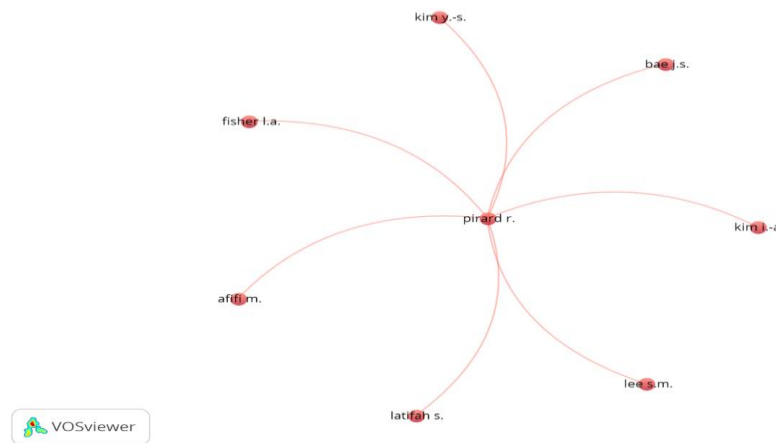


Figure 4. Citation Network Among Authors

Figure 4 depicts a cluster generated by the number of writers on the subject of ‘public policy’ articles with at least one citation. Only publications by Pirard R. were most mentioned by other writers, including Kim Y.S., Bae J.S., Kim I.A., Lee S.M., Latifah S., Afifi M., and Fisher L.A. This shows that the writers have referenced a few papers on the theme of ‘public policy,’ and the authors are not related via the cited articles.

Table 4. The Influential Authors of Publication

Based on the number of documents					Based on the number of citations				
Rank	Author	Docu-ments	Cita-tions	C/A	Rank	Author	Docu-ments	Cita-tions	C/A
		A	C				A	C	
1	Sagala S.	3	27	9.00	1	Heyneman S.P.	1	77	77.00
2	Tarigan A.K.M	3	27	9.00	2	Stern J.M.B.	1	77	77.00
3	Muttaqin M.Z.	2	47	23.50	3	Muttaqin M.Z.	2	47	23.50
4	Sebayang S.K.	2	28	14.00	4	Liu Y.	1	38	38.00
5	Samsura, D.A.A.	2	26	13.00	5	Yamauchi F.	1	38	38.00
6	Suryadar ma, D.	2	9	4.50	6	Pirard R.	1	34	34.00
7	Wijaya A.F.	2	4	2.00	7	Afifi M.	1	34	34.00
8	Pirard R.	1	34	34.00	8	Bae J.S.	1	34	34.00
9	Ahsan A.	1	17	17.00	9	Fisher L.A.	1	34	34.00
10	Dewi D. M.S.K.	1	17	17.00	10	Kim I.-A	1	34	34.00

Source: Scopus, 2022

Based on data from the most prolific authors who have published publications on the topic of 'public policy in the last decade, there are more than 128 authors, both individually and in partnership with other authors, who publish Scopus-indexed works on the topic of 'Public Policy. Table 3 lists the ten writers with the most publications. Based on the number of publications, Sagala S. and Tarigan A.K.M. hold the top and second places as the most prolific writers, with three pieces each. Muttaqin M.Z., Sebayang S.K., Samsura D.A.A., Suryadarma D., and Wijaya A.F. are in second place with two articles apiece, followed by Pirard R., Ahsan A., and Dewi D.M.S.K. with one piece each. However, Heyneman S.P. and Stern J.M.B. were identified as the writers with the most significant number of article citations, each with 77 sources. Muttaqin M.Z. is third with two publications and 47 citations, followed by Liu Y. and Yamauchi F., with 38 citations. Pirard R., Afifi M., Bae J.S., Fisher L.A., and Kim I.A. each had 34 citations, putting them in sixth through tenth place.

Top Cited Articles

The top cited article in public policy research in Indonesia focuses on education policy. The article titled "Low cost private schools for the poor: What public policy is appropriate?" was written by Heyneman & Stern and published in International Journal of Educational Development. This work received the most citations because it reports and contrasts the education policy of low-fee non-government schools in several countries, based on case studies in Jamaica, Kenya, Tanzania, Ghana, Indonesia, Pakistan, and evaluates the reasons for their rising demand. This article examines the appropriate public policy for low-cost private schools, including the policy of development assistance agencies that strive to assist low-income and middle-income nations as well as the proper public policy for national and local governments. Furthermore, the paper concludes with many suggestions. First, children from low-income families who attend private schools should not be excluded from poverty assistance strategies, since they are still citizens. A second recommendation is to enhance government statistics functions so that private schools are regularly included in the calculations of enrollment rates. Lastly, the paper does not support vouchers or other publicly funded school choice programs on the premise that the public sector should remain the primary provider of public education. It does, however, raise questions regarding the public sector's limitations in providing high-quality education and whether these limitations should be acknowledged more openly.

In the context of Indonesian public policy, private schools may be found all around the country, although those that serve low-income communities are often created in remote locations to accommodate demand. The Baduy school in West Java is an extreme example, as the nearest public school was over 10 kilometers away. When a nation cannot offer an acceptable number of public school spaces, the demand for low-cost private education options increases. In an attempt to guarantee that all children are able to enroll in non-government schools if they choose, the Indonesian government instituted a plan to provide school operational (BOS) funds to private schools in order to waive all tuition for poor students. Despite the regulations, some schools are unable to meet all of their expenses with BOS funds and must thus charge fees or ask for donations. However, these schools almost always admit students regardless of their ability to pay tuition or make

donations. The government provides operational funds to schools, which are frequently used to pay private school teachers' salaries. Due to frequent donations from the public sector, the private school sector was better off financially despite being impoverished. The Indonesian model of providing operational funding to all private schools could be used to alleviate some of the fiscal concerns of low-cost private schools, despite the fact that it may be more extreme than some countries are willing to implement.

Table 5. The Influential Articles

Influential Articles						
Rank	Title	Authors	Year	Source Title	Total Citations	Document Type
1	Low-cost private schools for the poor: What public policy is appropriate?	Heyneman S.P., Stern J.M.B.	2014	International Journal of Educational Development	77	Article
2	Population density, migration, and the returns to human capital and land: Insights from Indonesia	Liu Y., Yamauchi F.	2014	Food Policy	38	Article
3	Indonesia's Forest Management Units: Effective intermediaries in REDD+ implementation?	Kim Y.-S., Bae J.S., Fisher L.A., Latifah S., Afifi M., Lee S.M., Kim I.-A.	2016	Forest Policy and Economics	34	Article
4	Payments for environmental services (PES) in the public policy landscape: "Mandatory" spices in the Indonesian recipe	Pirard R.	2012	Forest Policy and Economics	34	Article
5	Opinions on legality principles considered in the FLEGT/VPA policy in Ghana and Indonesia	Wiersum K.F., Elands B.H.M.	2013	Forest Policy and Economics	32	Article
6	Redesigning Indonesian forest fiscal policy to support forest conservation	Nurfatriani F., Darusman D., Nurrochmat D.R., Yustika A.E., Muttaqin M.Z.	2015	Forest Policy and Economics	31	Article
7	A framework for facilitating dialogue between policy planners and local climate change adaptation professionals: Cases from Sweden, Canada, and Indonesia	Larsen R.K., Swartling Å.G., Powell N., May B., Plummer R., Simonsson L., Osbeck M.	2012	Environmental Science and Policy	27	Article

8	The nature of Asian politics	Gilley B.	2014	The Nature of Asian Politics	25	-
9	Actors, objectives, context: A framework of the political economy of energy and climate policy applied to India, Indonesia, and Vietnam	Jakob M., Flachsland C., Christoph Steckel J., Urpelainen J.	2020	Energy Research and Social Science	22	Article
10	Balikpapan: Urban planning and development in anticipation of the post-oil industry era	Tarigan A.K.M., Samsura D.A.A., Sagala S., Wimbardana R.	2017	Cities	20	Article

Source: Scopus, 2022

Table 4 lists the ten most frequently cited publication titles. The article ‘Low-cost private schools for the poor: What public policy is appropriate?’ from the International Journal of Educational Development (Heyneman & Stern, 2014) received the most citations, with 77. This paper discusses public policy associated with low-cost private schools, including the policy of development assistance agencies that seek to assist low and middle-income countries and the appropriate public policy for national and local governments (Heyneman & Stern, 2014).

The article Population density, migration, and the returns to human capital and land: Insights from Indonesia’ from Food Policy (Liu & Yamauchi, 2014) comes in second with 38 citations. This paper uses panel data from Indonesia to discuss the dynamics of population density and its impacts on household outcomes. Researchers found that population density is higher in urban areas and is increasing over time to perpetuate urbanization. Migration to urban areas is large, so population pressures on rural land can be mitigated through migration and the analysis showed that the young and the educated tend to migrate from rural communities (Liu & Yamauchi, 2014).

The third place is held by the article ‘Indonesia’s Forest Management Units: Effective Intermediaries in REDD+ Implementation?’ from Forest Policy and Economics (Kim et al., 2016), which has received 34 citations. In this paper, researchers examined the critical roles of intermediaries in REDD+ projects. The case study from Lombok showed that the drivers of deforestation and forest degradation include land tenure conflicts, population growth, lack of economic opportunities, and illegal logging, all exacerbated by expanded infrastructure, weak enforcement, and ineffective forest governance (Kim et al., 2016). Furthermore, Table 5 shows four top ten articles with the most citations from Forest Policy and Economics. Other articles appeared in Food Policy, Environmental Science and Policy, The Nature of Asian Politics, Energy Research and Social Science, and Cities.

Keyword Analysis

The map of research publishing articles on public policy in Indonesia from 2011-2021 illustrated the clustering of keywords marked with each color and number of nodes. Figure 5 shows a network visualization based on co-occurrence by the authors’ keywords, with the keywords “Indonesia” and “Public Policy” being more prominent than the other. The visualization is based on the analysis results using VOSviewer, the larger the circle size, the more frequent the occurrence of the keywords. Keywords with the

same color show that they are in the same cluster and have a close relationship with other keywords.

The results are as follows. Cluster 1 is marked by six red nodes, focusing on democracy, education policy, forest governance, Indonesia, social media, and women. Cluster 2 is characterized by five green nodes, focusing on community, corruption, covid-19, decentralization, and local government; Cluster 3 is marked by three blue nodes, focusing on advertising and promotion, low/middle-income countries, policy implementation, and public policy. The picture below shows that the public policy topic in Indonesia is related to policy implementation and local government. Research related to the keyword “public policy” in Indonesia has hardly been found in the last three years (2019-2021).

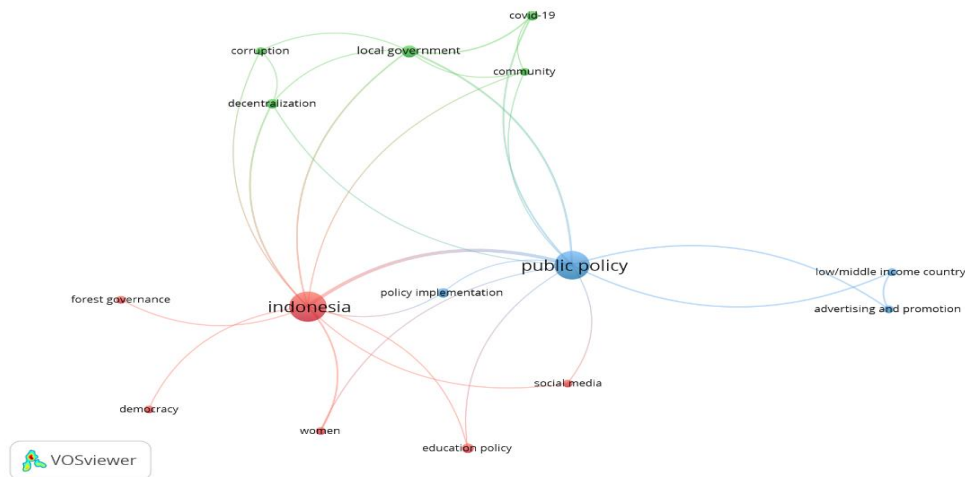


Figure 5. Keyword Network Visualization

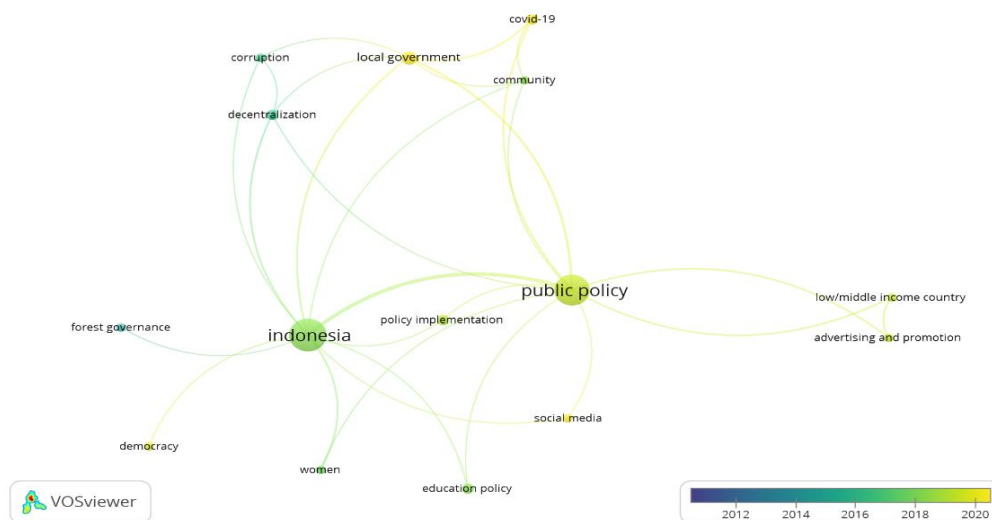


Figure 6. Keyword Overlay Visualization

Figure 6 shows the overlay visualization. Research related to public policy, local government, low/middle-income countries, and covid-19 is a topic that emerged in 2020. Colored yellow nodes mark these. While the issues of forest governance, decentralization, and women are research conducted before 2016. The results of this research are illustrated by the effects of overlay visualization based on co-occurrence (2 occurrences) by the authors' keywords.

Figure 7 is the density network indicating the intensity level of research based on co-occurrence by keyword authors. More concentrated colors indicate more research related to the keyword. According to Figure 7, the most often used keywords are "public policy" and "indonesia." This overlay identifies essential topics in public policy research in Indonesia during the last ten years (2011-2021). There is no over-researched topic since all keywords, except "indonesia" and "public policy," have similar density.

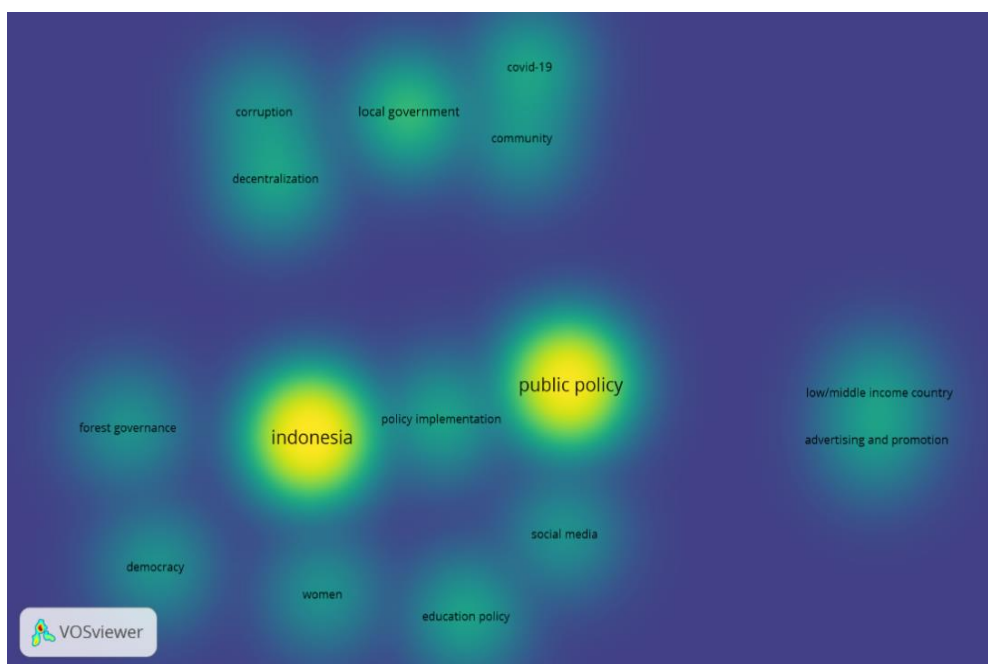


Figure 7. Keyword Density Visualization

CONCLUSION

Over the last decade, in terms of research works on public policy in Indonesia, there has been significant growth in the number of publications, with Indonesia as the country with the most published works. However, the influential institution affiliations publishing results about public policy in Indonesia are the University of New South Wales, Australia, and Vanderbilt University in the United States. Besides that, the top influential journal publishers are Development in Practices (United Kingdom) and Forest Policy and Economics (Netherlands).

Based on the number of publications, Indonesian authors hold the top and second places as the most prolific writers, with three pieces each. However, foreign authors were identified as the writers with the most significant number of article citations. Authors of research work on public policy in Indonesia come from various countries worldwide.

Based on the Scopus database, the most influential work is entitled 'Low-cost private schools for the poor: What public policy is appropriate?' from the *International Journal of Educational Development*. The article 'Population density, migration, and the returns to human capital and land: Insights from Indonesia' from *Food Policy* (Liu & Yamauchi, et al., 2014) comes in second place. The third place is held by the article 'Indonesia's Forest Management Units: Effective Intermediaries in REDD+ Implementation?' from *Forest Policy and Economics* (Kim et al., 2016). Furthermore, four of the top ten articles with the most citations are from *Forest Policy and Economics*.

Public policy research in Indonesia contains a wide range of themes. According to the top cited articles, education, demographics, forestry, environment, energy, politics, and urban planning are among Indonesia's most popular public policy study themes. Therefore, researchers interested in public policy in Indonesia may research different public policy topics, such as public health, social welfare, and national security. Additionally, to support the development of Indonesia's new capital (IKN), the Indonesian government requires research on a wide range of policy themes.

Several limitations of the present study should be noted. First, the bibliometric analysis is limited to research works on public policy in Indonesia retrieved from the Scopus database. Although Scopus is considered one of the largest abstract and citation databases of peer-reviewed literature, it probably does not capture the comprehensive scholarly literature on public policy in Indonesia. Therefore, including other databases, especially the expanding body of preprints available in the Google Scholar database, could have provided additional insights not available in this study. Second, this research covers a relatively limited period (2011-2021). Therefore, subsequent examination with a more extended period may reveal new time-dimensional insights.

REFERENCES

- Achwan, R., Ganie-Rochman, M., Alamsyah, A. R., & Triana, L. (2020). University reform and the development of social sciences in Indonesia. *International Journal of Educational Development*, 78 (102269), 1-9. <https://doi.org/10.1016/j.ijedudev.2020.102269>
- Adams, W. C., Lind Infeld, D., Wikrent, K. L., & Bintou Cisse, O. (2016). Network Bibliometrics of Public Policy Journals. *Policy Studies Journal*, 44, S133-S151. <https://doi.org/10.1111/psj.12149>
- Akbar, I., Arisaktiwardhana, D., & Naomi, P. (2020). How does Indonesian scientific production on renewable energy successfully support the policy design? A journey towards sustainable energy transition. *Problemy Ekorozwoju*, 15(2), 41-52. <http://dx.doi.org/10.35784/pe.2020.2.05>
- Baharuddin, T., Nurmandi, A., Qodir, Z., Jubba, H., & Syamsurrijal, M. (2022). Bibliometric Analysis of Socio-Political Research on Capital Relocation: Examining Contributions to the Case of Indonesia. *Journal of Local Government Issues*, 5(1), 17-31. <https://doi.org/10.22219/logos.v5i1.19468>
- Crumpton, C. D., Medeiros, J. J., Ferreira, V. R. S., Sousa, M. M., & Najberg, E. (2016). Evaluation of public policies in Brazil and the United States: A research analysis in the last ten years. *Revista de Administracao Publica*, 50(6), 981-1001. Retrieved from <https://doi.org/10.1590/0034-7612156363>

- Cui, T., & Zhang, J. (2018). Bibliometric and review of the research on the circular economy through the evolution of Chinese public policy. *Scientometrics*, 116(2), 1013–1037. <https://doi.org/10.1007/s11192-018-2782-y>
- Dunn, W. N. (2018). *Public policy analysis: an integrated approach* (Sixth Edition). New York: Routledge, Taylor & Francis Group.
- Elango, B., & Oh, D.-G. (2022). Scientific Productivity of Leading Countries. *International Journal of Information Science and Management*, 20(2), 127–143.
- El-Taliawi, O. G., Goyal, N., & Howlett, M. (2021). Holding out the promise of Lasswell's dream: Big data analytics in public policy research and teaching. *Review of Policy Research*, 38(6), 640–660. <https://doi.org/10.1111/ropr.12448>
- Frandsen, T. F. (2017). Are predatory journals undermining the credibility of science? A bibliometric analysis of citers. *Scientometrics*, 113(3), 1513–1528. Retrieved from <https://doi.org/10.1007/s11192-017-2520-x>
- Hamidah, I., Sriyono, S., & Hudha, M. N. (2020). A Bibliometric Analysis of Covid-19 Research using VOSviewer. *Indonesian Journal of Science and Technology*, 5(2), 209–216. Retrieved from <https://doi.org/10.17509/ijost.v5i2.24522>
- Heyneman, S. P., & Stern, J. M. B. (2014). Low cost private schools for the poor: What public policy is appropriate? *International Journal of Educational Development*, 35, 3–15. Retrieved from <https://doi.org/10.1016/j.ijedudev.2013.01.002>
- Horta, H. (2018). Higher-Education Researchers in Asia: The Risks of Insufficient Contribution to International Higher-Education Research. In J. Jung, H. Horta, & A. Yonezawa (Eds.), *Researching Higher Education in Asia* (pp. 15–36). Singapore: Springer Singapore. https://doi.org/10.1007/978-981-10-4989-7_2
- Huang, C., Su, J., Xie, X., Ye, X., Li, Z., Porter, A., & Li, J. (2015). A bibliometric study of China's science and technology policies: 1949–2010. *Scientometrics*, 102(2), 1521–1539. Retrieved from <https://doi.org/10.1007/s11192-014-1406-4>
- Kim, Y.-S., Bae, J. S., Fisher, L. A., Latifah, S., Afifi, M., Lee, S. M., & Kim, I.-A. (2016). Indonesia's Forest Management Units: Effective intermediaries in REDD+ implementation? *Forest Policy and Economics*, 62, 69–77. <https://doi.org/10.1016/j.forpol.2015.09.004>
- Liu, Y., & Yamauchi, F. (2014). Population density, migration, and the returns to human capital and land: Insights from Indonesia. *Food Policy*, 48, 182–193. <https://doi.org/10.1016/j.foodpol.2014.05.003>
- Mackie, J. (2007). *Australia and Indonesia: current problems, future prospects*. Double Bay, NSW: Longueville Books.
- Morkunas, V. J., Moore, S., & Duncan, S. Y. (2019). A bibliometric analysis of the Journal of Public Affairs. *Journal of Public Affairs*, 19(1), 1–17. <https://doi.org/10.1002/pa.1833>
- Nafi'ah, B. A., Roziqin, A., Suhermanto, D. F., & Fajrina, A. N. (2021). The Policy Studies journal: A Bibliometric and mapping study from 2015–2020. *Library Philosophy and Practice*, 2021, 1–18.
- Pedro, S. de C., Souza, F. E. R. de, Garzaro, D. M., Cirani, C. B. da S., & Souza, M. T. S. de. (2021). Innovation in public policies: a bibliometric study for new research. *International Journal of Innovation*, 9(3), 496–521. <https://doi.org/10.5585/iji.v9i3.19676>

- Putera, P. B., Pasciana, R., & Zubaidah, S. (2021). Global scientific trends on management and public policy research during 2000-2019: a bibliometric study. *Library Philosophy and Practice*, 2021, 1–15.
- Putera, P. B., Suryanto, S., Ningrum, S., & Widianingsih, I. (2020). A bibliometric analysis of articles on innovation systems in Scopus journals written by authors from Indonesia, Singapore, and Malaysia. *Science Editing*, 7(2), 177–183. <https://doi.org/10.6087/KCSE.214>
- Rahmah, M. (2022). Bibliometric Analysis: Forest Fire Controlling Policy in Indonesia. *Jurnal Pemerintahan Dan Kebijakan (JPK)*, 3(2), 60–74. <https://doi.org/10.18196/jpk.v3i2.14353>
- Ruthes, S. (2017). Use of Prospective Studies on Policy Analysis: A Bibliometric Study. *European Journal of Scientific Research*, 148(1), 18.
- Suominen, A., & Hajikhani, A. (2021). Research themes in big data analytics for policymaking: Insights from a mixed-methods systematic literature review. *Policy and Internet*, 13(4), 464–484. <https://doi.org/10.1002/poi3.258>
- van Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, 84(2), 523–538. <https://doi.org/10.1007/s11192-009-0146-3>
- Virani, A., Wellstead, A. M., & Howlett, M. (2020). Where is the policy? A bibliometric analysis of the state of policy research on medical tourism. *Global Health Research and Policy*, 5(1), 19. <https://doi.org/10.1186/s41256-020-00147-2>
- Wu, J., Wang, K., He, C., Huang, X., & Dong, K. (2021). Characterizing the patterns of China's policies against COVID-19: A bibliometric study. *Information Processing and Management*, 58(4), 1-20. <https://doi.org/10.1016/j.ipm.2021.102562>
- Zahra, A. A., Nurmandi, A., Tenario, C. B., Rahayu, R., Benectitos, S. H., Mina, F. L. P., & Haictin, K. M. (2021). Bibliometric Analysis of Trends in Theory-related Policy Publications. *Emerging Science Journal*, 5(1), 96–110. <https://doi.org/10.28991/esj-2021-01261>
- Ziabina, Y., & Pimonenko, T. (2020). The Green Deal Policy for Renewable Energy: A Bibliometric Analysis. *Virtual Economics*, 3(4), 147–168. [https://doi.org/10.34021/ve.2020.03.04\(8\)](https://doi.org/10.34021/ve.2020.03.04(8))