

BIBLIOMETRIC ANALYSIS OF BUREAUCRACY IN INDONESIA

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ABSTRAK

Artikel ini merupakan analisis bibliometrik terhadap publikasi ilmiah “Birokrasi di Indonesia”. Analisis bibliometrik merupakan langkah penting dilakukan untuk menghasilkan rekomendasi bagi seluruh peneliti yang tertarik meneliti topik ini. Analisis bibliometrik birokrasi di Indonesia memungkinkan seluruh akademisi mengetahui kesenjangan/gap dalam penelitian dengan topik birokrasi di Indonesia. Dengan melakukan analisis bibliometrik, topik-topik yang sudah banyak diteliti (*over researched*) dan yang masih kurang (*under researched*) dapat diidentifikasi. Metode yang digunakan dalam penelitian ini adalah metode kuantitatif dengan analisis bibliometrik. Terdapat 471 jurnal dari tahun 1996-2022 yang dianalisis oleh penulis menggunakan beberapa software yaitu Publish or Perish, VOSviewer, dan Mendeley. Kata kunci pencarian yang digunakan (keyword) adalah “Birokrasi di Indonesia” dan “Bureaucracy in Indonesia” terdapat 28 sub-kata kunci yang dibagi kedalam 4 cluster. Hasil analisis menunjukkan bahwa topik-topik seperti birokrasi, pelayanan publik, reformasi, dan sipil negara merupakan istilah yang paling sering dijadikan topik penulisan artikel ilmiah dari 471 artikel yang dianalisa. Dari penelitian ini juga ditemukan bahwa penulis artikel ilmiah di Indonesia masih belum banyak yang menerapkan “Stand on the shoulders of giants” terutama dalam penelitian mengenai Birokrasi.

Kata Kunci: Analisis Bibliometrik; Birokrasi; Indonesia

ABSTRACT

This paper examines the scientific paper "Bureaucracy in Indonesia" from a bibliometric standpoint. The use of bibliometric analysis to generate recommendations for all academics interested in this topic is a crucial stage in the research process. A bibliometric examination of Indonesian bureaucracy allows researchers to discover research gaps in the topic. Topics that have been over-researched and under-

researched can be determined using bibliometric analysis. This study used a quantitative strategy that included bibliometric analysis. The author studied 471 journals from 1996 to 2022 using numerous software programs, including Publish or Perish, VOSviewer, and Mendeley. "Bureaucracy in Indonesia" and "Birokrasi di Indonesia" were the keywords. There were 28 sub-keywords in total, organized into four clusters. From the 471 articles evaluated, the results suggest that terms such as bureaucracy, public services, reform, and civil society are the most frequently utilized as topics for authoring scientific studies. This study also found that many scientific article writers in Indonesia still do not apply "Stand on the shoulders of giants", especially in the research on bureaucracy.

Key Word: Bibliometric analysis; Bureaucracy; Indonesia.

INTRODUCTION

In any nation or state, there are numerous issues that need to be addressed by government officials. The issues that need to be addressed and resolved by bureaucrats are implemented through bureaucracy. Bureaucracy itself is a system that manages various kinds of work in large-scale organizations, such as government organizations, that are characterized by order, discipline, a division of authority, and a clear hierarchy (Diana, 2017). Given the importance of bureaucracy in national and state life, studies should be conducted to examine bureaucratic practices in Indonesia. Bureaucratic research practices in Indonesia must be evaluated in terms of novelty, interdependence, and research intensity. Thus, in order to identify which subtopics of bureaucracy need more research, a mapping of the previously studied topics is necessary.

Bibliometric analysis is a method to observe research trends from the publication of various scientific articles. Bibliometric analysis can identify research topics that are over-researched; thus, under-researched topics could be more easily identified. Bibliometric analysis also has the assumption that the researcher should use the principle of "stand on the shoulders of giants." This means using the understanding gained by major thinkers who have gone before to make intellectual progress. Thus, this study was carried out in order to verify other bibliometric analysis-based research studies and papers on Indonesian bureaucracy. This study was created to demonstrate that, in order to identify a novel research topic regarding bureaucracy, bibliometric analysis must be performed. This allows potential research topics to be mapped out and identified. This analysis will provide progress and the

development of knowledge related to the topic of “Bureaucracy in Indonesia” (Mubarok & Rahmawati, 2020).

LITERATURE REVIEW

The implementation of bureaucracy has never escaped criticism. In the book "The Case for Bureaucracy" by Charles T. Goodsell, he wrote that there are 3 criticisms of bureaucracy., These criticisms are:

1. Bureaucracy is perceived to have poor performance.

Even in contrast to the private sector, bureaucracies frequently aim to maximize budgets rather than the benefits to society, and frequently, the proposed or used budgets do not align with the real situation. This leads to overexploitation of budgets and ineffective utilization of resources.

2. Bureaucracy is believed to have excessive power

With this excessive power, bureaucracy often kills the creativity of individuals within itself and is authoritarian. The bureaucracy also does not always represent the people, but instead represents and protects the interests or needs of the ruling regime.

3. Bureaucracy is perceived as tending to oppressive individuals

Bureaucracies are seen as mistreating the people. The oppression that occurs is often experienced by employees of said bureaucracy and the community. In carrying out their duties, employees in the bureaucracy are constrained by a system that does not allow them to express their opinions, innovate, or participate in policymaking.

The criticisms of bureaucracy discussed above can indeed be found in the practice of bureaucracy in Indonesia. This is demonstrated by Indonesia's bureaucracy, which is frequently characterized as a politicized, ineffective, and corrupt institution. The 2019 Global Competitiveness Index (GCI) is one of the indicators of government efficiency. Based on the 2019 GCI report, Indonesia placed 50th and is far below other countries in the Southeast Asian region, such as Singapore, Malaysia, and Thailand. In 2021, Indonesia's position has not changed significantly either; it is still in 44th place. The two closest countries, meanwhile, Malaysia and Singapore, occupy the 32nd and 3rd positions, respectively.



Figure 2. Government Effectiveness

Source: world governance indicator

<http://info.worldbank.org/governance/wgi/Home/Reports>

Adding to that, the effectiveness of the Indonesian government (one of the measurements of the World Governance Indicator) also ranked lower when compared to Malaysia and Singapore. It also has the same oversight and control over corruption. Compared to Malaysia and Singapore, Indonesia's efforts to control corruption are worse than those of those two countries (see figure 2). This is supported by the corruption perception index from the Transparency International survey. The 2021 data shows that Indonesia is ranked 96th, while Malaysia is ranked 62nd, and Singapore is ranked 4th.



Figure 1. Control of Corruption

Source: World Governance Indicator

<http://info.worldbank.org/governance/wgi/Home/Reports>

The criticisms and problems described above are, of course, a concern for scientists, especially in the field of public administration. Improving the practices of organizing public administration and solving problems in the bureaucracy is a means for developing science about bureaucracy. Science is defined as a social activity that aims to characterize a field of knowledge through observation, measurement, and

research (Munoz, Viedma, Espejo, & Cobo, 2020). Research is generally divided into two types, namely quantitative and qualitative. In quantitative research methods, there are many ways or methods that can be used to analyze, one of which is bibliometric analysis.

Bibliometrics was introduced in 1926 when Alfred Lotka examined author productivity patterns and provided the initial rules for bibliometric analysis. As the development of science continues, bibliometric analysis methods also developed. In 1955, Eugene Garfield developed the Science Citation Index, which began the modern era of bibliometrics (Ahmad, Asif, Alam, & Slots, 2019). Bibliometric methods can be used to assess the performance and research patterns of authors, journals, countries, and institutions and can also be used to identify and measure patterns of cooperation between these aspects (Nunen, Li, Reniers, & Ponnet, 2017). Thus, this includes research on bureaucracy in Indonesia. Through bibliometric analysis, researchers can identify gaps in a particular discipline. In addition, by conducting bibliometric analysis, we can evaluate the performance of journals, countries, and institutions. The results of bibliometrics can also be a consideration for funding agencies to allocate research funds (Nunen, Li, Reniers, & Ponnet, 2017). This type of bibliometric analysis is based on identifying a collection of literature with common keywords in a particular subject area (Ellegaard & Wallin, 2015). In analyzing bibliographic information, researchers must sort the journals to be used (Merigo & Yang, 2016). Thus, the main prerequisite for conducting the selection process of literature is the objectivity of the researcher.

METHOD

The development of research on Bureaucracy in Indonesia was analyzed using the bibliometric analysis method. The search for articles for this research was collected using the keywords "Bureaucracy in Indonesia" and "Birokrasi di Indonesia". The articles that the author managed to collect for analysis were 471 articles searched through Google Scholar with the help of Publish or Perish software. Furthermore, the articles that have been collected are then entered into VOSviewer to analyse their relevance, novelty, and research intensity.

A. Publish or Perish

Publish or Perish (PoP) is a software used in searching and analyzing scientific article metadata from various journals, as well as assisting in selecting and filtering scientific articles. The PoP application itself is connected to, or integrated with, Google Scholar, Crossref, PubMed, OpenAlex, Scopus, Semantic

Scholar, and Web of Science. However, in this bibliometric analysis, PoP is only used for article searches in Google Scholar as the data search medium.

B. Mendeley

Mendeley is used as a reference manager that manages search result articles in Publish or Perish. When all scientific articles have been collected in the Publish or Perish application, the next step is to process the data collected from the scientific articles into Mendeley to make citations for these scientific articles. Mendeley is also useful in managing data to analyze the related year of the publication, the institution, or the agency. In the next step, the results will be entered into VOSviewer for further management.

C. VOSviewer

The VOSviewer software was used to visualize the co-occurrence associated with the articles that have been collected with the keywords "Bureaucracy in Indonesia" and "Birokrasi di Indonesia" using the full-counting method to find out and analyze the total occurrence of words, their novelty, and the relevance of each scientific article searched.

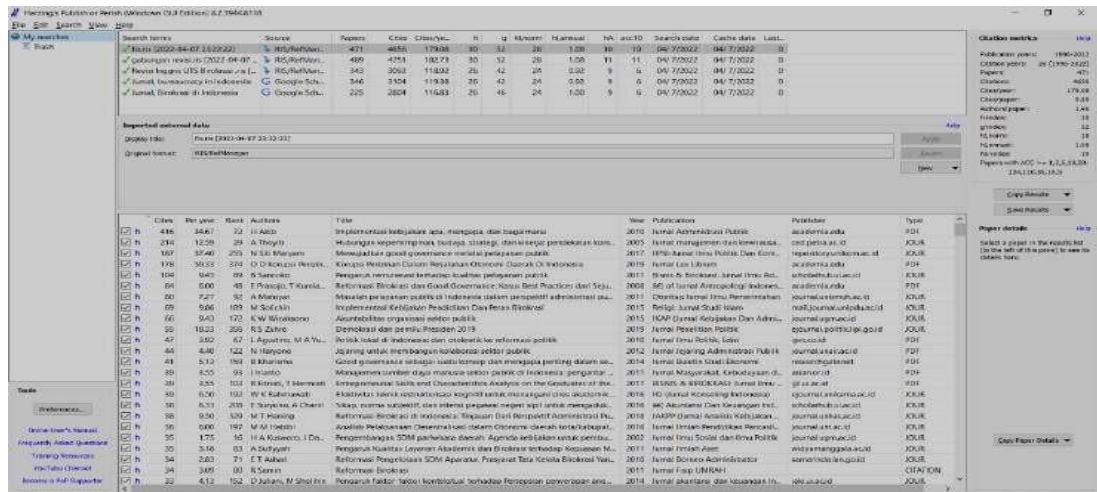


Figure 3. Publish or Perish Software

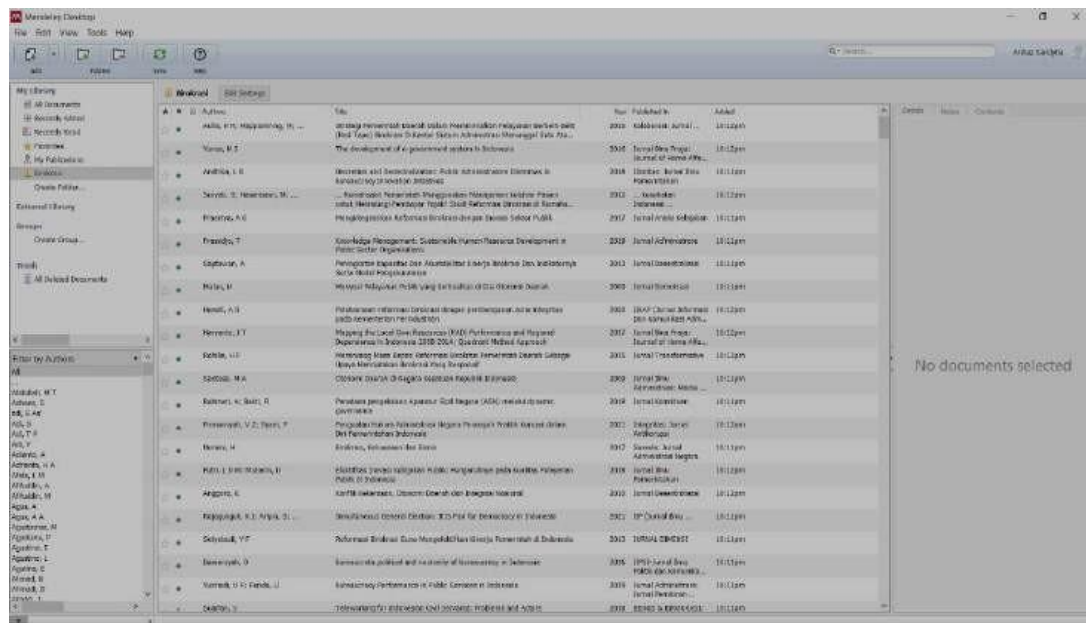


Figure 4. Mendeley Software

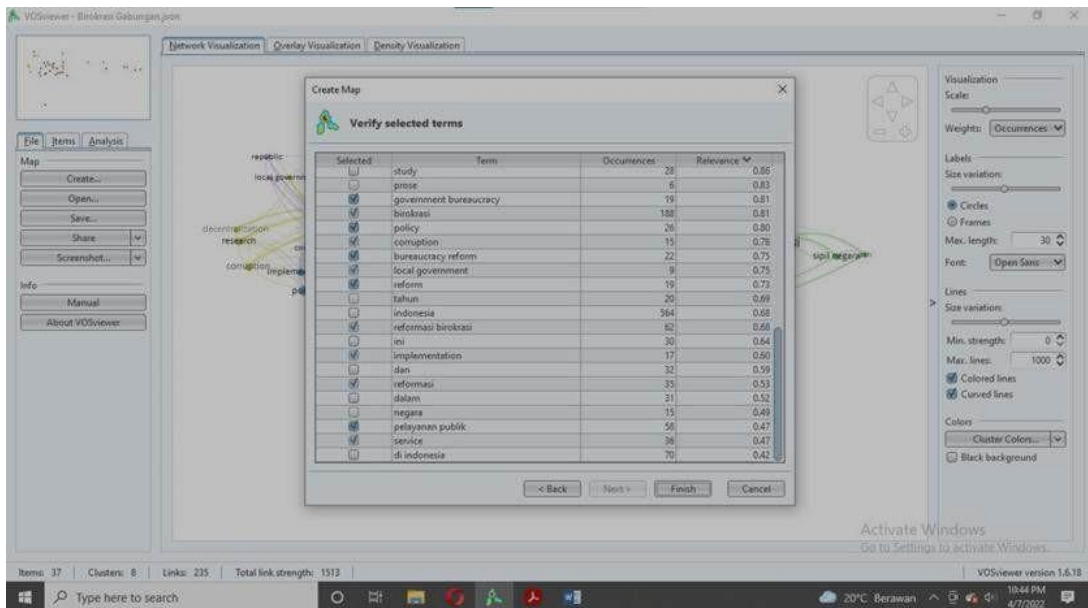


Figure 5. VOSviewer Software

RESULT AND DISCUSSION

A. Year of Publication Analysis

Based on the results of the analysis carried out by the collection of metadata based on the year of publication, it was shown that there are 471

scientific articles related to "Birokrasi di Indonesia" published from 1996 to 2022. According to the results of the publication year analysis, the number of research related to bureaucracy in Indonesia from year to year tends to fluctuate.



Figure 6. Research Trend

Based on the graph regarding the trend in the number of research on bureaucracy in Indonesia, it was found that the highest number of studies occurred in 2020, where 54 studies related to bureaucracy in Indonesia were published. The second highest order occurred in 2019 and 2017 with 53 studies, followed by 2018 with 49 studies. Furthermore, the lowest year of publication occurred in 2022 with only 1 study. This, however, is understandable given that the research was done in the middle of 2022, and it is possible that the number of publications about bureaucracy will rise in 2022. This finding was also supported by another bibliometric analysis paper, which stated that from 2018-2022 research on bureaucracy increased (Cahyaningtyas, Rachmawati, Friscilla, & Aurellia, 2023).

The starting point for the surge in the number of studies on bureaucracy in Indonesia began in 2010 and surged again in 2015. If the events of 2010–2020 are any indication, the year that bureaucratic reform started to be implemented marked the peak of bureaucracy research in Indonesia. The 2010-2014 Roadmap, focused on strengthening the bureaucracy to eradicate Corruption, Collusion, and Nepotism (KKN) (Hapsari, Nurhaeni, & Sudarmo, 2018), affected the awareness of the public and researchers, resulting in increased criticism of the implementation of bureaucracy in Indonesia. Furthermore, the 2015-2019 Roadmap focuses on continuing the efforts of the previous Roadmap, which encouraged researchers to evaluate the programs implemented by the government to improve the bureaucracy in Indonesia.

Table 1
 Year of Publication

Year of Publication	Amount
1996	4
1998	3
1999	3
2000	2
2001	3
2002	2
2003	4
2004	6
2005	3
2006	10
2007	5
2008	5
2009	13
2010	15
2011	28
2012	18
2013	26
2014	17
2015	22
2016	44
2017	53
2018	49
2019	53
2020	54
2021	28
2022	1
TOTAL	471

B. Analysis of Publishing Institution

According to the results of the analysis conducted on 471 scientific articles published from 1996 to 2022 on "Birokrasi di Indonesia," STIA LAN

Bandung is the most productive institution in publishing scientific articles from journals related to bureaucracy in Indonesia, producing 51 journals. Gadjah Mada University is the second most productive institution, publishing 42 journals. Next, the State Administration Institute of the Republic of Indonesia (LAN RI) came in third, having published 35 scientific articles. Then followed the University of Indonesia with 27 journals and Parahyangan Catholic University with 23 journals. The ten most productive organizations or agencies are listed in the table below, which is compiled from a variety of scientific publications.

Table 2
 Publishing Institution

Nama Publikasi	Lembaga/Institusi	Jumlah
Jurnal Ilmu Administrasi: Media Pengembangan Ilmu dan Praktik Administrasi	STIA LAN Bandung	51
JKAP: Jurnal Kebijakan dan Administrasi Publik	Universitas Gadjah Mada	42
Jurnal Borneo Administrator	LAN RI	35
BISNIS & BIROKRASI: Jurnal Ilmu Administrasi dan Organisasi	Universitas Indonesia	27
Jurnal Administrasi Publik	Universitas Katolik Parahyangan	23
Jurnal Studi Pemerintahan	Universitas Muhammadiyah Yogyakarta	18
Otoritas: Jurnal Ilmu Pemerintahan	Universitas Muhammadiyah Makassar	17
Jurnal Bina Praja: Journal of Home Affairs Governance	Kementerian Dalam Negeri RI	17
Jurnal Transformative	Universitas Brawijaya	15
Jurnal Demokrasi	Universitas Negeri Padang	15

C. Publisher Analysis

From the results of the analysis conducted on 471 scientific articles published from 1996 to 2022 on "Birokrasi di Indonesia," it was found that the most publications came from the Journal of Administrative Sciences: Media for the Development of Administrative Science and Practice, which totaled 51 journals; the second highest number of publications came from JKAP: Journal of Public Policy and Administration, totaling 42 journals; and the third most publications were sourced from the Journal of Borneo Administrator, totaling 35 journal



Table 3
Publisher

Nama Publikasi	Jumlah
Jurnal Ilmu Administrasi: Media Pengembangan Ilmu dan Praktik Administrasi	51
JKAP: Jurnal Kebijakan dan Administrasi Publik	42
Jurnal Borneo Administrator	35
BISNIS & BIROKRASI: Jurnal Ilmu Administrasi dan Organisasi	27
Jurnal Administrasi Publik	23
Jurnal Studi Pemerintahan	18
Otoritas: Jurnal Ilmu Pemerintahan	17
Jurnal Bina Praja: Journal of Home Affairs Governance	17
Jurnal Transformative	15
Jurnal Demokrasi	15

The next comes from BUSINESS & Bureaucracy: Journal of Administrative and Organizational Sciences with 27 journals and the Journal of Public Administration with 23 journals. The following is a table of the top 10 publication names from various scientific articles that have been collected.

D. Author Name Analysis

Based on the 371 scientific articles collected, Sudrajat, T. and Wicaksono, K.W. are the authors who wrote the most about bureaucracy in Indonesia, with 4 scientific articles for each. In addition, there are also the names of Yudiantmaja, W.E., Yusriadi, Y., and Zuhro, R.S. who are also prolific authors writing about bureaucracy in Indonesia, with 3 scientific articles from each author. The names of the authors who have accumulated the greatest number of scientific articles are listed in the table below.

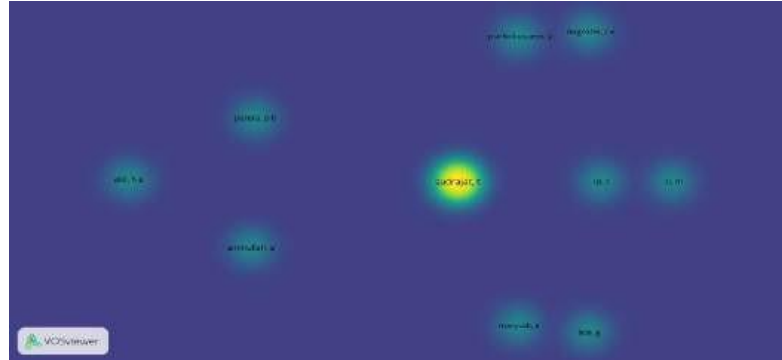


Figure 7. Author Density Visualization

Based on the analysis, the results of the visualization related to identifying the names of authors who are most productive in publishing their writings on topics relevant to "Bureaucracy in Indonesia" are obtained. This data visualization can be interpreted by looking at the color that appears on the author's name; the brighter the color, the higher the number of publications. From this data visualization, Sudrajat, T. and Wicaksono, K.W. are the most productive authors among other authors in publishing articles related to "Birokrasi di Indonesia.". The following is a visualization image of author density that has been successfully analyzed.

Table 3. Author

Rank	Author	Number of Paper
1	Sudrajat, T.	4
2	Wicaksono, K.W.	4
3	Yudiatmaja, W.E.	3
4	Yusriadi, Y.	3
5	Zuhro, R.S.	3
6	Akil, H.A.	2
7	Aminullah, E.	2
8	Putera, P.B.	2
9	Ip, S.	2
10	Lele, G.	2
11	Maryudi, A.	2
12	Nugroho, R.A.	2
13	Purbokusumo, Y.	2



14	Si, M.	2
15	Prasodjo, T.	2
16	Prasojo, E.	2
17	Rohayatin, T.	2
18	Sarnawa, B.	2
19	Sedarmayanti, S.	2
20	Subri, A.	2
21	Wahyudi, A.	2
22	Wakhid, A.A.	2
23	Wijaya, A.F.	2
24	Wiratraman, H.P.	2
25	Yunas, N.S.	2

E. Most Cited

From the results of the analysis conducted on 471 scientific articles published from 1996 to 2022 on "Birokrasi di Indonesia," it is known that the highest number of papers cited was written by Akil, H.A., Aminullah, E., and Putera, P.B. with each author writing 2 papers and 4 numbers of papers cited. The following is a table of the authors who have the highest number of citations from the scientific articles collected.

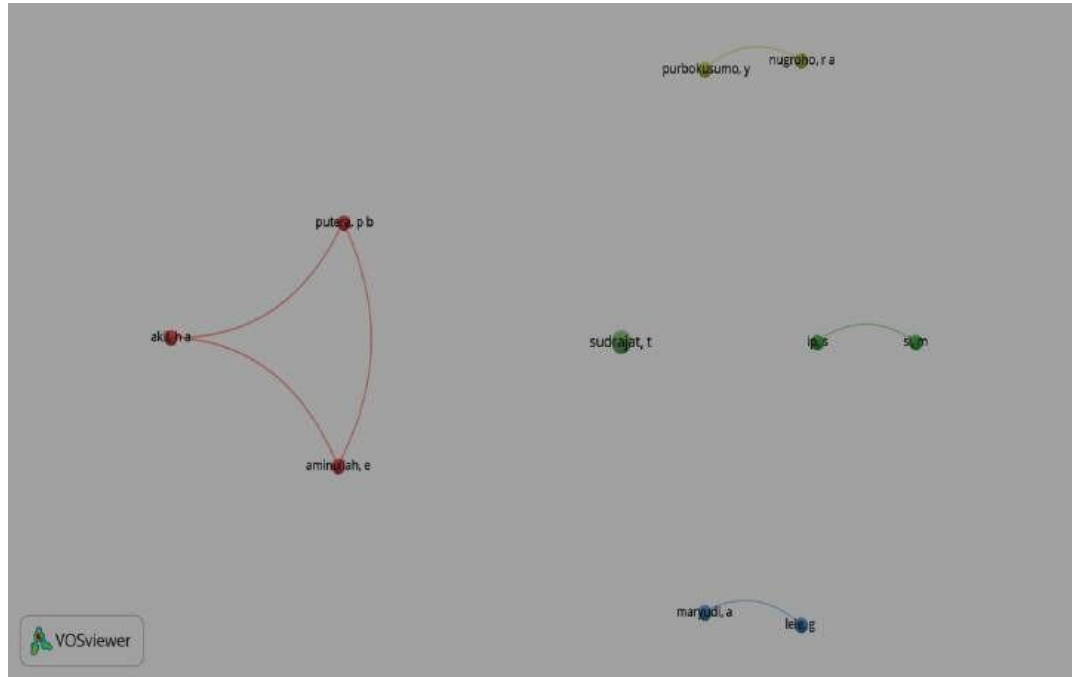


Figure 8. Visualization of Author Connectedness

Table 5. Number of Cited

Rank	Author	Number of Paper	Number of Cited
1	Akil, h a	2	4
2	Aminullah, e	2	4
3	Putera, p b	2	4
4	Ip, s	2	1
5	Lele, g	2	1
6	Maryudi, a	2	1
7	Nugroho, r a	2	1
8	Purbokusumo, y	2	1
9	Si, m	2	1

F. Network Visualization

The network visualization shows the relationship between the visualized terms. From the keywords "Bureaucracy in Indonesia" and "Birokrasi di Indonesia," there are 28 sub-keywords that appear, and these 28 sub-keywords are divided into 4 clusters, the first cluster is red, the second is green, the third is blue, and the fourth is yellow.

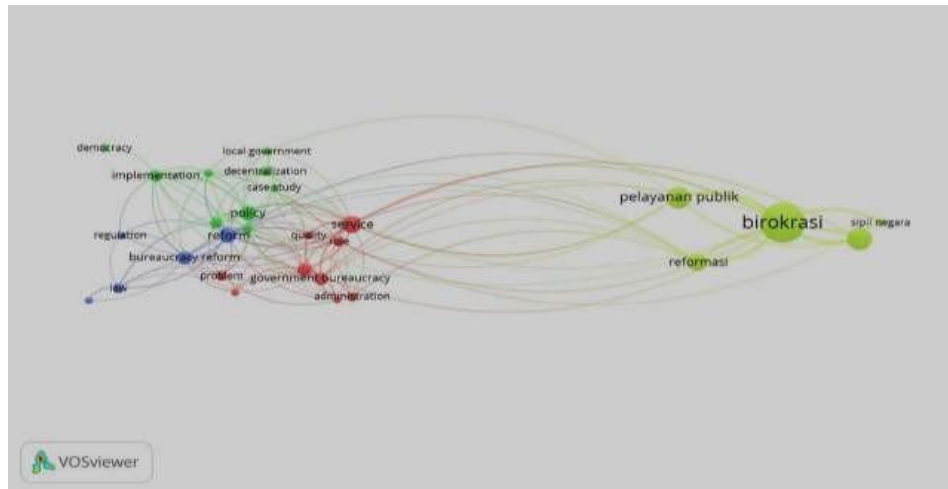


Figure 9. Network Visualization

Table 6. Sub-keyword Grouping

Cluster	Color	Number of Member	Members
1	Merah	9	<i>Administration, government bureaucracy, influence, performance, problem, public bureaucracy, quality, role, service</i>
2	Hijau	9	<i>Case study, challenge, corruption, decentralization, democracy, implementation, issue, local government, policy</i>
3	Biru	5	<i>Bureaucracy reform, law, principle, reform, Regulation</i>
4	Kuning	5	<i>Birokrasi, pelayanan publik, reformasi, reformasi birokrasi, sipil negara</i>

G. Overlay Visualization

The overlay visualization shows the mapping of research years. From this mapping, the darker the color, the earlier the publication. For example, the blue color (dark) indicates that the article was published in 2014 and the yellow color (bright) indicates that the article was published in 2018. The following is an image of the overlay visualization. The brightly colored keywords include bureaucratic reform, decentralization, regulation, etc. This shows that these keywords have only begun to be researched from 2015 onwards, due to the Grand Design of Bureaucratic Reform in Indonesia, which has only been implemented since 2010 (Habibi, Research Mapping of Bureaucratic Reform in Indonesia, 2020).

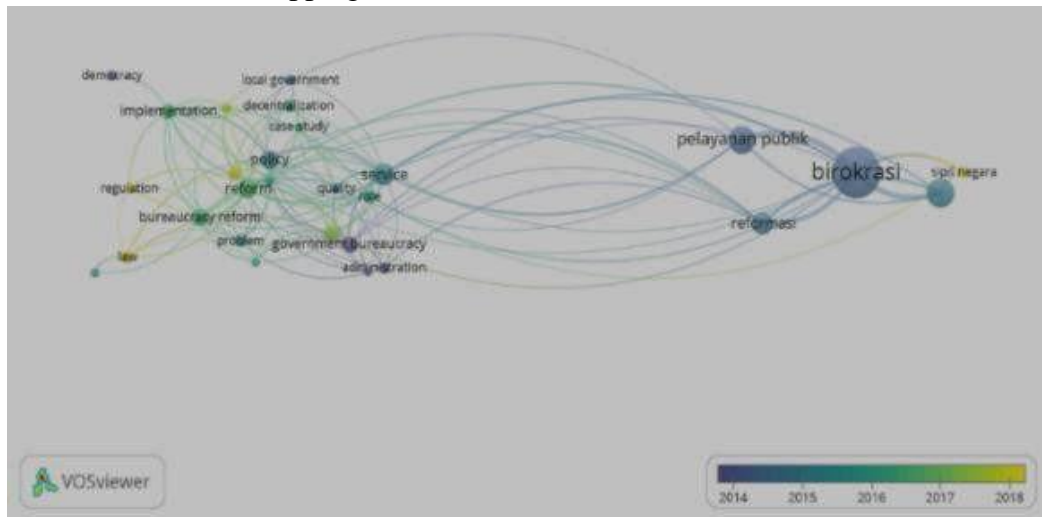


Figure 10. Overlay Visualization

H. Density Visualization

Density visualization is a visualization that maps the density of research on each keyword. The brighter color on each keyword indicates that the keyword has been widely researched. In this visualization map, the most researched keywords are "birokrasi," "pelayanan publik," "reformasi," and "aparatur sipil negara." These four keywords have a higher research density compared to other keywords.

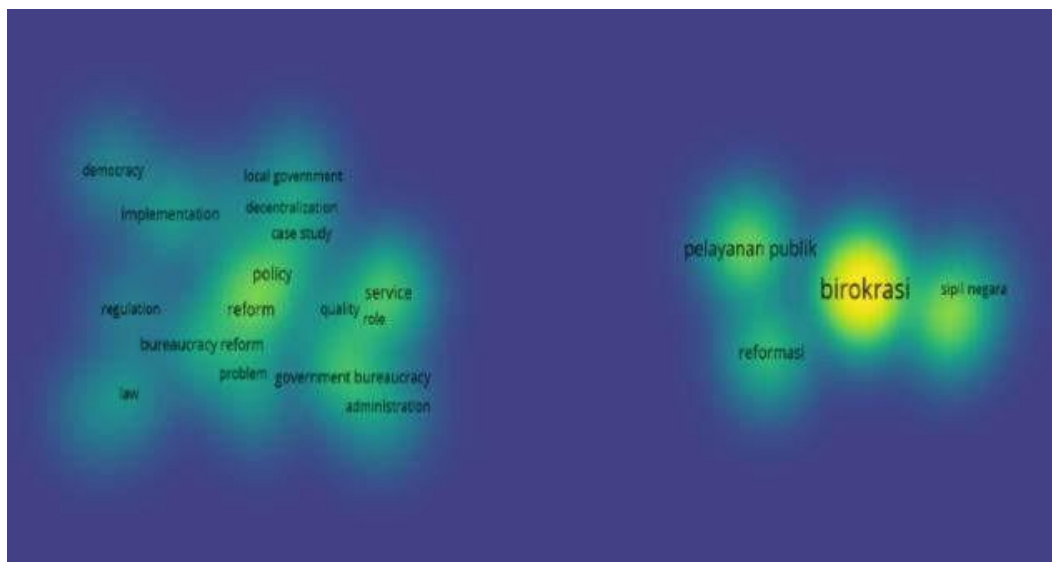


Figure 11. Density Visualization

The least researched keywords include "quality," "decentralization," "role," and "administration." Therefore, research on bureaucracy in Indonesia is recommended to use sub-topics on those said topics, namely bureaucratic quality, decentralization, the role of government in bureaucracy, and government administration.

CONCLUSION

A total of 471 journals have been collected and analyzed using the help of Publish or Perish, Mendeley and VOSviewer software. Thus, several conclusions could be drawn from this analysis: The publication of scientific articles with the keyword "Bureaucracy in Indonesia" fluctuates from year to year. Then, from the 471 publications analyzed, there are 9 articles that relate to each other. It has also been

observed that there are still not a lot of scientific article authors in Indonesia who apply the "Stand on the shoulders of giants" principle. From the keywords "Birokrasi di Indonesia" and "Bureaucracy in Indonesia," it was found that there are 28 sub-keywords that can be divided into 4 clusters. Among these includes: *Birokrasi*, *pelayanan publik*, *reformasi*, and *sipil negara*, which are the most frequent terms used as topics for writing scientific articles from the 471 articles analyzed.

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