

Corruption In Indonesia, A Bibliometric Analysis

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***Abstract-**This research aimed to present a summary of research with corruption in Indonesia through a bibliometric analysis of published articles in journals, conferences, books, literature reviews, and reputable book chapters. The method used was an analysis of historical, descriptive, and exploration to conduct bibliometric analysis. The articles retrieved by using keyword “corruption” and “Indonesia” in Scopus database. It showed 91 publications that published in 1996 to 2019. Publish or Perish Ver. 4 software used to retrieve and analyze the data while Vos Viewer Ver. 7 used for bibliometric analysis. The analysis results showed that there is a trend in an increase in the number of publications, the number of authors and co-authors, and researchers countries after 2006. Likewise, the area of research about corruption in Indonesia has expanded. The Bulletin of Indonesian Economic Studies is the top journal that contributes to the literature in terms of publication productivity. The Journal of Political Economy Journal is the top journal that contributes to the highest number of citations. This study provides a systematic analysis of corruption research in Indonesia. Moreover, this research can be a useful guide for research and corruption prevention in Indonesia.*

***Keyword:** Corruption, Bibliometric, Indonesia.*

I. INTRODUCTION

Corruption is one of the big problems for the Government of Indonesia that obstructs the country’s development. Several efforts have been made by the Government of Indonesia to eradicate corruption, such as conducting anti-corruption laws and an integrated system involving various institutions that work together to build an anti-corruption enforcement system in Indonesia [1]. Although, in the last three years, corruption eradication in Indonesia has improved, in a comparative study of corruption between countries, Indonesia is still ranked 85 out of 180 countries with a score of 40 CPI [2].

To identify, analyze, and propose the solution of corruption in Indonesia, several researchers have conducted several researches about corruption in Indonesia. Nowadays, studies about corruption have related with several sectors, such as politic [3], [4], poverty [5], government [6], environment [7], law [8], information technology [9], finance [10] even spiritual, mental, and leadership [11], [12]. From those examples, it can see that researches about corruption in Indonesia has grown and developed with a variety of issues and methods.

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The purpose of this research is to systematically collect, characterize, and analyze the articles about corruption in Indonesia, which expected to describe research developments and trends as a substance for further research. To achieve expected goals, the researcher conducted a bibliometric study from several literatures of corruption in Indonesia. Commonly, a bibliometric technique can be divided into evaluative and relational. Evaluative method measures the impact of academic studies by assessing scientific performance and contributions using productivity measures, impact metrics, and hybrid metrics. In contrast, relational technique measures relationships and patterns in the research sectors [13]. There are four different relational approaches in bibliometric research. These approaches used four different purposes, including making profiles of researchers and the research community (who), temporal analysis (when), geospatial analysis (where), topical analysis (what), and network analysis (with whom) [13]. With the ability to provide a summary of the literature, bibliometric studies help researchers to explore new ideas by looking at the past and current trends and conducting a literature review rapidly [14].

II. METHOD

This research tried to analyze comprehensively articles about corruption in Indonesia published in various sources indexed by Scopus. Scopus is selected based on excellent features and coverage, reflected in leading scientific citation indexes, rigorous selection processes, high-quality and influential research publications. From the data searching result with “corruption” and “Indonesia” as keywords that obtained on February 8th 2020, it found 91 articles that are going to be analyzed.

The step in this research was doing the extraction of research summaries about corruption in Indonesia, which was reflected in the collected data through Publish or Perish Version 7 software. The purpose of this extraction was to gather the data and reveal the type of sources, authorship, citation, research area, and research topic [14]. The next step was processing the data using VOSviewer version 1.6.14 software to analyze information and reveal temporal trends of publications, categorization, top publishing places, top countries, citation analysis, and keyword analysis [15].

III. RESULTS AND DISCUSSION

From the literature review in the Scopus database, it obtained 91 publications on corruption in Indonesia between 1996 and 2019. The literature consisted of journal articles, books, book chapters, proceedings, and literature review that can be seen in table 1 below:

Table 1 Data Source Type

No.	Type	Qty.
1	Journal	61
2	Book	3
3	Book Chapter	10
4	Proceeding	14
5	Literature Review	3
		91

From the 91 analyzed articles, the average of h index is 14, the numbers of citations are 1.182, the average citation per year is 49.25, and the average citation per article is 12.99.

Development of Publications and Quotations

The first indexed Scopus publication about corruption in Indonesia was published in 1996 by observers who study corruption through the urban development perspective, especially in the Capital City of Jakarta [16]. Since 1996, the trend of research about corruption in Indonesia has increased, as described in figure 1.

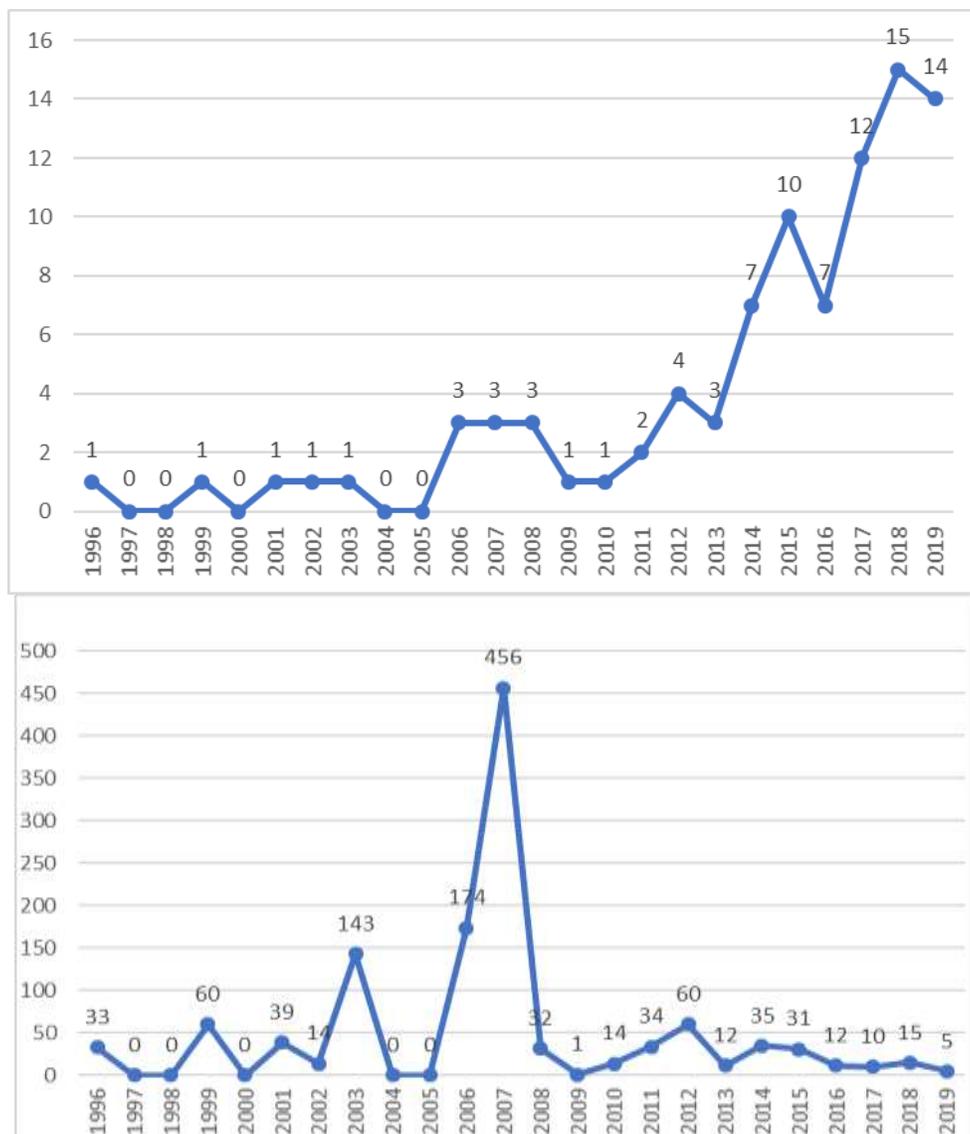


Fig. 1: The numbers of publication and quotation based on the years

From 2012 to the year, the number of publications continued to increase, although in 2016 there was a decline

Research Area

Along with the development of research about corruption in Indonesia, the research area has also expanded to various scientific disciplines as in table 2

Tabel2 :Research Area

No.	Type	Qty.
1	Politic	7
2	Law	5
3	Economy	5
4	Environment	4
5	Information Technology	4
6	Religious Spiritual	3
7	Public Policy	2
8	Psychology	2
9	Fostering	2
10	Culture	2

Active Journal

The five journals that contribute the most to the amount of literature areas stated in table 2.

Table2 Top5 published journal with the most literature

No.	Type	Qty.
1	Bulletin of Indonesian Economic Studies	5
2	IOP Conference Series: Earth and Environmental Science	4
3	Journal of Physics: Conference Series	4
4	International Journal of Applied Business and Economic Research	3
5	Journal of Financial Crime	3

Journals with the highest number of citations are Journal of Political Economy, International Forestry Review; Journal of Public Economics; Third World Quarterly; Bulletin of Indonesian Economic Study as listed in table 3.

Tabel3 5journals with the highest number of citations

No.	Type	Qty.
1	Bulletin of Indonesian Economic Studies	437
2	International Forestry Review	143
3	Journal of Public Economics	138
4	Bulletin of Indonesian Economic Study	105
5	Third World Quarterly	60

Countries

The writers of articles were from 18 different countries. The distribution of the writers' native country can seem in Figure 2. The most productive countries are Indonesia, Australia, United States, United Kingdom, and India.

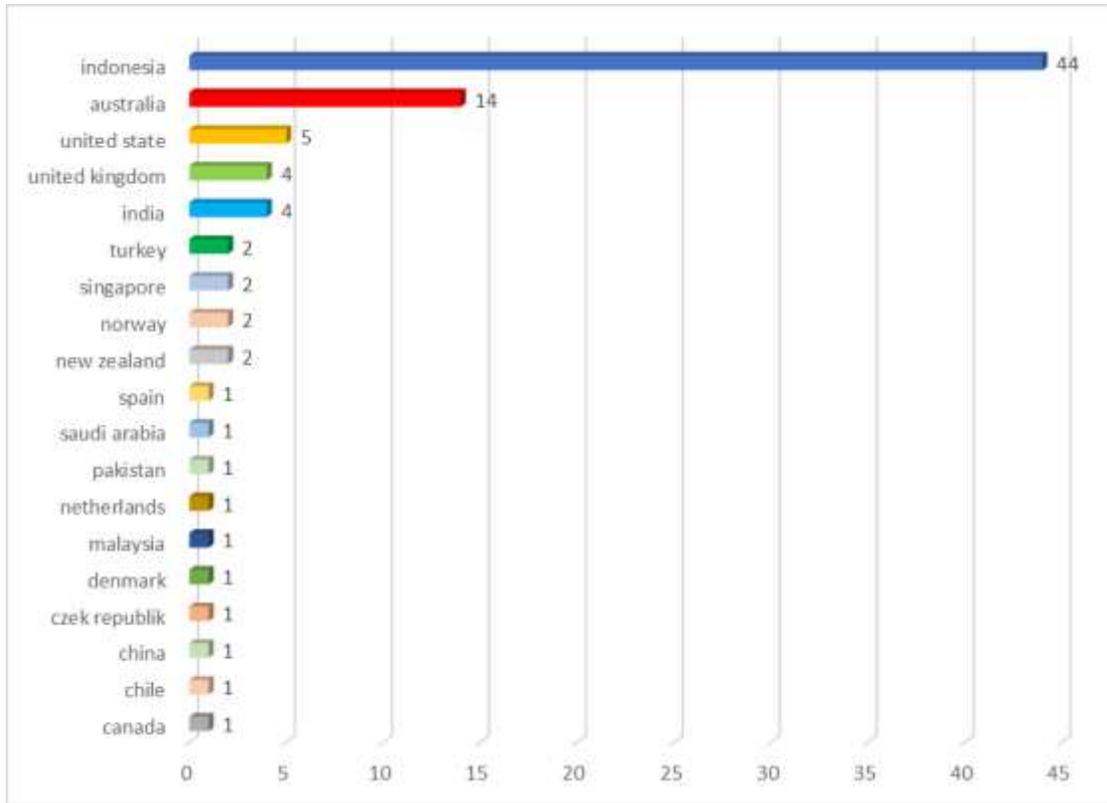


Fig.2 The distribution of writers native country

While the network of authors' relations from various countries can be seen in Figure 3

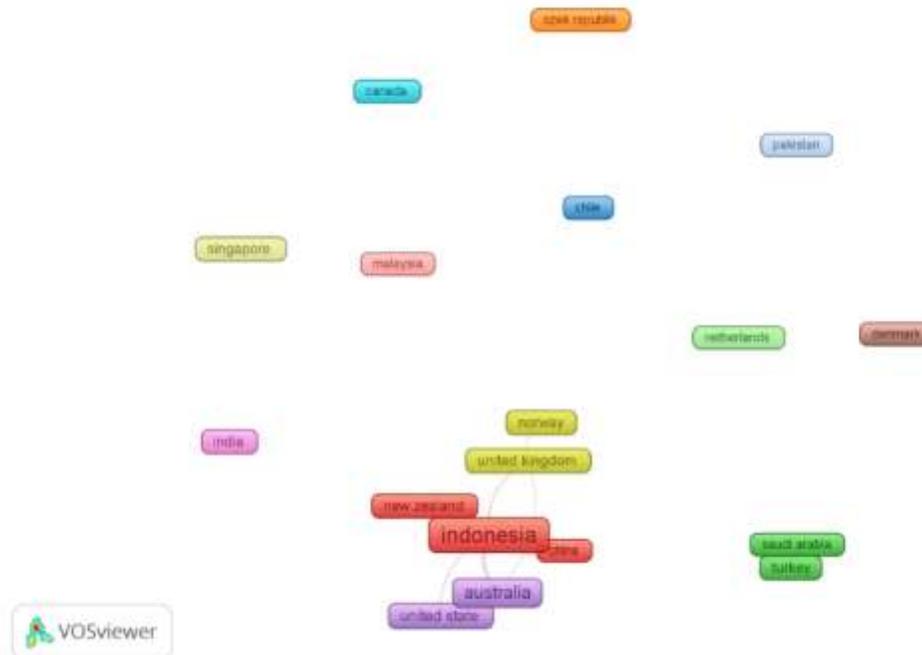


Fig.3 Visualization network map of an international country collaboration of corruption in Indonesia

Active Authors

Table 4 describes the writer with the highest productivity of research about corruption in Indonesia

Table4 Top 10 articles' writer

No.	Writer	The Number of Article	The Number of Citation
1	Noerlina	3	5
2	S. Schütte	3	38
3	A. Lukito	2	6
4	B. Olken	2	570
5	B. Setiyono	2	14
6	B. Tamin	2	1
7	J. Smith	2	147
8	M. Mietzner	2	16
9	N. Bubandt	2	54
10	S. Butt	2	4

Besides the diversity of countries, nowadays, the collaboration between writer and co-author from various countries have intertwined and increased every year. The visualization network of co-author can seem in Figure 4.

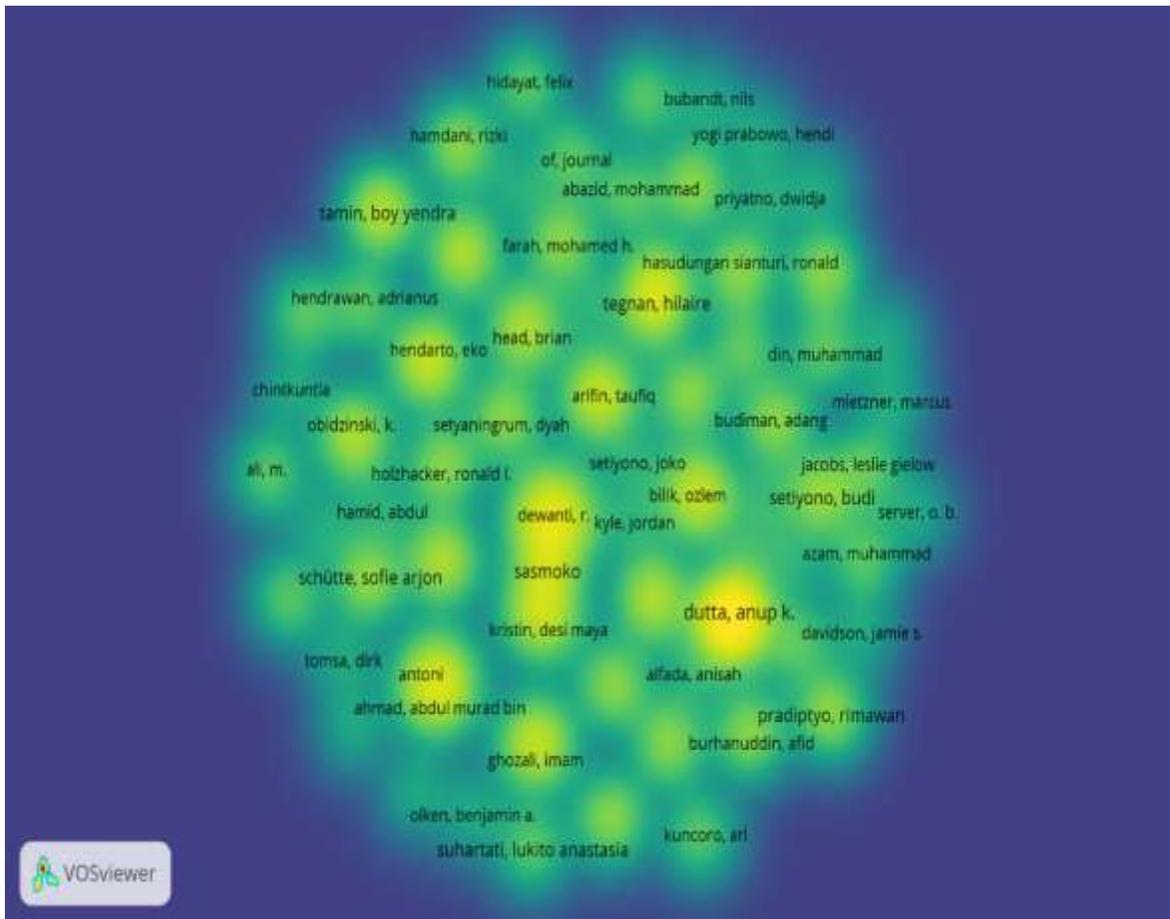


Fig. 4Density map of co-author analysis in references

Citation Analysis

Between 91 articles about corruption in Indonesia, the most cited article is “Monitoring corruption: Evidence from a field experiment in Indonesia” written by Benjamin A Olken in 2007 [17]. The second most cited article is “Illegal logging, collusive corruption and fragmented governments in Kalimantan, Indonesia” written by J. Smith, K. Obidzinski, Subarudi and I. Suramenggala in 2003 [18]. The most cited article based on the average of citation every year is “Monitoring corruption: Evidence from a field experiment in Indonesia” written by Benjamin A Olken in 2005[17]. There are 18 of 91 who have at least ten citations. Table 4 showed ten articles with the most citation.

Tabel 4 top 10 writers with the most citation

No.	Writer	Article title	YP	C	AC
1	B. Olken	Monitoring corruption: Evidence from a field experiment in Indonesia	2007	437	33.62
2	J. Smith	Illegal logging, collusive corruption and fragmented governments in Kalimantan, Indonesia	2003	143	8.41
3	B. Olken	Corruption and the costs of redistribution: Micro evidence from Indonesia	2006	133	9.50
4	F. Robertson-Snape	Corruption, collusion, and nepotism in Indonesia	1999	60	2.86
5	N. Hamilton-Hart	Anti-corruption strategies in Indonesia	2001	39	2.05
6	N. Bubandt	Sorcery, corruption, and the dangers of democracy in Indonesia	2006	38	2.71
7	O. Server	Corruption: A Major Problem for Urban Management: Some Evidence from Indonesia	1996	33	1.38
8	S. Schütte	Against the odds: Anti-corruption reform in Indonesia	2012	28	3.50
9	D. Suryadarma	How corruption diminishes the effectiveness of public spending on education in Indonesia	2012	27	3.38
10	B. Olken	Monitoring corruption: Evidence from a field experiment in Indonesia	2011	24	2.67

abbreviation: YP year of publishment, C, Number of citation, AC Average citation per year

Trend Topics

From 91 analyzed articles, there are 387 different keywords. Figure 4 showed obtained network visualization maps for trends from 76 used keywords in at least two different articles. Commonly used keywords in the latest years have marked with red (updated from blue to red).

Figure 5 showed the most cited keywords represented with red (the number of citations increased from blue to red). The top-cited keywords were "corruption eradication commission", "economic growth", "decentralization," "politic," "important rule" and "implication".

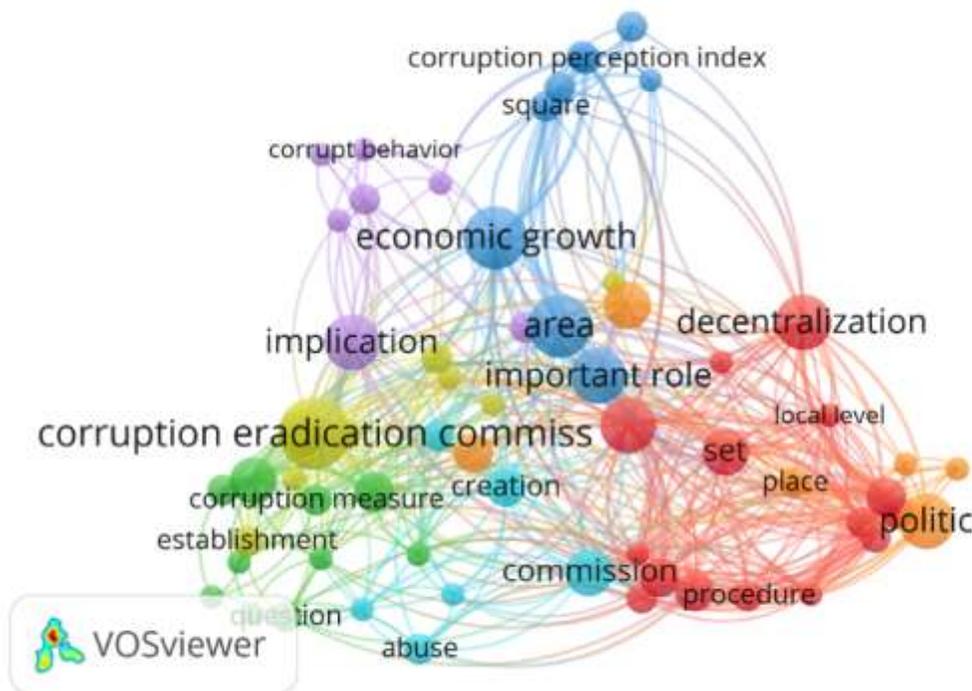


Fig. 5 Network visualization map for trends based on keyword analysis

While the trend of research topics has switched since 2016 to corruption eradication commission, corruption perception index, economic growth, corruption behavior, and Corruption measure, as can be seen in Figure 6

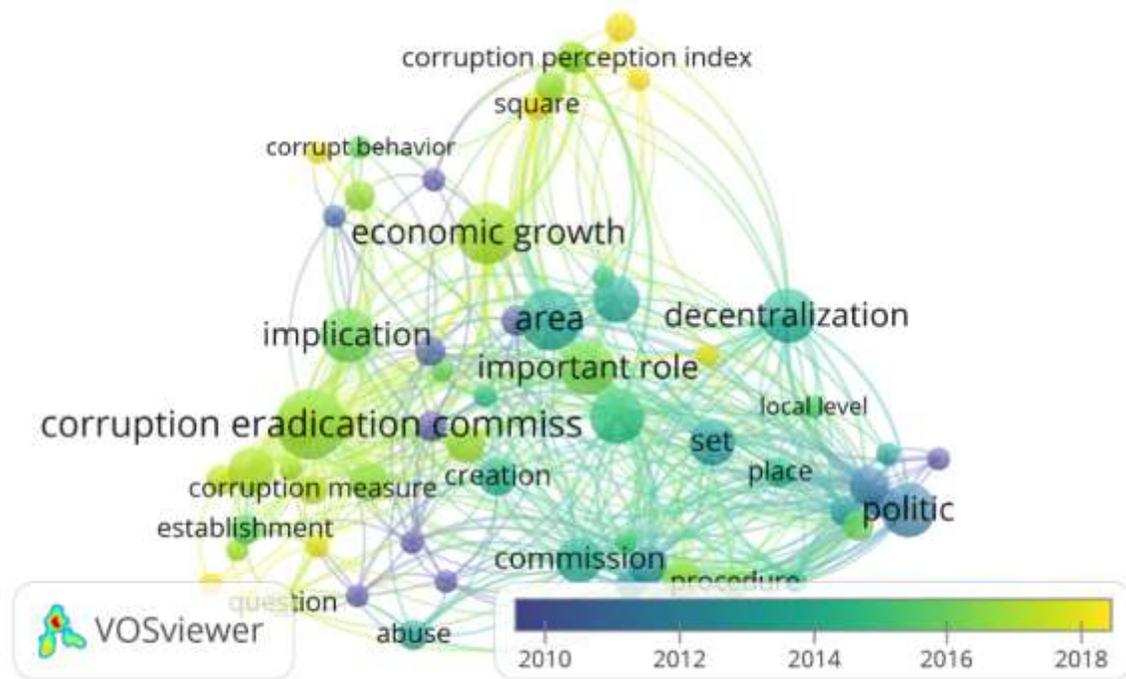


Fig. 6 Network visualization map for trends based on overlay analysis

From the analysis result above, it can be seen that researches about corruption in Indonesia have become a trend and increased in the latest ten years. It shows the attention of researchers towards the problem of corruption in Indonesia is getting bigger. Increasing attention to the issue of corruption correlates with the presence of better openness since the reform era in 1999 marked by the resignation of President Soeharto [18]. Since the reform era, the issue of corruption is no longer sensitive and avoided the issue. Still, with the birth of various anti-corruption policies and public pressure, law enforcement agencies, government agencies, and law enforcement officials have become more responsive and open to the problem of corruption in Indonesia. The increase of publication makes bibliometric analysis important in helping researchers map various matters related to the research topic.

The results of this study showed that political, legal and economic issues are still the most exciting issues of the attention of researchers, this reflected in the percentage of articles in the political field of 7.6%, law, 5.6% and 5.6% economics which are the top 3 topics in various research. However, trends and issues have switched from politics, law, and economics to environmental issues, information technology, spiritual religion, culture, and psychology. The Bulletin of Indonesian Economic Study and Bulletin of Indonesian Economic Study were the most contributed journals to the literature on corruption in Indonesia, and this has been based on an analysis of article productivity and an analysis of the number of citations and publications showing that the two journals occupy the first position. Besides Indonesia, the researchers also came from various countries in the world. States with the highest number of researchers were Australia, the United States of America, and the United Kingdom. Apart from the four countries, most of the researchers outside Indonesia came from developed countries such as Turkey, Norway, and the

Netherlands. This finding showed that corruption cases in Indonesia attracted quite a lot of researchers from outside of Indonesia. Developing countries such as Turkey and China also made significant contributions to the literature.

The author who produced the most publications on corruption in Indonesia is Noerlina, in terms of citation, B. Olken has contributed the most citations to the article titled "Monitoring corruption: Evidence from a field of experiments in Indonesia." The same article also recorded the highest average citations per year.

The interesting result of the research is the appearance of the keyword "corruption eradication commission," which becomes the most appeared keywords. This keyword in line with several studies that put corruption eradication commission (KPK) as a core component of these efforts was the establishment of a powerful anti-corruption agency after the fall of the Soeharto regime [18].

Besides the keyword "corruption eradication commission," the results of the keyword analysis showed that the second prominent keywords are "economic growth," followed by "decentralization," and "politic." Since economics was the most researched topic associated with corruption in Indonesia, researchers might be interested in the fact that although the results of the research indicated that corruption has an impact on economic growth, Indonesia still experienced positive economic growth during the last decade [19]. Likewise, the issue of politics and decentralization in the future is an issue that will develop and become a significant issue to eradicate corruption in Indonesia.

IV. CONCLUSION

In conclusion, with a diversity of tradition, culture, government systems, political systems, geographical location of Indonesia, the problem of corruption in Indonesia has become increasingly complex, so that the research area under study also become broader. Recently, the studies of corruption in Indonesia have switched from simple experimental observations to more complex research involving experts in various countries with diverse scientific backgrounds.

Although the results of the analysis showed an ever-increasing trend, collaboration between Indonesian scientists and the countries that is better in the prevention of corruption was needed. Collaboration is needed as an effort to produce research that contributes to preventing corruption in Indonesia.

REFERENCES

- [1] S. Bilgiler Eğitimi Araştırmaları Dergisi, I. Pujiyono, F. A. Setiawan, and D. M. T. Hutabarat, "Journal of Social Studies Education Research A New Approach to Preventing Corruption in Indonesia: A Study of the TP4 in Central," vol. 10, no. 1, pp. 93–115, 2019.
- [2] Transparency International, *Corruption perceptions*. 2018.
- [3] D. Tomsa, "Local politics and corruption in Indonesia's outer islands," *Bijdr. tot Taal-, Land- en Volkenkd.*, vol. 171, no. 2–3, pp. 196–219, 2015, doi: 10.1163/22134379-17101005.
- [4] A. Rosser and W. Kartika, "Conflict, contestation, and corruption reform: the political dynamics of the EITI in Indonesia," *Contemp. Polit.*, vol. 0, no. 0, pp. 1–18, 2019, doi: 10.1080/13569775.2019.1693244.
- [5] G. G. Akbar, I. Kania, A. Ulumudin, and A. Ramdhani, "Coordination Poverty Alleviation Program, an Analysis Based on Instrumental and Institutional Perspective," *Int. Semin. Ser. Reg. Dyn. Proceeding*, pp. 75–87, 2019, doi: 10.19184/issrd.v1i1.13720.

- [6] B. D. Lewis and A. Hendrawan, "The impact of majority coalitions on local government spending, service delivery, and corruption in Indonesia," *Eur. J. Polit. Econ.*, vol. 58, pp. 178–191, 2019, doi: 10.1016/j.ejpoleco.2018.11.002.
- [7] M. Muslihudin, E. Hendarto, R. Rostikawati, R. Windiasih, and T. R. Wulan, "Relationship between Environmental Damage and Corruption Cases in Indonesia," *E3S Web Conf.*, vol. 73, no. December, 2018, doi: 10.1051/e3sconf/20187302011.
- [8] B. Y. Tamin, "Discretion as to the object of the criminal law of corruption in Indonesia," *Int. J. Eng. Technol.*, vol. 7, no. 4, pp. 100–103, 2018, doi: 10.14419/ijet.v7i4.9.20627.
- [9] H. Y. Prabowo, R. Hamdani, and Z. M. Sanusi, "The new face of people power: An exploratory study on the potential of social media for combating corruption in Indonesia," *Australas. Accounting, Bus. Financ. J.*, vol. 12, no. 3, pp. 19–20, 2018, doi: 10.14453/aabfj.v12i3.3.
- [10] R. Hasudungan Sianturi, T. Simatupang, and Rahmayanti, "Calculating financial state losses due to corruption in Indonesia: Financial state losses in whose eyes?," *Mediterr. J. Soc. Sci.*, vol. 6, no. 3, pp. 124–130, 2015, doi: 10.5901/mjss.2015.v6n3p124.
- [11] S. Sahama, A. Shofia, M. Reiza, and B. Riyono, "Corruption in Indonesia: An investigation from mental health, spirituality, and leadership perspectives," *Malaysian J. Med. Heal. Sci.*, vol. 15, no. April, pp. 45–53, 2019.
- [12] J. Of and I. Thought, "Journal of islamic thought and civilization of the international islamic university malaysia (iium) 2018," vol. 24, no. 1, 2018.
- [13] C. Michael Hall, "Publish and perish? Bibliometric analysis, journal ranking and the assessment of research quality in tourism," *Tour. Manag.*, vol. 32, no. 1, pp. 16–27, 2011, doi: 10.1016/j.tourman.2010.07.001.
- [14] G. Doğan and H. İpek, "The Development of Necrotizing Enterocolitis Publications: A Holistic Evolution of Global Literature with Bibliometric Analysis," *Eur. J. Pediatr. Surg.*, 2019, doi: 10.1055/s-0039-3400514.
- [15] N. J. van Eck and L. Waltman, "Software survey: VOSviewer, a computer program for bibliometric mapping," *Scientometrics*, vol. 84, no. 2, pp. 523–538, 2010, doi: 10.1007/s11192-009-0146-3.
- [16] O. B. Server, "Corruption: A Major Problem for Urban Management: Some Evidence from Indonesia," *Habitat Int.*, vol. 20, no. 1, pp. 23–41, 1996, doi: 10.1016/0197-3975(95)00032-1.
- [17] B. Olken, "Monitoring corruption: Evidence from a field experiment in Indonesia," *Princeton.Edu*, 2005.
- [18] A. K. Umam, G. Whitehouse, B. Head, and M. Adil Khan, "Addressing Corruption in Post-Soeharto Indonesia: The Role of the Corruption Eradication Commission," *J. Contemp. Asia*, vol. 50, no. 1, pp. 125–143, 2020, doi: 10.1080/00472336.2018.1552983.
- [19] A. Alfada, "The destructive effect of corruption on economic growth in Indonesia: A threshold model," *Heliyon*, vol. 5, no. 10, p. e02649, 2019, doi: 10.1016/j.heliyon.2019.e02649.
- [20] Nasr, G., Maurice, C. Allopurinol and global left myocardial function in heart failure patients(2010) *Journal of Cardiovascular Disease Research*, 1 (4), pp. 191-195.
- [21] Suresh, G., Narayana, K.L., Kedar Mallik, M., Srinivas, V., Jagan Reddy, G. Processing & characterization of LENS™ deposited Co-Cr-W alloy for bio-medical applications(2018) *International Journal of Pharmaceutical Research*, 10 (1), pp. 276-285.
- [22] Deepak, U. Optimization of milling operation using genetic and pso algorithm (2011) *Bonfring International Journal of Software Engineering and Soft Computing*, 1, pp. 8-14.
- [23] Mensky, M.B. Postcorrection and mathematical model of life in extended Everett's concept (2007) *NeuroQuantology*, 5 (4), pp. 363-376.
- [24] B. Mahalakshmi, G. Suseendran "Effectuation Of Secure Authorized Deduplication in Hybrid Cloud" *Indian Journal of Science and Technology*, Vol(9(25)), July 2016. pp.1-7. DOI: 10.17485/ijst/2016/v9i25/87990
- [25] Dr. Jafar A. Alzubi, Dr. Omar A. Alzubi, Dr. G. Suseendran, Dr. D. Akila "+A novel Chaotic map encryption methodology for image cryptography and secret Communication with steganography- *International Journal of Recent Technology and Engineering*, Vol.8(1C2), May 2019, pp.1122-1128
- [26] Humayun, M., Niazi, M., Jhanjhi, N. et al. Cyber Security Threats and Vulnerabilities: A Systematic Mapping Study. *Arab J Sci Eng* (2020). <https://doi.org/10.1007/s13369-019-04319-2>