

BIBLIOMETRIC ANALYSIS OF THE ROLE OF THE MILITARY IN NATIONAL DEVELOPMENT USING VOSVIEWER APPLICATION

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Abstract

Bibliometric Analysis is a means of mapping the latest research using meta data processing using Google Scler. This study aims to determine the latest research developments on the role of the military. Step-by-step analysis is provided to make it easier for first-time users to access and utilize VOSViewers. This provides data analysis on the role of the military so far by utilizing the mapping tool in VOSViewer. The method used is descriptive qualitative to describe the bibliometric performance of the analysis by producing a visualization of the selected topic network. From the search results, 104 relevant journals published from 2006 to 2023 were found, which were then grouped into five categories according to their year of publication. After grouping the journal data, we found that the total number of articles published linked to the topic of the role of the military was 27 articles. As a result, it is concluded that the military is a field that can be combined with other fields to be studied. This is a way to show many opportunities to find new things to determine the theme. Furthermore, this analysis is expected to function as a source for researchers to conduct research and determine research themes.

Keywords: *Military, Development, Bibliometric Analysis.*

INTRODUCTION

During the reform era, the role of the military has been separated through MPR Decree Number 6/MPR/2000 where the TNI as a state apparatus that plays a role in national defense and the Polri as a state apparatus that plays a role in maintaining security. as well as being a legal reference in developing a law that regulates the TNI. Furthermore, in the Republic of Indonesia Law Number 34 of 2004 Article 7 paragraph (1) it is explained that the main task of the TNI is to uphold state sovereignty, maintain the integrity of the territory of the Unitary State of the Republic of Indonesia based on Pancasila and the 1945 Constitution of the Republic of Indonesia, and protect all the people and all of Indonesia's territory from threats and disturbances to the integrity of the nation and state. The main tasks of the TNI as referred to in Paragraph (1) are carried out by: Military Operations for War; and Military Operations Other Than War, namely to: Overcome armed separatist movements; Overcome armed rebellion; Overcome acts of terrorism; Secure border areas; Secure National Vital Objects of a strategic nature; Carry out world peacekeeping tasks in accordance with foreign policy; Secure the President and Vice President and their families; Empowering defense areas and their supporting forces early in accordance with the universal defense system; Assisting government duties in the regions; Assisting the Indonesian National Police in the context of security and public order duties as regulated by law; Assisting in securing state guests at the level of head of state and representatives of foreign governments who are in Indonesia; Assisting in dealing with the effects of natural disasters, evacuation, and providing humanitarian assistance; Assisting in search and rescue in accidents (search and rescue); Assisting the government in securing shipping and flights against piracy, hijacking and smuggling. The provisions as referred to in Paragraph (2) are implemented based on state policies and political decisions. Therefore, it is important to conduct research on the role of the military, especially in carrying out military operations other than war, so that it can be used as input in policy making and its implementation. As a tool of defense and security of the Indonesian National Army acts as a state apparatus in the field of defense which in carrying out its duties is based on the policies and political decisions of the state. Until now, there has been no follow-up policy or regulation on the role of the TNI as stated in the law above, especially in the implementation of military operations other than war, so that it has the potential to cause problems in its implementation. Where this does not need to happen, as Zinni (2003) wrote in his book *The Military's Role in National Building* that apart from the role of war or security, the military also has a role in welfare.. This is

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because it is not yet clear what factors underlie the TNI's involvement in this role and how it will be implemented. This study aims to search for literature and compare the role of the military in several countries through the VOSviewer application in order to obtain themes that are rarely made by previous researchers for the sake of novelty in research and can be useful as input in making policies on the role of the TNI.

Method

The method used by the author is descriptive qualitative to describe the data used in this study. Journal data collection is based on research from publications related to the keyword military role. To collect data, the author uses the reference manager application system as a reference, namely Publish or Perish. In the application, the author can select related articles or journal data from Crossref, Google Scholar, Google Scholar Profile, PubMed, Microsoft Academic, Scopus, and Web of Science. Publish or Perish is used to conduct a literature review of the selected theme. Therefore, a similar research database will be obtained. Journals related to the selected topic range from 2006–2023, and 104 articles were found in that period. The collected data is then inputted into VOSviewer. After the data is entered, it is processed so that it can match the desired or selected keywords. VOSviewer then converts the entered data into an interconnected data map. Journal criteria taken from journal data that has been indexed by Google Scholar and matched to the topics needed for this research search are entered into VOSviewer. Once entered, the data is processed to match the desired or selected keywords. VOSviewer then transforms the incoming data into a map of interconnected data. Next, the author examines the differences in the number of citation publications, journal titles, journal sources, year of publication, categorizing clusters of the most top articles in google search.

Results and Discussion

Based on data obtained from a search using Publish and Perish software, 104 articles on the topic of military roles published in journals between 2006 and 2023 were found. Of the 104 articles, there are 77 items that are not connected to each other, so that the number of connected items is 27. From the Google search results, there are 13 articles that appear the most related to the role of the military. Furthermore, table 1 displays the data that most cites articles in the field of military roles.

Table 1. The most cited article on the role of the military.

No	Cites	Title	Source	Year
1	23	<i>Korea's military service policy issues and directions for mid- and long-term development</i> (Jung, JS, & Sohn, M., 2011)	<i>Korean Journal of Defense Analysis</i>	2011
2	131	<i>Assessing the Expanded Role of Armed Forces of the Philippines in Nation-Building</i> (Acop, DS, 2008)	<i>Asia-Pacific Social Science Review</i>	2008
3	43	<i>Economic Development and military effectiveness</i> (Beckley, M., 2010)	<i>Journal of Strategic Studies</i>	2010
4	22	<i>The Military'S Role in Nation-Building Peace and Stability Operations Redefined</i> (Bullimore, SL,2006)	<i>Strategy Research Project</i>	2006
5	501	<i>IFI Post-War Economic Recovery Prescription, and How Feminists Offer a Better Path to Real Recovery</i> (Cohn, C., Duncanson, C., 2018)	<i>Review of International Political Economy</i>	2018
6	20	<i>The role of the military to national development in Nigeria</i> (Emina, KA, & Ikegbu, EA, 2020)	<i>Public Relations Journal</i>	2020
7	45	<i>Conscription, the Military, and Welfare State Development</i> (Obinger, H., 2020)	<i>Historical Social Research</i>	2020
8	214	<i>Transition of Civil-Military Relations for National Development in Nepal</i> (Pant, SB, 2021).	<i>Unity Journal</i>	2021
9	9	<i>the Military As a Contributor To National Development</i> (Shaw, A.D., 2012)	<i>South African Journal of Military Studies</i>	2012
10	12	<i>India's Armed Forces' Contribution to Nation Building</i> (Malik, VP, 2019)	<i>CLAWS Journal</i>	2019
11	5	<i>The Military and National Development in Nigeria</i> (Enukora, EN, 2015).	<i>A Literary Perspective</i>	2015

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No	Cites	Title	Source	Year
12	8	<i>Perceptions of Emirati Youths on National Service at Initial Implementation Stage</i> (Lim, HL, 2018)	<i>SAGE Open</i>	2018
13	8	<i>The role of armed forces in the fight against coronavirus</i> (Lařici, T., 2020).	<i>EPRS European Parliamentary Research Service</i>	2020

Source: processed data, 2023.

From the table above, it can be explained that the highest to lowest citations used by the research are the Cohn and Duncanson (2018) journal with 501 citations, the Pant (2021) journal with 214 citations, the Acop (2008) journal with 131 citations, the Obiger (2020) journal with 45 citations, the Beckeley (2010) journal with 43 citations, the Jung and Sohn (2011) journal with 23 citations, the Bullimore (2006) journal with 22 citations, the Ikegbu (2020) journal with (2020) with 20 citations, the Malik (2019) journal with 12 citations, the Shaw (2012) journal with 9 citations, the Lim (2015) journal and the Latici (2020) journal with 8 citations and the Eukora (2018) journal with 5 citations. It can be seen in the chart as follows:

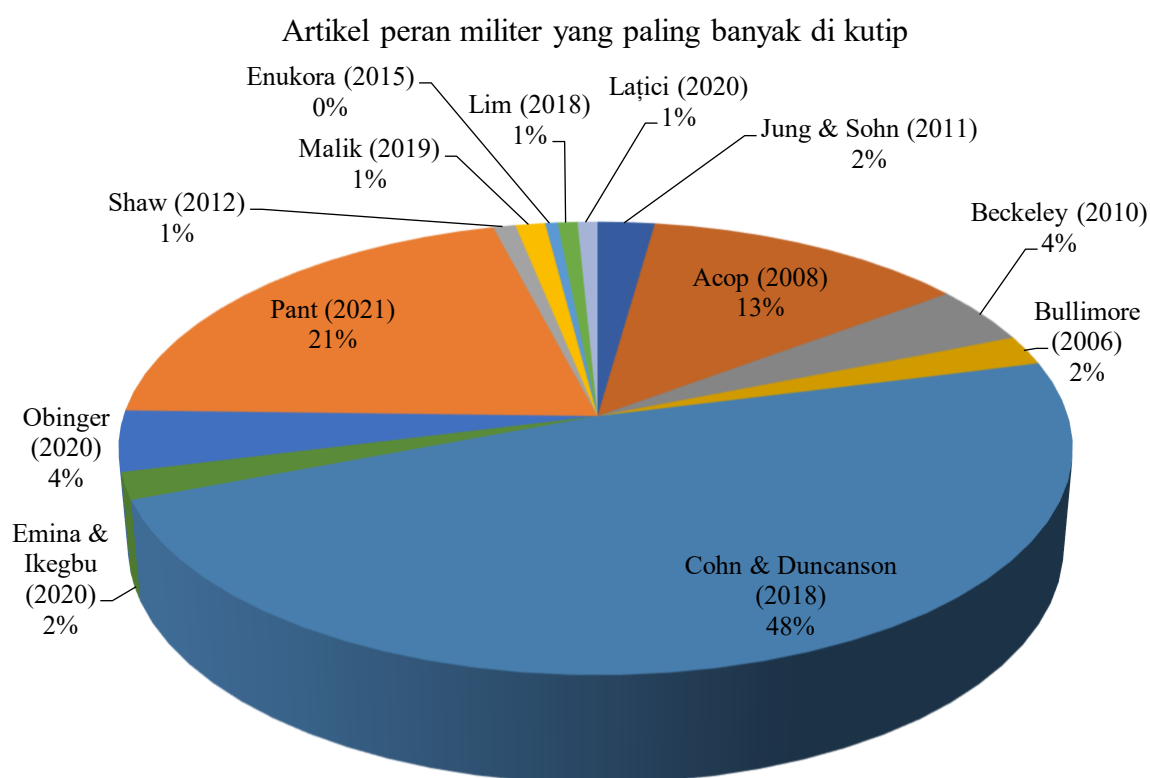


Chart 1. The most cited article on the role of the military

To address the overall social environmental issues and the trend of changing national demands, South Korea implemented a military policy reform on compulsory military service by cutting the service period for alternative service to community service in order to bring the military closer to fostering public services. (Jung & Sohn, 2011). In addition to having a duty to wage war, the military also often plays an important development role in national development (Acop, 2008). Economic growth will be proportional to the growth of military power (Beckley, 2010). In the world peace mission, to maintain national stability in Iraq and Afghanistan, the US Army carried out activities to improve community welfare through a series of activities that included repairing, maintaining, or building economic infrastructure such as roads, schools, electricity networks, and heavy industrial facilities and health

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infrastructure, water and wastewater disposal facilities. Also providing training to the community so that they can work or be assigned to the police, military, prosecutors, and prison officers and other civil administrators (Bullimore, 2006). Adopting the work of feminist economists who emphasize social care and reproduction, human rights, and environmental justice, although not without challenges, can offer a radical new vision for the post-war economy (Cohn et. al., 2018). The military has been shown to do social work as well as contribute its resources to alleviate poverty (Emina & Ikegbu, 2020). Relevant factors are the military's concerns about the quantity and quality of the population, economic, social and security needs to increase legitimacy and to secure mass loyalty (Obinger, 2020). In development, it is revealed that the military has successfully shifted to a new role by effectively engaging in development programs through socio-economic infrastructure development work, through humanitarian assistance in relief missions and contributing to various national pride projects (Pant, 2021). Military participation and economic development are categorized as contributing to the development of the surrounding area by providing assistance to its citizens as well as one of the economic strengthening of the military to the community so that the community's economy improves through operations other than war (Shaw, 2012). Military doctrine based on literature has shaped the Nigerian military which in terms of function and benefits in national development and has a positive impact on humanity in general (Enukora, 2015). In the interests of recruitment and public love for the military, the United Arab Emirates military has approached through continuous assistance in regional economic development and humanitarian assistance in the region so that residents are close to the military (Lim, 2018). Investment in military readiness and preparedness has proven valuable through the contribution of the armed forces, such as building hospitals, transporting supplies, repatriation and evacuation, management borders and assisting in law enforcement and economic recovery of communities (Latiej, 2020).

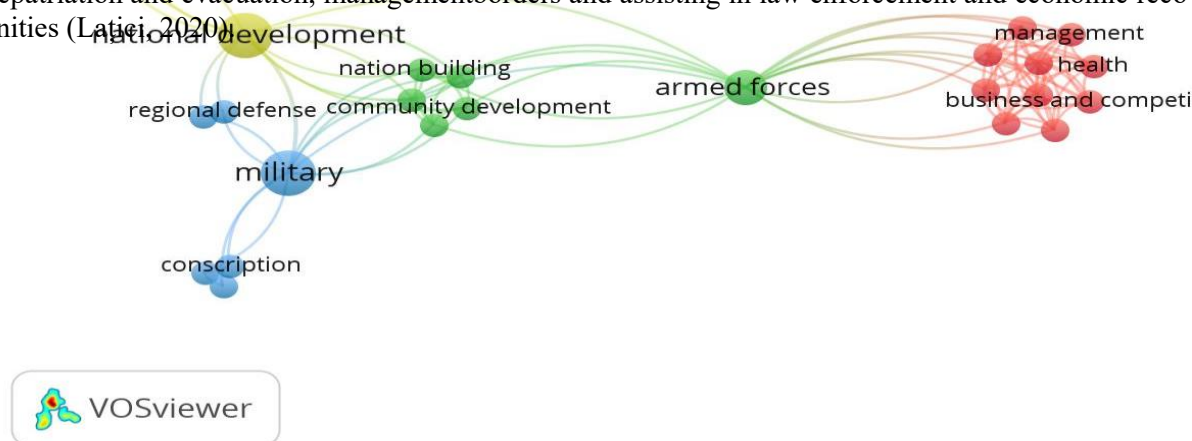


Figure 1. Visualization of military role networks.

In Figure 1, the network visualization shows four clusters, cluster 1 in red, cluster 2 in green, cluster 3 in blue, and cluster 4 in yellow. Each ball size and distance term is a visual representation of the connection strength value given in the table, according to Van Eck and Waltman (2010). Next, the data set research articles were collected to analyze the relationship between the terms.

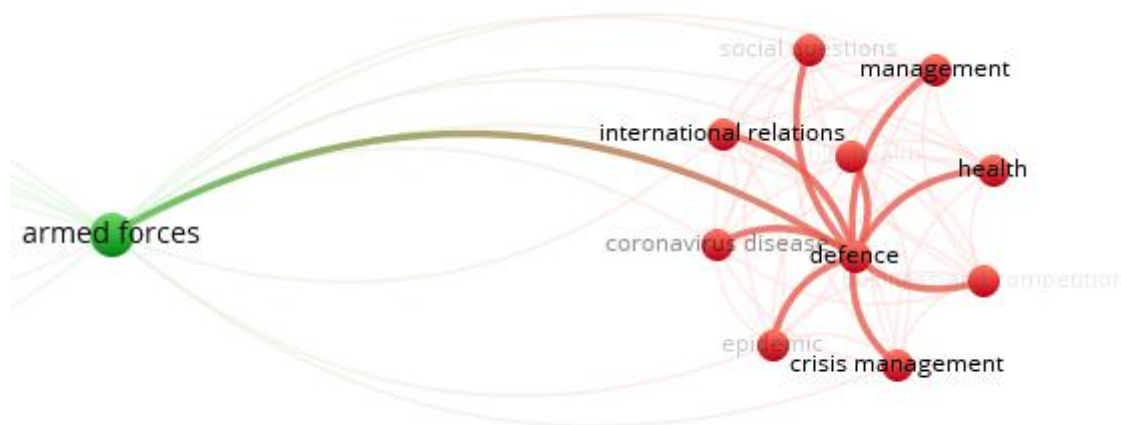


Figure 2. Cluster network visualization 1.

The network visualization in Figure 2 is cluster 1 in red which has 10 items, namely defense, business and competition, coronavirus disease, crisis management, epidemic, health, international relations, management, public health, and social questions. Where defense is central, the total link is 10, accuracy is 1, connecting 9 other items and at the same time connecting cluster 2 with the focus point on the Armed Forces item. This visualization shows that there have been many studies discussing the relationship between defense and the Armed Forces.

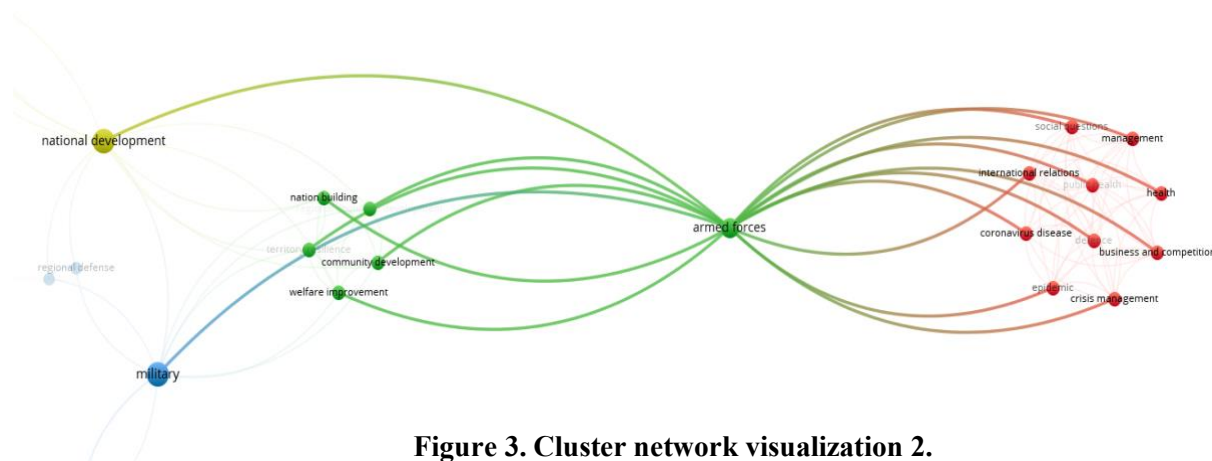


Figure 3. Cluster network visualization 2.

Network visualization in Figure 3, shows cluster 2 in green with 6 items, namely armed forces, community development, national building, regional economic development, territory resilience, and welfare improvement. Where the Armed Forces are central, total links 17, accuracy 2, connected 5 cluster 2 items and simultaneously connect 10 Cluster 1 items and military items cluster 3 and national development items cluster 4. Here, it explains that research on the Armed Forces related to national development, defense, national character, regional resilience, regional economic development, community development, improving community welfare, corona virus, health, international relations, business competition, leadership and social problems have been widely carried out by researchers.

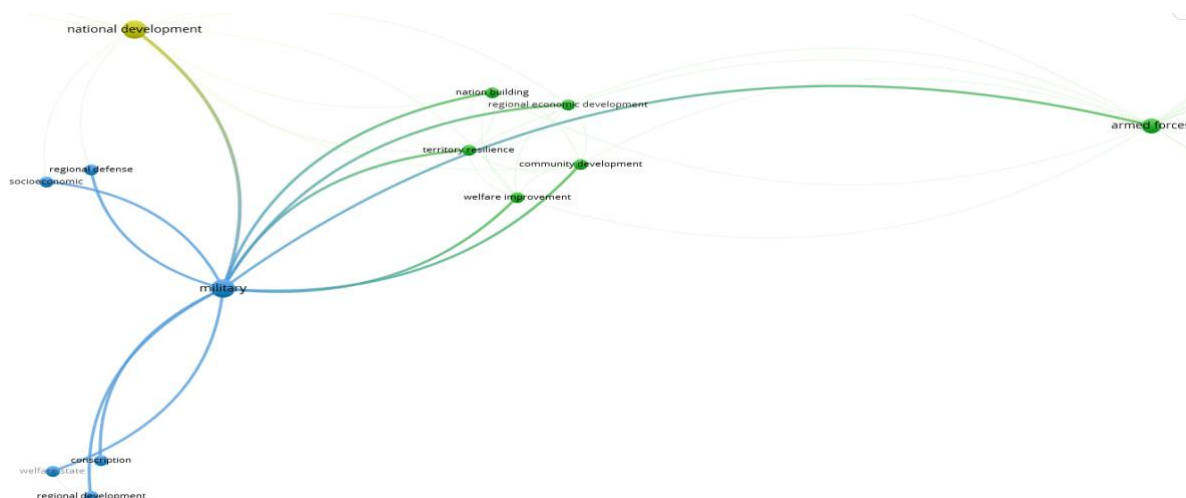


Figure 4. Visualization of cluster network 3.

The network visualization in Figure 4 shows cluster 3 in blue which has 6 items, namely military, conscription, regional defense, regional development, socioeconomic, and welfare state. As the center is the military, total links 13, accuracy 3, connected 5 items cluster 3 and national development cluster 4 and 6 items cluster 2. This illustrates that the military is related to national development, the Armed Forces, military service, regional defense, regional development, socioeconomic and national welfare have been widely researched.

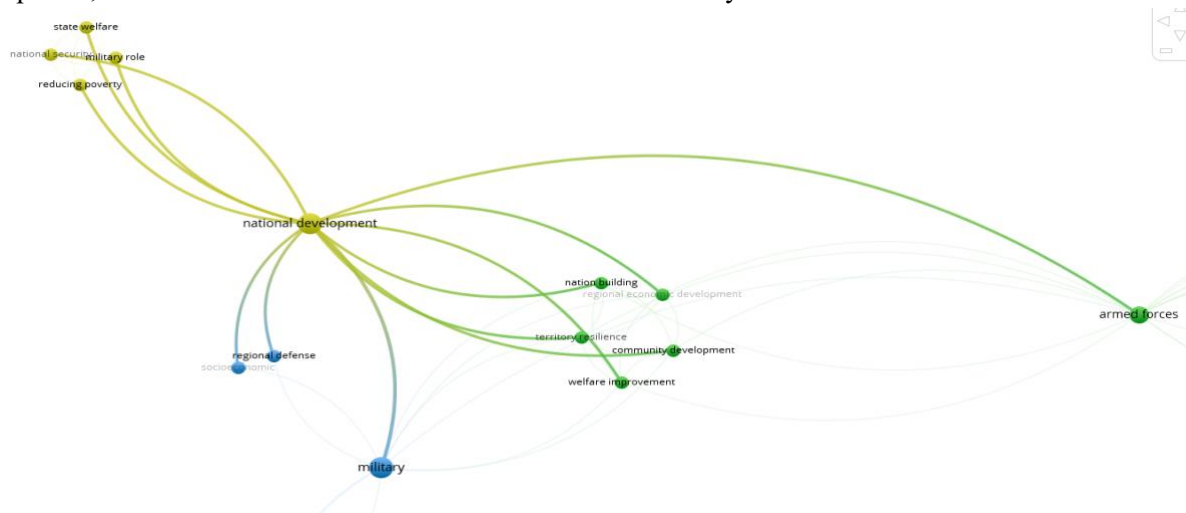


Figure 5. Cluster network visualization 4.

The network visualization in Figure 5 explains the yellow cluster 4 which has 5 items, namely military role, national development, national security, reducing poverty, and state welfare. National development as the center, total links 14, accuracy 3, connected 4 items cluster 4, 6 items cluster 2 and 3 items cluster 3. So the network visualization states that national development related to the role of the military, national welfare, national security, poverty alleviation, regional defense, socio-economic, military, national character, regional resilience, increasing welfare, community development and regional economic development have been widely carried out.

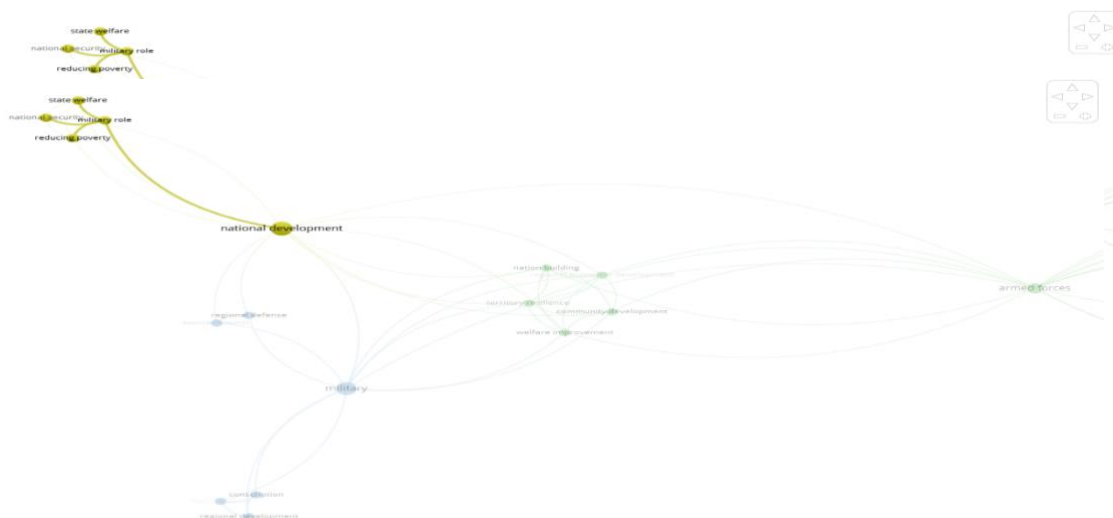


Figure 6. Cluster network visualization 4, Military role as central.

In Figure 6, if the role of the military in network visualization is used as the center, there are 4 links with an accuracy of 1. Where the role of the military is linked to national development, national welfare, poverty alleviation and national security. This means that from the research that has been done, the role of the military is related to security and welfare. Thus, the role of the military is very broad, but no researcher has studied the role of the military linked to regional development and economic development in the regions. This is proven by the results of the network visualization which displays data on the absence of a network between the role of the military and regional economic development in cluster 2 and regional development in cluster 3. So there is a gap or gap that researchers can use to find new things to determine the research theme.

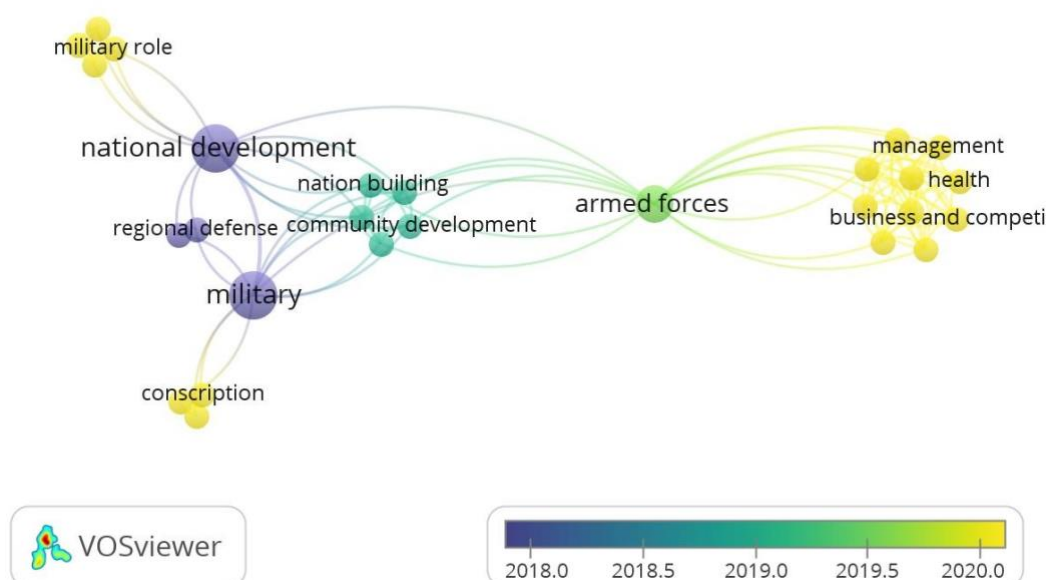


Figure 7. Overlay Visualization with VOSviewer software

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Next, the terms are color-coded based on the publication period can be seen in Figure 7 above. Concepts such as "military", "national development", "regional defense" and "socio-economic" have been present in special studies since before 2018 (dark purple). Following the color gradation towards blue, we can visually understand how researchers' attention slowly shifted towards "national character", "regional resilience", "improving welfare", "community development" and "regional economic development" in 2019 (emerald). Moving forward in time, mid-2019 the focus was on the topic of "Armed Forces", while early and mid-2020 publications began to focus on "role of the military", "national welfare", "national security", "poverty alleviation", "military service", "regional development", "social", "leadership", Health, "business competition", international relations", "coronavirus" and "epidemic". So from the mapping of the VOSviewer overlay visualization and based on the publication period that has attracted the attention of researchers, it is very interesting to conduct research on the topics of "role of the military" and "regional developmen".

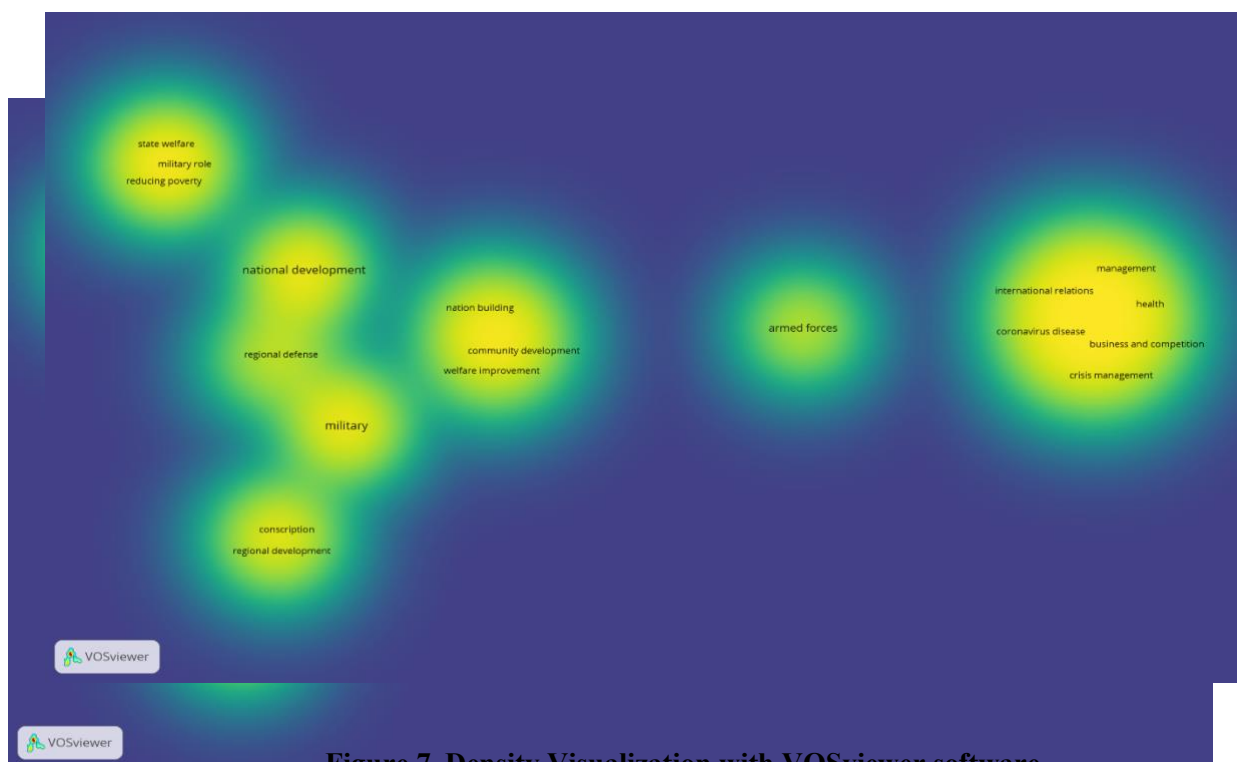


Figure 7. Density Visualization with VOSviewer software

In Figure 7, we can observe the representation of the cluster density image, broadcasting the most visited concepts in the literature, correlated with the concept of the role of the military. According to Van Eck and Waltman (2010), each term has a scope related to a certain dimension and color density. Also, there is a certain distance between each ball. An interesting thing is the fact that the concept of "military role" seems to have a closer relationship with "national welfare", "national security", and "poverty alleviation" compared to the other items. This visual effect can be caused by the fact that the items that are closer on the density map are in the same section of the article. While the most visited item based on the density visualization is "national development". So it would be interesting if the author makes a study that can connect one density with another in order to find something new.

Conclusion

The purpose of this study was to examine the bibliometric literature on the role of the military. In the search process using the keyword "military role" found 104 relevant articles, 77 unlinked articles and 27 linked articles. Of the 27 articles there are 13 articles that most discuss the topic of the role of the military. The mapping procedure is completed using VOSviewer. Based on the results of the analysis and mapping with VOSviewer, there are 4 clusters identified in 5 time periods, namely in 2018, mid-2018, 2019, mid-2019 and 2020. From the results of the network visualization, a gap or gap was found that researchers can use to find new things to determine the research theme, namely "military role" cluster 4, "regional economic development" cluster 2 and "regional development" cluster 3. Furthermore, based on the publication period that has attracted the attention of researchers in the visualization of the overlay is "military role" cluster 4 and "regional development" cluster 3. For the most visited items based on density

visualization is "national development" Cluster 4. So through Bibliometric analysis of military involvement using the VOSviewer application, a theme for novelty in the study was obtained, namely Variable I "military role", Variable II "regional development".

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