

BIBLIOMETRIC MAPPING OF RESEARCH ON DECENTRALIZATION AND PERFORMANCE EVALUATION

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Abstract

This study aims to analyze trends, developments, and directions of scientific research related to decentralization and performance evaluation between 2015 and 2025. Using a bibliometric approach and data from the Scopus database, this study evaluates scientific publications based on the number of documents, country contributions, institutional affiliations, keywords, and collaborative networks between authors. The analysis shows that the number of publications fluctuates, with a significant spike in 2024. China is the country with the highest contribution to publications, while contributions from Indonesia remain very minimal. In terms of affiliations, Chinese universities dominate scientific production in this field. Network visualization shows that collaboration between researchers remains low and fragmented. The most dominant keywords are decentralization, blockchain, and performance evaluation, which form several research clusters that show links to financial management and public policy topics. These findings indicate the need to increase the involvement of Indonesian researchers and strengthen global collaborative networks on the topic of decentralization and performance evaluation.

Keywords: *Decentralized, Performance Evaluation, Bibliometrics*

INTRODUCTION

Decentralization is a managerial and administrative concept that is increasingly gaining widespread attention in the context of government and business organizations (Palewi et al., 2025). The decentralization process involves the delegation of decision-making authority from the central level to lower levels of units or entities, with the aim of increasing efficiency, accountability, and responsiveness to local needs (Fauzi et al., 2024). The implementation of decentralization in various countries and organizations is believed to have a significant impact on improving performance, both in terms of productivity, effectiveness of resource management, and quality of public services.

Performance evaluation is an important aspect in assessing the success of the decentralized process (Edward et al., 2024). Through a systematic evaluation mechanism, organizations can measure the achievement of results, identify obstacles, and implement continuous improvement. Accurate and objective performance measurement is also the basis for strategic decision making, resource allocation, and accountability to stakeholders (Yuanita et al., 2023).

In the context of decentralization, accounting and accounting information systems have a crucial role in supporting the management and evaluation of the performance of

geographically and functionally dispersed units (Asystasia & Siregar, 2024). An integrated accounting information system allows the collection, processing, and reporting of financial data in real time from various work units, making it easier for central management to monitor performance, control costs, and conduct variance analysis in a timely manner (Azis et al., 2024). With accurate and transparent information, the decision-making process can be carried out more effectively and evidence-based.

Furthermore, decentralized accounting systems are designed to allocate responsibility and control to smaller business units, which also function as responsibility centers (Andriany et al., 2021). Through this approach, each unit can be evaluated based on its own financial and operational performance, such as cost-volume-profit analysis, budget control, and profitability measurement (Aisya & Kalsum, 2022). Managerial accounting becomes the main tool in setting performance standards, evaluating work results, and providing constructive feedback for continuous improvement (Febiana et al., 2023).

In recent decades, research on decentralization and performance evaluation has grown rapidly in various disciplines, including management, public administration, economics, and accounting. Various evaluation approaches, models and methods have been developed to understand the dynamics and impacts of decentralization in different contexts. However, the literature is scattered across various sources and has not been thoroughly reviewed through a systematic method.

This study aims to map studies that address decentralization and performance evaluation. The data is taken from the Scopus database for the period 2015 to 2025, so as to illustrate the latest and relevant developments in this field. Through this analysis, a systematic overview of research trends, the most productive authors and institutions, as well as collaborative networks and emerging research themes can be obtained.

The results of this mapping are expected to contribute to academics, practitioners, and policymakers' understanding of the decentralized and performance evaluation research landscape, as well as providing a basis for developing research and policies that are more effective and responsive to today's management and governance challenges.

METHOD

This study uses a bibliometric approach to map and analyze the scientific literature related to decentralization and performance evaluation. Publication data was collected from the Scopus database, which was chosen for its wide coverage of international journals and the quality of its metadata. The time span of the data collection was from 2015 to 2025, to obtain a picture of current and relevant research trends. The data retrieval process was conducted using a combination of the main keywords, namely “decentralization” and “performance evaluation” along with synonyms and related terms to ensure the comprehensiveness of the search. Once the data was obtained, it was filtered to eliminate duplicates, irrelevant publications, and document types other than journal articles and peer-reviewed conference proceedings.

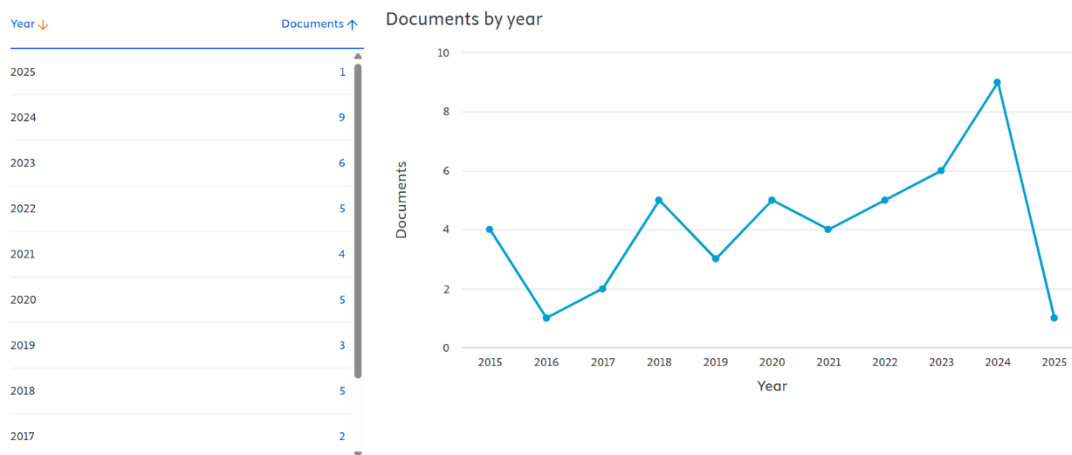
Bibliometric analysis was conducted using VOSviewer software, which facilitates visualization of collaboration networks between authors, institutions, and countries, as well as keyword co-occurrence analysis to identify research themes and trends. In addition, quantitative indicators such as the number of publications per year, author and institution distribution, and citation rate were analyzed to understand the scientific productivity and

impact in this field. Using these methods, the research aims to uncover patterns of scholarly development, collaboration networks, and potential research areas for further development in the context of decentralized and performance evaluation.

RESULTS AND DISCUSSION

This study identified 45 scientific documents relevant to the topic of decentralization and performance evaluation from 2015 to 2025. All documents were obtained from the Scopus database and have passed the screening process including: (1) keyword 'capital budgeting'; (2) range of years 2015-2025; (3) document type is research article, review article, and conference article; (4) English language; (5) included in the subject areas of Business, Management and Accounting and Economics, Econometrics and Finance; (6) and accessible documents. From the data obtained, researchers conducted an analysis using tools on the Scopus website.

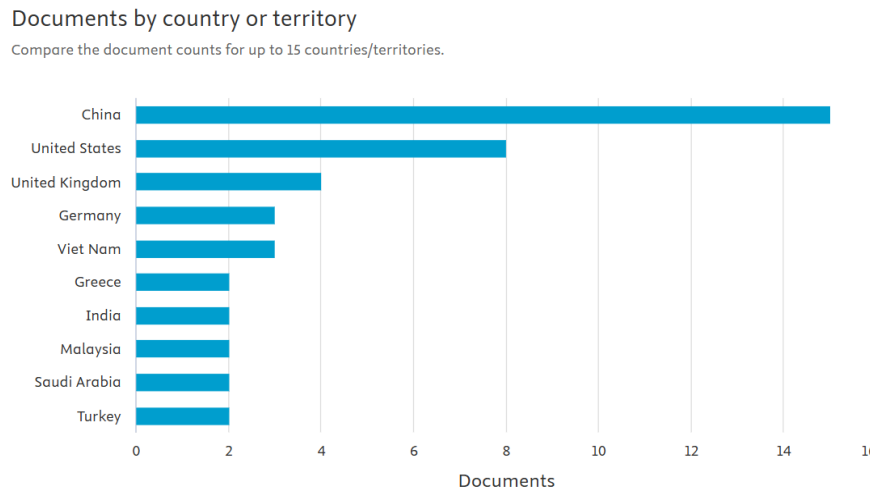
Figure 1. Graph of the Development of Article Publications in the 2015-2025 Range in Scopus



Source: Scopus data, 2025

Based on the analysis of annual publication trends, it can be seen that the number of publications was quite high at the beginning of the 2015 period. However, it began to experience a fluctuating trend in the following years. The peak of publications occurred in 2024, which was most likely triggered by increased global attention to bureaucratic reform and post-pandemic public sector governance. Then the researchers looked at countries that published articles related to “decentralization” and “performance evaluation” with the following analysis results:

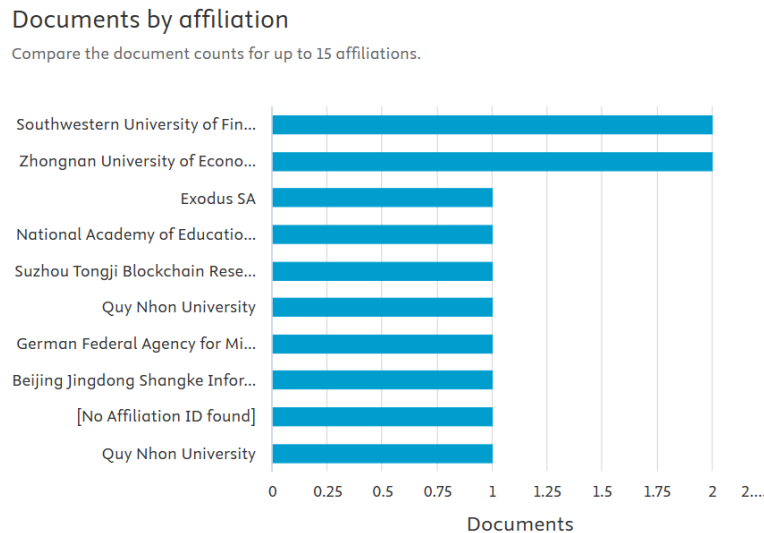
Figure 2. Diagram of Countries Publishing Articles



Source: Scopus data, 2025

Based on the regional analysis of article publication countries in Figure 2, it can be seen that China produced 15 articles, the most than other countries. The topic of "decentralization" and "performance evaluation" does not seem to have been researched much in Indonesia, this gap can be used by authors to publish articles related to these topics. Researchers also looked at the results of the analysis of the affiliation of institutions that wrote articles related to “decentralization” and “performance evaluation”, the results of the research are as follows:

Figure 3. Diagram of Article Affiliation in the Range of 2015-2025 in Scopus



Source: Scopus data, 2025

Based on Figure 3, it can be seen that the most author affiliations are from Southwestern University of Finance and Economics and Zhongnan University of Economics and Law with 2 articles each. Other affiliates only published 1 article related to the topics of “decentralization” and “performance evaluation”. This is a great opportunity for universities

in Indonesia to publish articles on these topics. The researcher also found from the analysis that there are many citations of articles that discuss "decentralization" and "performance evaluation", the number of citations in each article is presented in the following table:

Table 1. Number of citations of articles related to “decentralization” and “performance evaluation”

No	Title	Authors	Publisher	Years	Total Citation
1	Storage assignment policy with awareness of energy consumption in the Kiva mobile fulfillment system	Li, X., Hua, G., Huang, A., ...Cheng, TCE, Huang, F.	Transportation Research Part E: Logistics and Transportation Review, 144, 102158	2020	66
2	Performance Evaluation of different Hyperledger Sawtooth transaction processors for Blockchain log storage with varying workloads	Moschou, K., Thedouli, A., ...Karamitros, D., Diamantopoulos, S.	Proceedings – 2020 IEEE International Conference on Blockchain, Blockchain 2020, pp. 476-481, 9284753	2020	18
3	An empirical investigation of beyond budgeting practices	Majetka, M., Merchant K., O'grady, W.	Journal of Management Accounting Research, 33(2), pp. 161-189	2021	17
4	Performance aggregation and decentralized contracting	Feltham, G.A., Hofmann, C., Indjejikian., RJ	Accounting Review, 91(1), pp. 99-117	2016	12
5	Determinants and consequences of transfer pricing autonomy: An empirical investigation	Chen, C.X., Chen, S., Pan, F., Wang, Y.	Journal of Management Accounting Research, 27(2), pp. 225-259	2015	12

6	Motivating for environmental protection: Evidence from country officials in China	Qi, Y., Yin, A., Chen, J., Yang, C., Zhan, P.	World Development, 184, 106760	2024	9
7	Budget emphasis in small and medium-sized enterprises: evidence from Denmark	Sandalgaard, N., Nielsen, C.	Journal of Applied Accounting Research, 19(3), pp. 351-364	2018	9
8	An evaluation of some key economic policies	McLeod, RH, Rosdaniah, S.	Bulletin of Indonesian Economic Studies, 54(3), pp. 279-306	2018	9
9	Systematic evaluation of decentralized thermal treatment of rural solid waste: Status, challenges, and perspectives	Xie, Y., Lu, J.-W. Xie, B., ...Zhou, J., Hai, J.	Resources, Conservation and Recycling Advances, 15, 200116	2022	8
10	Cross-Referencing Method for Scalable Public Blockchain	Yanagihara, T., Fujihara, A.	Internet of Things (Netherlands), 15, 100419	2021	8

Source: Scopus data, 2025

Next, we visualized the data from Scopus using VOSviewer. First, we looked at the visualization of collaboration networks between authors or co-authorship, which was done to understand the collaborative structure among researchers researching product cost topics in Indonesia. The results of mapping the scientific collaboration network through co-authorship analysis showed two main characters in the collaboration pattern between authors, namely connected co-authorship and disconnected co-authorship.



Figure 4. Connected Co-Authorship

Source: Data Processed by Researchers, 2025

Connected co-authorship illustrates the collaborative relationship between authors who are members of one or more joint publications. The visual mapping results show that the relationship between Chen j. and Qi y. is shown through nodes connected by links, forming a collaborative network or cluster. This pattern reflects an active, mutually supportive, and likely similar research community in terms of topics or methodological approaches between the two authors. Another author, Nguyen nt, appears with a separate node, meaning that he or she wrote more than one article on the same topic but did not intersect with Chen j. and Qi y.'s research articles..

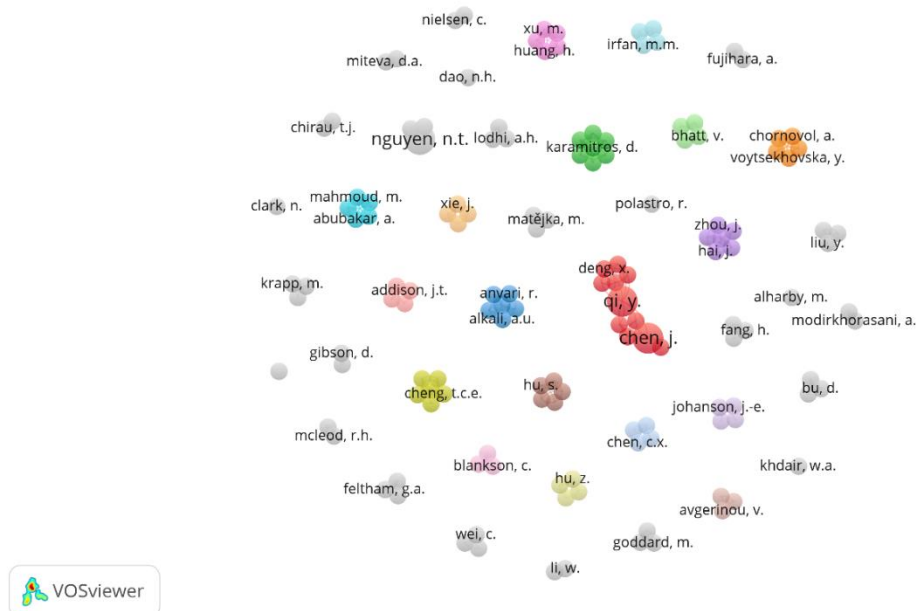


Figure 5. Unlinked Co-Authorship

Source: Data Processed by Researchers, 2025

In contrast, unconnected co-authorship illustrates the presence of authors working individually or in small groups without any connection to other groups of authors, as seen in Figure 5. In this network visualization, authors appear as isolated nodes or in subclusters that are not connected to the main network. This phenomenon may indicate that scientific collaboration within the field is still limited, thematically, institutionally and geographically. This pattern of separation indicates the need to strengthen collaborative networks between researchers, especially through strategic initiatives such as research consortia, scientific forums, and joint publications across institutions to encourage more intensive and integrative knowledge exchange in the future.

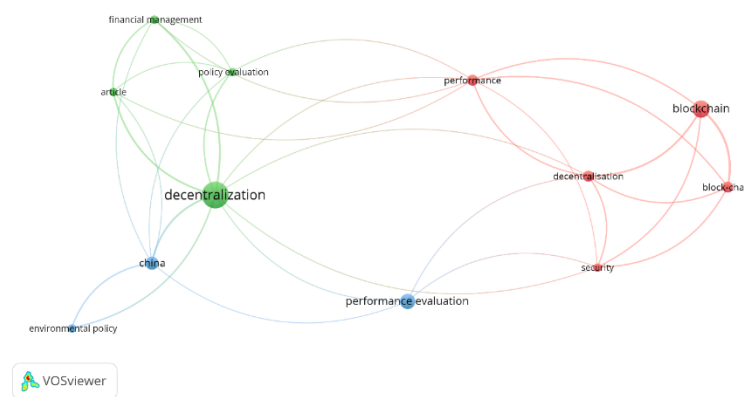


Figure 6. Network Visualization
 Source: Data Processed by Researchers, 2025

Based on the network visualization results, it can be seen that there are three different color groups for each keyword. Each color depicts a different cluster. The first cluster is green, in this cluster there are seven keywords including decentralization, articles, policy evaluation and financial management that are interconnected. In this cluster, decentralization has the largest circle among others. This means that decentralization is a keyword that is often used and connected to other keywords.

In relation to the keywords in this bibliometric research, performance evaluation is connected to decentralization through a blue-green network. This means that both keywords are still in a connected research network, although they have different clusters. Performance evaluation in this network visualization analysis is included in the second cluster in blue, in this cluster there are other keywords, namely China and environmental policy. The last cluster is red with keywords including block chain, block-chain, decentralized, performance, and security. This means that research on decentralization and performance evaluation has a strong network with other keywords that are often used together.

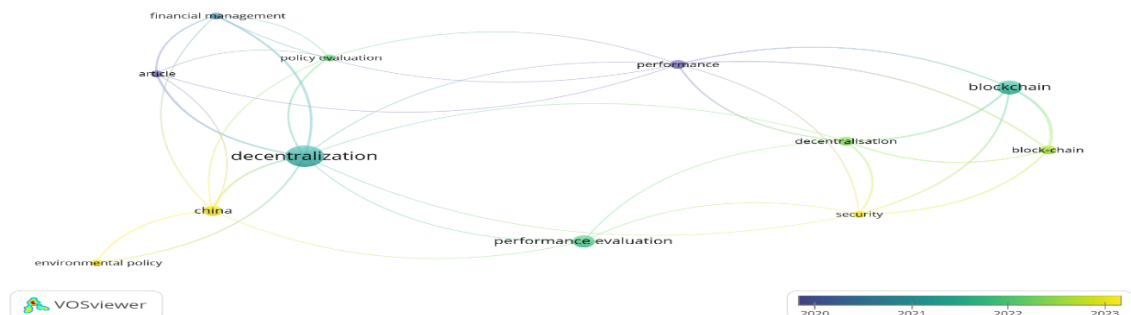


Figure 7. Visualization of Novelty
Source: Data Processed by Researcher, 2025

Based on the results of the overlay visualization shown in Figure 7, it provides an overview of the dynamics of inter-topic relationships in research focusing on decentralization and performance evaluation. This visualization uses a color spectrum to represent the publication chronology, where blue to purple colors indicate older publications (around 2020), while green to yellow colors indicate more recent studies (up to 2023). This color pattern allows the identification of topic evolution over time as well as the recognition of current research trends.

From the map, it can be seen that the term decentralization acts as a hub node connecting various other key themes such as block chain, performance evaluation, financial management, environmental policy, performance article, China, block-chain, security, policy evaluation, and decentralization. The strategic position of decentralization in this topic network reflects that the issue of decentralization is not only a conceptual foundation, but also an applicative framework in various policy and technology domains. The close relationship between decentralized and block chains, for example, indicates the trend of integrating decentralized approaches in digital technology systems based on data and authority distribution.

Furthermore, the relationship between decentralization and performance evaluation shows that the evaluative aspect of decentralized policies is an important concern in the literature, especially in the context of financial governance, environmental management, and the efficiency of public and private organizations. Thus, this overlay visualization not only reflects the evolving conceptual structure in the literature, but also charts a new direction for research that is interdisciplinary and based on technological innovation and adaptive governance.

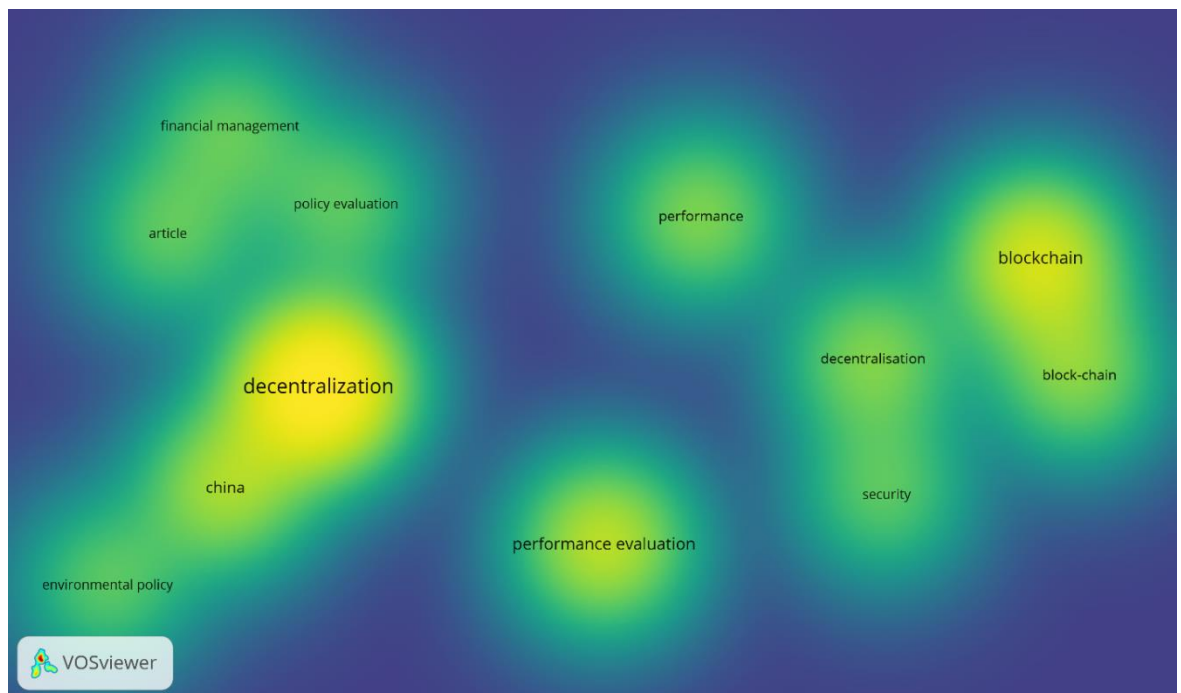


Figure 8. Co-Occurrence Density

Source: Data Processed by Researchers, 2025

Based on the density visualization in Figure 8, it can be seen that decentralization is the keyword with the highest density, shown in bright yellow. This indicates that the topic is the main focus in the analyzed literature. In addition, keywords such as blockchain, performance evaluation, financial management, and policy evaluation also show medium to high density, indicating a close relationship with the theme of decentralization. In particular, the link between decentralization and blockchain confirms the important role of digital technologies in supporting distributed and transparent systems. The map illustrates that decentralization is a central concept in a variety of research contexts, including financial management, policy evaluation, and security.

CONCLUSION

Based on the results of bibliometric research conducted on publications related to decentralization and performance evaluation during the period 2015-2025, it can be concluded that this topic shows a fairly dynamic research trend, although there are still fluctuations in the number of publications each year. A significant increase is seen in 2024, which is likely influenced by the increased global focus on governance and public sector reform post-pandemic. Geographically, China is the main contributor to publications on this topic, while contributions from Indonesia are still very limited. This indicates a research gap that can be exploited by Indonesian researchers to contribute more to developing scientific discourse in this field. In terms of institutional affiliation, the dominance is still seen in Chinese universities, while opportunities for collaboration between institutions in other countries, including Indonesia, are still wide open.

Network visualization analysis shows that collaboration between researchers is still limited, with many co-authorships that are not connected. This indicates a lack of integration

within the scientific community researching decentralized and performance evaluation issues. The keyword clusters found also show that the topic of decentralization is the most studied and central in the research network, while performance evaluation is still in a separate but closely related cluster, especially in the context of environmental policy and financial management.

Based on these findings, it is recommended that researchers and higher education institutions in Indonesia begin to more actively study the issue of decentralization and performance evaluation, both through independent research and international collaboration. In addition, there is a need to strengthen scientific networks and research collaboration across institutions as well as the development of academic discussion forums that can bring together researchers from various disciplines. Strengthening accounting information systems and managerial accounting in the framework of decentralization can also be the focus of further research, given the important role of financial information in supporting transparent and accountable performance evaluation. Thus, the results of this study are expected to be a strategic foundation in encouraging policy development, improving the quality of organizational governance, as well as a real contribution to strengthening scientific literature in the field of decentralization and performance evaluation.

REFERENCES

- Aisya, AN, & Kalsum, U. (2022). The Effect of Decentralization and Management Accounting Systems on Managerial Performance. *Center of Economic Students Journal*, 5(4), 349-362.
- Ardiany, Y., Rinaldo, J., & Muliani, T. (2021). The influence of decentralization and management accounting systems on managerial performance: A case study at PT. P&P Lembah Karet Padang. *Journal of the Indonesian Accounting Academy Padang*, 1(1), 1-12.
- Asyastasia, WA, & Siregar, SA (2024). The influence of management accounting system information characteristics on managerial performance with environmental uncertainty and decentralization as moderating variables at PT. Karya Hevea Indonesia. *Scientific Journal of Management, Economics, & Accounting (MEA)*, 8(1), 1773-1786.
- Azis, T., Pontoh, W., & Korompis, CW (2024). The effect of decentralization on manager performance mediated by management accounting systems (Case study on dealers and showrooms in Manado City). *Business Management and Corporate Finance*, 2(2), 259-269.
- Edward, AV, Adnan, MF, & Khaidir, A. (2024). New public management: a case study of the application of new public management in public organizations in Indonesia. *Future Academia: The Journal of Multidisciplinary Research on Scientific and Advanced Studies*, 2(2), 54-62.
- Fauzi, A., Atmono, AA, Salsabila, H., Tristiany, KD, & Mubarak, RH (2024). Analysis of Financial Performance Evaluation Using ROI, RI, EVA Methods and a Decentralized Approach to a Company. *Journal of Business and Economics*, 2(1), 103-136.

- Febiana, N., Bastian, E., & Fitriyani, F. (2023). The Influence of Management Accounting Systems and Decentralization on Managerial Performance with Environmental Uncertainty as a Moderating Variable. *Tirtayasa Ekonomika*, 18(1), 1-22.
- Pelawi, TDP, Rahman, F., Dewi, S., & Nasution, STA (2025). The Influence of Management Accounting Systems and Decentralization on Managerial Performance in General Hospitals in Medan City. *Student Business Journal*, 5(2), 807-817.
- Yuanita, DW, Dewi, CN, & Setyowati, SM (2023). Public Sector Performance and Investment as a Form of Regional Service: A Literature Review. *Scientific Journal of Accounting and Finance*, 12(1), 23-33.