

PERFORMANCE MEASUREMENT OF PUBLIC SECTOR ORGANIZATIONS

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ABSTRACT

This research aims to examine the performance measurement of public sector organizations using a literature review method with a bibliometric approach. The data sources are derived from national and international journals published on Google Scholar, accessed through the Publish or Perish application. A total of 31 journal publications were collected based on data gathered from the Perish/Hazing application over the period from 2014 to 2024. The data analysis techniques include: mapping the performance measurement of public sector organizations using VOSviewer software; and mapping the performance measurement of public sector organizations using a literature review. The results of the research show that the most commonly used performance measurement for public sector organizations is the Balanced Scorecard. The use of the Balanced Scorecard makes the performance of public sector organizations accountable and transparent. The implications and contributions of this research are mapping the topics frequently studied by researchers, which can serve as a reference for future researchers.

Keywords: Balanced Scorecard, Performance Measurement, Public Sector Organizations, VOSviewer.

INTRODUCTION

The development of public sector accounting in Indonesia has progressed so rapidly along with the implementation of regional autonomy. Based on Law Number 23 of 2014 concerning local government in article 3 of regional autonomy is the right, authority, and obligation of autonomous regions to regulate and manage their own government affairs and the interests of local communities in the Unitary State system of the Republic of Indonesia. In addition, very rapid development also makes a government organization to realize good corporate governance. Based on objectives, public sector organizations are different from the private sector. The private sector has the main goal of maximizing profits, while in the public sector, the main goal is to provide services to the public. Although the main goal of the public sector is to provide public services, the public sector also has financial goals. Because to provide public services requires funds. By increasing state revenue, Regional Original Revenue (PAD), is an example of a financial goal in the public sector Mardiasmo (2018:11). Measuring the performance of public sector organizations is an important aspect of public management that aims to improve the efficiency, effectiveness, and accountability of public services. Performance measurement is a systematic process used to assess the achievement of organizational strategic goals through predetermined indicators. In the context of the public sector, Performance measurement not only aims to assess the

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“Human Resource Transformation and Collaborative Innovation to Build Independent and Competitive Business in the Digital Era”

achievement of targets, but also to ensure that public resources are used as best as possible to provide added value to society. Measuring the performance of public sector organizations is a multifaceted and important task that involves multiple dimensions and considerations. Public sector organizations are often portrayed as facing challenges and are required to implement a performance measurement (PM) system that can effectively respond to diverse demands from various stakeholders. These organizations include a wide range of entities, including schools, universities, local governments, and aid organizations, each of which contributes data on performance outcomes and impacts (Thiel & Leeuw, 2002). However, there are concerns that the implementation of performance measurement systems can inadvertently reduce the professionalism of public sector staff and commodify services, potentially leading to a decline in performance quality (Fryer et al., 2009). The evolution of performance measurement in the public sector has been influenced by the principles of New Public Management (NPM), which are characterized by a shift towards a business-oriented managerial philosophy, improved cost efficiency in service delivery, and a focus on accountability for results (Lee, 2008). This shift has led to a greater emphasis on the use of financial performance measures, outputs, and outcome indicators to evaluate the performance of public sector entities (Lee, 2008). The popularity of performance measurement in the public sector has increased significantly due to the influence of NPM principles, which highlights the importance of measuring and evaluating performance in these organizations (Johansson & Siverbo, 2009).

Efforts to develop effective performance evaluation systems in the public sector are driven by the need to avoid making performance measurement a vulnerability in public sector reform. Academics have emphasized the importance of considering the external context, sector characteristics, and integrating qualitative investigation when designing performance evaluation systems for public sector organizations (Giovannelli et al., 2015). Successful performance measurement in the public sector depends on reaching a consensus on the definition of good government performance, objectives, and methods used to measure and assess performance (Strategic Performance Measurement and Management: Typical Characteristics of the Public Sector and Their Implications for Performance Measurement, 2023). Performance accountability is based on Presidential Regulation Number 29 of 2014 concerning the Performance Accountability System of Government Agencies, which requires each government agency to carry out their respective performance accountability as a form of accountability in achieving organizational goals according to their main tasks and functions in the form of performance reports. In the era of public administration reform, the pressure on public sector organizations to be more transparent and accountable is increasing. Governments and public institutions around the world are faced with the demand to provide high-quality services with limited resources. Performance measurement is an essential instrument to assist public managers in data-driven decision-making, designing effective policies, and identifying areas for improvement. Balanced Scorecard (BSC) and Performance Measurement System (PMS) are some of the methods that are often used in measuring the performance of public sector organizations. BSC, for example, allows organizations to measure performance through various perspectives such as finance, customers, internal processes, and learning and growth. This method helps organizations to not only focus on

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the end result, but also on the processes and factors that affect the achievement of those results.

METHOD

This study uses a method with a qualitative method approach to bibliometric studies and literature review studies. The type of data used is secondary data. The scope of the data used is a research journal article on Performance Measurement of Public Sector Organizations. The source of data collection is derived from searches of national journals indexed by Google Scholar and Sinta through the Perish Publisheror application. Data analysis tools using Mendeley Desktop software and VOSviewer. Data collection techniques include: (1) opening Perish/Harzing software, then searching for journals based on the category of title words saying the key "Public Sector Organization Performance" within the entire year; (2) collect journal title data in Microsoft Excel, and identify duplicate journal titles; (3) download RIS (Research Information Systems) and PDF (Portable Document Format) format files from all journals that have collected data; and (4) enter the RIS data file into the Mendeley Desktop software. Data analysis techniques include: (1) mapping the results of bibliometric network visualization and scientific publication trends using VOSviewer (Visualization of Similarities) algorithm software based on the number of clusters and items; and (2) mapping research topics based on literature studies (Rohimah et al., 2023).

RESULTS

Based on the Bibliometric study on Performance Measurement of Public Sector Organizations, there are 31 journal publications based on the results of data collection from the Perish/Hazing application during the period 2014 to 2024.

Table 1. Journal Publication Data On Public Sector Organization Performance By Year

| Year | Number of Publications | Year | Number of Publications |
|------|------------------------|------|------------------------|
| 2014 | 1 | 2020 | 2 |
| 2015 | 4 | 2021 | 2 |
| 2016 | 5 | 2022 | 3 |
| 2017 | 2 | 2023 | 2 |
| 2018 | 5 | 2024 | 1 |
| 2019 | 4 | | |

Tabel. 2 Citation Metrics

| | |
|-------------------|----------------|
| Publication Years | 2014-2024 |
| Citation Years | 10 (2014-2024) |
| Papers | 31 |
| Citations | 131 |

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| | |
|---------------|--------|
| Cites/year | 13.10 |
| Cites/paper | 4.32 |
| Cites/author | 102.67 |
| Papers/author | 26.00 |
| Authors/paper | 1.39 |
| h-index | 5 |
| g-index | 11 |
| Hi, annual | 0.50 |
| h-index: | 4 |

The results of article searches on Perish/Harzing software are exported in RIS (Research Information Systems) format, then input and analyzed using VOSviewer software, as shown in the image below:

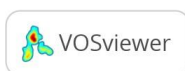


Figure 1: Network Visualization of the research progress map around the Measurement of Public Sector Organizational Performance

The image above is a network visualization using VOSviewer, a tool for creating and visualizing bibliometric maps based on reference data, citations, or keywords. This map shows the relationship between the various concepts related to "public sector organization" in the context of performance measurement. Public sector organizations are located at the center of the network, indicating that this is a major topic that connects a variety of other concepts. This word is represented by a large red node that has several lines that connect it to other concepts, indicating the many relationships it has. To the left of the center are several key concepts that are closely linked to "public sector organizations". This includes Performance measurement systems. This node is large and red in color, signifying that it is a topic that is highly related to public sector organizations. The relationship is strong because the line connecting these two nodes is thick. Accountability, This node is also connected to

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the "performance measurement system" and "public sector organization", demonstrating the importance of accountability in performance measurement in the public sector. Research, shows that research related to performance measurement and accountability in public sector organizations is also a significant area. On the right side there are more specific concepts related to performance measurement in the form of scorecards. These include the Scorecard, this node is green and is linked to the "public sector organization" through a few lines, indicating that the scorecard is a tool used to measure performance in this context. Performance measurement in an organization Directly connected to the "scorecard" and "public sector organization", indicating a focus on specific performance measurement within the organization. This visualization shows that research on public sector organizations is strongly related to performance measurement and accountability systems. This indicates that in the public sector, performance measurement is not only a tool for assessing efficiency and effectiveness, but also for ensuring accountability to the public and other stakeholders. The use of scorecards as a performance measurement tool also demonstrates a systematic and structured approach to measuring and monitoring the performance of public sector organizations. This visualization shows that research on public sector organizations is strongly related to performance measurement and accountability systems. This indicates that in the public sector, performance measurement is not only a tool for assessing efficiency and effectiveness, but also for ensuring accountability to the public and other stakeholders. The use of scorecards as a performance measurement tool also demonstrates a systematic and structured approach to measuring and monitoring the performance of public sector organizations. Overall, this visualization provides insight into how different concepts are interconnected in the literature that examines public sector organizations, particularly related to performance measurement and accountability.



Figure 2: Overlay Visualisation of the research development map around Performance Measurement of Public Sector Organization

This visualization shows the publication time range of the blue to green cluster. It contains terms such as "performance measurement system", "accountability", and "research". This cluster shows a focus on performance measurement and accountability in research on public sector organizations. The blue color in this cluster indicates that research related to these terms was widely published around 2016. The yellow cluster highlights the term "scorecard", which often refers to the Balanced Scorecard. This relationship emphasizes that the Balanced Scorecard is the main tool used to measure the performance of public sector organizations. The yellow color in this cluster indicates that research related to the Balanced Scorecard was more widely published in 2017 to 2018.

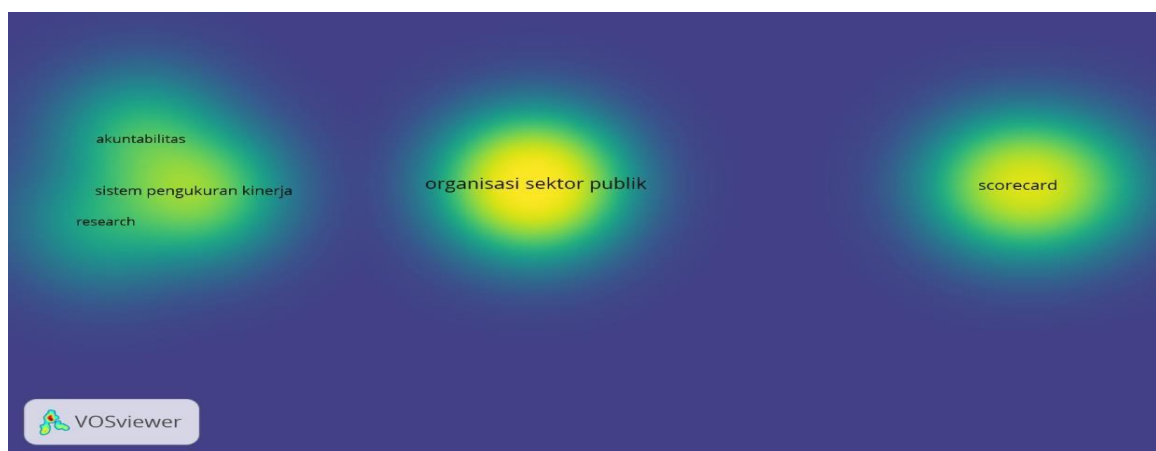


Figure 3: Density Visualization map of research developments around the Measurement of Public Sector Organizational Performance

This visualization shows the frequency density of keywords related to measuring the performance of public sector organizations in the academic literature. Public sector organizations are shown in bright yellow indicating that these are the keywords that appear most frequently and have a high density in the analyzed literature. The scorecard is displayed in yellow, although it is slightly dimmer than "public sector organizations". This shows that the scorecard, especially the Balanced Scorecard, is a very relevant and widely discussed tool in the context of measuring the performance of public sector organizations.

DISCUSSION

Based on the review of literature studies in previous research journals, researchers found a method that is often used in measuring the performance of Public Sector Organizations, namely: Balance Scorecard. The Balance Scorecard consists of four perspectives, namely the financial, customer, internal business process perspective and the learning and growth perspective. The concept of Balance scorecard was originally intended for profit-oriented business organizations, but in its development, balance scorecards can also be applied to public sector organizations. The application of the Balance Scorecard in the measurement of public organization performance aims to state the balance between various internal and external measures. To implement the Balance Scorecard in the public sector, modifications are needed because there is a difference between the Balance Scorecard

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for the public sector and the private sector, so the balance scorecard must be adjusted first to suit the needs of public organizations. With the balanced scorecard method, the company's performance from non-financial aspects can be measured and as evaluation material to help systematically and completely help collect data (Sugiyono: 2017). The use of the Balanced Scorecard (BSC) in measuring public sector performance has become increasingly common as it provides a comprehensive framework for evaluating the performance of organizations in the public sector. Measuring the performance of public sector organizations using the Balance Scorecard (BSC) can provide a framework for measuring and managing organizational performance holistically. The use of BSC in the public sector highlights the importance of an integrated and multi-dimensional approach in evaluating the achievement of government goals and responsibilities. The Balance Scorecard helps in connecting strategic objectives with the operations of public sector organizations. By identifying long-term goals, the Balance Scorecard facilitates a clear understanding of the organization's vision and mission and provides a foundation for targeted performance measurement. Then, the Balance Scorecard emphasizes performance measurement from a variety of perspectives, which include financial, customer, internal processes, and learning and growth dimensions. This approach allows organizations to obtain a more complete picture of their performance, going beyond the financial metrics that are often dominant in the private sector context. In addition, the Balance Scorecard also plays a role in increasing accountability and transparency in managing public sector performance. By establishing performance indicators that are measurable and linked to strategic objectives, organizations can clarify stakeholder expectations and ensure better accountability in the use of public resources. The use of Balance Scorecard also facilitates informed decision-making by providing relevant data and comprehensive performance analysis. It helps leaders and decision-makers in the public sector to formulate more effective policies and improve existing programs. stakeholders and ensure better accountability in the use of public resources. The use of Balance Scorecard also facilitates informed decision-making by providing relevant data and comprehensive performance analysis. It helps leaders and decision-makers in the public sector to formulate more effective policies and improve existing programs. Overall, the use of the Balanced Scorecard in public sector performance measurement strengthens organizational performance management by providing a structured, holistic, and goal-oriented framework to achieve desired outcomes for society and stakeholders.

CONCLUSION

Based on the results of the discussion of the research that has been carried out, several things can be concluded, namely this study uses 31 published journals and analyzed using a literature study method with a bibliometric approach using Vosviewer software. The results of this study are based on visualization using Vosviewershowing that The most widely used measure of the performance of public sector organizations is the Balance Scorecard. The use of the Balanced Scorecard makes the performance of public sector organizations from financial and non-financial aspects measurable and as an evaluation material to help systematically and completely help collect data. The Balance Scorecard also plays a role in increasing accountability and transparency in the management of the performance of public sector organizations.

REFERENCES

- El-Halaby, S., Aboul-Dahab, S., & Bin Qoud, N. (2021). A systematic literature review on AAOIFI standards. *Journal of Financial Reporting and Accounting*, 19(2), 133–183. <https://doi.org/10.1108/JFRA-06-2020-0170>
- Fryer, K., Antony, J., & Ogden, S. (2009). Performance management in the public sector. *International Journal of Public Sector Management*, 22(6), 478-498. <https://doi.org/10.1108/09513550910982850>
- Giovanelli, L., Marinò, L., Rotondo, F., Fadda, N., Ezza, A., & Amadori, M. (2015). Developing a performance evaluation system for the italian public healthcare sector. *Public Money & Management*, 35(4), 297-302. <https://doi.org/10.1080/09540962.2015.1047274>
- Johansson, T. and Siverbo, S. (2009). Explaining the utilization of relative performance evaluation in local government: a multi-theoretical study using data from sweden. *Financial Accountability & Management*, 25(2), 197-224. <https://doi.org/10.1111/j.1468-0408.2009.00474.x>
- Lee, J. (2008). Preparing performance information in the public sector: an australian perspective. *Financial Accountability & Management*, 24(2), 117-149. <https://doi.org/10.1111/j.1468-0408.2008.00449.x>
- M., Popelo, O., Kholiavko, N., Zhavoronok, A., Fedyshyn, M., & Yakushko, I. (2022). Mapping the Literature on Financial Behavior: a Bibliometric Analysis Using the VOSviewer Program. *WSEAS Transactions on Business and Economics*, 19, 231–246. <https://doi.org/10.37394/23207.2022.19.22>
- Mardiasmo. (2018). *Public Sector Accounting*. Yogyakarta : Andi.
- Modell, S. (2004). Performance measurement myths in the public sector: a research note. *Financial Accountability and Management*, 20(1), 39-55. <https://doi.org/10.1111/j.1468-0408.2004.00185.x>
- Thiel, S. and Leeuw, F. (2002). The performance paradox in the public sector. *Public Performance & Management Review*, 25(3), 267-281. <https://doi.org/10.1080/15309576.2002.11643661>
- Rohimah, W., Budianto, E. W. H., & Dewi, N. D. T. (2023). Mapping Research on Bank CIMB Niaga Syariah and Conventional: A Bibliometric Study of VOSviewer and Literature Review. *Journal of Banking Management Economics*, Vol 5, No 1 (2023): JEMPER January-June, 30–40. <https://jurnal.usbypkp.ac.id/index.php/jemper/article/view/2607/pdf>
- Strategic performance measurement and management: the distinctive nature of the public sector and implications on performance measures. *Public Policy and Administration Research* (2023). <https://doi.org/10.7176/ppar/13-2-03>.
- Sugiyono. 2017. *Qualitative, Quantitative and R&D Research Methods*. Bandung Dubyna
- Thiel, S. and Leeuw, F. (2002). The performance paradox in the public sector. *Public Performance & Management Review*, 25(3), 267-281. <https://doi.org/10.1080/15309576.2002.11643661>
- Van Eck NJ, W. L. (2022). *VOSviewer Manual Versi 2.6.18*. In Leiden: University of Leiden.