



## EVALUATION OF THE DESIGN AND IMPLEMENTATION READINESS OF THE BALANCE SCORECARD IN LIBRARIES

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### ABSTRACT

This research aims to design a performance measurement system (DSS) for libraries, specifically with a focus on implementing the Balanced Scorecard (BSC) method in Libraries. Performance measurement is very important to evaluate the extent to which an organization achieves predetermined goals. The quality of library services can be assessed through performance measurements, which provide insight into the effectiveness of activities, identify differences from established standards, and compare results with expectations. This research highlights the importance of performance evaluation in improving library services and library image. Systematic performance measurement can guide libraries, increase user productivity, reduce transaction costs, improve services, and demonstrate the library's value to stakeholders. The BSC method translates the library's vision, mission, and strategy into strategic goals and key performance indicators (KPI) in four perspectives: financial, customer, internal business, and learning and growth. This holistic and comprehensive approach ensures that strategic objectives are balanced between short and long terms as well as internal and external factors. The research results show increasing interest in evaluating the design and implementation readiness of BSC in libraries.

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## INTRODUCTION

One of the public organizations that fulfills the public's need for information is the library. The extent to which an organization can achieve its stated goals is a way to measure its performance. As an information provider institution, libraries will be successful in serving users if they are supported by management and human resources who are experts in achieving common goals or visions (Ekarini, 2017).

Performance measurement is a way to measure the quality of library services. Performance measurement is the process of providing information about the extent to which certain activities have been achieved, how that achievement differs from certain standards, to find out whether there are differences between the two, and how the resulting benefits compare with the expectations to be obtained (Devani, 2016).

The process of assessing work progress against predetermined goals and objectives is known as performance measurement. This presentation shows that this measurement is an important tool for knowing the progress of an organization and knowing the level of success or achievement of each initiative that has been programmed (Melantika et al., 2023).

The absence of an evaluation of library performance measurements will be difficult because it can produce excellent service to users and improve the image and perception of the library. Systematic use of performance measurement can provide many benefits for libraries (Leader & Ste-foy, 2010).

Performance measurement can help library management, improve services for users, reduce transaction costs, and show stakeholders how valuable libraries are (Nurhayati et al., 2018).

UPT Libraries designed a performance measurement system (DSS) to measure the success of the above efforts. This SPK will contain performance indicators to describe the library's performance and measure how successfully the vision and mission have been achieved. The aim of this research is to design SPK for libraries. To meet the above needs and based on the results of literature research to determine the appropriate SPK method, it was decided that the Balanced Scorecard method would be used in this research (Herlina, 2014).

BSC implementation is used to evaluate whether the activities carried out by an organization meet the requirements to realize the organization's vision and mission. In addition, BSC has the ability to present organizational performance quickly and comprehensively. This method converts the established vision, mission and strategy into a series of strategic goals (objectives) and key performance indicators (KPI). Four BSC perspectives: financial, customer, internal business, and learning and growth (Self, 2003).

One of the reasons why the balanced scorecard is better than other methods is as follows: (1) more comprehensive, broad, and comprehensive measurements help organizations make wiser strategic decisions and enable organizations to adapt to complex environments, (2) coherence from each perspective can help an organization achieve its strategic goals because all strategic goals must be explained, and (3) balance between strategic goals set by the organization (Murdiansyah et al., 2020).

## RESEARCH METHODS

This research uses a systematic literature review and bibliometric analysis. Bibliometrics is a branch of science that studies the application of two methods, namely mathematics and statistics. This method is used to calculate quantitative and qualitative changes in a group of documents and other media (Purwanto, 2021). Bibliometric analysis is a quantitative technique for analyzing bibliographic data originating from articles or journals. This analysis is often used to check reference citations of scientific articles in journals, describe the scientific field of the journal, and classify academic papers based on research fields (Fitria, 2022). The research data used in this research are scientific articles or journals spanning the years 2014-2024 sourced from the Google Scholar database. Searches for scientific articles are carried out directly on the googlescholar.com website using 4 keyword combinations. Map of scientific publication model development Evaluation of Design and Implementation Readiness of Blanced Scorecard in Libraries analyzed using VOSViewers software .

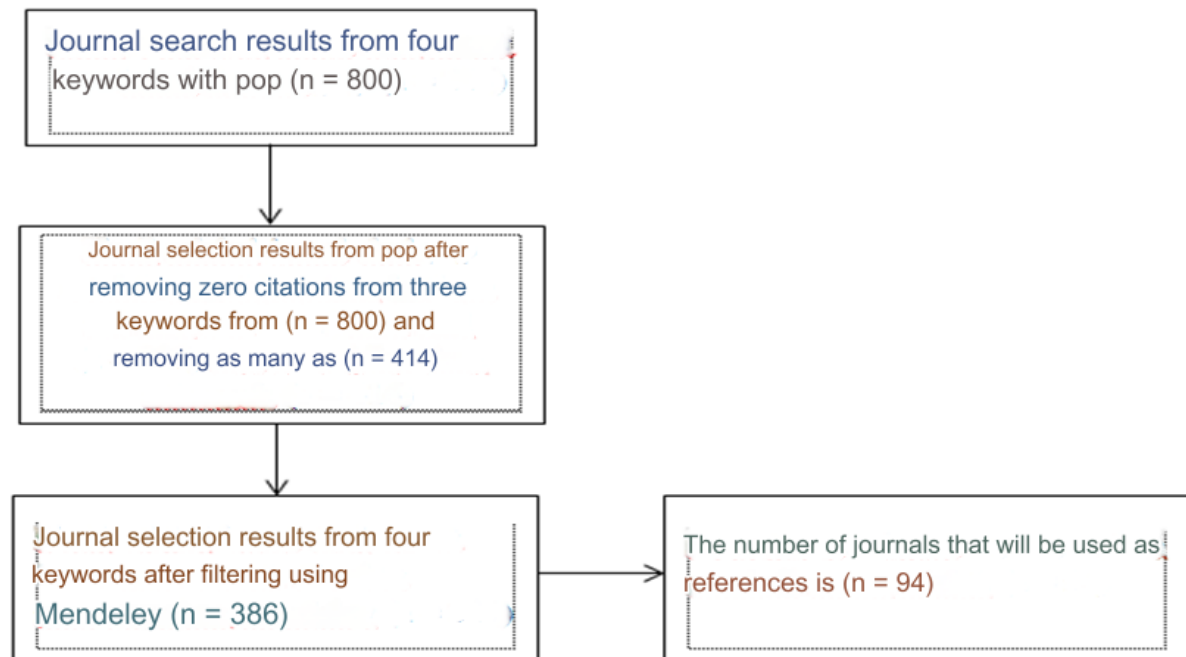


Figure 1. Literature Screening Process

## RESULTS AND DISCUSSION

The development of publications on the topic of design evaluation and readiness to implement the balanced scorecard in libraries in the 2014-2024 period has increased significantly every year. Table 1 shows the number of publications with the following keywords:

1. Implementation, library balance scorecard
2. Analysis, design, implementation, balance of library scorecards
3. Implementation of the library balance scorecard
4. Evaluation, design, readiness, balance scorecard of the library

The highest publication in 2018 to 2021 was on a combination of four keywords with 81 articles or 51% of the total data.

Table 1. Distribution of Article Publication Years

Year of publication	Number of Articles	Percentage
2014-2017	55	35%
2018-2021	81	51%
2022-2024	23	14%
Total	159	100%

The development of publication growth in Evaluation of the Design and Implementation Readiness of the *Balanced Scorecard* in Libraries, in Figure 2 shows that in 2014-2024 the highest increase in scientific publications occurred in 2018 to 2021. This proves that research on evaluating the design and readiness to implement *the balanced scorecard* in libraries increasingly interesting to research.

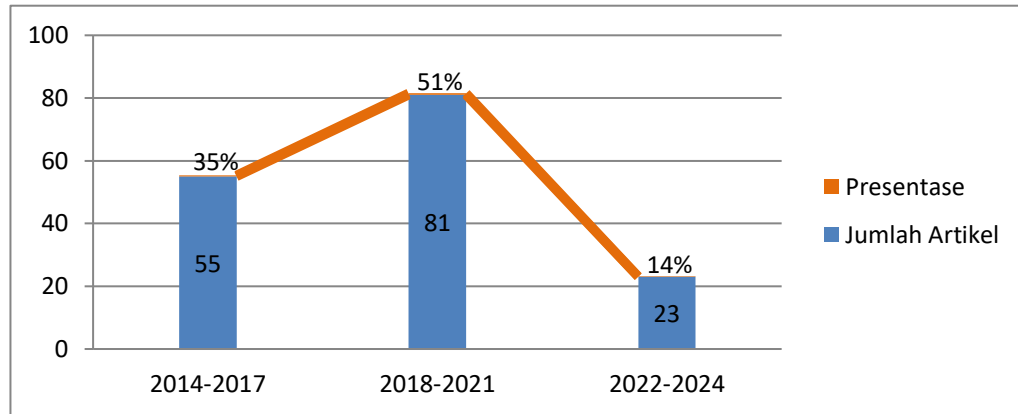


Figure 2. Publication Development

Figure 3 shows that based on keywords (co-words), the development map of the topic area Evaluation of the Design and Implementation Readiness of the Balanced Scorecard in Google Scholar indexed libraries for 2014-2024 forms into 11 clusters. Cluster 1 is red, consisting of the topics Balance Scorecard, Customer Satisfaction, Financial perspective, Learning and Growth Perspective, Learning and Growth Perspective, Process of Internal Business Perspective. Cluster 6 is light green, consisting of the topics Achievement, Assessment, Balance Scorecard, Performance, School Based, The Implementation of Balance Scorecard. Cluster 3 is blue, consisting of the topics Assessment of Performance, Balance Scorecard, Internal Process Perspective, SWOT. Cluster 4 is colored yellow, consisting of School Based, Strategic Management, Implementation of the Balanced Scorecard, Challenges in the World of Education. Cluster 5 is purple, consisting of the topics Effective and Efficient, Performance, Higher Education Libraries, Performance Measurement Systems. Cluster 6 is light blue, consisting of the topics Balance Scorecard, Internal Growth and Learning Perspective, Business Perspective. Cluster 7 in Orange consists of the topics Success, Performance Management, Development Process. Cluster 8 in Brown consists of the topics of the Ministry of Finance, the Role of Libraries, perceptions of Library Employees. Cluster 9 in Pink consists of the topics Analytical Hierarchy Process, Current. Cluster 10 is dark green. Consists of the topic Performance Evaluation, Libraries. Cluster 11 in Black consists of the topics Management, Performance Measurement.

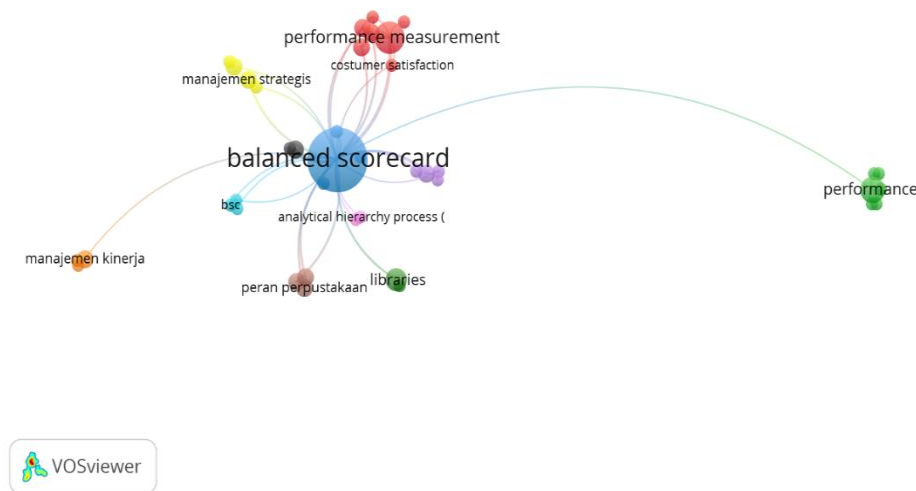


Figure 3. Network Visualization

Based on 139 keywords, 11 clusters were found which were formed from various keywords in Google Scholar journals. The publication development map with 5 combinations of keywords on the topic of supply chain management for the creative palm leaf woven industry has several clusters of discussion material, as shown in the following table:

Table 2. Keyword Clusters

<i>Clusters</i>	<i>Amount</i>
1 (Red)	7
2 (Light Green)	6
3 (Blue)	4
4 (Yellow)	4
5 (Purple)	4
6 (Light Blue)	3
7 ( Orange )	3
8 (Chocolate)	3
9 (Easy Red)	2
10 (Dark Green)	2
11 (Black)	2

After exploring the cluster network, it is very interesting to continue to discover the distribution and evolution of keywords in the network over time. Using VOSviewer overlay and density visualization, the same network can display the total occurrences and research time period of each keyword. In Figure 4, the colors are determined by the average publications per year of each keyword, with yellow representing the most recent and dark blue representing the oldest. It can be observed that the current research problem is a topic that has been carried out for a long time and then developed towards the latest performance measurements with an average publication time ranging between 2014 and 2024.

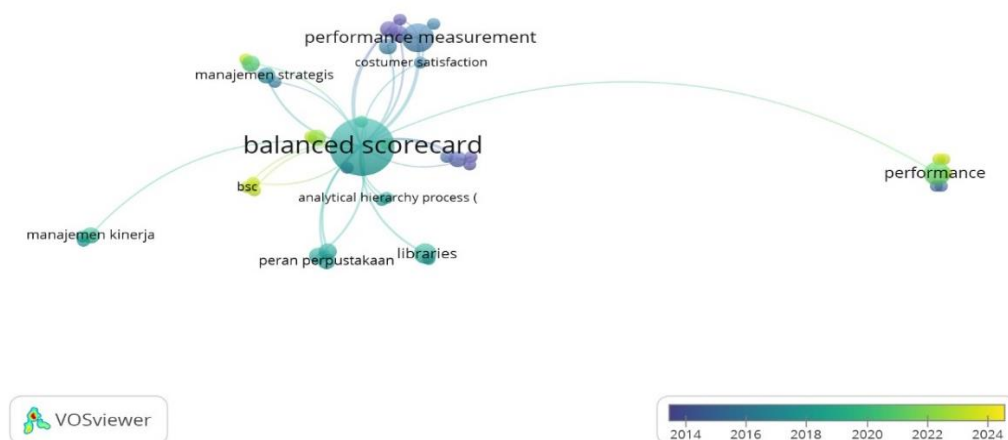


Figure 4. Overlay Visualization

Figure 5 also shows the low density of the Balanced Scorecard topic focus compared to other topics. Therefore, this raises demands for studies that are more focused on the challenges in managing libraries using the Balanced Scorecard for measurement in the technological era.

## CONCLUSION

This journal evaluates the design and readiness to implement the Balanced Scorecard (BSC) in libraries, with the aim of designing a performance measurement system (DSS) that can measure the quality of library services systematically. This research highlights the importance of BSC in translating library vision, mission, and strategy into strategic goals and key performance indicators (KPI) covering four perspectives: financial, customer, internal business, and learning and growth. Research results show increasing interest in evaluating BSC implementation in libraries, with a peak in publications in 2018-

2021. Bibliometric analysis identified 11 main clusters related to BSC in libraries. This research emphasizes that systematic performance measurement can increase user productivity, reduce transaction costs, improve services, and demonstrate the value of libraries to stakeholders, thereby supporting libraries in achieving their strategic goals effectively and efficiently.

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