

# Analysis of key success factors in implementing the balanced scorecard to improve hospital performance

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## Abstract

Implementing the Balanced Scorecard (BSC) in hospitals has become an essential focus in improving organisational performance in the healthcare sector, especially in Indonesia, which faces unique challenges in terms of resources and infrastructure. This article aims to identify and analyse the critical success factors in implementing BSC in hospitals, with the hope of providing practical recommendations for management. The method used in this research is a systematic literature review, which involves a comprehensive analysis of various previous studies on implementing the Balanced Scorecard (BSC) in the healthcare sector. The research findings indicate that factors such as resource utilisation efficiency, patient satisfaction, management commitment, employee participation, and strategic alignment are crucial elements that significantly influence the success of BSC implementation. Implementing the Balanced Scorecard (BSC) in hospitals is an effective way to improve performance. Key success factors include efficient use of resources, patient satisfaction, and strong management support.

Keywords: balance scorecard, critical success factors, hospital performance

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## 1. Introduction

In an era of globalisation characterised by advances in technology and information, the healthcare industry is facing increasingly complex and dynamic challenges (Oftedal et al., 2019). Hospitals, as healthcare institutions, not only function to provide medical services but must also

be able to adapt to rapid changes in the external and internal environment. The demand to provide quality, efficient, and effective health services is becoming increasingly urgent, especially with the increasing expectations of the public and the development of stricter regulations. In this context, hospitals need comprehensive management tools

to measure, manage, and improve their overall organisational performance (Dion & Evans, 2024).

The Balanced Scorecard (BSC) is a management tool that has proven effective in helping organisations, including hospitals, to achieve their strategic goals. BSC was first introduced by Robert Kaplan and David Norton in the early 1990s as a framework that enables organisations to translate vision and strategy into a balanced set of performance measures (Ha et al., 2024). The Balanced Scorecard not only focuses on financial measures but also includes the perspectives of customers, internal business processes, and learning and growth. As such, it provides a holistic view of organisational performance and helps identify areas that require improvement.

The implementation of BSC in hospitals has excellent potential to improve organisational performance (Radtke et al., 2024). From a financial perspective, BSC helps hospitals manage costs and resources more efficiently, improving profitability and economic sustainability. From a customer perspective, BSC enables hospitals to increase patient satisfaction through improved service quality and patient experience. The internal business process perspective helps hospitals to identify and enhance inefficient or problematic processes. In contrast, the learning and growth perspective focuses on human resource development and innovation, which are critical in facing future challenges (Irtanto & Sutanto, 2019).

However, the implementation of BSC in hospitals sometimes goes smoothly. Many hospitals face various obstacles in BSC implementation, such as lack of understanding and commitment from management, resistance to change, limited resources, and difficulties in integrating BSC with existing management systems (Henry et al., 2024). Therefore, it is essential to identify key success factors that can support the implementation of BSC in hospitals. This study aims to fill this gap by identifying and analysing these factors in the context of Indonesian hospitals (Islami N & Dwinugraha A, 2022).

In Indonesia, the healthcare sector faces unique challenges. With a large population and wide geographical spread, Indonesian hospitals often face limited resources and infrastructure (Rilianto et al., 2024). In addition, hospital management's awareness and understanding of modern management tools such as BSC still varies. In this context, effective implementation of BSC can be a handy tool to assist hospitals in overcoming these challenges and improving their performance.

The Balanced Scorecard can also be essential in supporting health reform in Indonesia. The Indonesian government has implemented various policies to improve access and quality of healthcare services, such as the National Health Insurance (JKN). Applying the BSC can help hospitals support these policies by providing a systematic framework for measuring and improving performance.

Previous research has shown that implementing a Balanced Scorecard can positively impact organisational performance. Kaplan and David P. Norton, (1992), the creators of the Balanced Scorecard state that this tool enables organisations to turn vision and strategy into action. Some research in the healthcare sector, such as that conducted by Amer et al., (2022), studies have shown that implementing BSC in hospitals can improve operational efficiency, patient satisfaction, and service quality. However, only some studies have identified critical success factors (CSFs) in implementing BSC in hospitals, especially in Indonesia.

This study offers scientific novelty by identifying and analysing the key success factors in implementing a Balanced Scorecard in hospitals in Indonesia. Although many studies have examined the benefits and implementation of BSC in various sectors, this research focuses on the factors that support the successful implementation of BSC in the context of hospitals in Indonesia, which still needs to be discussed in the previous literature.

The research issues raised in this article are: 'What are the key success factors that influence

the implementation of Balanced Scorecard in improving hospital performance in Indonesia?' Based on this problem, the hypothesis is that several key factors significantly influence BSC implementation's success, including management commitment, employee participation, resource availability, and strategy alignment.

This study aims to identify and analyse the key success factors in implementing a Balanced Scorecard (BSC) in hospitals in Indonesia. Hospitals can improve their performance through effective and efficient BSC implementation by understanding these factors. This study also provides practical recommendations for hospital management implementing BSC to achieve optimal results.

## 2. Literature Review

### Balance Scorecard (BSC)

The Balanced Scorecard (BSC) is a strategic performance management tool designed to help organisations align their activities with their vision and strategy while improving internal and external communications and monitoring organisational performance against strategic goals. Introduced by Robert S. Kaplan and David P. Norton in the early 1990s, the BSC expands traditional financial metrics by incorporating three additional perspectives: customer, internal business processes, and learning and growth. Recent studies underscore the relevance of the Balanced Scorecard in enhancing organisational performance through its four perspectives.

Recent studies underscore the relevance of the Balanced Scorecard in enhancing organisational performance through its four perspectives. Abdelraheem and Hussien (2022) emphasises the necessity of integrating financial metrics with non-financial indicators to foster a comprehensive understanding of performance, advocating for predictive measures alongside historical data. Kamble et al., (2020) Highlight that companies excelling in customer satisfaction typically outperform their competitors financially over the long term, reinforcing the importance of a

customer-focused approach. Fauzi (2020) point out that optimising internal processes is vital for achieving both customer satisfaction and financial goals, as streamlined operations lead to cost reduction and improved service delivery. Lastly, Parmenter (2015) focusing on learning and growth is essential for building sustainable competitive advantages; organisations that invest in employee development and foster innovation are better positioned for long-term success. Collectively, these insights reaffirm the Balanced Scorecard as a robust framework for aligning strategic objectives with operational execution, ultimately enhancing overall performance.

The Balanced Scorecard offers various benefits to organisations, including (Quesado et al., 2018):

- 1) Strategic and Operational Alignment: BSC helps organisations to align day-to-day activities with long-term strategic goals.
- 2) More Comprehensive Performance Measurement: BSC provides a more holistic view of organisational performance by covering four perspectives.
- 3) Improved Internal Communication: BSC facilitates better communication of strategic goals and progress at all organisational levels.
- 4) Encourages Continuous Learning and Improvement: BSC encourages organisations to highlight areas that require continuous improvement.

### Balanced Scorecard in Hospital

The Balanced Scorecard (BSC) is an essential strategic management framework that hospitals frequently employ to enhance their performance measurement and management practices. This innovative concept incorporates four critical perspectives: financial, customer, internal business processes, and learning and growth. By adopting this multifaceted approach, hospitals can better understand their organisational performance, enabling them to align daily operations with their strategic goals. Consequently, this alignment leads to improved decision-making and more effective resource allocation, ensuring that hospitals can

respond efficiently to the complexities of the healthcare environment (Luthfi et al., 2023).

Numerous studies demonstrate that the BSC not only plays a pivotal role in evaluating the financial health of hospitals but also significantly enhances patient satisfaction and operational efficiency by emphasising the importance of internal processes and employee development (Kasun, 2021). By implementing the BSC, healthcare organisations can pinpoint areas that require improvement and devise targeted strategies to achieve their long-term objectives. Furthermore, the BSC framework has effectively supported hospitals in meeting accreditation standards, which have become increasingly crucial in a competitive healthcare landscape. This comprehensive focus ultimately fosters an environment of continuous improvement and accountability within hospitals.

A range of studies conducted in various developing countries has highlighted the successful implementation of the BSC in hospital contexts, demonstrating its efficacy in driving significant performance enhancements (Mushhaf et al., 2024; Pham et al., 2020). These case studies illustrate how the BSC can be crucial for hospitals striving to balance financial viability and deliver high-quality patient care. By embracing this approach, healthcare institutions can create added value for patients and all stakeholders, including employees, investors, and the communities they serve. The successful application of the BSC thus positions hospitals to navigate the challenges of the modern healthcare landscape while maintaining a commitment to excellence and sustainability.

The learning and growth perspective assesses the hospital's ability to innovate, improve, and learn to continue to grow in the future (Kalender & Çýrpan, 2024). Indicators in this perspective include the level of staff training and development, employee satisfaction, and adoption of new technologies. Hospitals that invest in human resource development and technology tend to be more adaptive to change, have more skilled staff, and can provide better healthcare services (Dinata, 2023; Putra & Sajida,

2023).

BSC implementation in hospitals requires commitment and support from top management. Management must ensure that all staff understand the strategic goals to be achieved and how BSC can help in achieving these goals. Effective communication is critical at this stage, as all staff need to understand their role in BSC implementation and how their contribution will be measured.

In addition, the hospital needs to develop a clear action plan to achieve the strategic goals that have been set. This plan should include concrete steps to be taken, required resources, and timelines for implementation. Periodic monitoring and performance evaluation are essential to ensure that the hospital stays on track and can adjust strategies if necessary.

### **3. Research Methods**

The systematic literature review (SLR) approach is a method used to systematically identify, assess, and interpret all relevant research on a particular topic or research question (Varsha et al., 2024). This research used the SLR approach to evaluate and synthesise the findings of various studies related to the key success factors of implementing a Balanced Scorecard (BSC) in hospitals.

SLR begins by defining a clear and specific research question. This question serves as a guide in searching for relevant literature (Nurliana et al., 2024). In the context of this study, the main question was: 'What are the key success factors that influence the implementation of Balanced Scorecard in improving hospital performance?' Once the research question was determined, the next step was to develop a comprehensive search strategy. This involved the selection of relevant academic databases, such as PubMed, Taylor Francis, and Google Scholar, and using specific keywords such as 'Balanced Scorecard' and 'hospital performance' within 2020-2024.

Once the relevant literature was located, a screening process was conducted to ensure that

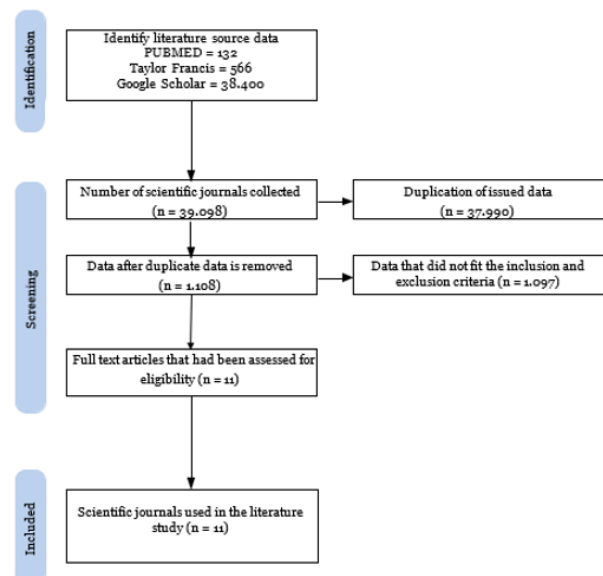
only studies that met specific inclusion criteria were included in the review (Zulganef & Nilasari, 2022). These inclusion criteria could include study type, year of publication, relevance to the topic, and methodological quality. Studies that did not fulfil these criteria were excluded from the analysis.

The next step was to extract data from the selected studies. The data included information on the research design, methods used, key results, and key success factors identified. This data was then analysed and synthesised to provide a comprehensive overview of the findings.

**Table 1.** Referenced Articles

Title	Author
Penerapan Balanced Scorecard di Rumah Sakit Indonesia	Menna & Temesvari (2022)
The role of the management accounting system of Iranian healthcare organisations in the management and control of the COVID-19 pandemic	Rezaei et al., (2023)
A systems approach to mapping performance in Indian healthcare organisations	Harikumar & Saleeshya (2021)
Applying the Balanced Scorecard to Build Service Performance Measurements of Medical Institutions: An AHP-DEMATEL Approach	Lin et al. (2023)
A generic sustainable performance management system for hospital supply chain: design & analysis	Ziat et al. (2024)
Balanced Scorecard-Based Hospital Performance Measurement Framework: A Performance Construct Development Approach	Abu Jaber & Nashwan (2022)
Relationship between human resources strategies and organisational performance based on the balanced scorecard in a public hospital in Iran: a cross-sectional study	Nafari & Rezaei (2022)
Balanced Scorecard Adoption in Healthcare	Da Costa et al., (2022)
A Hybrid Multi-Criteria Decision-Making approach for Hospitals' Sustainability Performance Evaluation under Fuzzy Environment	Regragui et al., (2024)

The advantage of using the SLR approach is that it ensures that the literature search and appraisal process is systematic and transparent, thereby reducing bias and increasing the credibility of the findings (Maulana et al., 2022). Using SLR, this study identified the critical success factors of BSC implementation in hospitals. It evaluated the strengths and weaknesses of previous studies, providing a solid basis for practical recommendations and future research directions. This approach allows the researcher to gain a comprehensive and integrated picture of the topic under study. It helps identify gaps in the existing literature, which can be the focus of further research.



**Figure 1.** Prisma Flow Diagram

#### 4. Results and Discussion

Based on an in-depth review of the 11 articles, the following are some keys to success in implementing the Balanced Scorecard (BSC) in hospitals.

##### Financial Perspective

From a financial perspective, the key to successfully implementing the Balanced Scorecard in hospitals includes several important interrelated aspects. Resource use efficiency is vital, where hospitals must optimally manage

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human resources, medical equipment, and facilities to reduce wastage and maximise output (Huang et al., 2024). to efficiently use work schedules for medical staff, regular maintenance of equipment, and effective management of inpatient spaces can improve operational efficiency and lower unnecessary costs. A hospital's ability to achieve its financial goals is also crucial. This involves achieving revenue targets and effectively

managing costs to ensure economic sustainability. Hospitals should set clear and measurable financial goals, such as revenue targets from various healthcare services and control of operating expenses. By doing so, hospitals can ensure that they have sufficient funds to operate and expand and can reinvest profits for service improvement.

**Table 2.** Keys to balance of scorecard success

Perspective	Keys Success	Author
Financial Perspective	1. Resource Utilization Efficiency	Menna & Temesvari (2022), Rezaei et al., (2023), Harikumar & Saleeshya (2021), Lin et al., (2023), Ziat et al., (2024), Abu Jaber & Nashwan (2022), Nafari & Rezaei (2022), Rezagui et al., (2024), Lee et al., (2023)
	2. Hospital's Ability to Achieve Financial Goals	
	3. Cost Efficiency Relative to Outcomes Achieved	
	4. Revenue Growth from Healthcare Services	
	5. Investment Efficiency by the Hospital	
Customer Perspective	1. Patient Satisfaction with Received Services	Menna & Temesvari (2022), Rezaei et al., (2023), Harikumar & Saleeshya (2021), Lin et al., (2023), Ziat et al., (2024), Abu Jaber & Nashwan (2022), Nafari & Rezaei (2022), Lee et al., (2023), Rezagui et al., (2024)
	2. Hospital's Ability to Retain Existing Patients	
	3. Hospital's Ability to Attract New Patients	
	4. Waiting Time for Services	
	5. Number of Complaints Received from Patients	
	6. Hospital's Image in the Community	
	7. Ease of Access to Healthcare Services	
Internal Business Perspective	1. Hospital's ability to develop new services	Menna & Temesvari (2022), Rezaei et al., (2023), Harikumar & Saleeshya (2021), Lin et al., (2023), Ziat et al., (2024), Abu Jaber & Nashwan (2022), Nafari & Rezaei (2022), Rezagui et al., (2024), Lee et al., (2023)
	2. Percentage of occupied beds	
	3. Length of patient stay in the hospital	
	4. Time required to complete specific medical procedures	
	5. Error rate in medical procedures and adherence to protocols	
	6. Effectiveness in managing and accessing patient medical records	
	7. Growth in outpatient and inpatient visits	
	8. Quality of documentation and accuracy of health data	
	9. Number of sentinel events	
Learning and Growth Perspective	1. The hospital's ability to retain employees.	Menna & Temesvari (2022), Rezaei et al., (2023), Harikumar & Saleeshya (2021), Lin et al., (2023), Ziat et al., (2024), Abu Jaber & Nashwan (2022), Nafari & Rezaei (2022), Lee et al., (2023), Rezagui et al., (2024)
	2. Staff satisfaction with the work environment.	
	3. The quantity and quality of training provided to employees.	
	4. The percentage of employees who remain employed at the hospital.	
	5. Achievements in certifications and quality service standards implemented.	
	6. The level of adoption of new technologies in healthcare delivery processes.	
	7. The organisation's ability to adapt to changes.	

Cost efficiency against results achieved is a measure of how the hospital manages operational costs to obtain optimal results (Prabhod, 2024). This means that hospitals must be able to assess whether the costs incurred are worth the benefits gained, both in terms of quality of care and patient health outcomes. Cost-benefit analysis and regular program evaluations can help hospitals ensure that each expenditure provides the best value. Growth in revenue from healthcare services indicates the hospital's ability to increase revenue through increased patient volume, service diversification, or service rates. This reflects the hospital's adaptability to market needs and ability to offer relevant and quality services. Revenue growth can also be achieved through the development of new services, increased cooperation with insurance companies, and effective marketing (Lin et al., 2023).

The efficiency of investments made by hospitals, such as in infrastructure, technology, and human resource development, should provide optimal returns in the form of improved service quality and patient satisfaction (Lindaas et al., 2024). Abu Jaber and Nashwan (2022); Regragui et al. (2024); and Ziat et al. (2024) mentioned that appropriate investments, such as advanced medical technology or staff training, can improve operational efficiency, service quality, patient satisfaction, and the hospital's reputation. By focusing on this financial perspective, hospitals can achieve healthy financial performance while supporting strategic and operational goals and delivering high-quality healthcare to patients.

### **Customer Perspective**

In the customer perspective, the key to successful implementation of the Balanced Scorecard in hospitals starts with ensuring the level of patient satisfaction with the services received (Menna & Temesvari, 2022). This satisfaction includes the quality of medical services, the staff's attitude and professionalism, and the facilities' convenience. Patient satisfaction is often measured through surveys or direct

feedback, which provides valuable information for service improvement. (Pramesthi Wisnu Bowo Negoro & Setyonugroho, 2022; Riwu & Wibowo, 2021). Successful hospitals will be able to retain existing patients, as satisfied patients tend to be more loyal and return for future services. Good after-sales services, such as follow-up care and effective communication, influence loyalty.

The hospital's ability to attract new patients is also a key factor in the customer perspective. A good reputation, innovation in services, and effective marketing strategies can attract new patients (Abu Jaber & Nashwan, 2022; Shukri & Ramli, 2015). Waiting time for service is also an important indicator. A short waiting time reflects the hospital's workflow's efficiency and effectiveness, ultimately improving patient satisfaction. Hospitals should optimise schedule management and operational processes to minimise waiting times, as this directly impacts patient experience.

The number of patient complaints directly reflects the problems encountered in service delivery (Mogotloane & Louw, 2024). Hospitals should have an effective system (Rezaei et al., 2023) to quickly handle complaints and resolve issues. Using feedback from complaints for continuous improvement is a best practice. The image of the hospital in the community also plays a vital role in its success (Regragui et al., 2024). A positive image is built through consistent quality services, involvement in social activities, and good public communication. In addition, how easily patients can access healthcare services is an essential final factor. Good accessibility, including convenient location, ease of registration process, and availability of clear information, all contribute to a better patient experience and increase patient satisfaction and loyalty.

### **Internal Business Perspective**

From the internal business perspective, the successful implementation of the Balanced Scorecard in hospitals includes the hospital's ability to develop new services, which is an impor-

tant indicator (Liu et al., 2024). Innovation and the development of new services help hospitals stay competitive and meet patients' evolving needs. The percentage of occupied beds is another critical metric. A high occupancy rate indicates operational efficiency and the hospital's attractiveness to patients. However, this must be balanced with the length of stay of patients in the hospital, which needs to be optimised to avoid overcrowding and ensure adequate care.

Harikumar and Saleeshya (2021); Lee et al. (2023) explain that the time taken to complete specific medical procedures indicates operational efficiency. Shorter time without compromising quality suggests that the hospital has efficient processes and skilled medical personnel. Error rates in medical procedures and adherence to protocols are other critical metrics directly related to quality of care and patient safety. Hospitals should strive to minimise errors and ensure all staff adhere to established protocols to maintain high standards in healthcare.

Effectiveness in the management and accessibility of patient medical records is essential for good care coordination. A well-managed medical record allows quick access to patient information, improves efficiency, and reduces the risk of errors. The growth of outpatient and inpatient visits reflects the community's trust in the hospital and the hospital's ability to handle various medical cases. The quality of documentation and accuracy of health data are the foundation for sound decision-making and strategic planning. The number of sentinel incidents, including unexpected events that cause death or severe injury, should be minimised by emphasising patient safety and continuous improvement in clinical processes. By effectively managing these factors, hospitals can improve internal performance and provide better healthcare services to patients.

### **Learning and Growth Perspective**

From the growth and learning perspective, the key to successful implementation of the

Balanced Scorecard in hospitals involves various aspects that support the development and improvement of employee competencies and organisational adaptability (Seyghalani Talab et al., 2024). A hospital's ability to retain employees is a crucial indicator. A high employee retention rate reflects a positive work environment and job satisfaction, improving the quality of healthcare services. Hospitals that retain experienced employees also tend to have more stable and efficient operational performance.

Staff satisfaction with the work environment plays an essential role in employee retention and productivity (Islam et al., 2024; Syahrir et al., 2024). Furthermore, Nafari and Rezaei (2022) Explain if a supportive work environment, including work-life balance, rewards and career development opportunities, can increase staff satisfaction. The amount and quality of employee training are also essential factors. Quality training improves individual competencies and encourages innovation and adoption of best practices in healthcare. Continuous training ensures employees are always ready to face new challenges and changes in the healthcare industry.

The percentage of employees who remain with the hospital measures the stability of the workforce and the effectiveness of retention strategies (Ajemba et al., 2024). In addition, the achievement of certifications and service quality standards demonstrates the hospital's commitment to continuous improvement and adherence to industry standards. Another key indicator is the adoption rate of new technologies in healthcare. Well-implemented technology can improve healthcare service efficiency, accuracy, and safety (Abu Jaber & Nashwan, 2022; Ziat et al., 2024). An organisation's ability to adapt to changes in technology, regulation, and market needs demonstrates the hospital's flexibility and resilience to face challenges and ensure long-term sustainability and growth. By focusing on these aspects, hospitals can maintain high performance and continue to evolve and innovate to meet the needs of patients and staff.



## 5. Conclusion

Implementing the Balanced Scorecard (BSC) in hospitals is a practical strategic management tool for improving performance, focusing on identifying key success factors encompassing financial and customer perspectives. These key success factors include resource use efficiency, patient satisfaction, and the hospital's ability to retain and attract new patients. Additionally, management commitment, employee participation, and strategic alignment are also crucial

elements supporting the successful implementation of BSC. By understanding and applying these factors, hospitals can enhance operational efficiency, service quality, and patient satisfaction, contributing to better financial goals and reputation in the community. This research provides valuable insights and practical recommendations for hospital management to optimise BSC implementation, enabling them to face healthcare challenges and improve organisational performance.

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## Analysis of key success factors in implementing the balanced scorecard to improve hospital performance

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