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Évaluation de l'impact des dimensions du tableau de bord prospectif sur la performance hospitalière : revue de la littérature et cadre conceptuel

Assessing the Impact of Balanced Scorecard Dimensions on Hospital Performance: A Literature Review and Conceptual Framework

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Résumé
La performance hospitalière est devenue une préoccupation majeure pour les établissements de santé, confrontés à une pression croissante visant à améliorer l'efficience, la qualité des soins, la satisfaction des patients et la viabilité financière. Le tableau de bord prospectif (*Balanced Scorecard – BSC*) s'est imposé comme l'un des outils de pilotage stratégique de la performance les plus largement adoptés dans le secteur de la santé. Cette étude vise à examiner dans quelle mesure les quatre dimensions traditionnelles du tableau de bord prospectif — la perspective financière, la perspective des patients, la perspective des processus internes, ainsi que la perspective de l'apprentissage et de la croissance — sont associées à la performance hospitalière, au regard des résultats issus de la littérature empirique existante.
Cette recherche adopte une approche de revue de littérature structurée fondée sur des données empiriques provenant aussi bien des pays développés que des pays en développement. Des études antérieures menées en Amérique du Nord, en Europe, en Asie, en Afrique et au Moyen-Orient ont été analysées afin d'identifier la manière dont la littérature rend compte des effets de la mise en œuvre du tableau de bord prospectif sur la performance hospitalière et de déterminer les dimensions les plus fréquemment reconnues comme influentes. Cette revue constitue également le fondement de l'élaboration d'un cadre conceptuel ainsi que des hypothèses de recherche.
Les travaux examinés mettent généralement en évidence une relation positive entre la mise en œuvre du tableau de bord prospectif et la performance hospitalière. La majorité des études empiriques montrent que la perspective des patients, la perspective financière et la perspective des processus internes sont les dimensions les plus systématiquement associées à une amélioration de la performance organisationnelle. En revanche, les résultats relatifs à la perspective de l'apprentissage et de la croissance demeurent plus hétérogènes, plusieurs études faisant état de relations faibles, indirectes ou statistiquement non significatives selon le contexte organisationnel et institutionnel. Par ailleurs, la littérature souligne que l'efficacité du tableau de bord prospectif dépend de plusieurs facteurs contextuels, notamment l'engagement organisationnel, l'alignement stratégique, les capacités des systèmes d'information, le soutien de la direction ainsi que l'adaptation aux spécificités des environnements locaux de soins.
Cet article contribue à la littérature en management des organisations de santé en proposant une synthèse approfondie des résultats empiriques relatifs à l'impact des quatre dimensions du tableau de bord prospectif sur la performance hospitalière. Il présente également un cadre conceptuel pouvant servir de référence pour de futures recherches empiriques, en particulier dans le contexte des pays en développement et des hôpitaux publics. L'étude fournit aux gestionnaires hospitaliers et aux décideurs publics des enseignements sur les dimensions stratégiques que la littérature identifie comme prioritaires pour améliorer la performance hospitalière et favoriser une amélioration durable de la prestation des soins. Toutefois, les résultats doivent être interprétés à la lumière des limites inhérentes aux études de revue de littérature, notamment l'hétérogénéité des méthodologies de recherche, des contextes de soins et des indicateurs de performance utilisés dans les publications analysées.

Mots clés :
Tableau de bord prospectif ; Performance hospitalière ; Perspective financière ; Perspective des processus internes ; Perspective de l'apprentissage et de la croissance ; Perspective des patients ; Management des organisations de santé ; Mesure de la performance.

Abstract
Hospital performance has become a major concern for healthcare organizations facing increasing pressure to improve efficiency, quality of care, patient satisfaction, and financial sustainability. The Balanced Scorecard (BSC) has emerged as one of the most widely adopted strategic performance management tools in healthcare. This study aims to examine the extent to which the four traditional dimensions of the Balanced Scorecard—financial, patient, internal process, and learning and growth perspectives—are associated with hospital performance according to the existing empirical literature.
This study adopts a structured literature review approach based on empirical evidence drawn from developed and developing countries. Previous studies conducted in North America, Europe, Asia, Africa, and the Middle East were analyzed to identify how the existing literature has reported the effects of Balanced Scorecard implementation on hospital performance and to determine the dimensions that have been most frequently identified as influential. The review also provides the basis for developing a conceptual framework and research hypotheses.
The reviewed literature generally suggests a positive relationship between Balanced Scorecard implementation and hospital performance. Most empirical studies indicate that the patient perspective, financial perspective, and internal process perspective are more consistently associated with improved organizational performance. In contrast, the evidence regarding the learning and growth perspective remains more heterogeneous, with several studies reporting weak, indirect, or statistically insignificant relationships depending on the organizational and institutional context. Furthermore, the literature indicates that the effectiveness of the Balanced Scorecard is influenced by several contextual factors, including organizational commitment, strategic alignment, information systems capabilities, leadership support, and adaptation to local healthcare environments.
This paper contributes to the healthcare management literature by providing a comprehensive synthesis of empirical findings regarding the impact of the four Balanced Scorecard dimensions on hospital performance. It also proposes a conceptual framework that can serve as a basis for future empirical studies, particularly in the context of developing countries and public hospitals. The study provides healthcare managers and policymakers with insights into the strategic dimensions that the literature identifies as priorities for enhancing hospital performance and achieving sustainable improvements in healthcare delivery. However, the findings should be interpreted in light of the limitations inherent in literature review studies, including the heterogeneity of research designs, healthcare contexts, and performance indicators across the reviewed publications.

Keywords :
Balanced Scorecard, Hospital Performance, Financial Perspective, Internal Process Perspective, Learning and Growth Perspective, Patient Perspective, Healthcare Management, Performance Measurement.

Introduction

Healthcare organizations worldwide are facing increasing pressure to improve the quality of care, optimize resource utilization, enhance patient satisfaction, and ensure financial sustainability. In a context characterized by demographic changes, technological developments, rising healthcare expenditures, and growing patient expectations, hospitals are required to adopt comprehensive performance management systems capable of supporting both operational efficiency and strategic decision-making. Consequently, measuring and improving hospital performance has become a major concern for healthcare managers and policymakers.

Traditionally, hospital performance has been assessed primarily through financial indicators. However, such measures have been criticized for providing a limited and short-term view of organizational performance. Financial indicators alone are unable to capture other critical dimensions of healthcare delivery, including patient satisfaction, quality of care, internal efficiency, innovation, and organizational learning. As a result, healthcare organizations have increasingly adopted multidimensional performance measurement systems that integrate both financial and non-financial indicators.

Among these systems, the Balanced Scorecard (BSC), originally developed by Kaplan and Norton (1992), has emerged as one of the most influential strategic management tools. The BSC extends traditional performance measurement by incorporating four complementary perspectives: the financial perspective, the customer (patient) perspective, the internal process perspective, and the learning and growth perspective. Beyond being a simple measurement framework, the Balanced Scorecard enables organizations to translate their strategic objectives into operational actions and to establish cause-and-effect relationships among different dimensions of performance, and align strategic priorities with day-to-day managerial practices.

Over the past three decades, the Balanced Scorecard has been extensively implemented in healthcare organizations across both developed and developing countries. Numerous empirical studies have reported improvements in organizational performance, patient satisfaction, operational efficiency, financial sustainability, and strategic alignment following its implementation. Despite this growing body of evidence, the literature remains fragmented regarding the relative contribution of each of the four traditional Balanced Scorecard dimensions to hospital performance.

Existing studies do not always reach similar conclusions. While several investigations identify the patient perspective as the primary driver of hospital performance, others emphasize the predominance of the financial perspective or the internal process perspective. Moreover, empirical findings concerning the learning and growth perspective remain particularly inconsistent. Some studies report a significant positive relationship between investments in human capital and organizational performance, whereas others reveal weak, indirect, or statistically insignificant effects.

These inconsistencies may stem from several sources, including differences in healthcare systems, organizational maturity, institutional environments, performance indicators, research designs, and analytical methods. Furthermore, variations in hospital ownership (public versus private), national health policies, and resource availability may influence the effectiveness of Balanced Scorecard implementation. As a result, comparing findings across studies remains challenging, and the existing literature provides limited consensus regarding the mechanisms through which each Balanced Scorecard dimension contributes to hospital performance.

Another limitation of previous research lies in its predominant focus on evaluating the overall effectiveness of the Balanced Scorecard rather than examining the relative importance of each individual dimension. Consequently, although the Balanced Scorecard has been widely recognized as an effective strategic management framework, insufficient attention has been devoted to understanding which perspectives consistently exert the greatest influence on hospital performance and under what organizational conditions these relationships may vary.

These inconsistencies reveal the existence of an important research gap. Although a considerable body of literature has examined the implementation of the Balanced Scorecard in healthcare organizations, there is still no consensus regarding the extent to which each of the four traditional BSC dimensions contributes to hospital performance. In addition, existing studies differ considerably in terms of context, methodology, performance indicators, and healthcare systems, making comparisons difficult and limiting the generalizability of their findings.

Against this background, the present study seeks to provide a comprehensive synthesis of the empirical literature concerning the impact of the four Balanced Scorecard dimensions on hospital performance. More specifically, the study aims to examine the extent to which the financial perspective, internal process perspective, learning and growth perspective, and patient perspective influence hospital performance.

From a theoretical perspective, the relationship between Balanced Scorecard dimensions and hospital performance can be explained through several complementary organizational theories. The Resource-Based View suggests that strategic resources such as human capital, organizational capabilities, and information systems constitute important sources of sustainable performance. Similarly, Organizational Learning Theory emphasizes that continuous learning and knowledge development strengthen organizational adaptability and long-term effectiveness. In addition, Contingency Theory argues that the effectiveness of management systems, including the Balanced Scorecard, depends on the organizational and institutional context in which they are implemented. These theoretical perspectives provide a conceptual foundation for understanding why the influence of the four Balanced Scorecard dimensions may differ across hospitals and healthcare systems.

Accordingly, the study addresses the following research questions:

- To what extent does the financial perspective affect hospital performance?
- To what extent does the internal process perspective affect hospital performance?
- To what extent does the learning and growth perspective affect hospital performance?
- To what extent does the patient perspective affect hospital performance?

By addressing these research questions, this study seeks not only to synthesize the existing empirical evidence but also to critically examine the convergence and divergence of previous findings. Unlike many earlier literature reviews that primarily describe Balanced Scorecard implementation, this study places particular emphasis on comparing the relative contribution of each of the four traditional dimensions across different healthcare contexts. Furthermore, it develops a theoretically grounded conceptual framework that integrates insights from strategic management and organizational theories to support future empirical investigations, particularly within public hospitals and developing countries.

the subsequent sections of the paper of the paper is organized as follows. The next section presents the theoretical background of the Balanced Scorecard and hospital performance. The subsequent section describes the research methodology adopted for the literature review. Thereafter, the empirical findings are discussed, followed by the development of the conceptual framework and research hypotheses. The final section concludes the paper by outlining its theoretical contributions, managerial implications, limitations, and directions for future research.

1. Theoretical Background

1.1. Hospital Performance

Hospital performance has become a central issue in healthcare management due to increasing pressures related to quality improvement, cost control, accountability, and patient expectations. Unlike traditional organizations, hospitals operate in a complex environment characterized by multiple stakeholders, including patients, healthcare professionals, government authorities, and society as a whole. Consequently, assessing hospital performance requires a multidimensional approach that goes beyond purely financial considerations.

Several authors have emphasized that hospital performance encompasses efficiency, effectiveness, quality of care, accessibility, patient satisfaction, and organizational sustainability. According to Donabedian (2001), healthcare quality and performance can be evaluated through three interrelated dimensions: structure, process, and outcomes. The structure dimension refers to organizational resources and capacities, the process dimension concerns healthcare delivery activities, while outcomes represent the results achieved in terms of health improvement and patient satisfaction.

Similarly, Jacobs et al. (2006) argue that hospital performance should be viewed as the ability of healthcare institutions to transform available resources into desirable outputs while maximizing efficiency and quality. In this context, performance measurement systems are expected to integrate both financial and non-financial indicators in order to provide managers with a comprehensive view of organizational achievements.

Therefore, hospital performance cannot be reduced to financial profitability alone. Rather, it reflects the ability of healthcare organizations to simultaneously satisfy patients, optimize internal processes, ensure efficient resource utilization, and promote continuous learning and innovation.

1.2. The Balanced Scorecard Framework

The Balanced Scorecard (BSC), introduced by Kaplan and Norton (1992), represents one of the most influential strategic performance management frameworks developed over the last three decades. Initially conceived as a multidimensional performance measurement system, the BSC evolved into a comprehensive strategic management tool that enables organizations to translate their vision and strategy into operational objectives.

Kaplan and Norton (1992) proposed four complementary perspectives that together provide a balanced view of organizational performance:

- Financial perspective;

- Customer perspective;
- Internal process perspective;
- Learning and growth perspective.

These perspectives are interconnected through cause-and-effect relationships, whereby improvements in learning and growth contribute to more efficient internal processes, which in turn enhance customer satisfaction and ultimately generate superior financial performance.

Unlike traditional performance measurement systems that focus primarily on accounting indicators, the Balanced Scorecard integrates both financial and non-financial measures. This multidimensional approach allows organizations to align strategic objectives with operational activities and facilitates the monitoring of performance from different viewpoints.

Because of its flexibility and strategic orientation, the Balanced Scorecard has been extensively adopted in healthcare organizations worldwide. A considerable number of studies have demonstrated its capacity to support decision-making, improve accountability, strengthen strategic alignment, and enhance organizational performance.

- **Theoretical Foundations Underpinning the Balanced Scorecard in Healthcare**

Although the Balanced Scorecard (BSC) was originally developed as a strategic performance measurement framework, its application in healthcare can be better understood through several complementary organizational theories that explain how strategic resources, organizational capabilities, and environmental conditions influence hospital performance.

The Resource-Based View (RBV) (Barney, 1991) posits that organizations achieve sustainable competitive advantage by developing valuable, rare, inimitable, and non-substitutable resources. Within healthcare organizations, such resources include highly qualified medical personnel, organizational knowledge, information systems, clinical expertise, and managerial capabilities. From this perspective, the learning and growth dimension of the Balanced Scorecard represents a strategic investment in intangible resources that can ultimately enhance internal processes, patient satisfaction, and financial performance.

Complementing the RBV, Organizational Learning Theory argues that organizational performance depends on the continuous acquisition, dissemination, and application of knowledge. Hospitals operate in highly dynamic environments characterized by technological innovation, evolving clinical practices, and changing patient expectations. Consequently, continuous staff training, knowledge sharing, and organizational learning constitute essential

mechanisms for improving service quality and ensuring long-term organizational effectiveness. This theoretical perspective reinforces the strategic importance of the learning and growth perspective within the Balanced Scorecard framework.

In addition, Contingency Theory suggests that there is no universally optimal management system applicable to all organizations. Rather, the effectiveness of management practices depends on contextual factors such as organizational size, governance structure, institutional environment, available resources, and healthcare policies. Accordingly, the impact of the Balanced Scorecard may vary across hospitals, healthcare systems, and countries, explaining the heterogeneous findings reported in the empirical literature regarding the relative importance of its four dimensions.

Furthermore, Stakeholder Theory provides another relevant perspective for understanding hospital performance. Unlike profit-oriented firms, hospitals must simultaneously satisfy the expectations of multiple stakeholders, including patients, healthcare professionals, governments, insurers, and society at large. The multidimensional structure of the Balanced Scorecard is therefore particularly suitable for healthcare organizations because it enables managers to balance financial objectives with patient outcomes, internal efficiency, and organizational development.

Despite its widespread adoption, the Balanced Scorecard has also been subject to important academic criticism. One of the most influential critiques was proposed by Nørreklit (2000), who questioned the assumption of universal cause-and-effect relationships among the four perspectives. According to Nørreklit, the causal links suggested by Kaplan and Norton are often based on logical assumptions rather than empirical validation and may not hold across different organizational contexts. This criticism is particularly relevant in healthcare, where organizational complexity, multiple stakeholder objectives, and institutional constraints may influence the relationships between strategic dimensions and performance outcomes.

Taken together, these theoretical perspectives provide a stronger conceptual foundation for examining the relationship between the four traditional Balanced Scorecard dimensions and hospital performance. They also help explain why previous empirical studies have reported divergent findings across healthcare systems and reinforce the need for a contextualized analysis of Balanced Scorecard implementation.

1.3. Financial Perspective

The financial perspective represents one of the original dimensions of the Balanced Scorecard and reflects the economic consequences of managerial decisions. According to Kaplan and Norton (1992), financial indicators remain essential because they summarize the ultimate outcomes of organizational activities and provide information regarding value creation and resource utilization.

In healthcare organizations, financial performance is particularly important due to increasing budgetary constraints and rising healthcare expenditures. Hospitals are expected to deliver high-quality services while maintaining financial sustainability and ensuring the efficient allocation of scarce resources.

Typical indicators associated with the financial perspective include profitability, revenue generation, return on assets, cost control, operating expenses, liquidity, and resource utilization. Previous studies have shown that improved financial management contributes positively to hospital performance by enhancing operational efficiency and supporting long-term sustainability.

Several empirical investigations have reported a significant positive relationship between the financial perspective and hospital performance. Efficient cost management, revenue diversification, and the optimization of financial resources have been identified as key determinants of organizational success in healthcare institutions.

1.4. Internal Process Perspective

The internal process perspective focuses on the efficiency and effectiveness of organizational processes that create value for patients and stakeholders. Kaplan and Norton (1992) argue that organizations must identify and optimize critical internal activities in order to achieve strategic objectives and improve performance.

In the healthcare sector, internal processes encompass clinical activities, patient flow management, quality assurance mechanisms, safety procedures, pharmaceutical services, laboratory operations, and support functions. Efficient processes contribute to reducing waiting times, minimizing medical errors, improving patient safety, and enhancing service quality.

Common indicators used to assess internal processes include average length of stay, bed occupancy rate, waiting times, readmission rates, infection rates, mortality rates, and resource utilization efficiency.

The literature suggests that internal processes constitute one of the most influential dimensions affecting hospital performance. Improvements in operational efficiency and quality management enable hospitals to provide better services while reducing unnecessary costs and enhancing patient outcomes.

1.5. Learning and Growth Perspective

The learning and growth perspective represents the foundation of the Balanced Scorecard because it emphasizes the importance of human capital, organizational culture, information systems, and innovation. According to Kaplan and Norton (1992), sustainable organizational success depends on the ability to continuously develop employees' competencies and adapt to environmental changes.

In healthcare organizations, learning and growth involve staff training, knowledge sharing, technological capabilities, employee satisfaction, professional development, and organizational learning. These elements contribute to improving healthcare delivery and strengthening organizational adaptability.

Indicators commonly associated with this dimension include employee satisfaction, staff retention, training programs, technological infrastructure, knowledge management, and innovation capabilities.

Although several studies have reported a positive relationship between learning and growth and hospital performance, empirical evidence remains inconsistent. Some investigations have found that this dimension exerts a weaker influence compared with financial, patient, and internal process perspectives. Such discrepancies may be explained by the long-term nature of learning outcomes and the difficulties associated with measuring intangible assets.

Nevertheless, learning and growth remain essential for ensuring continuous improvement and sustaining organizational performance over time.

1.6. Patient Perspective

The patient perspective, often referred to as the customer perspective, reflects the extent to which healthcare organizations succeed in satisfying patients' expectations and delivering high-quality services. In healthcare settings, patients occupy a central position because they represent the primary beneficiaries of medical services.

This dimension encompasses various aspects such as patient satisfaction, quality of care, accessibility, responsiveness, communication, continuity of care, and patient safety. Indicators frequently used to evaluate this perspective include patient satisfaction rates, complaints, waiting times, mortality rates, service accessibility, and quality of clinical outcomes.

Previous studies consistently indicate that the patient perspective is among the most influential determinants of hospital performance. Patient satisfaction has been associated with improved service quality, stronger organizational reputation, increased trust, and higher levels of loyalty.

Furthermore, recent approaches to healthcare management emphasize patient-centered care as a fundamental principle for achieving sustainable performance. Consequently, involving patients in performance assessment and decision-making processes has become increasingly important for healthcare organizations seeking to improve their overall effectiveness.

Taken together, the four dimensions of the Balanced Scorecard provide a comprehensive framework for evaluating hospital performance. Their interdependence highlights the importance of adopting a balanced and integrated approach to performance management, capable of combining financial sustainability, operational excellence, continuous learning, and patient satisfaction.

2. ***Research Methodology***

2.1. Research Design

This study adopts a Systematic Literature Review (SLR) to synthesize empirical evidence on the relationship between the four traditional dimensions of the Balanced Scorecard (BSC) and hospital performance. The review was conducted following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA 2020) guidelines to ensure methodological transparency, reproducibility, and rigor.

A systematic literature review was considered appropriate because it enables the comprehensive identification, critical evaluation, and synthesis of existing empirical studies while minimizing selection bias. Unlike traditional narrative reviews, the PRISMA approach follows a structured and transparent process for identifying, screening, assessing, and selecting relevant publications.

2.2. Search Strategy

The literature search was conducted using five major scientific databases widely recognized in healthcare management and business research : Scopus ; Web of Science ; PubMed ; ScienceDirect and Google Scholar.

The search covered publications from 1992 to 2025, corresponding to the period following the introduction of the Balanced Scorecard by Kaplan and Norton.

The search strategy combined keywords related to the Balanced Scorecard and hospital performance using Boolean operators ("AND" and "OR"). The principal search equation was:
("Balanced Scorecard" OR "BSC")
AND
("Hospital Performance" OR "Healthcare Performance")
AND
("Financial Perspective" OR "Patient Perspective" OR "Customer Perspective" OR "Internal Process Perspective" OR "Learning and Growth Perspective")
Additional searches were performed using alternative combinations to ensure comprehensive coverage of the literature.

2.3. Eligibility Criteria

Studies were selected according to predefined inclusion and exclusion criteria.
Inclusion criteria
Studies were included when they:

- examined the implementation or application of the Balanced Scorecard in healthcare organizations;
- investigated at least one of the four traditional BSC dimensions;
- analyzed hospital or healthcare organizational performance;
- reported empirical findings using quantitative, qualitative, or mixed-methods approaches;
- were published in peer-reviewed journals;
- were written in English.

Exclusion criteria
Studies were excluded when they:

- focused exclusively on non-healthcare organizations;
- consisted of editorials, conference papers, dissertations, book chapters, or unpublished manuscripts;
- did not report empirical evidence;
- addressed performance measurement tools other than the Balanced Scorecard.

2.4. Study Selection Process

The study selection process followed the four stages recommended by the PRISMA 2020 framework:

1. Identification of potentially relevant studies through electronic database searches;
2. Screening of titles and abstracts after removing duplicate records;
3. Full-text assessment for eligibility based on the predefined criteria;
4. Inclusion of studies meeting all eligibility requirements for qualitative synthesis.

2.5. Data Extraction and Synthesis

A standardized data extraction form was developed to ensure consistency across the reviewed studies. The following information was collected from each publication:

- author(s);
- publication year;
- country;
- healthcare setting;
- research design;
- sample characteristics;
- Balanced Scorecard dimensions investigated;
- performance indicators;
- principal findings.

The extracted information was synthesized using a qualitative comparative approach. Particular attention was given to identifying recurring patterns, methodological differences, contextual factors, and the relative contribution of each Balanced Scorecard dimension to hospital performance.

2.6. Quality Assessment

To enhance the reliability of the review, the methodological quality of the selected studies was assessed using criteria adapted from previous systematic reviews in healthcare management. The assessment considered research design, sample adequacy, analytical methods, clarity of reported findings, and relevance to the research objectives.

2.7. Development of the Conceptual Framework

The synthesis of empirical evidence served as the basis for developing the conceptual framework proposed in this study. The framework integrates the main findings identified in the literature and establishes theoretical relationships between the four traditional Balanced Scorecard dimensions and hospital performance. These relationships subsequently guided the formulation of the research hypotheses presented in the following section.

3. Findings and Discussion

3.1. Evidence from Developed Countries

The review of the literature reveals that the Balanced Scorecard has been extensively implemented in healthcare organizations operating in developed countries, particularly in North America, Europe, and some Asian economies. Overall, empirical evidence suggests that BSC implementation contributes positively to hospital performance by promoting a balanced integration of financial and non-financial dimensions.

Studies conducted in Canada and the United States indicate that the BSC improves patient satisfaction, organizational learning, and managerial decision-making. Chan and Seaman (2008) found that the customer perspective and research-related indicators significantly influence organizational performance, whereas the impact of other dimensions appeared less pronounced. Similarly, Fields and Cohen (2011) emphasized that the BSC promotes a culture of continuous improvement and transforms healthcare institutions into learning organizations centered on patients.

European experiences provide further support for the effectiveness of the BSC. Evidence from Italy, Greece, and Turkey demonstrates that the Balanced Scorecard facilitates strategic alignment and contributes to improving operational efficiency and organizational performance. However, these studies also reveal that the success of the BSC depends largely on managerial commitment, organizational culture, and technological capabilities.

Interestingly, some studies report heterogeneous results regarding the learning and growth perspective. For instance, evidence from Turkish hospitals suggests that this dimension may exert a weaker or even negative influence on hospital performance. Such findings indicate that investments in human capital and organizational learning do not automatically translate into immediate performance improvements and may require longer time horizons to produce measurable outcomes.

Overall, the evidence from developed countries confirms that the Balanced Scorecard represents a valuable strategic management framework capable of enhancing hospital performance. Nevertheless, its effectiveness appears to be contingent upon organizational and contextual factors.

3.2. Evidence from Developing Countries

The literature also provides substantial evidence regarding the implementation of the Balanced Scorecard in developing countries across Asia, the Middle East, and Africa.

Studies conducted in China, Vietnam, Indonesia, and Iran generally report a positive association between the four BSC dimensions and hospital performance. Chinese hospitals, for example, have demonstrated significant improvements in both organizational and individual performance following the adoption of the Balanced Scorecard. Similarly, research carried out in Indonesia highlights the contribution of the BSC to organizational sustainability during the COVID-19 pandemic.

Evidence from Middle Eastern countries further confirms the positive impact of the Balanced Scorecard. Studies from Jordan, Qatar, Palestine, and Iran reveal improvements in patient satisfaction, financial performance, service quality, and operational efficiency. In particular, the patient perspective appears to play a crucial role in enhancing healthcare quality and strengthening organizational effectiveness.

African experiences provide additional insights. Studies conducted in Ethiopia, Zambia, Kenya, Egypt, and Morocco indicate that the BSC contributes to improving resource utilization, service delivery, and patient satisfaction. Nevertheless, implementation challenges remain significant due to resource limitations, inadequate infrastructures, and insufficient organizational support.

These findings suggest that the Balanced Scorecard is sufficiently flexible to be adapted to different healthcare systems and socioeconomic environments. However, the magnitude of its impact varies according to local conditions and implementation practices.

3.3. Comparative Analysis of Empirical Findings

Although the reviewed studies consistently support the usefulness of the Balanced Scorecard as a strategic performance management framework, important differences emerge regarding the relative contribution of its four traditional dimensions. These differences appear to be associated with variations in healthcare systems, organizational characteristics, institutional environments, and methodological approaches.

One notable distinction concerns the comparison between developed and developing countries. Studies conducted in developed healthcare systems generally emphasize improvements in strategic alignment, organizational learning, and process optimization. In contrast, empirical evidence from developing countries tends to highlight financial sustainability, resource allocation, and patient satisfaction as primary determinants of hospital performance. These differences may reflect disparities in resource availability, governance structures, healthcare financing mechanisms, and institutional maturity.

Methodological diversity also contributes to the heterogeneity of findings. Quantitative studies based on regression analysis, structural equation modeling (SEM), or partial least squares structural equation modeling (PLS-SEM) frequently report statistically significant relationships between Balanced Scorecard dimensions and hospital performance. Conversely, qualitative case studies often emphasize contextual and organizational factors that cannot be adequately captured through quantitative indicators alone.

Furthermore, the reviewed studies differ considerably in the indicators used to measure both Balanced Scorecard dimensions and hospital performance. While some investigations focus primarily on financial outcomes and operational efficiency, others prioritize patient satisfaction, service quality, employee development, or organizational innovation. Such differences reduce the comparability of empirical findings and partly explain the absence of a universally accepted hierarchy among the four Balanced Scorecard dimensions.

From a theoretical perspective, these variations support the assumptions of Contingency Theory, which argues that the effectiveness of management systems depends on organizational and environmental conditions rather than universal management principles. Similarly, the Resource-Based View suggests that hospitals possessing stronger organizational capabilities, technological resources, and human capital are more likely to benefit from Balanced Scorecard implementation than organizations operating under severe resource constraints.

Overall, the literature suggests that the Balanced Scorecard should not be viewed as a universally applicable management tool producing identical outcomes across healthcare organizations. Instead, its effectiveness appears to depend on the interaction between organizational resources, institutional environments, managerial commitment, and healthcare system characteristics.

3.4. Dominant Balanced Scorecard Dimensions Affecting Hospital Performance

A synthesis of the reviewed studies indicates that the patient perspective constitutes the most influential dimension affecting hospital performance. Improvements in patient satisfaction, quality of care, accessibility, and communication are consistently associated with better organizational outcomes.

The financial perspective also demonstrates a strong influence on performance. Effective resource allocation, cost control, and revenue management contribute significantly to the sustainability of healthcare organizations.

Similarly, the internal process perspective emerges as a critical determinant of hospital performance. Efficient clinical pathways, reduced waiting times, improved patient safety, and optimized resource utilization enhance both service quality and operational efficiency.

By contrast, the learning and growth perspective appears to exert a relatively weaker influence. Although staff development, organizational learning, and technological capabilities are recognized as important factors, their effects are often indirect and become visible only over the long term. Consequently, this dimension tends to display more heterogeneous empirical results compared with the other three perspectives.

Overall, the evidence suggests that hospital performance is driven by the interaction of the four dimensions rather than by any single perspective considered in isolation.

3.5. Critical Success Factors for Balanced Scorecard Implementation

The literature consistently indicates that the positive effects of the Balanced Scorecard are not automatic. Successful implementation requires several organizational and managerial conditions.

First, top management commitment appears to be essential for ensuring strategic alignment and mobilizing organizational actors around common objectives. Strong leadership facilitates the integration of performance indicators into managerial processes and promotes a culture of accountability.

Second, communication and teamwork represent important determinants of BSC effectiveness. Organizations characterized by collaborative environments and efficient communication mechanisms are more likely to achieve successful implementation.

Third, technological infrastructure and information systems play a crucial role in supporting performance measurement and facilitating decision-making. Insufficient technological capabilities often hinder the sustainability of the Balanced Scorecard.

Fourth, the adaptation of the BSC to local contexts and organizational specificities is a key success factor. Healthcare organizations operating in different socioeconomic environments may require customized indicators and priorities.

Finally, the active involvement of healthcare professionals and patients contributes significantly to the effectiveness of the Balanced Scorecard. Participatory approaches enhance ownership, increase acceptance, and improve the relevance of performance indicators.

Taken together, these findings indicate that the Balanced Scorecard should not be viewed solely as a measurement tool but rather as an integrated strategic management system capable of improving hospital performance when supported by appropriate organizational conditions.

The heterogeneity observed across the reviewed studies indicates that the effectiveness of the Balanced Scorecard cannot be explained solely by its structural design. Rather, implementation outcomes appear to be conditioned by several organizational and contextual factors, including leadership commitment, organizational culture, digital maturity, information systems capabilities, and institutional support. This observation reinforces the argument that hospital performance results from the interaction between strategic management practices and organizational capabilities rather than from the mere adoption of performance measurement tools. Consequently, future empirical research should seek to investigate not only the direct effects of the four Balanced Scorecard dimensions but also the mediating and moderating mechanisms through which these dimensions influence hospital performance.

4. Conceptual Framework and Research Hypotheses

4.1. Development of Research Hypotheses

Building upon the theoretical foundations presented in the previous section and the synthesis of empirical evidence, this study develops a conceptual framework to explain how the four traditional Balanced Scorecard dimensions influence hospital performance. The proposed framework is grounded in the Resource-Based View, Organizational Learning Theory, Stakeholder Theory, and Contingency Theory, which collectively suggest that hospital performance results from the interaction between strategic resources, organizational capabilities, stakeholder expectations, and contextual conditions.

Although previous empirical studies generally report positive associations between Balanced Scorecard implementation and hospital performance, important variations remain regarding the relative contribution of each dimension. Accordingly, the present study formulates four

hypotheses corresponding to the financial, internal process, learning and growth, and patient perspectives.

4.1.1. Financial Perspective and Hospital Performance

The financial perspective reflects the economic consequences of managerial decisions and remains essential for ensuring the sustainability of healthcare organizations. Efficient resource allocation, cost control, revenue generation, and financial stability are critical factors influencing hospital performance.

Several empirical studies have reported a positive association between financial indicators and organizational performance in healthcare institutions. Studies conducted in Kenya, Iran, Morocco, and China indicate that effective financial management contributes significantly to improving operational efficiency and organizational sustainability. Furthermore, Kaplan and Norton (1992) emphasize that financial measures summarize the economic outcomes of strategic actions and remain indispensable for evaluating organizational success.

Therefore, the following hypothesis is proposed:

H1: The financial perspective positively influences hospital performance.

4.1.2. Internal Process Perspective and Hospital Performance

The internal process perspective focuses on the efficiency and effectiveness of organizational activities that generate value for patients and stakeholders. In healthcare organizations, internal processes include clinical operations, quality assurance mechanisms, patient safety procedures, logistics, and resource management.

Previous empirical studies consistently demonstrate that improvements in internal processes contribute positively to hospital performance. Evidence from Jordan, Vietnam, Turkey, and Morocco indicates that optimized processes reduce waiting times, improve patient safety, enhance service quality, and increase operational efficiency.

According to Kaplan and Norton (1992), internal processes represent the mechanisms through which organizations deliver value to customers and achieve financial objectives. Consequently, process optimization constitutes a major determinant of hospital performance.

Accordingly, the following hypothesis is formulated:

H2: The internal process perspective positively influences hospital performance.

4.1.3. Learning and Growth Perspective and Hospital Performance

The learning and growth perspective emphasizes the role of human capital, organizational learning, technological capabilities, and innovation in supporting sustainable performance. It constitutes the foundation upon which the other Balanced Scorecard dimensions are built.

The literature suggests that investments in employee development, knowledge sharing, information systems, and innovation contribute to organizational improvement. However, empirical findings concerning this dimension remain less conclusive than those relating to the financial, patient, and internal process perspectives.

While studies conducted in China, Indonesia, and Qatar report positive effects of learning and growth on performance, other investigations reveal weaker or statistically insignificant relationships. These discrepancies may be explained by the long-term nature of learning outcomes and the difficulties associated with measuring intangible assets.

Despite these mixed findings, the theoretical foundations of the Balanced Scorecard suggest that continuous learning and organizational development are essential for sustaining competitive advantage and improving performance over time.

Therefore, the following hypothesis is proposed:

H3: The learning and growth perspective positively influences hospital performance.

4.1.4. Patient Perspective and Hospital Performance

The patient perspective occupies a central position in healthcare organizations because patients represent the ultimate beneficiaries of healthcare services. Patient satisfaction, quality of care, accessibility, responsiveness, and communication are key dimensions influencing organizational effectiveness.

The literature reviewed in this study consistently indicates that the patient perspective is among the strongest determinants of hospital performance. Studies conducted in Canada, Palestine, Morocco, China, and Taiwan demonstrate that higher levels of patient satisfaction are associated with improved quality of care, stronger organizational reputation, and better overall performance.

Moreover, contemporary healthcare systems increasingly emphasize patient-centered care as a fundamental principle for achieving sustainable performance. Consequently, organizations capable of meeting patients' expectations are more likely to achieve superior outcomes.

Hence, the following hypothesis is formulated:

H4: The patient perspective positively influences hospital performance.

4.2. 5.2. Proposed Conceptual Framework

Based on the theoretical foundations of the Balanced Scorecard and the empirical evidence reviewed in this study, hospital performance is conceptualized as the dependent variable, whereas the four traditional dimensions of the Balanced Scorecard constitute the independent variables.

The proposed conceptual framework assumes that:

- the financial perspective positively affects hospital performance;
- the internal process perspective positively affects hospital performance;
- the learning and growth perspective positively affects hospital performance;
- the patient perspective positively affects hospital performance.

The proposed conceptual framework assumes that each of the four traditional Balanced Scorecard dimensions contributes directly to hospital performance. However, consistent with Contingency Theory and recent empirical evidence, the magnitude of these relationships may vary according to organizational and environmental conditions. Factors such as leadership commitment, organizational culture, digital transformation, information systems capabilities, hospital size, and governance arrangements may strengthen or weaken the effectiveness of Balanced Scorecard implementation.

Although these contextual variables are not empirically examined in the present study, they provide promising avenues for future research aimed at developing more comprehensive explanatory models of hospital performance. Consequently, the conceptual framework proposed in this study should be viewed as a foundational model that may be extended in future investigations through the incorporation of mediating, moderating, or control variables.

Conclusion

The growing complexity of healthcare systems and the increasing pressure to improve quality, efficiency, and financial sustainability have made performance management a strategic priority for hospitals worldwide. In this context, the Balanced Scorecard has emerged as one of the most widely adopted frameworks for measuring and managing organizational performance.

The present study aimed to examine the extent to which the four traditional dimensions of the Balanced Scorecard—namely the financial perspective, the internal process perspective, the learning and growth perspective, and the patient perspective—affect hospital performance. Through a systematic review of empirical studies conducted in both developed and developing countries, the study synthesized existing evidence regarding the contribution of these dimensions to organizational performance.

The findings indicate that the implementation of the Balanced Scorecard generally has a positive impact on hospital performance. More specifically, the patient perspective, the financial perspective, and the internal process perspective appear to exert the strongest influence on performance outcomes. Conversely, the learning and growth perspective exhibits more heterogeneous effects across contexts, suggesting that its contribution may be indirect and materialize over a longer time horizon.

The review also demonstrates that the effectiveness of the Balanced Scorecard depends on several organizational factors, including top management commitment, strategic alignment, communication, teamwork, technological capabilities, and adaptation to local healthcare environments. Consequently, the Balanced Scorecard should not be viewed solely as a performance measurement instrument but rather as an integrated strategic management system capable of supporting sustainable organizational improvement.

Finally, this study proposes a conceptual framework that provides a theoretical basis for future empirical investigations aimed at assessing the relative contribution of each Balanced Scorecard dimension to hospital performance.

This study contributes to the literature on healthcare performance management in several ways.

First, it provides a comprehensive synthesis of empirical evidence regarding the impact of the Balanced Scorecard on hospital performance across different healthcare systems and socioeconomic contexts.

Second, the study reinforces the relevance of Kaplan and Norton's multidimensional framework in healthcare organizations by demonstrating that hospital performance cannot be adequately explained by financial indicators alone.

Third, the findings highlight the unequal contribution of the four dimensions and reveal the existence of heterogeneous effects, particularly concerning the learning and growth perspective. This observation enriches the existing literature by emphasizing the complexity of causal relationships between organizational capabilities and performance outcomes.

Finally, the proposed conceptual framework contributes to theory development by establishing a basis for future empirical studies seeking to investigate the mechanisms through which Balanced Scorecard dimensions influence hospital performance.

The findings of this study provide several practical insights for hospital managers and healthcare decision-makers.

First, healthcare organizations should adopt a multidimensional approach to performance management rather than relying exclusively on financial indicators. Integrating patient satisfaction, operational efficiency, and organizational learning into performance assessment may contribute to more balanced and sustainable outcomes.

Second, managers should prioritize the patient perspective, given its strong influence on overall hospital performance. Improving patient satisfaction, quality of care, accessibility, and communication should constitute strategic priorities for healthcare institutions.

Third, hospital administrators should strengthen internal processes by improving patient flow, reducing waiting times, enhancing patient safety, and optimizing resource utilization.

Fourth, although the impact of the learning and growth perspective appears less immediate, investments in staff development, training programs, knowledge management, and technological infrastructure remain essential for ensuring long-term sustainability and continuous improvement.

Finally, successful implementation of the Balanced Scorecard requires strong leadership, organizational commitment, effective communication, and the active involvement of healthcare professionals.

The results of this study are particularly relevant for public hospitals operating under financial constraints and increasing demands for accountability.

Public healthcare organizations may use the Balanced Scorecard as a strategic management tool to align operational activities with institutional objectives, improve resource allocation, and strengthen transparency and performance monitoring mechanisms.

Furthermore, policymakers and healthcare authorities may rely on the Balanced Scorecard to support evidence-based decision-making and promote a culture of continuous performance improvement.

The findings are especially relevant for healthcare systems in developing countries, where resource limitations require efficient management practices capable of maximizing organizational effectiveness.

Despite its contributions, this study presents several limitations.

First, the study is based exclusively on previously published empirical investigations and therefore depends on the methodological quality and contextual characteristics of the reviewed studies.

Second, the heterogeneity of healthcare systems, performance indicators, and research methodologies limits the comparability of findings and may explain some of the inconsistencies observed in the literature.

Third, the study focuses primarily on the four traditional dimensions proposed by Kaplan and Norton and does not consider additional dimensions that have been introduced in some healthcare contexts, such as quality of care, social responsibility, or innovation.

Finally, because the study adopts a literature review approach, causal relationships between Balanced Scorecard dimensions and hospital performance cannot be empirically verified.

Future research should seek to empirically validate the conceptual framework proposed in this study by testing the relationships between the four Balanced Scorecard dimensions and hospital performance.

Quantitative studies based on structural equation modeling or partial least squares structural equation modeling (PLS-SEM) could provide more robust evidence regarding the relative importance of each dimension.

Further comparative studies involving developed and developing countries would also contribute to a better understanding of contextual factors influencing Balanced Scorecard effectiveness.

Moreover, future investigations could explore the mediating and moderating effects of variables such as organizational culture, leadership, digital transformation, and quality management practices.

Finally, expanding the Balanced Scorecard framework by incorporating healthcare-specific dimensions, such as quality of care and patient safety, could provide a more comprehensive understanding of hospital performance and contribute to the development of more sophisticated performance management models.

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