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The Balanced Scorecard and Hospital Performance: A Qualitative Study Using Nvivo

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Abstract: This study evaluates the effectiveness of the Balanced Scorecard (BSC) as a strategic performance management tool in Moroccan public hospitals. It aims to identify key variables of the performance model and assess how these align with real-world hospital practices. Conducted in 2023, this qualitative study sampled six public hospitals in the Souss region. Data were gathered through semi-structured interviews with ten hospital managers, including directors and department heads. The analysis, performed using Nvivo 10, explored the relationship between BSC dimensions and overall hospital performance. Results indicate a strong positive correlation between patient satisfaction indicators and hospital performance, highlighting the crucial role of patient care. Financial and internal process indicators were also closely linked, suggesting that effective process management supports financial objectives and enhances overall performance. However, the correlation between organizational learning indicators and hospital performance was weaker, indicating that additional efforts are needed to strengthen this dimension. The findings underscore the BSC's value as a comprehensive framework for integrating multiple performance aspects, providing a holistic view of hospital management. Practically, the BSC helps align strategic goals with measurable outcomes, enhancing hospital accountability and transparency, particularly in economic, environmental, and social areas. This study contributes to performance management literature by showcasing the BSC's potential to drive sustainable

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improvements in healthcare. It offers practical insights for hospital administrators aiming to adopt integrated strategies that enhance overall performance and meet stakeholder demands.

Keywords: Hospital performance, Balanced Scorecard, hospital establishment, Morocco.

1. INTRODUCTION

Health reforms have not fully met expectations, primarily due to the inertia of care structures, often characterized by professional bureaucracy. In this context, hospital management has become a major issue at economic, sociological, and political levels to enhance the overall performance of hospitals (Baker & Norton, 2002; Drache & Sullivan, 1999; Farmer & Rylko-Bauer, 2001; Contandriopoulos & Denis, 2002). According to Prenestini *et al.* (2024), the effectiveness and endurance of the Balanced Scorecard in healthcare organizations are driven more by internal commitment, technological capabilities, and management-professionalism dynamics than by its specific technical features.

In Morocco, health system reform is based on four pillars: enhancing human resources, rehabilitating the health service offer by strengthening the regional dimension, and adopting new governance in the health system. However, Moroccan hospitals face significant challenges in terms of reorganization and management, requiring a transformation inspired by New Public Management to improve their performance. Balanced management, promoting the autonomy of hospitals and improving their administration, is essential to meet these financial and medical challenges (Belghiti Alaoui, 2005).

Despite these challenges, few studies have been conducted on the implementation of management control in Moroccan hospitals. A survey conducted on 52 public hospitals revealed that only 56% of them have a management control system. The others mainly use dashboards or budgets, with a predominance of public accounting. Historically, due to the lack of computerized and integrated information systems, hospital dashboards primarily served a financial reporting function, limiting the use of qualitative indicators (Alami & Boussetta, 2017; Douma, 2020).

In this context, our study focuses on the influence of the implementation of the Balanced Scorecard (BSC) as a management tool in improving hospital

performance in the Souss region. We particularly examine the contribution of the BSC to the overall improvement of hospital performance in this region and how this tool can bring about changes within the hospital environment.

The structure of this article is as follows: The first section reviews the literature on hospital performance and the Balanced Scorecard (BSC). The second section describes the research methodology and our sample. The third section presents the empirical results, including those from lexical and thematic analysis, concluding our paper.

2. LITERATURE REVIEW ON HOSPITAL PERFORMANCE

Despite its widespread adoption for performance measurement, the Balanced Scorecard in healthcare still faces challenges, particularly in the implementation and review phases, with leadership, culture, and communication playing crucial roles in its successful adoption (Betto *et al.*, 2022).

The change process in hospitals is still strongly marked by several constraints that hinder effective change management, making the implementation of changes particularly challenging. (Boudallaa, Elkachradi, & Kadouri., 2023). The study by Koukou *et al.* (2024) reveals that the effective implementation of management control systems in Moroccan public hospitals is hampered by various organizational, institutional, regulatory, financial, and human challenges. It highlights the importance of aligning medical and economic perspectives to improve the quality of care and hospital performance.

The multidimensional performance of hospitals is a key concept in the healthcare sector, encompassing their ability to achieve various objectives (Holcman, 2017). It includes evaluating multiple aspects such as the quality of care, patient satisfaction, resource efficiency, and safety practices (Dos Santos & Mousli, 2016). Understanding the definitions and concepts related to this performance is crucial for healthcare professionals, managers, and policymakers, as they guide health strategies and policies (Frichi *et al.*, 2020).

2.1. Conceptual framework for hospital performance

Several theoretical definitions of hospital performance exist, each offering different perspectives on the subject. In the United Kingdom, the Department of Health established the Performance Assessment Framework, defining hospital performance as the ability to provide effective, efficient, appropriate,

and timely services to meet local health needs (Nobre, 1999). For hospitals, improving performance means performing necessary tasks as efficiently as possible, minimizing costs, and respecting deadlines despite constraints, as noted by the Commission of Inquiry on Health and Social Services in Quebec. The WHO (2004) also highlights that high hospital performance should be assessed in terms of the accessibility of hospital services to all patients, without physical, cultural, social, or demographic barriers. This view is shared by Tagne *et al.* (2020), who define a high-performing hospital structure as one that satisfies both users and staff.

Thus, hospital performance can be defined by the achievement of specific clinical or administrative objectives (World Health Organization, 2016). Although the definitions and dimensions of hospital performance vary, the goal of researching performance remains relevant in both private and public hospital sectors. This relevance persists due to the financial, quality, and patient satisfaction challenges that healthcare institutions must face in an ever-evolving environment.

2.2. Hospital performance measurement frameworks

Assessing hospital performance is of paramount importance in the healthcare sector. Hospital performance measurement frameworks aim to provide tools and indicators to evaluate and compare the performance of healthcare institutions. These frameworks can be one-dimensional, focusing on a single aspect of performance, or multidimensional, integrating several performance aspects (Holcman, 2017). While one-dimensional frameworks primarily focus on financial and operational aspects, multidimensional frameworks encompass dimensions such as quality of care, patient satisfaction, resource efficiency, and safety practices (Bouziri *et al.*, 2020). These models stand out for their ability to consider both explicit and implicit dimensions of organizational performance. In our study, we focus on multidimensional models due to this distinctive feature that highlights the various aspects of performance.

2.3. Balanced scorecard (BSC) conceptual framework

The Balanced Scorecard is a management tool designed to strategically guide an organization and assess its performance. It integrates both financial and non-financial objectives and indicators, grouped into four main perspectives:

finance, customers, internal processes, and organizational learning. Kaplan and Norton (1996) introduced the Balanced Scorecard as a means to translate an organization's strategy into specific objectives and indicators for each key perspective: finance, customers, internal processes, and organizational learning. According to Errami *et al.* (2014), compared to other performance evaluation models mentioned earlier, the Balanced Scorecard has the advantage of being widely adopted as a management tool by a growing number of companies. It also benefits from a rich and diverse body of scientific and professional literature.

Indeed, this performance measurement system allows for assessing the achievement of objectives and thus the overall performance of the organization. The creators of the Balanced Scorecard (BSC) describe it as a balanced management and performance control tool, as it includes short-term and long-term performance indicators, both financial and non-financial, internal and external, as well as outcome indicators (Crutzen & Van Caillie, 2010). In other words, according to Kaplan and Norton (1996), the BSC is used to align operational actions with strategic objectives following a top-down approach. However, dashboards are used to monitor short-term goals through a bottom-up approach. The objective of this approach is to enable operational levels to contribute to the organization's overall strategy.

Moreover, the BSC approach advocated by Kaplan & Norton (2003) goes beyond traditional dashboards and introduces four types of indicators: financial indicators (reflecting shareholder judgments), internal indicators (related to organizational performance), external indicators (related to market trends, particularly customer satisfaction), and development indicators (involving strategic evolution and innovative organizations).

2.4. Conceptual framework of the balanced score card in a hospital setting

Currently, hospital institutions face dual pressures: increasing demands in terms of both quality and quantity of services, as well as stricter budgetary constraints. This situation fits within the broader framework of the international New Public Management movement, where public service performance has become crucial.

To address these challenges, hospitals are adopting management tools from the business world, such as Kaplan and Norton's Balanced Scorecard (Halgand, 2000; Moisdon & Tonneau, 1999). The BSC, designed as a

strategic management tool, integrates different dimensions of performance, both short-term and long-term (Savall & Zardet, 1992). It aims to clarify strategy, communicate strategic objectives, plan and harmonize initiatives, and strengthen strategic monitoring (Aidemark, 2001). This approach complements traditional financial indicators by including metrics related to processes, customers, and organizational learning (Nobre, 2000; Kaplan *et al.*, 2005; Kaplan & Norton, 1996, 2001).

2.5. The nexus between hospital performance and the balanced scorecard

Previous studies, such as those by Kollberg and Elg (2011) and Voelker *et al.* (2001), have confirmed the effectiveness of the Balanced Scorecard (BSC) in improving hospital performance, even in non-profit settings. These studies illustrate the diversity of BSC approaches and its ability to adapt to the specificities of various hospital environments (Sadki *et al.*, 2019). By integrating financial indicators, client perspectives, internal processes, and learning and growth axes, the BSC helps hospitals align their strategic goals with their operational activities, which can lead to significant improvements in hospital performance (Kaplan *et al.*, 1996; Ittner & Larcker, 1998). Furthermore, the BSC provides a balanced view of hospital performance, fostering informed decision-making and greater efficiency and effectiveness (Bisbe & Barrubes, 2012), as analyzed in Nobre's (2001) study.

The fundamental question is whether these areas of analysis and their resulting indicators are adequate for improved hospital management, and by extension, if they contribute to enhancing performance. Nobre's (2001) conclusions are as follows:

- Financial Axis: Represents a significant advance in the hospital field by encouraging the production of financial data for services, thus promoting self-assessment.
- Patient Axis: Renamed to avoid commercial connotations, this axis evaluates the effects of internal changes on patient satisfaction through various indicators.
- Internal Process Axis: Monitoring process stages within distinct units is essential for effective management, justifying the inclusion of process indicators in dashboards.

- Organizational Learning Axis: It is crucial for evaluating and encouraging the necessary structural changes in response to evolving medical practices and hospital constraints.

3. METHODS

We conducted a qualitative study through semi-structured interviews with hospital managers in the Souss region to evaluate the impact of the BSC on hospital performance. The data were analyzed using Nvivo 10 software to efficiently structure, analyze, and present the results.

3.1. Sample

For sampling, we opted for an exploratory qualitative approach aimed at obtaining a detailed view of problematic situations. Our sample of ten hospital managers adheres to principles of diversification and saturation, ensuring a varied and sufficient representation of the studied themes.

These interviews were designed to gather information on specific hospital performance indicators in the region. The collected data were recorded and analyzed using Nvivo 10 software, enabling an efficient structuring, analysis, and presentation of the results.

The characteristics of the interviewees are summarized in the following table:

Table 1: Attributes of the Interviewees

Interviewees	*Function*	*Age*	*Gender*	*Experience*
Interviewee l	Administrative Manager	(45-55]	Woman	[15-20]
Interviewee 2	Budget Manager	[35-45]	Masculin	[10- 15]
Interviewee 3	Expense Manager	[35-45]	Man	[15-20]
Interviewee 4	HR Manager	[35-45]	Man	[10- 15]
Interviewee 5	Head Nurse	(45-55]	Man	[15-20]
Interviewee 6	HR Manager	[25-35]	Woman	[5-10]
Interviewee 7	Head Nurse	(45-55]	Man	20 years and over
Interviewee 8	Budget Manager	[35-45]	Man	[15-20]
Interviewee 9	Expense Manager	[25-35]	Woman	[5-10]
Interviewee IO	Budget Manager	(45-55]	Man	20 years and over

Source: Output Nvivo 10

Regarding the roles of the managers interviewed in our exploratory study, we observed that among the ten managers in our sample, human resources managers, expense managers, and head nurses each represent 20% of the sample. Meanwhile, budget managers account for 30%, and the remaining 10% is represented by administrative managers.

3.2. Content analysis of collected data

Krippendorff (2018) emphasizes that content analysis is the primary method used in qualitative studies. This method is renowned for its ability to extract relevant and useful information from the data collected through semi-structured interviews. After collecting the data, the researcher performs textual analysis using Nvivo.10 software to transform the collected information into exploitable data related to the research subject.

In this context, a textual and thematic analysis of the data was conducted, where themes were coded and structured into primary and secondary elements. For better synthesis, the main elements were reduced to five key variables, grouped according to the Balanced Scorecard (BSC) dimensions and hospital performance, in line with the established research model.

The analysis of the collected data was carried out in two main stages. First, we present the characteristics of our sample in Table 1, followed by the key results of the lexical analysis. Then, we present the results of the thematic analysis, including a synthesis matrix and the relationships between the themes of our research as expressed by the participants. Based on the literature, a list of different indicators and themes was provided to the participants to highlight the ones most commonly used in their management processes. It is worth noting that most participants attempted to communicate the performance indicators they use, although some declined to provide this information.

4. RESULTS AND DISCUSSION

4.1. Presentation of Lexical analysis results

Lexical analysis allows for categorizing statements into themes and identifying semantic units. This method converts unstructured textual data into structured data by evaluating the frequency and proximity of words to each other, often referred to as lexicometric analysis, using various analytical tools.

4.1.1. Word frequency Results

After analyzing the results, we identified the same performance indicators as those reported in previous research, particularly those related to the financial, patient, internal process, and organizational learning dimensions of the Balanced Scorecard, as well as hospital performance indicators, as illustrated in the figure below.

The figure also highlights the explanatory variables of hospital performance, demonstrating the key factors that contribute to addressing our research question. The words in bold in the figure represent these critical factors.

Figure 2: Word Cloud of the Most Frequent Terms

Source: Output Nvivo 10

The figure presents the structure of the text by displaying the themes with their co-occurring words, as well as the frequencies of the words most cited by the interviewees, reflecting their opinions on hospital performance.

The main elements identified during the study and the interpretation of the frequencies are included in the figure. In addition, the different factors classified according to their weighted percentage are illustrated in the following table.

Table 2: Weighted Percentage in the Word Cloud

Word	*Longueur*	*Length*	*Weighted Percentage (%)*	*Similar Words*
Indicators	11	85	5,11	Indicators
Axis	5	60	3,61	Activity, axis, development, information, organization, user
Quality	7	39	2,35	Quality
Information	13	37	2,22	Absenteeism, acts, waiting, accommodation, information, use
Management	7	34	2,04	Management
Satisfaction	12	26	1,56	Satisfaction
Financial,	10	24	1,44	Financial
Patient	8	24	1,44	Patient
Processus	9	15	0,90	Processus
Social	7	15	0,90	Social
Responsible,	12	14	0,84	Responsible
System	7	14	0,84	System
Service	8	13	0,78	Service,
Hospital	12	12	0,72	Hospital
Benefit	11	11	0,66	Benefit
Use	11	11	0,66	Use
Learning	13	10	0,60	Learning
Conditions, terms	10	10	0,60	Conditions, terms
Organizationnel	15	10	0,60	Organizationnel
Training	9	9	0,54	Training
Performance	11	9	0,54	Performance
Social	8	9	0,54	Social
Regulation	14	7	0,42	Regulation
Availability	13	6	0,36	Availability
Evolution	9	6	0,36	Evolution
Medicines	11	6	0,36	Medicines
Effective	8	5	0,30	Effective
Sections	9	5	0,30	Sections
Improve	9	4	0,24	Improve
Skills	11	4	0,24	Skills
Degree	5	4	0,24	Degree
Stakeholders	7	4	0,24	Stakeholders
Stakeholders	9	4	0,24	Stakeholders
Products	8	4	0,24	Products

Word	*Longueur*	*Length*	*Weighted Percentage (%)*	*Similar Words*
Qualification	13	4	0,24	Qualification
Relation	9	4	0,24	Relation
Stay	6	4	0,24	Stay
Circuit	7	3	0,18	Circuit
Manager	9	3	0,18	Manager
Delivered	8	3	0,18	Delivered

Source: Output Nvivo 10

The table above highlights the variety of topics covered in the corpus, revealing dominant themes through the most frequently used terms by the respondents, such as meeting needs, efficiency, resource utilization, digitization, patient satisfaction levels, social climate, quality of accommodation, and staff satisfaction. The recurrence of these key terms emphasizes the consistency of the themes, as noted by Steyvers & Griffiths (2007), who point out that stable themes tend to reappear frequently throughout the corpus.

4.1.2. Results of thematic textual research

The following diagrams illustrate the connections and relationships between the respondents' answers, excluding linguistic connectors, which lead to aggregated factors that are similar in nature, weight, and categories.

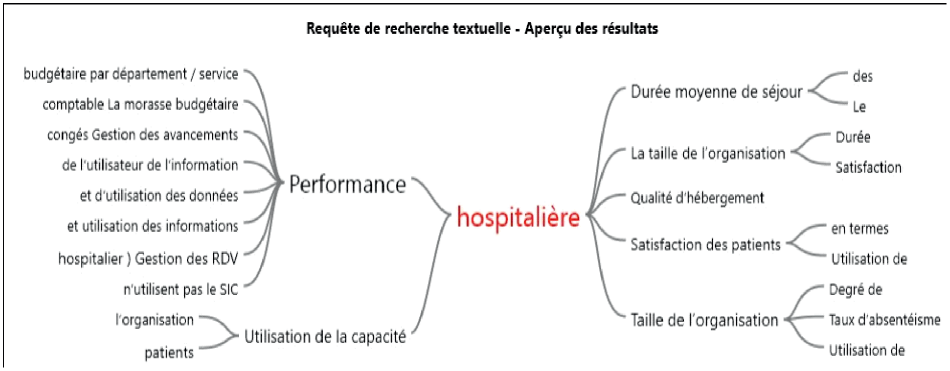

Figure 3: Textual Search Query on Hospital Performance

Source: Output Nvivo 10

The figure above illustrates the key hospital performance indicators observed in our sample of healthcare facilities. These indicators encompass aspects such

as the size of the organization, patient waiting times, average length of stay, along with other relevant parameters for assessing the overall efficiency of the hospital.

Moreover, the analysis of relationships between the nodes also reveals the various categories of factors influencing hospital performance. These categories include indicators related to the financial dimension, the patient dimension, the internal process dimension, and the organizational learning dimension. As such, these factors represent explanatory themes for hospital performance, as shown in the following figures:

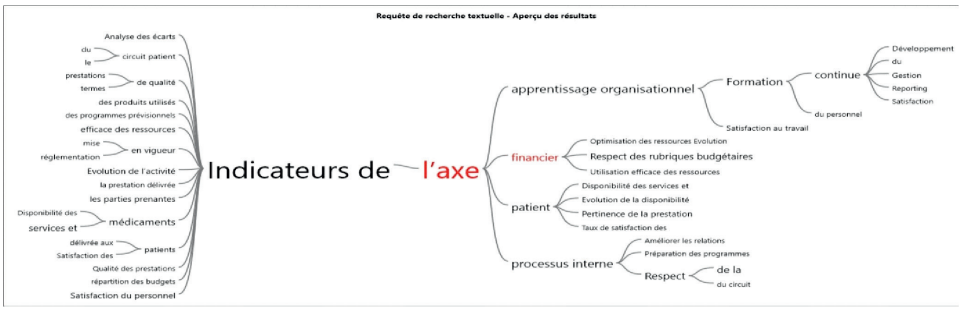

Figure 4: Textual Search Query on BSC - Financial Dimension Indicators

Source: Output Nvivo 10

The tree structure presented illustrates a hierarchy from general to specific, defining the indicators of the financial dimension. These indicators include compliance with budgetary categories, resource optimization, and the evolution of economic activity. In other words, it represents a set of terms that reflect the scope of the financial dimension, directly linked to the data collection for this variable. This structure forms a semantic network, establishing connections between significant elements, whether they are terms from the corpus or concepts from the BSC - Financial Dimension Indicators thesaurus.

Similarly, the synapsis below highlights the various motivations underlying the patient dimension indicators in the Balanced Scorecard (BSC) of the hospitals included in our study. These motivations primarily focus on patient satisfaction, the quality of care provided, and the improvement of accessibility to services and medications.

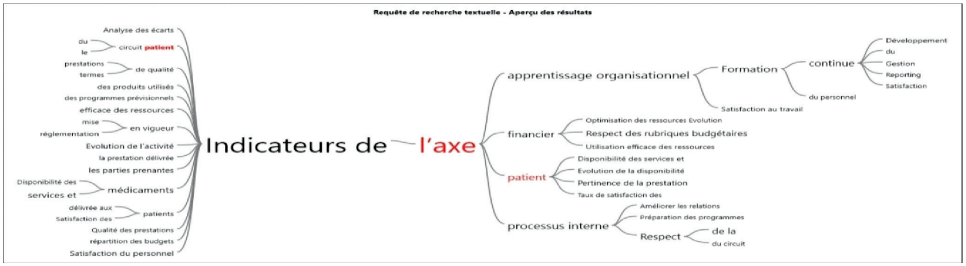

Figure 5: Textual Search Query on BSC - Patient Dimension Indicators

Source: Output Nvivo 10

The figure below presents a tree structure defining the indicators of the internal processes dimension. This structure includes elements such as patient journey tracking, appointment management, improving relationships with stakeholders, and compliance with current regulations. In other words, it represents a set of terms that capture the meaning of the internal processes dimension, forming the data collection sheet for this variable. It creates a semantic network, linking significant elements, whether they are terms from a corpus or concepts from the BSC - Internal Processes Dimension Indicators thesaurus.

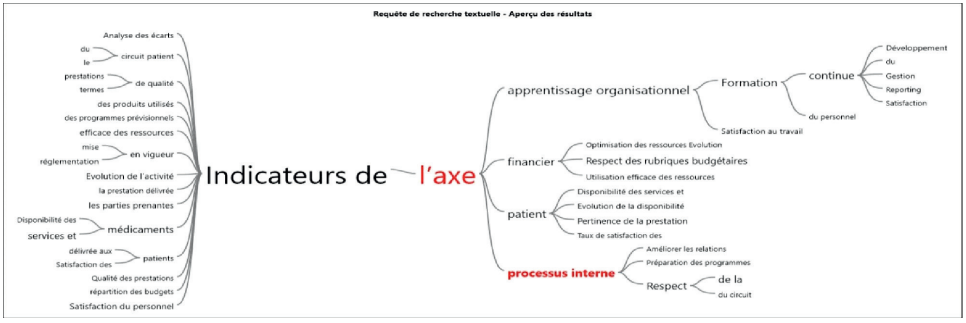

Figure 6: Textual Search Query on BSC - Internal Processes Dimension Indicators

Source: Output Nvivo 10

Similarly, the Synapsis presented below illustrates the various motivations underlying the significance of the indicators of the organizational learning axis of the Balanced Scorecard (BSC) from our sample. The main elements are highlighted in the following figure. The mentioned elements primarily include continuous training, skills development, and job satisfaction. These aspects are

of utmost importance for evaluating the overall performance of the hospital organization in terms of the learning and development of its members.

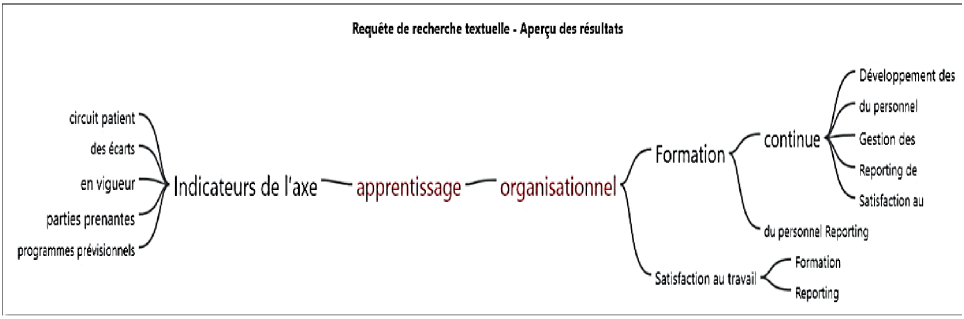

Figure 7: Textual Search Query Related to the BSC – Organizational Learning Axis Indicator

Source: Output Nvivo 10

According to Bazeley and Jackson (2007), aggregating data based on similarities in content or qualitative data coding helps highlight thematic similarities. This analysis first reveals a positive and significant correlation between the BSC's patient dimension indicators and hospital performance. Secondly, it emphasizes a positive correlation between the internal process and financial dimension indicators with hospital performance. Lastly, it shows a positive but weak correlation between the organizational learning dimension indicators of the BSC and hospital performance. These findings demonstrate positive relationships between these themes, indicating similarities in the qualitative data coding. The table below presents the Pearson correlation statistics between the different thematic nodes:

Table 3: Pearson Correlation between Thematic Nodes

Node A	*Node B*	*Correlation coefficient*
Nodes\\ Hospital Performance	Nodes\\Balanced Scorecard\BSC- Patient Axis Indicators	0,43021
Nodes\\ Hospital Performance	Nodes\\ Balanced Scorecard\BSC-Indicators internal process axis	0,23317
Nodes\\ Hospital Performance	Nodes\\Balanced Scorecard\BSC-Financial Axis Indicators	0,227249
Nodes\\ Hospital Performance	Nodes\\ Balanced Scorecard\BSC-Indicators the organizational learning axis	0,118626

Source: Output Nvivo 10

In conclusion, the correlation analysis between hospital performance and the different axes of the Balanced Scorecard (BSC) highlights a stronger correlation with the patient axis indicators. This emphasizes the importance of patient satisfaction in the overall performance of the hospital, while also recognizing the significant influence of other aspects such as internal processes, finance, and organizational learning.

4.1.3. Results of the thematic analysis

After an effort to draft and synthesize the data, we extracted the most relevant information related to the explanatory factors of hospital performance. These factors are categorized into four themes. The following table summarizes the main themes of our qualitative study along with the words frequently mentioned by the interviewees.

Table 4: Summary of Balanced Scorecard (BSC) Indicator Themes

	A: BSC- Patient axis indicators	*B: BSC- Financial axis indicators*	*C: BSC- Organizational learning axis indicators*	*D: BSC- Internal process axis indicators*	
Interview 1	Patient satisfaction rate; Availability of medicines;	Compliance with budget headings; Efficient use of resources;	Continuing education;	Respect for the patient circuit; Compliance with current regulations;	
Interview 2	Relevance of the service provided;	Compliance with budget headings; Efficient use of resources;	Continuing education; Skills development;		
Interview 3	Evolution of service availability;	Compliance with budget headings; Evolution of activity;	Job satisfaction;	Compliance with the regulations in force; Improve relations with stakeholders;	
Interview 4	Availability of services and medications;	Evolution of activity; Efficient use of resources;	Continuing education;	Compliance with the regulations in force;	
Interview 5	Relevance of the service provided to patients;		Continuing education;; Job satisfaction;	Compliance with the regulations in force; Follow the patient circuit;	
Interview 6		Compliance with budget headings;	Staff training;		

Interview 7	Availability of services and medications;	Efficient use of resources;	Continuing education; Skills development;	Compliance with current regulations;
Interview 8			Continuing education; Skills development;;	Improving stakeholder relationships;
Interview 9	Evolution of the availability of services and medicines;	Evolution of activity;	Job satisfaction; Continuing staff training;	Compliance with the regulations in force; Improving relations with stakeholders; Respect for the patient circuit;
Interview 10	Relevance of the service provided;	Compliance with budget headings; Efficient use of resources;	Continuing staff training; Skills development;	Improve stakeholder relations;

Source: Output Nvivo 10

In summary, this table provides a synthesis of the various performance indicators from the Balanced Scorecard, useful for evaluating hospital performance. The conclusions of this qualitative study can guide hospital decision-makers in identifying areas for improvement and selecting the most relevant indicators to assess those areas. Thus, the explanatory factors of our issue have been validated.

After presenting the results of this exploratory qualitative study, it is essential to revisit the contributions of the relevant literature. Therefore, the next section will discuss the results in light of other researchers' work.

4.2. Discussion

Our study highlights persistent challenges in Moroccan health sector reforms and evaluates the potential of the Balanced Scorecard (BSC) as a strategic tool to enhance hospital performance.

4.2.1. Health sector reforms: Ongoing challenges

Despite reforms targeting human resource development, regional healthcare improvement, innovative governance, and hospital management, entrenched bureaucratic structures continue to hinder progress (Baker & Norton, 2002; Belghiti Alaoui, 2005). The study supports adopting New Public Management

(NPM) principles, emphasizing efficiency and accountability, to address these systemic issues. Bracci *et al.* (2021) emphasize integrating performance tools like the BSC within NPM to improve management practices.

4.2.2. Limited use of performance tools

Our findings reveal that Moroccan hospitals predominantly use financial metrics, lacking a balanced, multidimensional approach. The BSC addresses this gap by incorporating indicators for patient satisfaction, internal processes, and learning and growth, aligning with Kaplan and Norton's (1996) framework. Betto *et al.* (2022) further highlight the need for such comprehensive tools, especially post-pandemic, to tackle complex management challenges effectively.

4.2.3. Positive impact of the balanced scorecard

The study demonstrates a significant link between BSC adoption and improved hospital performance. Hospital managers in the Souss region expressed positive views on the BSC's ability to provide a holistic performance overview, consistent with Kollberg and Elg's (2011) findings. The BSC's focus on patient satisfaction, financial performance, and internal processes supports better strategic alignment and decision-making.

4.2.4. Implementation challenges

However, integrating the BSC faces obstacles such as the need for strong leadership and cultural change. Effective implementation requires commitment at all organizational levels to foster a strategic performance environment (Moisdon & Tonneau, 1999).

In summary, while the BSC shows promise for enhancing hospital management in Morocco, overcoming organizational barriers is crucial for its successful adoption and impact on performance.

5. CONCLUSIONS, LIMITATIONS, IMPLICATIONS AND DIRECTION FOR FUTURE RESEARCH

5.1. Conclusions

The objective of our qualitative study is to explore the variables that constitute the performance model and its main axes, confronting them with real-world practices. All participants in this qualitative study acknowledged the importance

of the Balanced Scorecard (BSC) as a management tool for improving the performance of their hospital, generally displaying a favorable attitude toward this tool.

The analysis of the results reveals significant links between the different axes of the BSC and hospital performance. First, the strong positive correlation between the indicators of the BSC's patient axis and hospital performance suggests that factors related to patient satisfaction and care play a crucial role in the success of healthcare institutions. Next, the similarity between the internal process and financial axis indicators of the BSC, both positively associated with hospital performance, highlights the importance of effective internal process management in supporting financial objectives and, consequently, the overall performance of the institution. Finally, while the correlation between the organizational learning axis indicators of the BSC and hospital performance is positive, it is weak, suggesting that initiatives aimed at fostering continuous learning within the organization have a positive but less direct influence on overall performance, which may require additional efforts to strengthen this relationship.

5.2. Implications

The implications of this study are substantial for both theory and practice. Theoretically, it reaffirms the value of the BSC as a strategic framework that integrates multiple performance dimensions, offering a holistic view of organizational success. Practically, the BSC provides a valuable tool for hospital administrators aiming to enhance their CSR initiatives. By systematically linking strategic objectives with measurable outcomes, the BSC supports healthcare organizations in addressing stakeholder demands for greater accountability and transparency in their economic, environmental, and social impacts.

5.3. Limitations of the study

Despite its contributions, the study presents certain limitations. First, it focuses exclusively on the Souss region of Morocco, potentially limiting the generalizability of the findings to other contexts or healthcare systems. Second, the study primarily utilizes quantitative indicators, which may not fully capture the qualitative aspects of hospital performance, such as patient and staff perceptions. Additionally, the study lacks a longitudinal analysis, hindering

the assessment of the long-term impacts of BSC implementation on hospital performance and CSR outcomes.

5.4. Direction for future research

Building on these findings, future research should broaden the scope to include diverse regions and healthcare settings, validating the applicability of the BSC in different contexts. Given the increasing emphasis on corporate social responsibility, future studies could explore the integration of CSR metrics within the BSC framework to better capture the economic, environmental, and social dimensions of hospital performance. Additionally, there is a growing need to examine how new-age technologies such as artificial intelligence (AI) and blockchain can enhance the relevance and efficacy of the BSC in the context of the Fourth Industrial Revolution.

For instance, AI can be leveraged to automate data collection and analysis processes within the BSC, enabling real-time decision-making and improving the responsiveness of hospital management. Blockchain technology, on the other hand, could be employed to enhance the transparency and accuracy of performance data, providing a secure and tamper-proof system for monitoring and reporting on key initiatives. Collectively, these advancements could extend the scope of BSC research, positioning it as a vital tool for modern hospital management that aligns strategic gdoals with emerging technological trends and CSR objectives.

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Conflict of Interest

There is no conflict of interest involved in the publication of this paper.

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