Insights from research

Application of the Balanced Scorecard in Spanish private health-care management

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Summary

Purpose – *The objective of this paper is to address the question of whether the Balanced Scorecard (BSC) can be utilized in non-profit organizations, in particular hospital sector organizations. A secondary objective addresses the issue of whether the BSC can be utilized employing the methodology encountered in the literature.*

Design/methodology/approach – *A case is presented of a private Spanish hospital, specializing in psychiatric patients, which is owned by a religious congregation and which utilizes a very primitive and informal information system. The case describes the design of the strategic map and the BSC for this hospital.*

Findings – *The paper concludes that the BSC is applicable to any type of organization, albeit with modifications; a BSC for non-profit organizations must be modified to include a mission perspective, thus supporting Kaplan's model for non-profit organizations. Hospitals should also include an additional perspective which provides specific information on social demographic factors regarding the hospital's operating environment.*

Originality/value – *The contribution of this paper is threefold. First, the case supports Kaplan's inclusion of a mission perspective for non-profit organizations. Second, it further modifies the non-profit BSC by including an additional perspective which provides specific information on social demographic factors regarding the hospital's operating environment. The authors are unaware of any instance where this additional perspective has been included in the model. Finally, the case provides a fully developed BSC and strategy map for a hospital which can be used as a template for other health-care organizations.*

Keywords *Balanced scorecard, Performance measurement systems, Corporate strategy, Hospitals, Health services sector, Spain*

Paper type *Research paper*

Introduction: the Balanced Scorecard

The Balanced Scorecard (BSC) is an instrument which translates the mission and strategy of an organization into a broad collection of action metrics and indicators, and which subsequently provides the structure necessary to serve as control and strategic measurement system (Kaplan and Norton, 1996a, b). Viewed as a performance measurement system (PMS), the BSC is not a new tool as PMSs have always existed in all organizations in all cultures in one form or another. Hence the novelty of the BSC does not reside in its existence but rather in the attempt to achieve standardization via conventions and universal rules (Urrutia de Hoyos, 2001).

The BSC's most standardized antecedent is the "*tableau de bord*" (Mallo and Merlo, 1995), a tool utilized by principally French companies, whose configuration and conceptual basis is very similar to the BSC. One explanation for the lack of standardization of PMSs along the line of the *tableau de bord* and BSC is certainly the lack of publicized information regarding their existence due to its being an excessively strategic tool; i.e. due to their strategic nature, organizations are very reluctant to disclose their existence and utilization.

Development of the BSC

The development of the BSC has gone through three distinct phases.

First phase

Initially the BSC was intended as a measurement tool, with an operational and tactical focus. It was a collection of indicators arranged by perspectives or key areas, which permitted the identification of the causes of the performance of a business or hospital. The original objective was to overcome the limitations of using only financial indicators. These lagging financial indicators only provided information about actual past performance, and failed to provide information on the drivers of future performance (Kaplan and Norton, 2000). The four BSC perspectives – financial, customer, internal processes, learning and growth – were selected based on the results of a study by David Norton and Harvard University (Kaplan and Norton, 1992).

Second phase

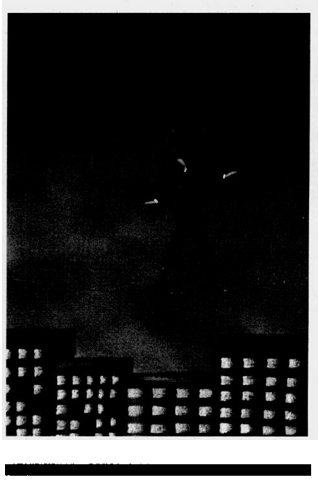
In the process of identifying indicators for each of the four perspectives, it was discovered that by developing strategy maps, not only could the appropriate indicators be identified, but also management could utilize the BSC for strategic planning. In the first phase, indicators were identified subsequent to the development and definition of the organization's strategy, and had an operational and/or tactical focus. In the second phase, it was discovered that it was not enough to simply identify indicators, but that it was necessary that said indicators were extracted directly from the strategic plan in order to identify and explicitly describe the causal relationships with the organization's strategy. In other words, the indicators were identified prior to the development and definition of the organization's strategy and as such play a role in the development and definition of said strategy.

The act of measurement has consequences that exceed simply providing information on past results. It also directs attention to the future, since the indicators selected by management are *de facto* those which are important to management. Hence, with a clearly defined strategy, coherently communicated and aligned with change drivers, what was initially an information/measurement tool and part of the management control function became converted into a tool for strategic management (Kaplan and Norton, 2000) and a part of the strategy formation function.

Third phase

The BSC communicates the organization's strategic plan via strategic maps in which the cause-effect relationships between the different strategic objectives can be visualized. This permits management to utilize the BSC as a tool for change management.

While the BSC has evolved significantly, strategy has been common and central to each evolution.



Private hospitals in Spain

The Spanish private hospital sector is characterized by being very dependent on non-government organizations, which generally employ the simplest financial and non-financial indicators. These indicators are almost always adjusted to criteria related to either room occupation or hospital stay duration, i.e. operational criteria. The recent legislative changes which have primarily focused on reducing hospital waiting lists[1] have had a radical impact on private hospital management.

Historically Spanish private sector hospitals have been of a religious orientation and, rather than offering treatments, they have generally offered basic medical care-taking services. These hospitals are facing ever-increasing competition, and are consequently being forced to substitute their existing primarily non-specialist human capital with specialist human capital as well as make substantial investments in technology in the pursuit of niche markets in which they can compete.

Traditional PMSs in hospitals

In the case of hospitals in general there are numerous contributions regarding PMSs as measurement tools (Errasti, 1996; Temes, 1997; Asenjo, 1998) which facilitate the identification of indicators. However, these contributions are limited to the identification of non-strategically related indicators.

The classic indicators utilized by hospitals can be grouped as:

- Health indicators: e.g. rates for mortality, disease, risk factors, and incapacity.
- Service utilization indicators: e.g. rates for medical consultations, surgical interventions, exploration and diagnostics, inter-consultations (e.g. where a patient first sees a physician generally a generalist) and is later referred to another physician (generally a specialist)), days of hospital internment, and average stay per patient.
- Hospital resource indicators: e.g. number of available beds, average bed occupation, hospital stays, number of annual admissions and releases, occupancy rates per service, and average rotation of beds/rooms.

These classic indicators have been used by hospitals for the design and implementation of a BSC with the methodology utilized by Kaplan and Norton in the first phase of its development. However it has become apparent that while these indicators were generally sufficient for the internal processes and growth and development perspectives, they were insufficient for the financial and customer perspectives; the vast majority of these indicators relate to operational criteria. This deficiency became even more apparent when hospitals have attempted utilized the BSC as a tool for strategy alignment and change management (the second and third phases of the BSC) as defined by Kaplan and Norton (2000).

The BSC and non-profit organizations

When indicators are used to assist in the development and definition of a non-profit organization's strategy, Kaplan and Norton have identified several problems which include the following:

- The BSC is a tool which has been utilized primarily in the profit-oriented business sectors. Consequently, the overarching objective is to increase long-term shareholder value through the balancing of specific indicators. The logic inherent in the four perspectives is that the learning and growth perspective indicators are leading indicators addressing the generation of value in the future, the internal processes and customer perspective indicators address how value is being presently created, and the financial perspective lagging indicators addressing how value was created in the past. The cause-effect relationships between the indicators of each of the different perspectives demonstrate the extent to which the organization is balancing past, present and future value creation. The fundamental problem is that if the overarching objective is no longer to increase long-term shareholder value, then it does not necessarily follow that four perspectives are appropriate.
- In profit-seeking organizations the financial perspective is fundamental since it provides the information necessary to evaluate whether the organization has been effective in achieving its objective of creating shareholder value. Non-profit organizations likewise need to monitor their financial performance but for a different reason; their financial performance is the means to an end as opposed to the end itself as is the case with profit-seeking organizations. Consequently non-profit organizations need to include a mission perspective which addresses how effectively they are achieving their particular mission. Attention is drawn to these organizations, because in the case of Spain, the percentage of public and non-profit private hospitals exceeds 85 percent (Ministerio Español de Sanidad y Consumo, 2001).

A review of the literature on non-profit organization's utilizing the BSC provides the following observations:

- Many non-profit organizations lack even the simplest financial metrics, such as net income or return on investment (Sawhill and Williamson, 2001).

- Non-profit organizations have difficulty in developing quantitative metrics useful for evaluating the performance of the organization because they often have contradictory objectives related to the offering of services and intangible products (Kaplan, 2001).
- Non-profit organizations may have non-financial indicators which measure the quantity and quality of services. However these indicators often lack a rigorous underlying selection methodology and may often contain data of doubtful integrity. Furthermore, while they have indicators, they do not know whether they are strategy related (Herzlinger, 1996).
- Sheehan's (1996) study of philanthropic organizations concluded that while almost all had defined their mission, very few had developed a system of indicators which provided for the measurement of the extent to which they were following their mission nor the effectiveness of their mission on population they were serving.

Adapting the BSC to non-profit organizations

The first step in adapting the BSC to non-profit organizations is to consider how to order the perspectives. Kaplan (2001) suggests the model shown in Figure 1.

This new model contains five perspectives: the newly added mission perspective (highlighted in Figure 1) which addresses the effectiveness of compliance with the mission, the financial perspective, which is a means to achieve an end, the customer perspective, the internal processes perspective, and the learning and growth perspective.

Case: the Hospital Center Benito Menni – BSC

The Hospital Benito Menni located in Valladolid, Spain, is a private non-profit institution. It is owned by a religious congregation which also owns several other hospitals distributed throughout Spain and the rest of the world. The hospital operates in the social health sector and attends psychiatric patients for both short and long hospital stays, patients with dementia, and convalescing patients. The hospital has a dynamic relationship with its environment and maintains agreements with numerous institutions including the public administration in its various forms – the regional governments, the city councils, etc. – with medical insurance companies, and with both private patients and patient associations.

The social health sector operates with extremely narrow economic margins. The hospital has survived to date due its non-profit status combined with a strict policy of cost control at all

Figure 1 Kaplan's BSC for non-profit organizations

levels. The profit margin objective of the Hospital Benito Menni is 10 percent of revenue, which is only achieved in the best of times and with great difficulty.

The hospital has a capacity of 154 beds distributed throughout the functional areas (Medical, Nursing, General Services, etc.), plus 40 day hospital occupancy slots – either beds or rooms. The hospital is also developing a significant ambulatory service. A total of 115 people make up the hospital staff, of which 12 are religiously affiliated, e.g. nuns. Personnel costs account for approximately 70 percent of the total costs incurred by the hospital.

The hospital organizational chart depicts the functional areas' directors. It also depicts the directors of the operating units (Critical Care, Long Stay, Dementia, and Convalescence). These operating units also utilize dedicated support personnel, which are primarily professional doctors and nurses.

As in all service entities, human resources play a fundamental role in the management of the hospital's critical success factors, as they are the instruments through which the health activities are developed.

The managing director, Fernando Prior de Castro along with the functional area directors developed the mission, vision and strategy statement depicted in Figure 2.

They subsequently developed the BSC depicted in Table I and the Strategy Map depicted in Figure 3.

Comments on the Hospital Benito Menni and the BSC

The following comments and observations were obtained via an interview with Fernando Prior de Castro, the managing director of the hospital:

1. The hospital is a non-profit religiously affiliated organization. Its only economic objective is to be able to ensure its survival. Taking this into consideration, a profit margin objective of less than 10 percent has been proposed as it is estimated that that would provide sufficient capital for necessary investment.
2. The hospital bills all its patients for the actual services received, with different rates for different services provided. The objective of maintaining productivity refers to not increasing the costs (primarily personnel costs) of each of the different operating processes. This will be measured by the relation between the personnel and the hospital stay.
3. The Hospital Benito Menni is located in the city of Valladolid. The owner of the Hospital Benito Menni also owns another hospital located 45 km away in the city of Palencia. These two hospitals are presently being merged in order to improve the coordination and efficiency of resource utilization as well as to be able to interact from a singular position with interlocutors and patients, which in many cases are the same entities (public administration, medical insurance companies, etc.). The proposed strategy involves the

Figure 2 Mission, vision and strategy statement

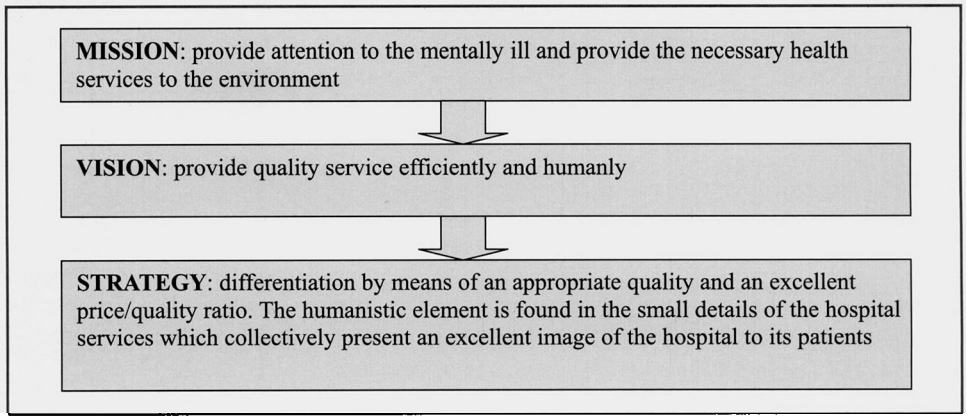


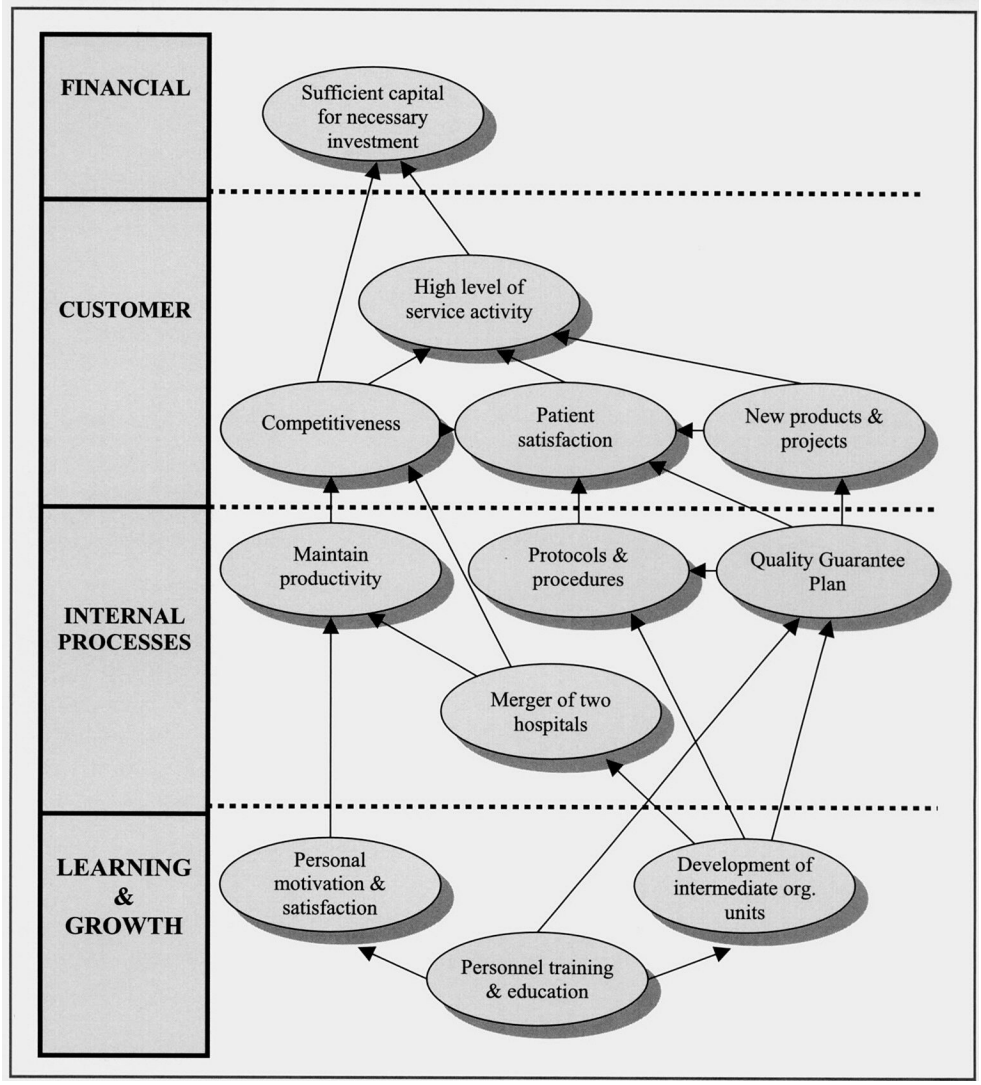
Table I The Hospital Benito Menni's Balanced Scorecard

Initiatives	*Perspectives*	*Critical success factors*	*Objectives*	*Indicators*	*Target*
Financial	Sustain the hospital	Generate sufficient funds for investment	Net income/total reveues	10 percent	Cost containment (particularly personnel costs)
Customer	Excellent price/quality ratio	Maintain competitive position	Competitive rate with competition for similar services	The lowest	Market studies
	Maintain high demand	Maintain high levels of service	Occupancy index	89 percent	Publicity
			Growth of ambulatory consultations	10 percent annual growth	External contacts
	Satisfaction of new necessities	Create new mechanisms: products and projects	Number of new products and projects	1 per year (either)	Promote specialization
	Customer satisfaction	Knowledge and improvement of customer satisfaction	Number of customers surveyed	100 percent survey coverage	Surveys
Internal processes	Efficiency and productivity	Maintenance of productivity	Ratio of personnel/hospital stay (2)	Constant for each process	Investment in job facilitating technology
		Merger of Palencia and Valladolid hospitals (3)	Number of merged processes	Three processes per year	Merging of coordination and follow-up
	Service quality	Development of protocols and procedures	New protocols and procedures	Five new protocols and procedures per year	Programming of protocols and procedures
			Updating of protocols and procedures	Verification of all existing protocols and procedures	
		Implementation of the Quality Guarantee Plan	Number of quality circles meetings	Five meetings per year	Consolidation of the Quality Commission
			Monitor quality indicators	Monitoring of 90 percent of indicators	
Learning and growth	Personnel training and education	Personnel trained	Number of persons trained per year	20 percent	Quality Commission budget
	Personnel satisfaction and motivation	Satisfied and motivated personnel	Number of persons evaluated	45 percent	Evaluation of personnel and implementation of variable compensation
			Number of persons with variable compensation	10 percent	
		Development of intermediate organizational units	Number of intermediate organizational units		

progressive unification of the various hospital activities (administration protocols and operating procedures) and the sharing of key personnel (director of administration, director of personnel, maintenance, etc.).

4. The Hospital Benito Menni does not currently have a BSC. It only has general financial and internal process indicators. Before considering the BSC, Fernando Prior de Castro studied the both European Foundation for Quality Management (EFQM) model and the *tableau de bord*, but concluded that neither of them offered a clear methodology for implementation. Prior de Castro was impressed by the manner of obtaining indicators for the BSC as well as by the fact that it permitted the inclusion of client satisfaction and resource utilization indicators, both of which were not employed by the Hospital Benito Menni. He also liked the way in which objectives were visualized in the BSC. When he explained the model as it appeared in Figure 1 to his superiors, they commented that although they understood the

Figure 3 The Hospital Benito Menni's strategy map



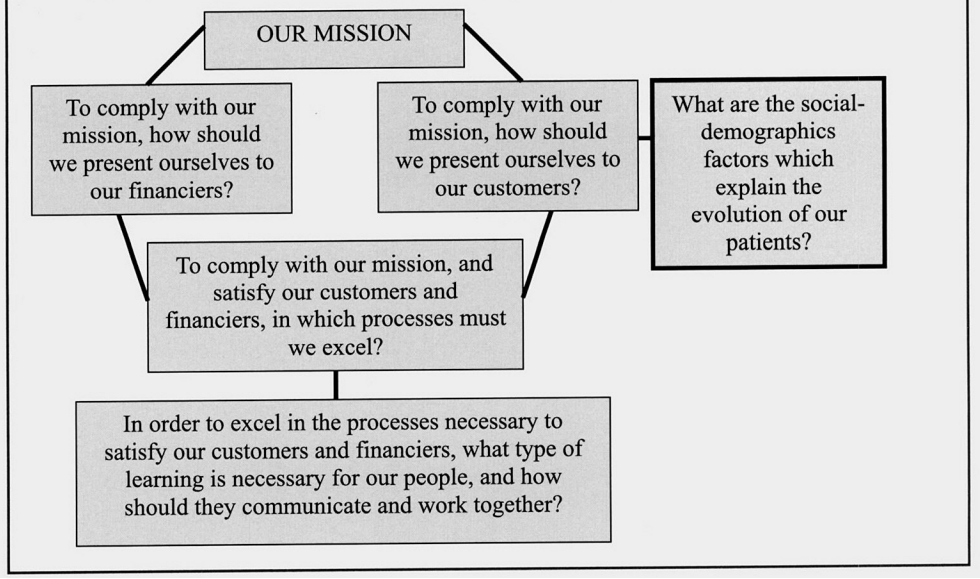
logic inherent in the process and the value of the BSC as a tool, they felt a number of adjustments were necessary. They did not view the hospital from the financial perspective implicit in the model nor did they view the hospital as a business entity. Given his responsibility for the management of the hospital and his financial objectives, Prior de Castro forgot to include the item most important for a non-profit organization – its mission. His superiors asked him to both incorporate the mission of the hospital into the model and add another perspective related to the environment in which the hospital operated, one that captured the general health situation of the province and one that permitted them to understand value drivers they needed to manage.

5. Hospital management cannot evaluate strategy implementation as they lack indicators regarding both the mission and the environment.
6. The strategic map will become a basic tool for internal communication.

Adapting the BSC to hospitals

The adaptation of the BSC to hospitals requires the addition of a sixth environment perspective (highlighted in Figure 4) which specifically addresses the fourth and fifth above-mentioned points.

Figure 4 BSC for hospitals



This perspective addresses the hospital's environment and thus provides social-demographic information related to patient behavior patterns. Without this information it is essentially impossible to determine the effectiveness of the hospital within its environment since the environment contains many variables which influence both the incidence and treatment of illnesses. Specifically in the case of the Hospital Benito Menni which treats psychiatric disorders, demographics such as age, occupation, etc. obviously impact the incidence of these disorders.

The indicators for the six perspectives should be:

1. *Customers/patients indicators*. These facilitate information regarding the quality of and confidence in services rendered, as well as the prestige of the hospital. These are divided into two groups:
   - *Indicators of the quality of service*:
     - Percentage of re-admissions: re-admissions/admissions: percentage of re-admissions in less than 180 days; and percentage of re-admissions in less than 31 days.
     - Mortality rate: number of deaths/number of releases.
     - Hospital stay: stays of more than 15 days/total stays.
     - Infections: number of hospital infections/number of patients.
   - *Indicators of patient complaints*:
     - Number of patient complaints filed: number of patient complaints filed/number of patients.
     - Percentage of written patient complaints: number of written patient complaints/number of patient complaints.
     - Number of voluntary releases: percentage of voluntary releases/total releases.
2. *Internal process indicators*. These facilitate information for evaluating the efficiency of the internal processes and should be first grouped into the different internal operating processes and then further grouped into activities within the distinct processes:
   - medical activities;
   - management activities;
   - emergency activities;

- commercial activities;
- support activities; and
- research and teaching activities.

3. *Financiers and/or political body (public administrators) indicators*. These indicators should consider the objectives of the shareholders or the owners and the public administrator to whom the hospital is accountable. Depending on whether the hospital is privately or publicly owned, these indicators should be either economic or operational, and should be grouped accordingly. It should be noted that many of these indicators are also appropriate for internal processes:
   - Occupation (duration of hospital stay) index:
     - Average duration of hospital stay.
     - Hospital stay index: available beds/total beds; admissions; releases; programmed interventions; cancelled interventions; and productive capacity of the intervention.
     - Rotation of patients: first admission/total admissions; and second admission/total admissions.
   - Economic indicators:
     - Hospitalization margin: hospitalization organizational unit margin/total revenues.
     - Emergency margin: emergency organizational unit margin/total revenues.
     - Profitability of hospital stays: profits/average duration of hospital stay.
     - Achievement of objectives: costs of budgeted activities/costs of actual activities.
4. *Formation and growth indicators*. These facilitate information on human technological resources:
   - number of courses;
   - number of actual courses offered/number of budgeted courses;
   - number of courses offered/number of personnel;
   - formation cost/total cost; and
   - improvements in task execution.
5. *Environmental indicators*. These facilitate knowing the situation of the patient population:
   - old age index;
   - fertility index;
   - aging index;
   - dependency index; and
   - population assignment.
6. *Mission indicators*. These facilitate information regarding mission compliance. These might include for example, the number of patients "cured". Note there is a particular difficulty in operationally defining "cured". At a minimum it can be noted that this is quite dependent upon whether illness is chronic or not.

Conclusion

As with other organizations, the BSC can be used to put the vision and strategy of the hospital into operation by establishing indicators which can be monitored to evaluate the advancement of the hospital as well as identify opportune modifications to both strategy and operations (Roure and Rodríguez, 1996). This makes the BSC a tool useful for planning and establishing objectives as well as facilitating strategy formation and feedback.

While the BSC has been used primarily in profit-oriented organizations, it is perfectly applicable to non-profit organizations as well. In adapting the BSC to non-profit organizations an additional mission-related perspective should be added to four traditional perspectives. This mission perspective supersedes all other perspectives and provides information regarding the extent to which the organization is achieving the fundamental objective for which

it exists. Furthermore, the financial perspective takes on a significantly different role than is the case in profit-seeking organizations. In profit-seeking organizations, all actions are undertaken with the objective of increasing the long-term financial performance of the organization and as such the financial perspective is an end. For non-profit organizations, the financial perspective becomes a means to a different end – that which is reflected in the mission of the organization.

As demonstrated in the Benito Menni case, the financial focus employed in are profit-oriented BSC is inconsistent with the fundamental objectives of the hospital. Although the sustenance of the hospital is important, it is a means to an end, rather than an end in itself. Consequently, the Benito Menni case supports Kaplan's (2001) BSC model for non-profit organizations.

We consider that our contribution to the existing literature is that specifically in the case of non-profit hospitals, a sixth perspective should be included which captures the hospital's environment and thus provides information on the behavior patterns of the hospital's patient population base. Without this information it is essentially impossible to determine the effectiveness of the hospital within its environment. This is akin to the scale problem in financial metrics and the comparison of net income with a more comprehensive metric such as ROI. Net income is influenced by investment and the subsequent scale of the organization, so a proper evaluation of an organization's financial performance should consider the effect of scale on net income.

In conclusion, after reviewing the existing literature regarding the BSC we have concluded that it is applicable to any type of organization, albeit with modifications. While the model offers tremendous advantages for strategy implementation, we believe that for non-profit organizations it must be modified to include a mission perspective and for hospitals should also include an additional perspective which provides specific information on social demographic factors regarding the hospital's operating environment. We believe it is very difficult if not impossible to fully understand what is happening within an organization without considering the situation and events occurring in its environment. Furthermore we are unaware of any instance where this additional perspective has been included in the model.

There are a series of problems and issues regarding the implementation of the BSC in hospitals which serve for future reflection:

- Since the indicators should be strategic dependent, the hospital strategy should be explicitly defined.
- Those responsible for the selection of indicators should be those that are responsible for defining the hospital's strategy, if not then the BSC will fail to have a strategic foundation.
- The relationship between the customer and environmental perspectives should be further investigated and made more explicit.

Note

1. One way of meeting the demand on public hospitals is to use the services of private hospitals. However, these private hospitals must be accredited and the fundamental requirement for accreditation is use of standardized protocols or critical paths. This is an attempt to control the services outsourced to private hospitals.

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