

Managing performance in healthcare: The case of Verona Integrated University Hospital

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Abstract

The past 20 years have witnessed a change in the management control system in Italian National Health Service to align with New Public Management (NPM) principles. Performance measurement and the management of public entities constitute the main pillars of the NPM, particularly in terms of output production, efficiency and parsimony, which helps integrate performance information in the management decision. In turn, healthcare organizations have begun implementing performance management systems (PMSs) as well as new tools, such as the balanced scorecard (BSC). In this study, we analyze the newly implemented PMS in the Verona Integrated University Hospital (VIUH). This organization was formed through the merger between the teaching hospital and the independent hospital of Verona. In particular, the main features of VIUH's PMS are fourfold: activity, resources, professional quality and perceived quality. To understand the goals of VIUH's PMS and the factors that enable or hamper its adoption, we conduct a qualitative analysis on several semi-structured interviews. The study reveals that the introduction and implementation of the PMS in VIUH came about mainly as a result of the hierarchical control of the regional government and, in striving to uphold professional quality indicators, as a response to clinicians' resistance to change.

Introduction

During the past two decades, the Italian National Health Service has strived to conform to New Public Management (NPM) principles (Mattei, 2006), which have inspired healthcare reforms in many OECD countries (OECD, 1995, 2005). Three NPM principles characterized the Italian healthcare reforms during these years: decentralization, quasi-market and managerialism (Longo et al., 2011). For the last principle, several managerial concepts and tools were introduced, especially in the higher education system and independent hospitals (Lega and Vendramini, 2008), and as such, emphasis was put on efficient resources use (Marcon and Panozzo, 1998). The renewed provision of healthcare services has increased the need for accurate, reliable and timely information (Rees and Rodley, 1995), and therefore accounting rules have been reshaped to focus more on costs, accountability and informed decision-making processes. That is, healthcare organizations needed '*new accounting and measurement systems*' (Anessi-Pessina and Cantù, 2006), and so '*a series of significant changes*' occurred to tighten '*the effectiveness of an accounting system in monitoring and controlling costs*' (Marcon and Panozzo, 1998; p, 199).

The management control systems in the Italian National Health Service have changed to more effectively address the objectives of cost reduction, efficiency seeking, quality, customer satisfaction, and effectiveness. Therefore, in the early 1990s health organizations adopted the operating budget to control costs, reduce wastefulness and measure revenues. At the end of the 1990s, these organizations introduced the performance budget to link inputs (financial resources) to outputs (achievement of objectives). As such, the focus shifted from one solely based on financial

measures to one based on both financial and outcome. In this sense, outcome was considered the *'valuation placed by society on the activities of the public sector'* (Smith, 1995; p. 15).

To achieve a holistic view of organizations' management, in the 2000s multidimensional measurement systems were developed and implemented, in which several dimensions were jointly considered, including internal processes, quality, financial aspects, and effectiveness, with particular emphasis on customer perceptions (Lega and Vendramini, 2008). Thus, performance management and the measurement of public organizations became the main tenets of the NPM (Pollitt, 1986; Kettl, 1997; Gruening, 2001), particularly in terms of output production, efficiency and parsimony (Hood, 1991). The focus shifted from the concept of activity and products (output) produced for the beneficiaries to the final outcome and its impact (Calciolari, 2009), and as such, the evaluation of the output itself became the outcome (Smith, 1995).

The global economics crisis has affected the budgets of most of the OECD countries, and therefore public organizations have struggled to improve their systems from performance measurement to performance management (Bianchi and Rivenbark, 2012; Dreveton, 2013). As Radnor and Barnes (2007) note, public performance measurement aims to quantify through the use of quantitative and qualitative measures inputs and outputs of an event or a process; conversely, public management involves measuring and reporting aspects that produce improvements and influence subsequent behaviors.

Increased external pressures (to reduce financial recourses and increase health demand) and the internal need for balanced management of the new integrated structure induced the VIUH to develop a new multidimensional performance management system (PMS), based on the balanced scorecard (BSC) (Kaplan, 2001). The BSC is a widely used tool in healthcare organizations (Gurd and Gao, 2007; Grigoroudis et al., 2012) and, indeed, plays a central role in public service and healthcare management (Fryer et al., 2009). *'[W]hen dramatic changes are inevitable, developing a strategic focus and examining the business and quality of the health care in a measurable and repeatable manner becomes each organisation's opportunity'* (Meliones et al., 2001; p. 28). In addition, the constant environmental changes and increasing attention of internal and external stakeholders have prompted a need for more informative and flexible models that aid organizations in quickly modifying their performance targets.

This study aims to answer the following research questions:

- How did the VIUH introduce and use the PMS?
- How do critical aspects influence the implementation and actual use of the PMS?

To answer these questions, we first present the theoretical background of and prior literature on the PMS in healthcare. In the second section, we provide an in-depth discussion of our research methodology, and in the third and fourth sections, we analyze the case results and the discussion. The last section presents our conclusions.

Theoretical Background

The performance management model incorporates and uses performance indicators from the management and political cycle (Bouckaert and Halligan, 2008; Van Dooren et al., 2010). It entails a new form of accountability based on results rather than compliance with laws, procedures and regulation, which are core elements of bureaucratic accountability (Dubnick, 2005; De Lancer Julnes, 2006; Calciolari, 2009). According to Moynihan (2006; p. 78), the main idea underlying performance management is *'using performance information to increase performance by holding managers accountable for clearly specified goals'*. Performance management has a long history beyond NPM (Van Dooren, 2008), the first case of which appeared in the New York Bureau of Municipal Research at the beginning of 20th century (Williams, 2003) and then in the 1960s under the Planning Programming Budgeting System, Management by Objectives and Zero Based Budget

(Van Dooren et al., 2010). However, only in the last decades it has become part of the reform agendas of the OECD countries (OECD, 1996, 1997a, b) and one of the '*most widespread international*' trends in the public sector (Pollitt, 2006; p. 25). This renewed role of performance management as a focal part of public management stems from the NPM movement, which introduced performance information on a government-wide scale and in all management areas (Bouckaert and Van Dooren, 2009; Van Dooren et al., 2010). Moynihan (2006) views the management for results, another name for performance management (Suppa and Webb, 2012), as a subset of NPM. However, recent years have witnessed a renewal of performance management (Christensen et al., 2006), and its focus has been reoriented from one on efficiency, typically with regard to NPM, to one on outcomes and effectiveness, due to the shift to a New Public Governance perspective (Kickert, 1997; Klijn and Koppenjan, 2000); this perspective emphasizes a '*citizen orientation and lateral collaboration across agencies*' (Modell and Grönlund, 2007; pp. 275-276), as an evolution of and a reaction to NPM reforms (Osborne, 2006).

Although governments and scholars have devoted a great amount of attention to the introduction of performance measurement and the production of performance measures in public organizations (Moynihan and Pandey, 2010), '*actual use of this information has traditionally not been very high on the research agenda*' (Van De Walle and Van Dooren, 2008; p. 2). Performance management of public decision makers, managers and politicians '*remains one of the most important yet understudied issues in performance management*' (Moynihan and Pandey, 2010; p. 850), particularly its implementation and related systems (De Lancer Julnes and Holzer, 2001; De Lancer Julnes, 2006). Performance management promotes the use of performance-related data in the decision-making process. In the PMS, measuring public activity is difficult because of the ambiguity in tasks to be performed and standards to be used (Noordegraaf and Abma, 2003; Vakkuri and Meklin, 2003). Moreover, the PMS is a complex process that can cause functional and dysfunctional behavior (Smith, 1995; Bevan and Hood, 2006).

International healthcare organizations have implemented the BSC (Kaplan and Norton, 1996; Radnor and Lovell, 2003; Niven, 2008), modifications of it (Gurd and Gao, 2007) or other PMSs to incorporate performance information in the activities, processes and memory of the organization (Van Dooren et al., 2010). Even at its evolution, the first model of the BSC included the four traditional sections of financial, customer, internal business process, and learning and growth. Gurd et al. (2007; p. 8), in examining the different phases in the last 20 years, underscored how the last '*BSC generation is about developing strategic control systems by incorporating destination statements and optionally two perspective strategic linkage models*'—namely, activity and outcome perspectives. According to Kaplan and Norton (1996), the four perspectives allowed for the implementation and adaptation of different situations and organizations, also accounting for the main ideas that the PMS is not static but evolves with the organization (Bititci et al., 2006; Fryer et al., 2009) and that there is not one unique framework for all organizations (Pun and White, 2005).

The PMS also provides reports on performance itself (Fryer et al., 2009), balancing both the time to elaborate the report and the need for accountability.

Methodology

To answer our research questions and verify our theoretical framework, we use a qualitative approach (Creswell, 2007) and, in particular, the case study (Stake, 1978; Patton, 2002), which has proved suitable to analyze observable events and facts in their natural conditions (Yin, 2009). The philosophical claims that inform the research are related to the constructivism paradigm of social inquiry (Crotty, 1998). Interpretative research helps inform '*the actual production of meanings and concepts used by social actors in real setting*' (Smith, 1983; p. 11). According to Humphrey and Scapens (1996; p. 86) '*the purpose of case studies is to obtain a better understanding of accounting*

practice and of the role and functioning of accounting in organizations'. We employ the case study approach in this research to understand and interpret a new phenomenon in healthcare accounting practices.

Following our research protocol, we conducted seven interviews from March 2013 to July 2013 with key informants (managers, clinicians, and accounting staff) involved in the introduction and development of the PMS in their organizations. We selected personnel and managers of the management control unit, the manager of the quality office and the clinical and pharmacy managers (both physicians) for their knowledge and firsthand experience in the implementation and use of PMS after a three-year adoption. All informants were willing to participate to the study. (Note that we accounted for the possibility that the informants were likely more positive than other employees about the promise and results of the PMS in the VIUH.)

The semi-structured nature of the interview questionnaire enabled the interviewees to respond in their own words to the questions. Following Arksey and Knight's (1999) suggestions, two researchers conducted the interviews to provide different perspectives in the analysis of the answers. We taped the interviews and coded the transcripts using computer-assisted qualitative data analysis software (Atlas.ti), a useful tool for analyzing and organizing data (Bryman and Bell, 2011). Through discussion among the authors, we reexamined and refined the coding process (Strauss and Corbin, 1990) and summarized data using main concepts and constructs (e.g. pragmatic leadership, communication, collaboration). Other sources of information included direct observation (field notes) and documentation provided by hospital staff, for which we conducted the same process of analysis as previously described. From the analyzed information, we identified persistent and important themes and patterns (Miles and Huberman, 1994). We then constructed a typology of factors that enabled or hampered the adoption and use of PMS.

Findings

The VIUH formed from the integration of the teaching and independent hospital of Verona. It is a public organization situated in North-East Italy that, together with the hospital and the directly linked structures, hospitalizes 60.000 people every year and provides job for 5000 people. In 2010, the VIUH adopted a PMS to manage its performance, rather than just measure it. The introduction of the new system stemmed from the merger of the two organizations (University Hospital and Independent Hospital of Verona), which was partially due to the enactment of the legislative Decree n.150/2009 (also called Brunetta Reform), which strongly stressed the role of the performance cycle in public organizations.

The PMS of the VIUH is inspired by the BSC system and includes four perspectives: activity, resources, professional quality and perceived quality. The first dimension, *activity*, measures the three main activities of VIUH: health assistance (main objective of an independent hospital), research and teaching (main functions of a teaching hospital). The second perspective, *resources*, reflects the financial aspects, taking into account costs, revenues and efficiency. The third dimension, *professional quality*, captures the capacity of the VIUH to manage and perform health processes; this dimension involves process reengineering, medical results evaluation and projects. The fourth perspective, *perceived quality*, monitors the customer satisfaction from both internal and external customers (BSC patient perspective) with an annual survey.

The control function had been available for approximately 20 years in the teaching hospital of Verona. After the merger, the staff of the management control unit remained the same, maintaining a high level of competence on performance measurement and enabling easier implementation of the PMS for the staff directly involved in the process. According to several key informants, the same process has not happened at the lower levels of system application. They reported that the 'new' PMS is nothing more than an evolution of the previous one, which was also useful, and that they

observed little substantive differences between the two systems. The apparent ‘small’ changes introduced by the PMS supports the mistaken belief that a training period is not necessary for users, causing a delay in system application.

Actual use of the new model centers on consumed control (*resources*), specifically that pertaining to costs and economical budget monitoring. The control of *health assistance* is only partially developed, and after two years of monitoring, measurement of *teaching and research* activities remains underdeveloped. The actual activities of these two areas are to define the goals to achieve for the next year. This section was improved after the merger, when the need to measure the university activities also was realized. The information systems were completely distinct, and as a consequence, the merged entities have continued to use different measurements for research and teaching. Both the university and the hospital want to maintain their original autonomy. Finally, the *professional quality* perspective monitors the quality of the clinical activities, in response to medical requests on the evaluation of the real quality of jobs that could not be measured only by quantifying the resources consumed.

The management control unit reported that defining the indicators in each of the four areas of evaluation was one of the most difficult phases in the model design and in the annual adjustment. Indeed, the risk is exceeding the number of indicators, hampering a simple understanding of the goals and causing negative reactions from the doctors in particular. According to Lega and Vendramini (2008), sophisticated dashboards and excessive measurement do not benefit the PMS itself. To resolve the common problems of the BSC system, goals are defined over a three-year term, and each year, the goals are revisited and, if necessary, changed.

The complexity of the new organization has led to difficulties in implementing the PMS. Different systems and different people need to change the current way of thinking; however, the majority of the people in the control system preferred to delay implementation, the consequence of which was the development of a different system in the same organization. An example is the reward system still linked with cost reductions. Such a reward system has had heavy consequences on the development of the PMS: for example, nurses’ responsibilities, which have increased, in particular on the consume of medicines, are not yet linked to the reward system.

The majority of the informants agreed that the information system needed to be improved under all budgeting and control processes. The VIUH uses several different information systems to produce different types of information. An easy consultation of the database is nearly impossible, and thus those that require in-depth information must request it from the planning and control office or, in the case of medicines consume, the pharmacy. A more developed information system would be useful not only for every level in the hierarchic line but also for the central office, which provides official data to the region government.

The VIUH, as with every hospital, must maintain a level of performance established by the regional government. This performance level is common among OECD countries, which are required to implement the ideas of the NPM while maintaining central control of performance. The VIUH, independent of the BSC system, must also adhere to goal requests from the regional government. The efforts the organization must exert to gain higher levels of performance and to implement a PMS, complete with performance requests from the central government, are only part of the complexity of the measurement system.

The management of the integrated hospital, which experienced previous success with the system application in another healthcare organization, strongly encouraged the PMS. A main characteristic of the new model is the removal of red tape, because it puts more importance on performance measurement than on the accountability of performance achievement in formal reports; results are periodically communicated to each key function of the VIUH, and once a year, the planning and control office provides a power point report that summarizes the entire organization’s results.

Another strength of the new PMS is the dashboard, which helps the key actors of the VIUH become better engaged with both goals and indicators. In turn, this will lead to a gradual increase in responsibilities for those in charge and, consequently, more effective implementation of the organization's objectives. The new model provides for a continuous dialogue between the direction of the VIUH and the main actors (i.e., physicians or those responsible for key function), prompting participative leadership that positively influences the control system. Indeed, one of the most effective advances of the PMS is the negotiation of the budget, which leads to more awareness, without the need to work through excessive red tape during this process phase.

Discussion

Our analysis is consistent with previous researches, which highlight the many difficulties encountered during implementation of a PMS, in particular for organizations undergoing mergers. As Choi et al (2012; 486) note, a general finding in the hospital merger literature '*is that major operational or clinical changes were not implemented even years after the hospital merger was formalized*'. According to Verbeeten (2008), the large size of public organizations hampers a common definition of goals. The VIUH's implementation of a BSC framework enabled it to fix and improve the complex objectives characterized by teaching and clinical activities.

The key informants perceive the new PMS as an evolution of the previous process, which had also included a BSC structure for performance measurement. The dashboard with the four perspectives, though also an evolution of the previous system, is a response to the measurement and management needs of the merged organization. At the same time, it is also a starting point for new developments (Kaplan and Norton, 1996), taking into account the new VIUH structure.

The budget activity remains linked to the traditional public view, whose bottom-up process is fixed primarily on financial needs; consequently, the (top-down) negotiation process occurs in a second phase.

The BSC objectives must first account for the goals fixed by the regional government, the main stakeholder of the integrated hospital that has a large influence on the organization's activity. As such, the main objectives of the BSC are primarily to achieve the government's goals (e.g., cost reduction, average rate of the patients). Any other BSC improvement may incur a reduction of the red tape and a transparent evaluation of the integrated hospital.

This study confirms that particularly in a crisis period, in which the healthcare system is experiencing significant cuts, the flexibility of a PMS is useful for meeting the regional government's requests. At the same time, the system mitigates the demands of cost reductions because it provides the physicians with quality evaluations of their activities.

One of the remaining problems with the PMS is resistance to the change, which typically comes from the doctors who do not appreciate constant evaluation of their activities. This problem increased after the merger because the performance system inserted new areas of attention, including research and teaching activities. In part, this problem is reduced through budget negotiations and participative leadership focused on the direct engagement of the key actors and the reduction of red tape. The budget negotiations (Dreventon, 2013) also enable the managers and professionals to reach agreement, reducing the risk of potential conflicts between these two groups (Degeling et al., 2003).

The VIUH case confirms the importance of intangibles evaluation. Anessi-Pessina and Cantù (2006) emphasize the importance to develop systems for measuring intangibles, such as relationships with stakeholders, knowledge, and processes in healthcare organizations. The measurement of intangibles not only expands the comprehensiveness of the indicators but also helps reduce the widespread problem of evaluating the performance of doctors in terms of the measurement of costs reduction and the assessment of their actual clinical activities.

Indeed, the annual revision of the performance dashboard mitigates one of the most relevant problem that Smith (1995) highlights—namely, the short-term vision of the majority of the indicators. Rather, a long-term vision helps improve innovation and investments in initiatives (Allio, 2006).

The reward system has not yet been implemented because it does not reach all levels of the hierarchy (such as the nurse). A good reward system must link the incentive not only to the cost reduction, but also to the quality of their activity (Swiss, 2005).

The choice of performance reports focused on each unit, and not an overall final report, helps the VIUH *‘find the balance between spending time on the presentation of the data and ensuring that the data is timely enough to be useful’* (Fryer et al., 2009; p.485).

Despite effort on measuring outcomes, the PMS focuses on cost reductions. As prior research has indicated, in the public sector, organizations generally implement goals to minimize costs (Gurd et al., 2007; Olve et al., 2000), due in large part to the impositions from the system’s hierarchy (Zigan et al., 2008), which in the case of the VIUH is the regional government. Thus, the VIUH must account for the imposition of the regional government as the starting point in this more complex management system. However, the flexibility of the PMS reduces the risk of encountering resistance to substantial changes (Mintzberg and Westley, 1992). When implementing a new PMS, personnel should undergo training in the key functions, with the aim to increase the culture on performance management (Holmes et al., 2006). Knowledge of the PMS in the VIUH remains limited and is not consider a real priority, causing slow and difficult implementation of the system. In this case study, training is one of the points of contention because, with the merger, it could be a starting point for the true integration of the two entities.

Consistent with prior research (Longo et al., 2011), the system has not been implemented in terms of fit with the services offered or with the overall health needs, especially those of residents. In addition, engagement of the territory stakeholders and, consequently, knowledge on their needs have still received little attention in the organization’s objectives.

Conclusions

The critical aspects identified in this study confirm that implementation of a PMS is not always easy and can take years to adapt after organizational change, as well as the behavior of people working in the organization.

The implementation of the PMS in the VIUH stems from the wide organizational changes due to the merger of two entities, the increasing monitoring of the regional government, and new leadership with a strong orientation to the NPM. Despite the factors that have had a positive influence on the PMS model, it is still not clear how the system and processes affect performance measurement in public organizations, particularly those in healthcare. Therefore, the PMS must be monitored to understand which issues lead to improvement and which lead to weaknesses that hamper the process.

The introduction of the PMS has positively influenced the practices of the VIUH, though much work remains. The introduction of the PMS itself encouraged a higher quality of data collection (Longo et al., 2011). Furthermore, the resistance to change of the clinicians has led to the development of the qualities perspectives of the BSC.

Despite the limited number of interviews conducted, this study reveals many key aspects regarding the introduction and implementation of a PMS. The initial step of analysis has identified both the critical aspects of and the key informants involved in performance measurement and the management process, particularly those in middle management. To further understand the application of and engagement with other hierarchic levels of the organization, our next set of interviews will be with the department directors.

The monitoring of this case study will allow us not only to evaluate the subsequent phases of the PMS implementation in the VIUH but also to assess the extent to which the university gradually integrates the system of performance measurement across all levels. Successful integration will occur only if the new PMS model is treated as a tool for achieving business goals rather than solely one to control costs.

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