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Performance measurement in the public sector: some theoretical and practical reflections

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## Performance measurement in the public sector: some theoretical and practical reflections

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#### Abstract

Performance measurement innovation in the public sector has been gaining a great deal of interest among academics, practitioners and policy makers since the implementation of the New Public Management reforms. The aim of this paper is to contribute to the current debate on the topic through the study of the conditions and factors that may hinder or foster the introduction of performance measurement systems, such as the Balanced Scorecard (BSC). The results derive from two longitudinal studies conducted in two Italian public administrations, which introduced the BSC device. The empirical evidences are discussed through the Ferreira and Otley's (2009) framework, as extended by Broadbent and Laughlin (2009). The paper tries to contribute to both the extant literature on the BSC device and the usefulness of the extended conceptual framework in an empirical context.

*Keywords*: performance measurement, public sector, balanced scorecard *JEL Classification*: *M2* 

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#### 1. Introduction

The implementation of various public sector reform initiatives over the last two decades, generally labeled under the umbrella term New Public Management – NPM - (Hood, 1991, 1995), is leading to significant changes within public organizations. Innovations in performance measurement systems (henceforth PMSs) are gaining increased interest among academics, practitioners and policy makers, providing new technical lifeblood of NPM. Despite the large body of research on NPM, there are gaps in our understanding of the processes by which PMSs are translated into operational use (Modell, 2009).

Public sector organizations are typically characterized by a high degree of organizational interdependence. Recently, in Italy, the law 15/2009 and the Legislative decree 150/2009 have represented an important regulatory change: the cited normative introduced the requirement to implement a strategic performance systems in order to measure, evaluate and improve the performances in terms of efficiency, effectiveness, quality, outcome and customer satisfaction of the public organizations.

Various public organizations chose to implement the Balanced Scorecard device. The appeal of BSC in the public sector was tied its multidimensional nature, beyond the sole financial one and the possibility to communicate strategy to the operative units.

Nevertheless, the field of PMS is dominated by complex and intertwined issues. Management and accounting literature is inclined to simplify or to define a set of partial areas: simplification has come at the price of increased ambiguity and conflicting findings from different studies. In order to mitigate such consequences, Ferreira & Otley (2009) model a set of issues related to PMS that follows a holistic approach. Even if the model comes from a contingency approach (that means it tends to identify an "economical fit"), it was developed in order to overcome the limits of the previous studies and of the looseness of the topic. Broadbent and Laughlin (2009) extend the original twelve questions of the model with two more elements and showing the possibility to use it as an heuristic device.

The model of Ferreira & Otley is not a prescriptive, nor normative, i.e. it does not indicates an ideal position to be reached, however the identification of a coherence between the empirical evidences and the causal questions introduced by the model could help to define the "efficient fit" of the BSC implementation.

The aim of this paper is to contribute to the current debate on the topic through the study of the conditions and factors that may hinder or foster the (positive) introduction of performance measurement systems, such as the Balanced Scorecard (BSC), in the public sector.

The conceptual model proposed by Ferreira & Otley (2009), as integrated by Broadbent and Laughlin (2009), represents the theoretical lenses in order to assess the efficiency of the BSC implementation (towards a verification of coherence between empirical evidences and the questions posed through the model). The analysis is integrated with the scientific literature on the application of the BSC in the public sector organizations, in order to recognize other possible factors that determined the successful/ unsuccessful implementation of the innovative device.

The results were obtained from two longitudinal case-studies, started in 2007 and conducted in two different Italian public administrations, which introduced the BSC.

The paper is structured in the following fashion: the next section describes the appeal of the BSC for the public sector. It further focuses on the literature concerning the diffusion and conceptual evolution of the BSC, between criticalities and successes. The third section tries to identify, through a literature revision, the conditions for a successful implementation and it defines the Ferreira and Otley's model as a framework of reference to assess the efficient coherence of a BSC introduction as a performance device. The fourth section identify the background and the method adopted to develop the two longitudinal case-studies. The fifth section evidences and discusses the empirical results in light of the theoretical framework. Some final discussion and reflections are provided in the final section.

#### 2. The Balanced Scorecard in the public sector

The literature on PMSs has had an intensive growth, since its earlier work (Beyle and Parratt, 1938), but it was with the advent of NPM that it became firmly established as a central tool for transforming old bureaucratic administrations into efficient and effective organizations (Dent, 1991). PMSs are considered as a managerial techniques that offer a solution (Pollitt and Bouckaert, 2004) to the problem of containing public expenditure, improving the services delivered and measuring public organizations on the basis of an input–output-outcome model (Johnsen, 2005).

Despite the claimed benefits of PMSs, their implementation trajectories are far from linear and straightforward, entailing various difficulties that may lead to different outcomes or even to abandonment of the system (Lawton et al., 2000; Popper and Wilson, 2003; Smith, 1995).

The research on PMSs is characterized by two main vein. Firstly, it has focused on single elements of PMS, thus considering them as not interrelated and apart from the context where they operate, so forgetting that such elements are part of a broader system (Chenhall, 2003; Fisher, 1998). Secondly, an increasing number of studies have been devoted to particular

innovations in the tools and methodologies introduced in the practice of performance measurement. Let us remember the studies on the introduction of Balanced Scorecard, Value Based Management, Performance Prism, and so on, thus referring to the multidimensional nature of the performance concept (Amigoni, 1978). It is quite evident that studying specific tools and innovations does not help understand how the whole system operates, and the conclusions risk to be limited (Malmi and Brown, 2008).

Although the interest tempts to be focused on theorizing the fit between PMS and organizational factors, various contributions have been focused on the formal elements of the system, neglecting to considerate other kinds of control, informal and cultural, interacting with the formal systems (Malmi & Brown, 2008). This stimulates some studies both in the field of control systems, distinguishing the diagnostic and interactive use of control (Simons, 1995), and by referring to performance measures in the particular context of public organizations (Hatry, 1999; Behn, 2003).

Some studies have further tested the usefulness and the applicability of integrated PMS, like the Balanced Scorecard (BSC), in improving public sector management (Chow et al., 1998; Mensah, 2000). Particularly, PMS implementation is now considered necessary in order to support public managers in pursuing strategic objectives consistent with a high productivity level (Olden & Smith, 2006) and the "community" improvement (Walker & Dunn, 2008).

The BSC, in his original proposition (Kaplan and Norton, 1996) is based on a balanced set of measures covering financial, customer, innovation and learning and process areas to manage effectively. While the concept has been extensively documented in the private sector, its application in public sector organizations is more and more diffuse (Griffiths, 2003, Johnsen, 2001). The adaptation of the BSC to the public sector environment has to take into account the unique characteristics of public sector organizations. Borgonovi (2004) refers especially to:

- the heterogeneity of the products/ services of the public activity,

- the absence of a real "market price" for products/ services,

- the public funding system for the public organizations,

- the prevalence of a bureaucratic model in the management of the human resources and the internal activities.

The Author stresses that the prevalence of an institutional instead of a functional vision towards the public organizations, prevented the effort to an efficient use of the public resources for many years, in Italy. Furthermore, the strong link between public organizations and their legitimacy bases (the public consensus and finally the hinted political issues on the

expected outcomes) renders particularly complex the definition of both long-term objectives and a unique and shared strategy.

The mission for a public sector body is directly related to the provision of valuable and beneficial products/ services which satisfy the normative, voters, taxpayers and that also demonstrate operational efficiency.

Academic literature on public sector management has criticized the failure to articulate vision and key objectives (Sanderson, 2001), furthermore, it has stressed the inability of the public sector to achieve the coupling of performance measures and strategy (Johnses, 2001, McAdam et al., 2002).

Woods and Grubnic (2008) evidences that the implementation of the BSC in the public sector would help public organizations to bridge the gap between vague mission statements and day-to-day operations (see also Talbot, 1999).

The BSC value to non-financial information would have beneficial effects in a multistakeholder environment (Brignall and Modell, 2000) as it can solve the problems of defining performance measures for intangibles as service quality or social inclusion that are at the basis of the consensus public view.

Whether a "hard" constraint comes from central government regulation and a prescribed "budget cycle", the implementation of a BSC potentially help public organizations to achieve the externally imposed performance targets or the needed "accountability" and access to resources.

## 2.1 The evolution of the BSC conceptual definition between criticalities and successes

Whitcher and Sum Chau (2008) identify a distinction in the Norton and Kaplan's (1996) formulation of the BSC between performance and strategic management. This distinction affects the use of the BSC: in the performance management literature the use is coherent with a diagnostic control approach, while in a strategy framework the use is coherent with a planning and learning approach (e.g. Mooraj et al., 1999).

Kaplan and Norton (1992 and 1993) originally understood the BSC as a performance measurement tool and only later they explained their change of emphasis towards the strategic definition (1996). Esptein and Manzoni (1997) support this evolution.

As a performance measurement tool, Griffiths (2003) evidences the lack of emphasis on the measurement challenges, especially in the public sector.

Other numerous articles stand that choosing the right measures allow to achieve the desired performances (e.g. Brewer et al., 2004) and Albright et al. (2007) support the importance of

measurement to compare actual performances to an expected (or externally defined, e.g. sector means) level of performances. The Authors recognize the influence of a set of other enabling factors for a correct implementation of a BSC system (like commitment, satisfaction and perception of the procedures in place) but they stress the involvement in developing measures as linked to a meaningful reward system to signal the achievement of performances in scorecard initiatives.

A possible gap of measures in the BSC implementation is evidenced by Malmi (2000) and McCunn (1998), however they do not think that the measurement is fundamental to identify and communicate a line of sight to the strategic objectives and Malmi (2000) points out that the lack of measurement prevent only the use of the BSC as a steering device but it does not affect the BSC value as an information system.

Ahn (2001) criticizes the use of measures especially when management tends to both apply a hierarchical approach and focus on the "controllability" and "completeness" properties of those measures. He particularly stresses the effort on the creation of coherence between the BSC and other management systems. Nevertheless he neglects the possibility to use the BSC as a strategic tool (as an interactive system) because of the multitude of measures and he agrees with Weber and Schäffer (2000) in understanding BSC only as a diagnostic system of performance measurement.

According to a strategic emphasis, the possibility to translate an organization's mission and strategy into a comprehensive set of performance measures will enable organizations to track short-term financial results and generate future growth (Griffiths, 2003). The literature relating to this use of the BSC has predominantly focused on the implementation of the four elements of the Kaplan and Norton's (1996) model.

Griffiths (2003) points out that this use of the BSC in the public sector is inversely tied to the maturity of an organization's strategy (the less mature an organization's strategy, the greater the role of a BSC in shaping the strategy).

A strong criticism to the use of the BSC as a strategic tool comes from the Simons' approach (1995) and it is articulated by Atkinson et al. (1997), Mooraj et al. (1999), Nørreklit (2000) and Nørreklit et al. (2008).

Simons (1995) recognizes that the perception of strategic control systems was as a process of keeping strategies on track (and essentially parallel to strategy planning, strategy implementation and strategy control). Thus, it left no room for spontaneous reflection and no place for the management of unintended strategy which, according to Mintzberg, makes up a substantial part of the effective strategy of an organization.

Atkinson et al. (1997) argue that it "focuses on one output of strategic planning: "senior management's choice of the nature and scope of the contracts that it negotiates [...] with its stakeholders" and the "performance measurement system is the tool the company uses to monitor those contractual relationships". In this sense, the BSC fails as an interactive control system and it can be used just as a bounded diagnostic control system (which periodically and systematically measure progress against plans and 'yesterday' strategies). Other BSC lacks are indicated in: highlighting employees and suppliers' contributions, identifying the role of the community in defining the environment and identifying the performance measurement as a two way process (BSC focuses primarily on top-down performance measurement).

Nørreklit (2000) and Nørreklit et al. (2008) address the problems tied to the over-simplified and clashed cause-effects assumptions of the BSC and they criticize the axiom that "you get what you measure" in reason of the non-mechanical behavior of people in an organization. Moreover, the authors suggests the excess of top-down approach of strategy deployment and the rigidity of the model.

## 3. The theoretical framework

In an attempt to go beyond these critics and these different uses of the BSC, the present paper considers its implementation as both a strategic device and a part of the organization's performance measurement system. A comprehensive view of the BSC implementation requires a reference to the extensive model of Otley & Ferreira (2009).

A criteria to assess the success/ failure of a BSC implementation is represented by its potential to reply to the questions posed by the model. Specifically it refers to the coherence in the planning and control systems among the different tools, as explained in the next section (e.g the link of the BSC to a meaningful reward system).

Other criteria address to:

- the commitment to introduce the BSC in the case-studies analyzed,
- the perceived commitment to introduce the BSC from the lower organizational levels,
- the time and steps for the implementation,
- the communication,
- the revision,
- the type of measures and the emphasis on them.

Nair (2009) points out that the commitment to the introduction of a BSC can be referred to an exercise to reduce staff, a cost-cutting endeavor, a way to gain an understanding of what work is being accomplished, a way to align strategy and its execution or a way to motivate and

communicate. However the commitment represents also an assessment of both the management familiarity with the operations of the activity (Nørreklit et al., 2008) and the management knowledge around that tool and its potential for their organizations.

The perceived commitment, according to Nair, has to point out the reactions of the "naysayers" as they can destroy the momentum of the BSC very easily, thus it is important to reflect on the possible causes of BSC rejection: it holds people accountable, it highlights what they do (or don't do), it is another thing to do, it is from the management, it seems process-oriented but without a predictable output, it is another failure waiting to happen, it is a tool that no other public organizations will implement.

The time and steps for implementation regards the perception of a rush or a good timing in the implementation of the new tool. The steps are the logic path of BSC introduction such as: understanding the organization, knowing the road map for implementation, treating it as an organizational project, using the technology as an enablers for the indicators and measures, cascading the scorecard and revising it.

The communication refers to the effort put on keeping the process transparent and creating organizational consciousness on both the reasons for implementation, the effort required to the whole organization and the feed-back on the implementation, for instance Nørreklit et al. (2008) suggest to ask for the adequateness of the measures in reflecting what they are intended to reflect and the potential of measures manipulation.

The revision refers to the number of times the BSC was and is reviewed by the board.

The type of measures and the emphasis on them tries to catch if the organization gets fixated on the colors (i.e. red for bad, yellow for almost bad and green for good) or not. In that case, Albright et al. (2007) points out the risk to establish measures or targets easier-to-achieve or not linked to individual responsibility or performance measures. Thus, it seems important to assess if any individual know when he is successful and what is his/her contribution in the organization.

In the aim to develop effective BSC, it is necessary to consider the linkage between integrated PMSs and personnel incentive mechanisms. Some management accounting studies have highlighted that managers' performance evaluation may be the result of distorted judgments of the supervisor, who may ignore the specific scorecard measures related to department results and focus on common measures, such as those related with the whole organization's performance (Lipe & Salterio, 2000; Libby et al. 2004). When the BSC application is characterized by subjectivity, the supervisor may consider the short-term financial measures as the main incentive drivers, thus ignoring the other performance measures (Ittner et al.,

2003). This approach can reduce the value of integrated PMS in the strategic performance management. When scorecard measures are subjective and inaccurate various organizational conflicts may occur (Manila & Selto, 2001). Hence, the distinction between common and specific performance measures can be relevant for the influence of the public sector personnel and of its future results.

#### 3.1 The Ferreira and Otley's model

Several studies have attempted to propose a theoretical framework which can comprise the various elements composing a PMS, drawing on an inductive approach (Bertini, 1990; Otley, 1999). Otley (1999) comes to a conceptualization by deriving, from the empirical observation, the issues and questions raised by the firms, and the factors influencing the design and the implementation of a PMS.

In the literature various studies have highlighted the possibility to refine the theoretical model proposed by Otley (1999), firstly showing its usefulness and its heuristic aptitude (Ferreira, 2002; Toumela, 2005), and finally extending its scope to twelve issues, rather than the initial five ones (Ferreira & Otley, 2009). The theoretical relevance of the latter extension is supported by the contribution of Broadbent e Laughlin (2009), which proposes further development of the model. The innovativeness of the Ferreira & Otley's model resides in its systemic, or holistic, framework, which is so general that is can be applied in the context of public organizations.

PMSs have to balance between autonomy and responsibility by comprising two kinds of measures: "resource management" measures, which influence the organizational efficiency and the financial results, and outcome measures, which catch the non financial dimension of results, influencing the effectiveness of the public sector performance.

The characteristics of public sector organizations, and the attempt to increase the level of efficiency and quality in the public sector organizations should lead to analyze the linkages between external factors, such as the institutional and local ones, and the structure of PMS, by assuming a holistic perspective (Ferreira & Otley, 2009).

The increasingly widespread practice of adopting multiple systems of performance characterized by quantitative and qualitative measures has asked a number of issues regarding the importance of each measure in the process of determining the incentive mechanisms. To mitigate these adverse effects of an over-simplification of the contingency models, Ferreira and Otley (2009) defined a set of instances associated with management and performance measurement systems in a holistic way (see appendix A). In particular, with reference to

Otley (1999), Simons (1995) and Langfield-Smith (1997), the authors propose a set of 12 topdown questions, corresponding to the factors involved in the design and development of the management systems and performance measurement (PMS).

The first 8 questions relates to functional issues, on how each organization defines and links its ends (Questions 1, 2 in part, 5 and 6), with the means to achieve them (questions 2 in part, 3, 4, 7, and 8).

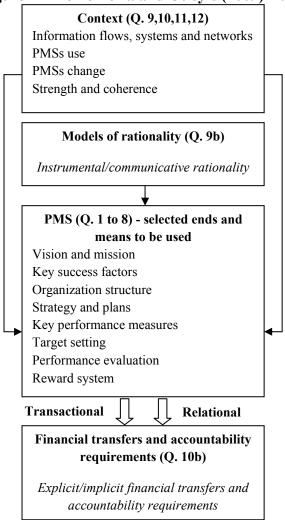
Additionally, Ferreira and Otley (2009) reckon the influence that the contextual factors have on the development, nature and use of any PMS. To untangle the contextual factors, like external environment, culture, technology, and so on, they propose four more questions (9, 10, 11, and 12)

The model accepts that the systemic or holistic approaches are appropriate in the study of the PMS (Chenall, 2003; Covaleski *et al.*, 2003). In this way, the research avoids to focus on specific tools or innovations and tries to undermines the functioning of the PMS as a whole (Malmi and Brown, 2008).

In order to assess the coherence of a BSC implementation in the empirical context with respect to the Ferreira and Otley's model, we also take into consideration the extension proposed by Broadbent and Laughlin (2009). The Authors suggested that question 9 and 10 could be extended considering more specifically two additional dimensions, namely: the context and the accountability medium.

The context, in broad terms, refers to what the PMS is intended to control. For Broadbent and Laughlin (2009) the context of a particular organization influence the eight functional questions of the theoretical model. Context is related to two elements. The first element relates to the models of rationality that characterize an organization, which in turn influence the PMS. Two broad models of rationality can be considered: instrumental rationality and communicative rationality. The communicative rationality implies the choice of performance indicators through agreement and discourses among the parties and determined by substantive rationality. The use of practical rationality allows a diversity and discursively agreed choice of means and pursue the agreed ends. According to Broadbent and Laughlin (2009) the resulting PMS is likely to be accepted and "owned" by the participant.





Source: adapted from Broadbent and Laughlin (2009)

On the opposite, the instrumental rationality leads to the generation of performance indicator according to a formal rationality. It leads to the choice of the preferred means for achieving the rational ends. In such a situation, the PMS may be difficult to be accepted, in particular if the measures do not reflect the taken-for-granted organizational value. The results can be displacement, alienation and also resistance towards the PMS.

The presence of a particular rationality cluster has important implications for the PMS. Indeed, when a particular PMS can be defined as transactional, it is likely the surrounding rationality modes to be instrumental. In that sense, it is likely to have a high level of specificity about the ends to be achieved and normally a clear specification of the means to use. When a PMS is labeled as relational, it is expected that the ends and means are deliberately subject to a discourse among the stakeholders. The focus of the PMS is likely to

be less short-term in nature and more oriented towards long-term objectives and conditions for sustainability.

The second elements added by Broadbent and Laughlin is the medium used to achieve the aspirations the organization sets and the accountability means to represent the performance. The medium relates to implicit or explicit financial transfers and the accountability mechanisms are the way the PMS can tell whether the aspirations are being achieved.

The model of Ferreira and Otley is not prescriptive or normative, and it does not identify an "ideal" state to achieve, however it represents an understanding of a contingent organization and a "skeleton" to be fleshed out by the empirical evidences in a middle-range approach.

## 4. The background and methodological issues

The analysis encompasses the in-depth longitudinal study of two cases, represented by two public organizations, they are proposed in this paper for their relevance in terms of BSC implementation.

The selection of the two cases followed some considerations:

- they have similar scopes, in terms of "public mission",
- they have to belong to the same cultural and geographical context,
- they were motivated in implementing the BSC,
- they agree to be studied, during the years of BSC implementation.

The Case-study 1 is a local social care authority formally founded on the 1st January 2007. The 2009 budget was some  $\in$ 20 million, the organization employs about 144 people, it covers three Municipalities (one large, two smaller) and it serves some 140,000 residents. The internal organization follows formal line management: the Board of Directors, composed of three members, is appointed by the three municipalities. The General Manager is appointed by the Board of Directors. Internally, Case-study 1 is structured in a functional manner with both professional service managers (elderly, adult and children) and administrative managers (quality and control, financial, procurement and human resource management). In 2008, the general manager decided to implement a new performance management system, opting for the Balanced Scorecard as methodology.

The Case Study 2 is a medium size local authority managing a budget of some €120 million, and employing some 1.400 people. The organization follows a functional structure with a general manager, 3 division managers and some 20 service managers. In 2008, the general manager decided to implement a new performance management system, opting for the BSC as methodology.

Given that the primary task of the study is to untangle the events that characterized the implementation of the new performance management system, longitudinal case studies as being the most appropriate research method (see for instance Pettigrew, 1990; Dawson, 1994). Longitudinal case studies are considered relevant approach as a means to tease out the cumulative characteristics and evidences involved in a process of institutional and organizational change (Dawson, 1994).

The research method encompasses the use of interviews, the document analysis and the direct participation of the researcher to the board meetings in the time span of four years, from 2007 to 2010, as showed in Figure 2.

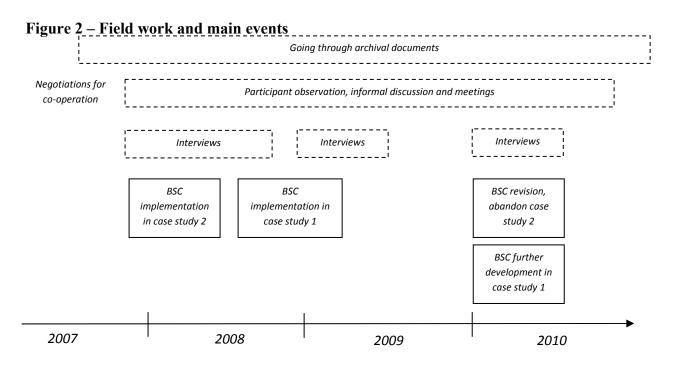
A first round of interviews, in 2007, was carried out with the general managers and the controllers of both the organizations. Those interviews were aimed at both gaining the co-operation and acquiring a full document access, as a participant observer of the BSC introduction in the two organizations.

A second round of interviews, in 2008, was attempted at understanding the way in which the different managers perceived the introduction of the BSC. The analysis encompassed the wider examination of the experiences with the BSC at the operating level. Case study 1 and 2 started the effective implementation phases in 2008, although with a different pace. In Case study 1, the BSC was released at the beginning of 2009, while in Case study 1 at the end of 2008. The BSC implementation in both the case studies was conducted through the identification of a leading pilot group, composed normally by the top management, the controller and the IT manager. That choice was aimed at both planning the overall implementation phase and monitoring the first impact of managing the BSC in a limited part of the organization. The researcher was allowed to take part to the meetings of the leading group, as a participant observer.

A third round of interviews, in 2009, allowed to both sharpen the focus on key interests' issues about the BSC and gain a deeper understanding of emerging practices. Besides, the interviewees were asked about their perceptions on the actual functioning of the BSC and its consequences in their daily activity.

The last round of interviews, in 2010, was related to the revision of the BSC in Case study 1 and Case study 2. Both the organizations went through the revision of the BSC as a consequence of the first two years of implementation. Case study 2 decided to abandon the BSC, while Case study 1 refined the BSC with further development and integration with the other management systems.

Thirty semi-structured interviews, for each case study, were recorded in conference rooms and offices, for general managers and controllers. The interviews were carried out regularly during the four-years research program. The interviews typically lasted between one and two hours, but only some of them were taped, due to practical (i.e. to avoid bias related to potentially controversial and sensitive issues) and privacy reasons (i.e. lack of authorization to tape-record the conversation or the group discussion). To validate the notes and transcript, the interviewees were asked systematically to confirm, modify or integrate the transcriptions. Such approach proved to be useful for stimulating additional discussion and confrontation about certain issues (Bloor, 1978).



A larger number of interviews was obtained from employees at different levels of the organization, but they were carried out informally. Understanding organizational members' responses to institutional processes may also require the researcher to go beyond interview data by complementing these often rationalized accounts of the evolution of organizational events with observations of in action (Czarniawska and Joerges, 1996). The researcher had opportunities to observe the actions of managers and personnel during official meetings, informal and formal discussions. This allowed to better assess the degree of consistency between interviewee accounts and actions. In addition, preliminary results of the analysis were presented in informal discussions with key informants at several occasions from 2007 and 2010 (cf. Yin, 1984). The final interpretations emerged through a certain amount of dialogue between the researcher and the researched, as suggested by Laughlin (1995).

Concerning documents, we were granted full access to the internal filing systems throughout the period of the research project. In particular the industrial re-organization plan, budgetary document and report, accounting documents and reports, board of directors minutes, organizational structure and work processes documents. Publicly available information on the case study was also obtained. Once the data had been collected, collated and transcribed, interview transcript were coded manually using the analytical framework, trying to identify common patterns and exceptions in the coded data (Ahrens and Dent, 1998).

#### 5. The research empirical results

The discussion of the empirical results will encompass both the case studies.

As for their relevance in a successful/unsuccessful implementation of the BSC, the analysis is conducted case by case, stressing the factors that positively or negatively affected that implementation, in light of the framework and literature issues discussed in the above sections.

#### 5.1 Development and use of the BSC in Case Study 1: enabling factors

The case study 1 in 2008 set up an implementation project to develop a BSC system to manage its performances. This organization is totally owned by three local municipality and, through a service level agreement (SLA), it provides welfare services to the community.

The BSC was implemented through the setting of a BSC-group, composed by the general director, the top-management and the controller. After the implementation phase, the BSC system was communicated, discussed and revised, in order to analyze and understand the modes and implications of using this new strategic performance management system.

The measures, in particular, were proposed by the controller and the general manager and then discussed with the rest of the organization, as well as the board of directors. The state aim was to deploy a PMS, communicate the strategy and performance to the stakeholders, and to enhance strategic control at the case organization. BSC, as a PMS, was considered as an agent of change for the whole organization:

"We are between the request of our stakeholders and the needs of the community as a whole. I need the organization to put strategy in every action and decision, so that everyone is in charge. I believe the BSC can support us in doing so" (General manager)

The satisfaction of the stakeholder and the community was set at the top of the strategic map of the case organization, together with the networking with the other institutions (public and private) operating in the welfare services. This is not surprising, as well as finding important financial strategic aims, like to achieve a budget balance, to increase productivity, to revise the revenue system and develop public-private-partnerships (PPPs).

In a public sector context this two first strategic perspectives are often in contrast, or better, the financial perspectives represent the constraints towards the achievement of the community perspectives. The cause-and-effect links need to be read in a negative correlation:

"our shareholders and stakeholders ask for more services and more quality, while on the other side we are not allowed to raise the revenues, or worst we asked to cut the spending. Every year the 'mission' is doing more with less. This is challenging but also frustrating. This is the reason we need to have a focused strategy and to maximize our results" (General manager).

The official documents gave emphasis on the need to rationalize the services and the activity, trying to fulfill the contractual obligations, and the institutional role played.

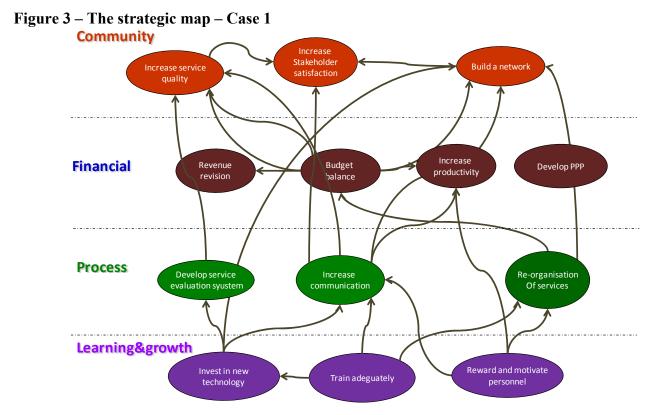
In doing so, processes and people were put at the base of the strategy of the case organization. New technologies, training and a new reward systems represented an important lever for the deployment of the strategy.

The strategic map (Figure 3) was build and created by the BSC project team. During the discussions, the cause-and-effect links were put under question, since some members of the team did not agree. In particular, some links needed to be considered conceptual, but not with immediate practical consequences. In the strategy of the case organization, the reorganization of the services was logically linked to the development of PPP, and the latter would have widened the network of actors in the field. However, no mathematical cause-and-effect links could be created with the measures chosen, but only conceptual and with also high uncertainty on the extent of the relations (Nørreklit, 2000):

"It is difficult to me to find the relations among the perspectives of the balanced scorecard. Take the objective to train the personnel. In the short term that implies an increase of expenses, but when and to what extent that will impact on the increase of the quality of services or the productivity, I cannot say, nor measure it. At the end of the day, it is like a guess" (Financial manager).

The BSC project team played a crucial role in identifying, communicating and discussing the measures adopted. The original purpose of the team was to build the measure, but during the implementation phase it acquired a key role in facilitating learning. The team organized quarterly meetings with also the middle management throughout 2009 and 2010. The aims of the meeting were do discuss the results of the measures and their implications, both in terms of strategy and in terms of plans and actions. As such, the BSC project meetings served as an

important purpose by providing a unique setting to reflect about BSC and its consequence. By the end of the 2009, it was perceived that the measures and key performance plan needed to be revised a made more aligned with the actual strategy. That led the case organization, in 2010, to a revision of the set of measures and their cause-and-effect relation



The management group's quarterly meeting were used to study the results of the BSC scorecard measures and their implication within a larger group of manager. The BSC reports were distributed to all cost centers, providing a means for continuous strategic discourse also within the top management. The emphasis during the meetings with all the managers was on the results and their implications. In that occasion, the role of the controller was central, since he was usually responsible for presenting the results of the BSC.

Within each cost centers, the manager was in charge to discuss his/her own measure and in particular when negative variances were highlighted by the systems.

The eventual problem of untimely and unclear mechanism to update measures in the scorecard was resolved by including the process of revision and analysis of the BSC to the formal annual control cycle of the Case 1 organization. As a consequence, any change in the measures needs to wait the moment of revision of the strategy, normally carried out in September/October. Measures were linked, thus, to the key success factor (Table 1).

At the organizational level, the case organization adopted a decentralized approach with an interactive decisional process. The line managers, as well as the rest of the personnel were given higher degree of autonomy and responsibility. The decisional process was primarily bottom-up.

The managers were involved in the definition of the annual strategy, during meeting in which previous year results, environmental conditions and prospects were analyzed. One of the effort made was to link the strategy and plans within the BSC. In particular, the plans of actions were focused and analyzed in depth in order to choose those the closest to the strategy and BSC measures:

"It is a real challenge, to learn how to plan coherently with the strategy and find the appropriate measure to evaluate the results. We still have a lot to do and learn, but I believe that's the direction for the future" (Manager, 1).

Once the measures were set, the target needed to be defined. Also in this situation, the general approach was bottom-up, with a first proposal by the manager evaluated by the controller and the general manager. The target were initially set at an affordable level, they were not stretch target. Suffice to say that in the two year of analysis, the cases of negative performance by the managers were rare and limited.

The reward and incentive system was linked to the BSC performances, as well as individual performances in terms of behavior. The measures adopted were not discretionary and allowed little subjectivity. The reward system involved all level of the organizational structure. Interestingly, the pay for results for managers were set at the same amount of the rest of the personnel.

The information flows of the result of the PMS were quite diffuse along the organization. The control reports were sent to all cost units, so that everyone could see the overall performance of the organization and not just his/hers. The reporting process, however, was hindered by the lack of a sophisticated information system and most of the report was prepared in spreadsheet or powerpoint and sent as pdf file. This situation limited the frequency of the feed-back on plans and other performance, that were limited to every quarter. Another limitation of the information system was represented by the un-even distribution of the data. Some cost centers had at their disposal abundant information about their performances, while in other cost centers the information was limited to financial data or quantitative data. This was related to the different nature of the services delivered. Some of them are more standardized and easier to measure in terms of performance, while other services need to be customized and with a

high level of uncertainty over the positive outcome (i.e. social care for abused women or children).

The context found in the case organization can be labeled as characterized by an instrumental rationality. The analysis showed a high level of specificity about the ends to be achieved and also a rather clear specification of the ends to pursue. Indeed, most of the measure adopted in the BSC came or pre-existed the formalization of the strategy and plans. Most of them derive by regulatory documents from other institution were the minimum standard of performance of social services are set (in Italy by the regional government), but also by the SLA that regulates the financing system between the organization and the municipality.

The use and type of PMS that can be configured in the case can be considered transactional and used diagnostically. Transactional PMS, indeed, are often organized as projects, with requirements linked to contracts over a period of time. In some sense, that's one of the main use of the PMS, although the information about performance was used also interactively in order to intervene in the operations and to modify the strategy and plans. The interactive use of BSC to revise strategy and action was, however, considered a complication of the system. The annual revision of the strategy was considered cumbersome, but also complex to manage in terms of information, communication and reward systems. That emerge particularly during the second year of implementation:

"the revision of the strategy every year, but also during the year due to some environmental change, is not simple to handle. I would need more flexible and sophisticated information systems. The workload to update the system is heavy and that impacts on the timeliness. In

that sense, I find the BSC a bit too rigid to adapt to our dynamic environment" (Controller) Indeed, the context of social care, in Italy as well as abroad, is changing given the evolution of societal needs, as well as, the role of the State in delivering the required services. The changing institutional setting affecting social care in Italy, required the BSC to evolve with the new information needs, but also with the new contractual, transactional needs. New measures, new key performance factors are then included into the BSC.

As for the accountability means involved in the context of the Case 1, the contractual relation, through SLA, between the Case-organization and the third party, money was the main medium. Despite the political rhetoric on the need to increase the quality and effectiveness of the social services provided, the accountability was mainly financial:

"The performance measures that we now measure with the BSC are not considered in the financing formula of the SLA. To the third party we are accountable on how much money

we spend, more than how well we are providing the service. This is disappointing" (Social care manager).

#### Table 1- Case study 1 through the PMSs frame work adopted 1. Vision and Mission To move towards an organization organized in three integrated area: residential care, home-based care and economic-social integration To create a network of services with other public and private partner in the market area • To govern and control the social needs of the community 2. Key success factors To increase the quality of services To increase the number of actors in the network • To reduce waste and inefficiency To invest in training and technology **3. Organization structure** Moving towards a flat and decentralized structure Increase the level of autonomy and responsibility of managers Top-down and bottom-up approached adopted 4. Strategies and plans To move towards a more pro-active strategy Strategies and plans formally communicated Involvement of managers in defining plans and means-end relationship 5. Key performance measures KPMs were formally defined and linked to the strategy 6. Target setting Targets were normally proposed by the managers but mediated by the general manager and the controller Some degree of participation of managers Targets set at achievable levels 7. Performance evaluation A formalized and institutionalized process driven by human resources guidelines Reliance on both objective and subjective performance evaluation 8. Reward system Financial incentives were present and linked to the individual performance Managerial discretion was limited in the awarding incentives to subordinates All managers and employees were eligible to incentives but with three levels 9. Information flows, systems and networks Control systems were addressed to the different needs of managers at different level. Limited use of IT technologies, diffuse use of spreadsheet or ppt presentation Short-term feed-back information on plan and budget was provided as well as some feed-forward information Strategic and horizontal information available was abundant in some area, and scarce in others 9b Models of rationality and type of PMS Instrumental rationality Transactional • 10. PMSs use Large use of control mechanisms used mainly diagnostically, and sometimes interactively

#### 10b Accountability Medium

• Explicit financial transfers and accountability requirements

#### 11. PMSs change

- The on-going process of reform in social care required the BSC to evolve with the new information needs
- Revision and development of KPIs

#### **13. Strength and coherence**

• Low level of interactive use of BSC

•	Low timeliness of the BSC feedback and feed-forward
•	Apparent inconsistencies between the KSFs and the KPMs.
•	Performance management system appeared to be reasonably well conceived and efficient

Overall, the PMS in case 1 reveal an inner coherence among the different elements that constitutes its context and the organization. This allowed overall acceptance and usefulness of the BSC as PMS. The performance management system appeared to be reasonably well conceived and efficient

However, some weaknesses need to be highlighted. First of all, given the transactional nature, the use of the measure in an interactive form was limited. This may be linked with the low level of development of the information system which did not allow to produce more timely report and analysis.

## 5.2 The development and use of the BSC in Case Study 2: hindering factors

The organization case 2 started the conceptualization of the need for a renovated PMS, based on BSC, at the end of 2007, when a new General manager and a new Controller entered the organizations, respectively in 2006 and 2007.

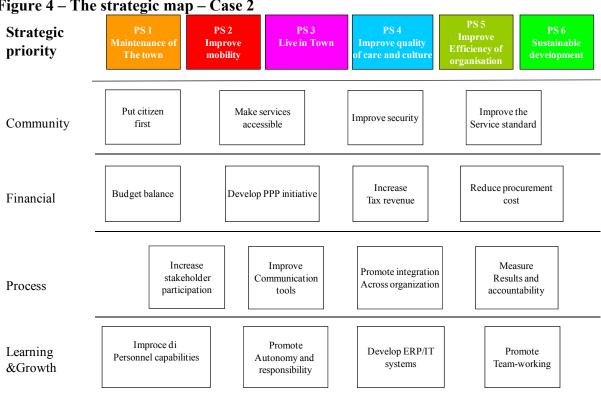
The process of designing and implementing the BSC started in 2008 with the creation of a steering group, composed by the Controller, the General Manager and the top-management (5). The first activity carried out was the formalization and description of the overall strategy of the organization. Case study 2 is a local authority, whose institutional role given by the Italian Constitution is to guarantee the economic and social development of the community. That is too wide to represent a strategy.

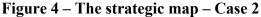
The steering group during a couple of meetings came out with a set of strategic priority, each representing a specific area of intervention with the plans and actions to be defined. The case study 2 did not pursue a communication strategy within the organization. The personnel was involved in a limited way in the process of discussion and nor the strategy map, nor the scorecards were communicated down to the organizational structure. The strategy map is represented in Figure 4.

Two of the most intriguing findings in our case study relate to normative prescriptions that are commonly associated with the use of non-financial measures in such systems as the Balanced Scorecard, namely: the ex ante cause-and-effect verification; and the tight connections to managerial bonus systems. In case study 2 neither of these prescriptions held which could be explained by the bottom-up development process and interactive use of the measures.

First, the connection between different measurement perspectives and two specific cause-andeffect relationship paths were not tested before the system was implemented. These relationships were based solely on managerial reasoning. But, ambiguity concerning the balance between different non-financial measures and the links between non-financial and financial measures was not considered to be a measurement problem per se. Rather, this was exactly the reason for using a balanced performance measurement system -i.e. to learn about potential cause-and-effect relationships, and the relative importance of different measures. In the word of one manager:

"to me is both rather impossible and useless trying to create a cause-effect relation among the key performance areas. Impossible, since the complexity of the dynamics involved in the management of municipality services is so variable I cannot define what exactly cause what, on the other hand, I don't see the utility for my decisions and my work".





Second, target setting was perceived as a challenge, since for many key performance area there was no data and information and on other the variable were also affected by external factors, like legislation, budget cuts from the government, and so on.

For these reasons, at the moment of writing, the KPA in the strategic map don't have a causeeffect relation, as well as no key performance indicators associated.

The steering group came with the definition in 2008 of both the Vision/Mission and the KSF of the organization. As synthesized in table 2, they appear broad and in line of what a local authority is expected to aim to. The clarity and straightforwardness of the strategic priority was in contrast with some elements of the organizational structure.

Despite the high level of formalization, the managers' responsibility and performance objectives were not clearly defined. That made difficult to create a sense of paternity of the strategy of the organization as a whole.

That's may be linked also for the high level of centralization of the organizational structure, with low autonomy devoted to middle managers and the rest of the personnel. The decisional process was top-down, dominated by top management and with limited or no discussion on the what and whys.

The strategy and its formalization was not diffusely communicated downward the organizational structure. It remained at the top manager and middle managers level. Each year, then, the set of strategic initiatives were formalized and the performance indicators associated to them. However, at the moment of writing the KPI are in the way to be defined and formalized.

As said, every initiative given to a manager had a performance indicator whose target is normally proposed by the manager with limited or no negotiation. The result was the fixation of easily reachable targets, with most, if not all, managers reaching their yearly performance.

The performance evaluation and the reward system is managed by the human resource unit. The reward system adopts mainly objective measures and financial type of rewards. Besides, it used only individual performances and not organizational or group ones.

The little formalization of the performance measures and assessment process is coherent with the models of rationality that can be found in the case 2. Indeed, the rationality can be labeled mainly as practical where the means are both mental and physical and the end is the human physical control of the world (Broadbent and Laughlin, 2009; p. 289). In such cultural endeavors, the authority structure tend to mould the PMS as relational. In a relational PMS the ends and means are subject to a discourse between the stakeholders involved and chosen by them. Given the nature of the organization (local authority) and the many stakeholders involved in its action, it is not surprising to observe the difficulties in Case 2 in detecting and choosing the key performance indicators, as well as the KPA.

During the second part of 2009, the general director and the steering committee started an internal reflection on the opportunity to keep the BSC, or to abandon it. The latter was chosen justified in the following manner:

"We made some implementation errors, as well as the internal environment of the municipality was not coherent and ready for a BSC methodology which resulted impossible to implement and with limited benefits. Our organizational structure, the reward system they could not fit with the BSC. We need to rethink to a system more coherent with our external and internal context" (General Director)

J. 2 dharaach dha DMCa Ca .....

	e 2- Case study 2 through the PMSs frame work adopted
1. Visi	on and Mission
•	To move towards a more flexible and citizen oriented organization
•	To guarantee high level of quality of life for the citizenships, and tourists
•	To guarantee the rights and prospects of future generation
2. Key	v success factors
•	To provide a quality public services
•	To increase citizen's satisfaction
•	To enhance the socio-economic development of the community
•	To increase the efficiency and productivity of the services
3. Org	anization structure
•	Manager's responsibility not clearly defined, with a wide hierarchical structure
•	High level of formalization, centralization and structure in processes
•	Organization structure supported a top-down strategic process, dominated by senior managers and assisted by external consultants
4. Stra	ategies and plans
•	Strategic orientation defined by the senior managers with limited co-ordinations and formalization
•	Limited degree of delegation to first line managers in setting objectives and means-end relationship
•	Strategy and plans formally communicated, mainly externally
•	Limited degree of correlation between the strategies and plans and the resource allocation process
5. Key	performance measures
•	The formal structure of performance measure was on the process of being explicitly defined and linked
	to strategy
6. Tar	get setting
•	Targets generally set by managers
•	Targets were set a very achievable level
•	Negotiation of budget and plans at high and lower levels created budgetary slacks
7. Per	formance evaluation
•	A formalized and institutionalized process driven by human resources guidelines
•	Limited level of differentiation on performance evaluation
8. Rev	vard system
•	Financial rewards was rewarded to all managers and employees
•	Limited link to the actual individual or organization al performance
•	Only objectives measures were used
9. Info	ormation flows, systems and networks
•	Control system not build to address the needs of managers at different level
•	The information system was not centralized, but local information systems existed not integrated
•	Limited feed-back information was present and used
•	No feed-forward information was observed
•	Strategic and horizontal information available throughout the organization was scarce or absent
•	Information largely dominated by operational matters
9b Mo	dels of rationality
•	Practical rationality
•	Relational
10. PN	1Ss use
•	Limited use of control mechanisms used diagnostically
•	Scarce or absent use of PMS interactively, creating imbalances between the positive and negative
L	

forces within the control system		
10b Accountability Medium		
<ul> <li>Implicit financial transfers and accountability requirements</li> </ul>		
11. PMSs change		
• The BSC went through a reflexive process of change toward its abandonment and a less		
complicated PMS		
12. Strength and coherence		
<ul> <li>Imbalances between the positive and the negative forces within the control systems</li> </ul>		
• Disconnect between performance evaluation, resource allocation and rewards		
Absent level of interactive use of PMS		
• Apparent inconsistencies between key objectives, organization structure and culture		

In the case study, the development of the BSC was not completely smooth and problem-free. Even though one of the purpose of the PMS was to leverage managers' understanding of strategic issues, the practical impact was constrained because the measures were not systematically communicated and integrated to the performance measurement and reward systems at all organizational levels. In other words, the strategy was not enforced at the operative level.

There was also resistance to change. Some resistance of the BSC in the case organization also reflected in the lower level managers' reluctance to report the required figures. Top managers of Case 1 decided not to locate the reporting responsibility solely with the finance department, because they believed that by forcing managers to collect the data those managers would get familiar with the measures and learn to use and interpret them. Such an approach did, however, increase the tasks of busy managers. In addition, some managers' reluctance to do the reporting added to the workload of controllers who needed to constantly remind the managers to submit the information so that they could prepare the BSC reports

## 5.3 Discussion

In this paper, we tried to account for two case-studies on their definition, implementation and management of a PMS, based on a BSC technology. The analysis searched for a possible identification and discussion of the factors that hindered/ fostered the application. It was conducted through the conceptual framework developed by Ferreira & Otley (2009) and integrated by two more elements proposed by Braodbent and Laughlin (2009).

The discussion of the two case-studies reveals both some common elements and many differences. To entangle the comparison we tried to systematize it in Figure 4.

Ferreira & Otley recognize the influence of contextual factors on the development, nature and use of any PMS through the questions from 9 to 12: they address to the information system the issues tied to the perception of both the environmental and internal dynamics.

Beginning with those questions, the comparison of the two case-studies stress that the information flows remained at a very high hierarchical level in Case 2 rather than in Case 1. Those flows were limited or with no feedback throughout the organization and the PMS was used by the higher levels only in a diagnostic way in Case 2. Differently from Case 1, the measure and structure of the BSC implemented in Case 2 was not revised in the period of analysis.

Broadbent and Laughlin (2009) add to the Ferreira & Otley's model the element of rationality: it refers to the scheme used as a filter in conceptualizing the relationship between the PMS and the organization and sub-organizational units the PMS is intended to control.

The analysis of the model of rationality may help in trying to understand the relations between the context and the organization. As described in the previous section, in Case 2 it is possible to envisage a communicative rationality. In that sense, the definition of performance derives from a debate between the organization and the stakeholders, leading to an agreed definition of the ends and how to measure them. Performance indicators, thus, cannot be predetermined and the results are discursively defined (Broadbent and Laughlin, 2009). As a result, the performance indicators will tend to be more qualitative than quantitative.

The previous individual analysis of the two cases showed how Case 1 can be rather ascribed to an instrumental rationality. In other terms, the use of PMS in Case 1 seems to be addressed to a precise choice of organizational alignment to the agreed ends. The definition of performance is based on a rational and focused choice, largely discussed within the organization. The element of organizational discussion is not intended to negotiate different "visions" but it helped the definition of the more coherent and measurable performance indicators, that in turn were translated in a quantitative way.

In order to understand the concealed functional issues of a PMS, Ferreira & Otley suggest to address the questions from 1 to 8 of their model. They undermine how each organization defines and links means to ends, starting from its own vision and mission.

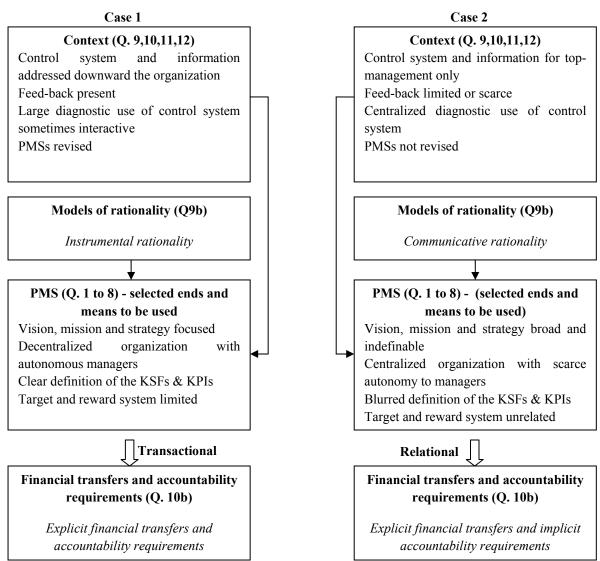
The analysis showed that in Case 2 the vision/mission and the strategy were very broad and difficult to define. In turn, that created a difficulty in associating them to a rational predefined set of key measures. It is said that vision and mission are concerned with: moving the organization towards a flexible and citizens' oriented approach, guaranteeing a high level of quality of life for the citizenship and guaranteeing the rights and prospects for future generations.

On the other hand, in Case 1 the mission and vision were formulated as: moving towards an organization structured in three areas (defined as residential care, home-based care and

economic-social integration), creating a network of services in those areas with private partners and monitoring the social needs of the community.

The different broadness of the two Cases' focus makes not surprising the understanding of the difficulties encountered in the construction of the KPIs, in Case 2.

Furthermore, even if both the Cases encountered difficulties in shaping an appropriate and coherent reward system, Case 2 was not at all able to link the PMS with the reward system. The latter was not affected by the introduction of BSC as the targets proposed by the managers in the step of performance definition were at a very reachable levels.



## Figure 5 – The case-study comparison

In Case 1 the attempt to link financial incentives with a previous performances definition (indicators and challenging targets) was present but it was left to the managerial discretion in

awarding the subordinates and it suffered from the creation of individual links rather than organizational areas links.

Broadbent and Laughlin (2009) add a final element of reflection on the Otley & Ferreira's model: the financial transfers and the accountability requirements. In order to verify the whole coherence in the PMS design, they ask to verify for the sources of financing and what their owners require to the organization (external accountability). They further ask to verify the coherence between the internal financial rewards and the agreed organizational ends.

In the two Cases, the external accountability acts towards both the social community of reference and the institutional issues of their respective higher public authorities.

The internal accountability is bounded by the institutional obligations in terms of salaries and weight of the financial rewards on the attainment of a performance target.

In Case 2 the financial transfers (from the higher public authorities to the organization analyzed) are explicit, due also to the public sector obligations. However, the adopted accountability requirements tended to be implicit.

In Case 2 the sub-organizational units received explicit financial transfers (internal accountability) to achieve the stated aims, although the drivers of transfer were not linked to the PMS, so as the definition of the performance indicators.

Opposite, in Case 1 the external accountability was linked to the internal accountability assuring that the definition of the performance indicators followed an explicit and shared discussion on how to reach both the institutional requirements and the social needs through the internal effort.

The comparison of the two Cases, till now has pointed out how the implementation of a BSC device would be affected by an incoherent interpretation of a PMS.

The use of the Ferreira & Otley's framework (as integrated by Laughlin & Broadbent) has provided some elements of potential successful/ unsuccessful implementation of the BSC in the two Cases. We need to remind that in both Cases the BSC was intended as a first step in the definition of a performance measurement system.

The empirical results evidenced that in Case 2 the contingent assumptions for a correct BSC implementation were undermined by the difficulty to identify a mission/ vision of the organization and to link the performance to both internal or external accountability.

On the contrary, Case 1 could benefit from a deeper and more focused definition of the mission/ vision, that in turn allowed a more coherent definition of the possible performance indicators and targets. It seems that Case 1 was able to trace back its PMS to a defined area of reflection on the means to ends relationships and economical rationality, while the boundaries

of that area remained blurred for Case 2 and they affected ex-ante the potential of a following reflection.

The specific BSC device requires to extend the compared discussion of the two Cases to the theoretical criteria of commitment, perceived commitment, time and step of implementation, communication, revision and type of measures.

In both the Cases the commitment to the BSC implementation was the same, as tied to law requirements and to a precise choice to orient the performance evaluation system to a prototype of scorecard. In this instrumental conception of the BSC the time and step for the implementation were planned in a very similar way.

The previous discussion has already pointed out the meaning assigned to the measures, thus the different type of measures adopted in the two Cases (qualitative in Case 2 versus quantitative in Case 1).

What further differs between the Cases regards the perceived commitment and the internal communication. The individual analysis of Case 1 and Case 2 stressed that the internal communication did not reach all the organizational levels in Case 2 and it generated misinterpretation of both the BSC scope and the performance measures definition. The managers themselves did not feel committed to reason on a tool that perceived "far" from the institutional aims of their organization. We could not verify if the latter element was tied to a possible fear towards the misuse of the specific tool or to an intrinsic corporate culture.

Opposite, in Case 1 the internal communication supported the knowing and understanding of the potential of the BSC at the different levels that were in turn involved in the broader reflection about the performance indicators. Despite the doubts around the means-ends relationships, the perceived commitment towards the BSC implementation conducted to a refinement of the economical logics through various revisions and it was translated in challenging and shared performance indicators.

## 6. Some final remarks

The paper has supported with an empirical analysis a reflection around the conceptual model of Performance Management Systems developed Ferreira & Otley (2005, 2009) and integrated by Broadbent and Laughlin (2009).

The empirical data refers to two case-studies of application of BSC, in the public sector.

The working paper version of the PMSs framework (i.e. Ferreira and Otley, 2005) attracted considerable interest from academics, who dealt with its featuring in a number of studies

(Berry et al., 2009; Broadbent and Laughlin, 2007; Collier, 2005; Merchant and Otley, 2007; Otley, 2008)

A PMS, in a generic sense, is a control framework which attempts to ensure that certain ends are achieved through the suitable means The Ferreira & Otley's (2005, 2009) model suggests a series of questions in order to guarantee such a coherence. Broadbent & Laughlin (2009) extended the model in order to emphasize the contextual factors that mould the nature of any PMS.

According to Ferreira & Otley's scope, the present analysis used the theoretical framework as an hermeneutic device, in a 'middle-range' sense (cfr. Laughlin, 1995), for applying the two cases. Whilst the exact nature of any PMS is dependent on empirical explanations, the conceptual model developed in this paper provides a language to direct this explanation. The 'middle range' conceptual model cannot predict the exact configuration of any empirical PMS but it provides important elements of consideration to its design.

The two cases were involved in a process of Balanced Scorecard implementation, as a first step for a comprehensive PMS introduction.

In that sense, while the Ferreira & Otley's framework was useful to untangle the different elements that needs to be taken into account in order to design and implement any PMS, it does not suffice when the implementation relates to a specific methodological and technological tool, such as the BSC.

The literature on the BSC identifies some pre-conditions for a successful BSC introduction and use, that can be linked to a reflection on both a PM system and a suitable commitment, communication and timing of the tool

The longitudinal analysis of the two cases (through interviews and direct participation of the researcher) demonstrated the need to address a conceptual integration between the more general framework related to PMS and the implementation/ use of a BSC.

That conceptualization provided a way to gain both a richer understanding of practices and a critique of these practices by raising alternatives.

The aim of the work was addressed to identify the possible reasons for successful or unsuccessful BSC design and implementation in two public organizations.

The empirical results highlight that a pre-condition for the implementation of a managerial tool, like the BSC, is a reflection on the rational boundaries of the implementation area.

Despite its non-financial potential, the intrinsic relationships means to ends enquires the organization about which parts of it can be sufficiently bounded from the external/ internal inconsistencies to allow the BSC application.

The analysis further evidenced the role played by some "soft" elements (perceived commitment, communication, choice of the organizational levels to involve, ...) in order to foster the ex-ante efficiency/ rational motivations of a BSC system.

The results add to the extant literature on the BSC from a qualitative point of view, as they offer a comparison, of a process of BSC implementation in two cases, in terms of historical evolution.

The relevance of the two cases is emphasized by the use of the taped perceptions of the organizational actors who were involved in the process.

The contrasting evidences of the two cases, despite the similar premises, stress the emergence of unintended consequences or scarce organizational criticism on the application of a managerial tool.

The analysis opens to the development of further research on the role of context and culture in both the development of PMSs and their reciprocal influence.

The research contributes to the empirical context showing the importance to go beyond the technical and efficient-lead vision of performance measures, within the NPM reforms. It helps practitioners, movers and public authorities to address considerations on the means to ends relationships within the beneath organizations and on the impact of the purposed reforms on the accountability relations among the multiple stakeholders involved.

The results apply to the need to focus additional factors which can explain the developing of discontinuous or incremental change processes and the gap between declared purposes, actual effects and their the impact of incremental and discontinuous accounting changes on the organization.

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#### Appendix A – The 12 questions of the Ferreira and Otley's model (2009)

These questions proposed by the Authors are (see also the following figure):

- 1. What is the vision and mission of the organization and through what mechanisms and processes the attention of the middle line and operating core of the organization is oriented?
- 2. What are the critical key factors for the future success of the organization and how they are brought to the attention of the middle line and operating core of the organization?
- 3. How the organizational structure impacts on the design and use of possible management systems and performance measurement? And how the structure influences and is influenced by the decision-making process of the strategic objectives?
- 4. What strategies and plans were adopted by the organization and what activities have been implemented to ensure the proper achievement of these strategies and plans? How were they communicated? What is their role in relation to possible management and performance measurement? Is there any significant omissions on this?
- 5. What are the measures concerning the key success factors, the strategies and plans? Were these specified and communicated? And what role do they play respect to the measurement of performance? Are there sign significant omissions on?
- 6. Which and how many levels of performance must be defined by the organization for ensure the proper achievement of strategic objectives and plan? Whether and how they were defined the targets of performance, and how are there challenging for the organization?
- 7. What processes are followed by the organization to evaluate individual, team and organization performance? Are the evaluations of performance primarily objective, subjective, both objective and subjective? And how important the information and formal and informal controls in these processes?
- 8. What type of reward (or penalty) would be established to the middle line and to the operating core of the organization in case of achievement of performance targets or other aspects of pre-defined performance?
- 9. What specific information flows, systems and networks have been implemented by the organization to support the management and performance measurement?
- 10. How the information flows or other control mechanisms are used in the current state? Such use is formalized in typological literature? How to change the use / control mechanisms at different hierarchical levels of the organization?
- 11. The design/implementation or revision of the management systems and performance measurement are liable to alter the dynamics of the relationship between the organization and its environment of reference? Any revision of the management systems and performance measurement have been provided with a pro-active or reactive view?
- 12. How strong and consistent are the links between components of the management systems, the performance measurement and the way which, they are used?

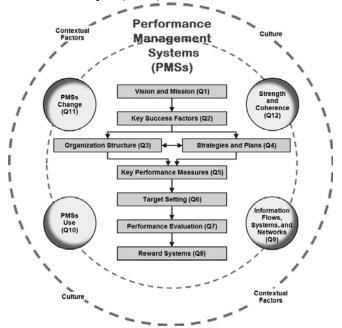


Figure 6– Ferreira and Otley's (2009) model of Performance Management Systems