

Twenty years of debate on how to adapt the balanced scorecard to the public sector

عشرون عاما من النقاش حول كيفية تكيف لوحة القيادة الاستشرافية في القطاع العام

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Abstract: This paper seeks to make an inventory of significant research on the balanced scorecard, with a focus on the public sector. Our aim is to analyze the different debates on it. Based on this art state, theoretical proposals on the problems addressed by researchers are presented and an analysis of these proposals is carried out. After twenty years of its adaptation in the public organizations, they still find difficulties in its application since these designers have not proposed the avenues of improvement to overcome them. Furthermore, the balanced scorecard is a controversial subject, which raises several questions in academic research.

Keywords: Balanced scorecard; Public sector; Performance; Literature review.

Résumé : Cet article est un état des lieux des recherches marquantes sur le tableau de bord prospectif, en se focalisant sur le secteur public. L'objectif est d'analyser les débats effectués à son sujet où des propositions théoriques sur les problèmes abordés par les chercheurs sont exposées, ainsi qu'une analyse de ces propositions est réalisée. Après vingt ans de son adaptation aux organisations publiques, elles trouvent toujours des difficultés dans son application, vu que ces concepteurs n'ont pas proposé des pistes pour les surmonter. Le tableau de bord prospectif constitue un sujet de controverse, qui suscite plusieurs interrogations dans les recherches académiques.

Mots-clés : Tableau de bord prospectif ; Secteur public; Performance ; Revue de la littérature.

ملخص: يهدف هذا المقال إلى إجراء مسح للأبحاث الرائدة حول موضوع لوحة القيادة الاستشرافية مع التركيز على القطاع العام ، بحيث سيتم تحليل مختلف آراء الباحثين والمفكرين التي تتمحور حول هذا الموضوع. كما سنقوم بتقديم مقترحات نظرية حول المشكلات التي تم تناولها من قبل الباحثين مع إجراء قراءة وتحليل لهذه المقترحات. وبعد عشرين عاما من استخدامها وتكييفها مع خصائص المنظمات العامة، نجد أن هذه الأخيرة لا تزال تجد صعوبات في تطبيقها لأن مصممو هذه الأداة لم يقترحوا سبل للتغلب على هذه الصعوبات. كما تعتبر لوحة القيادة الاستشرافية موضوعا مثيرا للجدل مما أثار ولا يزال يثير العديد من الأسئلة في البحث الأكاديمي.

الكلمات المفتاح : لوحة القيادة الاستشرافية؛ القطاع العام غير الهادف للربح؛ الأداء؛ مراجعة الأدبيات.

I- Introduction :

The balanced scorecard is a tool that appeared in the early 1990s in the writings of Kaplan and Norton, and which arose out of the questioning of performance evaluation systems based essentially on monitoring financial results, but this instrument quickly transformed into a management system making it possible to explain, communicate and implement strategy. In fact, the balanced Scorecard combines financial metrics with non-financial metrics, all of which related to the organization's overall performance through cause and effect relationships. These designers

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describe the balanced scorecard as a universal instrument, given the growth it has experienced in several sectors of activities and in many countries, as well as the speed at which the method continues to spread and was even accepted and adopted by public non-profit organizations towards the end of the 1990s, despite their particularism.

Taking into account the specificities of the public sphere, we will try to answer the following issues: **What are the questions about the balanced scorecard that deserve further investigations?** The following sub-questions arise from this issue:

- Is the balanced scorecard a strategic alignment tool or a lever for emerging strategies' formation?
- Does the balanced scorecard enable public organization to achieve strategic excellence?
- Which structure is the most adapted to the specificities of non-profit public organizations?
- How many indicators must the balanced scorecard contain?
- How should public organizations proceed in implementing the balanced scorecard?
- What are the contingency factors that have an impact on the balanced scorecard?

The present paper is a review of the literature on the balanced Scorecard in a comprehensive manner, while focusing our study on the particularities of the public sector. We aim to compare the different points of the authors view on this tool regarding its design, its implementation and the contingency factors that influence it. The objective of this work is to synthesize the literature of the twenty years since its approval by the public sector to highlight the themes that constitute controversies among researchers.

This paper is divided in three important parts where we are going to introduce the different researchers' views on the balanced scorecard in general and in public sector in particular. The first part addresses the several approaches about the balanced scorecard conception and the second deals with its implementation. The last part suggests a synthesis of the different theoretical propositions.

Academic writings were initially normative and descriptive, then became more analytical and precise and now rely on quantitative ((Ittner & *al.*, 1998, 2003; Youngblood & Collins, 2003...) and qualitative studies (Atkinson & *al.*, 2000 ; Norreklit, 2000 ; Lorino, 2001 ; Bourguignon & *al.*, 2002 ; Mouritsen & *al.*, 2002 ...), but the most studies focus in non-profit sector have been on normative proposals on how-to-do level and some single organization descriptions of experiences these organizations had with the balanced scorecard. Furthermore, literature reviews exist with an industry focus, including, e.g. non-profit university, hospitals ... or on a public institution (ministry, community...).

Among the studies that are interested in its design and implementation in non-profit sector (Ching – Chow, Lai – Yu & Chih – Wei, 2005; Greatbanks & Tapp, 2007; Benzerafa, 2007; Greiling, 2010; Zan Zangouein – Ezhad & Moshabaki, 2011; Mendes, 2012;...), we mention:

- **Study of (Greatbanks & Tapp (2007); “The impact of balanced scorecards in a public sector environment: Empirical evidence from Dunedin City Council, New Zealand”):** This study seeks to consider the impact of implementing and using the balanced scorecard within a public service city council environment. It adopts the case study approach based on interviews and documentation analysis to consider the impact of balanced scorecards in a public sector organization. The impact of balanced scorecards was evaluated at three levels: strategic planning, team management, and individual staff performance. This study found that the use of balanced scorecard enables employees to clearly appreciate their role and focus on the delivery of performance related measures which support organizational strategy.
- **Study of (Greiling (2011); balanced scorecard implementation in German non-profit organizations):** The purpose of this paper is to determine how to implement the balanced scorecard in German non – profit organizations. Empirical data are generated and the findings are interpreted based on a descriptive approach. This study concludes that the balanced scorecard

is often used as measurement tool and not as a management system. Moreover, its application in public organizations was not effective compared to private organizations.

Regarding the studies that conducted a literature review on the balanced scorecard, we mention:

- **Studies of (Choffel & Meyssonier (2005): dix ans de débat autour du balanced scorecard) and (Errami, Azegagh & Ahasni (2014); twenty years of balanced scorecard: questions still outstanding):** The first and second studies represent respectively a review of ten and twenty years of anglo-saxon literature on balanced scorecard. Their purpose is to see the evolution of this system performance management and which are the current debates about it. These studies concluded that the balanced scorecard is still a matter of controversy and continue to raise many question in academic research.

Through the different studies we analyzed, we have observed that they are interested to demonstrate how to ensure the successful of the balanced scorecard's implementation in several sectors or to make an inventory of significant researches on balanced scorecard especially those related to the private sector. We note that there is almost no research has conducted a literature review on the application of the balanced scorecard in public sector. Therefore, the added value of our study is to analyze different debates about the evolution of the balanced scorecard since twenty years of its adoption by public sector and which are the currents debates about it.

II- Conception of the balanced scorecard:

An important part of the debate about the balanced scorecard focuses on its relationship with strategy, also on the search for its ideal structure. We aim so to discuss the various researchers' visions on these two points, while exposing the specificities of the non-profit public sector.

II-1- The articulation between balanced scorecard and strategy

II-1-1- Strategy as a starting point

According to Kaplan and Norton, strategy provides general directions and priorities that will be translated into specific objectives, indicators and goals via the balanced scorecard and strategy map, enabling organizations to "ensure the cohesion and convergence of their management team, workforce, information technology and capital resources for the benefit of their strategy" (Kaplan & Norton, 2001, p. 09). The steps involved in developing and implementing the multidimensional tool must be preceded by strategy formulation. These designers therefore position the balanced scorecard downstream of the strategy design, based on the results of a study carried out by management consultants, who asserted that "the majority of cases (we estimated at 70%) ... the real problem isn't a bad strategy, but bad execution" (Kaplan & Norton, 2000, p. 01). The problem is related to the tools for measuring strategies have not kept pace with their environment, so, "these strategies didn't simply rely on cost reduction and downsizing; rather they required to manage a customer relationships, innovative products and services, high-quality and responsive operating processes, information's technology and databases, and employee capabilities, skills, and motivation" (Kaplan & Norton, 2000, p. 02). So, the balanced scorecard is presented by Kaplan and Norton as a method of deploying strategy, including financial and non-financial measurements, from the strategic top down to the operational units. So, the balanced scorecard is "a strategic alignment tool above all" (Choffel & Meyssonier, 2005).

II-1-2- The balanced scorecard as a basis for strategy formulation

In contrast to the approach proposed by Kaplan and Norton, several authors have proposed reversing the traditional relationship between strategy and control by exploring the possibility for

control to intervene upstream of the strategy implementation stage. Simons (1995) developed the idea that "management control can interfere in the process of strategy formation, which places it before the strategy deployment phase" (Choffel & Meyssonier, 2005, p. 64). Simon therefore shows how local actions can generate momentum and, through learning, come together into new strategies (Simons, 1995, p. 99). He refers to emerging strategies as described by Mintzberg. This concept "opens the way for learning, because it recognizes the right of the firm to experiment. Isolated action will be taken, spillovers will be observed, and the process will continue until the organization comes together on a model, which will become its strategy". (Mintzberg, Lampel & Ahlstrand, 1998, p. 198).

It is essential to mention that Kaplan and Norton recognized that new strategies can emerge within the organization by using the balanced scorecard as a lever of interactive control. They state that "some balanced scorecard applications have failed because organizations have only used it for diagnostic purposes and failed to reap the learning and innovation benefits of the interactive system" (Kaplan & Norton, 2001, p. 198). However, these two researchers favor the use the balanced scorecard as a diagnostic control tool, since according to them "the strategy and the balanced scorecard go hand in hand" (Niven, 2008, p. 147).

II-1-3- Strategy as a barrier to balanced scorecard conception in the non-profit public sector

According to Kaplan and Norton, the introduction of the balanced scorecard in public organizations faces six obstacles: "weak coordination, absence of vision, rigid incentive systems, lack of transparency and multiplicity of stakeholders" (Benzerafa, 2007, p. 100).

Therefore, we are going to highlight only the obstacle related to the absence of a long-term vision on the public organizations. This type of organizations often have difficulty clearly defining their strategy, where strategy usually translates into a list of programs and projects and not the results that the organization is trying to achieve .

Typically, balanced scorecard of the public organizations includes operational excellence themes. "These organizations view their mission as a data and try to do their work as efficiently as possible, reducing costs, recording fewer defects and getting the job done faster" (Kaplan & Norton, 2001, p. 142). Furthermore, it is rare to find a public organization that chooses a strategy based on customer or product superiority, but despite this, there are public organizations that have been able to define a clear strategy. From the above, we therefore have the followings proposals:

- Proposals related to the time dimension:

✓ **Proposal n°. 1A:** The balanced scorecard is a diagnostic control lever, which allows the implementation of a strategy determined upstream;

Versus

✓ **Proposal n°. 1B:** The balanced scorecard is a lever for formulating emerging strategies.

- Proposals related to the role of the strategy in the public balanced scorecard's conception

✓ **Proposal n°. 2A:** public organizations ensure their performance through the improvement of existing processes (operational excellence);

Versus

✓ **Proposal n°. 2B:** The balanced scorecard encourages public organizations to adopt a strategy and identify measurement indicators to ensure their performance (strategic excellence).

II-2- The structure of the balanced scorecard

II-2-1- The generic model of the Balanced Scorecard

Typically, Kaplan and Norton propose a generic management framework made up of four perspectives (finance, customers, internal process and learning & development), integrating

strategic objectives linked together by a causal chain. One or more measures are associated with each identified strategic objectives and each measure corresponds to one or more targets to be reached, the timeframe for reaching the planned target and the person (s) responsible (Jaulent & Quares, 2010, p. 12).

II-2-2- Modified balanced scorecard structures

Some private organizations have extended the generic model by incorporating other perspectives or by modifying their ranking according to their priorities. For example, the Nova Chemical Company uses the four generic perspectives and one additional, namely the social domain, in order to take into accounts the community (Jaulent & Quares, 2010, p. 14).

In the same context, several researchers have tried to adapt the generic structure of the balanced scorecard to certain organizations or projects that have specificities (Martissons & al, 1999; Abran & Buglione, 2003; Woodward & al, 2004; Calandro & Lane, 2006, ...).

- **Abran and Buglione (2003)** developed a study on the implementation of the Balanced Scorecard in information technology (IT) companies. They selected three perspectives (financial, customer and internal process) from the Kaplan and Norton model and adapted them to the IT context. In addition, they proposed to add the "Future" perspective and another perspective related to "People Development". As a result, the Balanced Scorecard developed by Abran and Buglione contains the following perspectives (Abran & Buglione, 2003, pp. 339-349):

- financial perspective;
- customer perspective ;
- personnel development perspective;
- internal process perspective ;
- future perspective.

- **Calandro and Lane (2006)** introduced a separate scorecard based on the four areas of the traditional balanced scorecard, where different types of risks are identified and categorized (e.g. Customer Risk Perspective: Portfolio % customers satisfied, number of customer complaints, Purchase frequency variance, Receivables' quality, Competition of new entrants, % share lost, Marketing Actual-to-Expected Revenue ...) (Michela, Azzone, & Giorgino, 2015, pp. 73-74), rather than the generic model that focuses on goal setting. It can, therefore, consider as a recent evolution of the balanced scorecard: the risk scorecard.

According to Jack Welch (ex-CEO of the General Electric Group), there are only three key perspectives that organizations need to worry about: cash flow, customer satisfaction and employee satisfaction. Other CEOs of large companies (HP, Motorola ...) have their own perspectives such as customer satisfaction, productivity and growth. (Gautreau & Kleiner, 2001, p. 155).

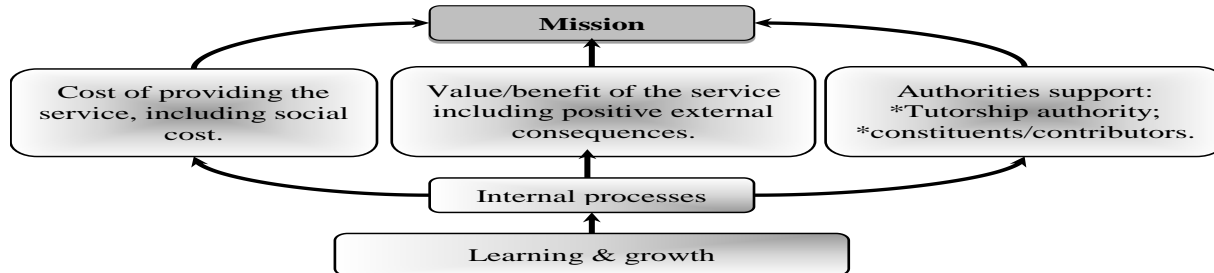
Also, multiple opinions have emerged calling for the need for organizations to contribute to sustainable development, which has led to the emergence of environmental and social performance. In this context, it was necessary to adapt the balanced scorecard for this development by adding other perspectives related to environmental and social metrics in order to achieve the overall performance of the organization. Many researchers have adopted this idea (Figges, 2002; Kolk & Mauser, 2002; Kaplan & Reisen De Pinho, 2007; Bulter & al, 2011 ...), where there have been several attempts to design a balanced scorecard that integrates the environmental and social aspect in its four perspectives, which is known as a sustainable balanced scorecard.

The majority of public organizations are finding difficulties with the initial balanced scorecard's structure, whose financial axis, which was placed at the top of this structure, is not the main objective of most of these organizations. In order to adapt the structure of the balanced scorecard to the specificities of non-profit public organizations, Kaplan and Norton presented the first scorecard for monitoring the performance of these organizations .

In this sense, the authors suggest that " the government and public sector should consider placing the long-term mission, such as reducing poverty, eliminating illiteracy, or improving the environment, as their top objective" (Yang, Cheng, & Yang, 2005, p. 289).

The crucial idea of this model is to reverse the order of the finance and client perspectives, since conventional financial indicators aren't the most appropriate measures for reporting on the achievement of the non-profit public organization's mission. Public organizations should place contributors and clients at the top of their balanced scorecard and use the client perspective to develop internal processes, and learning and growth perspectives to maximize their customer value (Yang, Cheng, & Yang, 2005, p. 289):

Figure (1). Balanced scorecard for public sector



The source: Kaplan, R., & Norton, D, (2001), how to use a balanced scorecard, Organizations editions, Paris, P: 146.

This model declines the financial perspective of the public organization into three objectives to achieve its mission: "to create value, at minimum cost, and to increase the ongoing support of its funding authority" (Kaplan & Norton, 2001, p. 145).

First, cost incurred or operational efficiency. This perspective includes the organization's expenditures and the social cost it imposes on citizens and other organizations through its actions.

Second, the value created, which defines the benefits created by the non-profit public organization for citizens. The two researchers point out that it is difficult to determine this value precisely due to the specificities of the public sector, and in particular "the complexity of measuring the impact of public action". They propose, therefore, that the value created should be appreciated by citizens and their elected representatives in relation to the costs incurred.

Third, the justification for support that reflects the relationship between the organization and its donors whose the organization must accomplish the objectives of its funding source.

Next, the organization must identify its internal process and learning and development objectives that will enable it to achieve these three overarching objectives.

From this analysis, we find that the authors consider the model to be composed of four perspectives where the mission corresponds to the client perspective and the top three objectives (perspective 2) corresponds to the financial dimension. However, the mission represents the reason of the public organization existence, and therefore cannot be considered as a perspective. Furthermore, assessing the value created only by the cost could lead to a total questioning of the public service, as there are other criteria that must be taken into account. In practice, public organizations prefer to design their own balanced scorecard according to their specificities, since the structure of the generic model adapted to the public sector doesn't fully meet their needs.

The May Institute, which is a public organization specializing in the treatment of behavioral disorders, has opted to place the client perspective at the top of balanced scorecard's priorities. Just behind the client perspective, the institute placed "learning and development" as "the quality of staff would have a strong impact on achieving their client goals" (Kaplan & Norton, 2001, p. 157). The internal perspective included the Institute's key processes. Finally, the financial dimension focused on the viability of the organization. Also, Fulton County School System (FCSS), which controls 77 national schools in Georgia, has structured its balanced scorecard into five perspectives: student

performance, stakeholder, teaching and administrative processes, learning and growth, and financial performance. The financial perspective is placed at the bottom of their strategy map (Shun-Hsing, 2010, p. 3007). From the above, we have the following proposals:

✓ **Proposal n° 3A:** The structure of the generic balanced scorecard for the public sector is effectively adapted to the specificities of this sector;

Versus

✓ **Proposal n° 3B:** The structure of the balanced scorecard should be adapted to the strategic priorities of the public organization that wishes to adopt it.

II-3- The number of indicators

The notion of organizational performance seeks to measure the performance of the organization as a whole and therefore its capacity to satisfy all of its stakeholders, of which the balanced scorecard is one of the performance measurement models. In fact, the balanced scorecard is a perfect response to the multidimensional nature of performance by measuring this performance via a set of indicators (financial and non-financial) grouped according to four perspectives, which must be integrated into a chain of causal relations. The indicators mustn't only be relevant, but also understandable and interpretable in a rapid and useful way by the actors (Lorino, 2001, p. 15).

Several authors link the relevance of these indicators to their number, with some authors advocating that their number be limited, and others have criticized this limitation. Herbert Simon (1982) insisted that "the rare resource in the organization is not the information, but the attention of the actors" (Lorino, 2001, p. 15). It's therefore necessary to select a limited number of indicators, around which the authors' efforts of vigilance and understanding will be organized .

Furthermore, authors such as Saulou (1982) and Atkinson and Epstein (2000) recommend "not exceeding seven indicators, since the objective is to select a necessary and sufficient number of indicators to represent the variations in the general system to be monitored" (Choffel & Meyssonier, 2005, p. 71). This conception is shared by many authors such as Guerra (2007): "The indicators selected should be limited in number. If they are too many, there is a great risk that they will be badly monitored or not monitored at all" (Guerra, 2007, p. 90). Also, Kaplan and Norton (1998) noted that: " Many managers want the plan to be simple, saying that there should be no more than four to seven indicators per perspective, thinking that employees could not understand a system with more than twenty indicators" (Choffel & Meyssonier, 2005, p. 71).

In fact, one of the balanced scorecard advantages is that it allows to structure the information and to keep only a limited number of indicators. This will avoid information overload and ensure that the indicators have ergonomic and cognitive qualities. On the contrary, some authors advocate the idea that the limited number of indicators can lead to a situation that is the opposite of the target of this tool. According to Oriot and Misiastzech (2001), the organization won't be relevant in an increasingly complex environment if it chooses a limited number of indicators. And for Rakotonjanahary (2002), it isn't the fact of increasing in the quantity of available information that harms in decision quality, but rather only redundant data damages decision making. It's more subtle to make the distinction between relevant, redundant and not relevant data and to examine their respective effects on decision quality (Rakotonjanahary, 2002, p. 1).

For the public sector, performance management is rather difficult as it involves several aspects that are difficult to rationalize, track or measure. As Swiss points out, "we have seen promising management approaches fail in recent decades, mainly because they were accompanied by unrealistic promises to rationalize the whole of public management" (Voyer, 2009, p. 25). Atkinson and Mc Crindell (1997) indicate that "indicators have proliferated and have become too operationally focused, resulting in an inability to manage these measures" (Greatbanks & Tapp,

2007, p. 848). A good number of problems and difficulties in selecting relevant indicators for the public sector scorecard seem to result from an «imported» private sector framework. Gooijer (2000) comments "that most performance measurement solutions originate from profit organizations, and as such have limited application to public sector management" (Greatbanks & Tapp, 2007, p. 848). Furthermore, Boyne (2002) notes that public and private organizations "differ in a variety of important aspects" and suggests such differences "act as barriers to the transfer of management techniques from the private to the public sector" (Greatbanks & Tapp, 2007, p. 848).

From this literature, we suggest the following propositions:

- **Proposals related to the number of indicators:**

✓ **Proposal n° 4A:** The balanced scorecard is a synthetic performance measurement instrument composed of a limited number of indicators;

Versus

✓ **Proposal n° 4B:** The balanced scorecard is a detailed instrument composed of a large number of relevant indicators covering the activity of the organization.

- **Proposals related to the specificities of the choice of indicators in the public sector:**

✓ **Proposal n° 5A:** The transfer of the indicators of the four perspectives of the balanced scorecard used in the private sector to the public sector is difficult or almost impossible;

Versus

✓ **Proposal n° 5B:** Importing performance indicators from the private to the public sector is possible if it takes into account the organizational or sectorial context.

III- Implementation of the balanced scorecard:

Research related to the implementation of the balanced scorecard mainly focuses on its deployment and the contingency factors to be taken into account.

III-1- Deployment of the balanced scorecard

The authors have proposed several approaches to implementing the balanced scorecard, but these designers indicate that the strategy deployment process has to follow top-down logic to the organization's different levels, with the support of communication tools. Then, each operational unit will determine its own strategy based on the strategy imposed by direction. In fact, the direction is responsible for implementing the balanced scorecard, accompanying this stage with a significant communication effort to guarantee the tool's legitimacy. However, this initial approach has been criticized by several authors, given that in a "top-down" approach difficulties may arise in the understanding and approval of the balanced scorecard by all the organization's employees, even if a good communication strategy has been put in place. Mendoza & al. (2002) emphasize that "misunderstanding of the balanced scorecard is necessary since difficulties can arise for all staff" (El Alaoui & Kabbaj, 2018, p. 1015). Saulpic & Ponsard (2000) point out that "it seems dangerous to apply the top down or bottom up approach exclusively. In fact, in a top-down logic, there is a risk of not taking operational constraints into account when designing the strategy, and a "Bottom-up" approach may dissimulate important aspects because of cognitive differences at the operational level" (Ponsard & Saulpic, 2000, p. 10). Moreover, in public sector, the principle of the top-down approach is more contestable" (Gibert, 2000, p. 75), since an entirely top-down approach supposes an unequivocal "destination" at the top and a global objective from which all the others derive. This is the concrete role that return on capital employed or economic value added play in many corporates' balanced scorecards, but in most of the public sector this objective is difficult to set .

Lorino (2003) proposed an intermediate approach between that of Kaplan and Norton and that of Mendoza, of which "indicators aren't chosen bottom-up, according to local logic, nor top-

down, according to the leader's mood, but they reflect the collective elaboration of strategic objectives and the main associated levers of action" (Choffel & Meyssonier, 2005, p. 65).

The proposals about the spatial dimension of the balanced scorecard's implementation are:

- ✓ **Proposal n°. 6A:** The balanced scorecard is fundamentally a strategic alignment tool implemented through a "top-down" approach;
- Versus**
- ✓ **Proposal n°. 6B:** The balanced scorecard is a tool for modeling value-creating processes in a logic of learning and coordination realized through a "bottom-up" approach;
- Versus**
- ✓ **Proposal n°. 6C:** Since the balanced scorecard is both a strategic alignment system and a modeling causal relationships' tool, it must combine bottom-up and top-down approaches.

III-2- Contingency factors of the balanced scorecard

Many studies have shown that the management control system's adoption is influenced by contingency factors, mainly, the environmental stability, the organization's size and the technology.

III-2-1- The degree of environmental stability

Several authors, including Lawrence & Lorsh (1967), Marchant (1984), Fisher (1998), and Hartman (2000) have shown that the environment is a determining contingency factor in the choice of performance measurement system. Chong and Chong (1997) also explain that "to cope with environmental uncertainty, organizations need non-financial information" (Achibane & El Hamma, 2016, p. 462). For their part, Gosselin and Dubé (2002) demonstrated that: "organizations pursuing a prospector-type strategy locate, which evolve in an environment characterized by a high level of uncertainty, increasingly adopt external non-financial performance measurement indicators in contrast to other organizations pursuing a defender-type which evolve in a more stable and less complex environment" (Chong & Chong, 1997, p. 269).

However, public organizations very often operate in an environment where competition is absent and imperfect organized by the law. This monopoly situation makes more difficult to adapt the activities of public administration to environmental data. Despite the inexistence of competition, public organizations have chosen the balanced scorecard as a performance management tool, in order to respond to the changing needs of citizens and staff. The balanced scorecard's implementation in a public sector will enable this organization to "know what these customers want and what its staff needs to satisfy them, because it won't be able to achieve its mission effectively and without taking into account the diversity of these needs and expectations" (Kaplan & Norton, 2001, p. 150). Thus, the proposals for the contingency factor "environment" are:

- ✓ **Proposal n°. 7A:** Traditional management tools are sufficient in a stable environment;
- Versus**
- ✓ **Proposal n°. 7B:** In a non-competitive environment with continuously changing customer requirements, the balanced scorecard is more suitable for monitoring the performance.

III-2-2- The size of the organization

Most public organizations are characterized by a very large size where employment still absorbs a very considerable share of national employment. This characteristic imposes certain rigidity in their management style. In the private sector, there are also large companies (multinationals), which adopt a rather autonomous and flexible management mode. Woodward (1965) and Lawrence and Lorsh (1967) have suggested that "size may affect the way organizations

design and use management system" (Hoque & James, 2000, p. 03), but the influence of the size in public organizations is more sensitive since it makes coordination between all departments more difficult. In fact, there are two opposing trends of thought that have analyzed the relationship between balanced scorecard and organizational size.

The first trend advocates the idea that the complexity of management systems is positively related to the organization's size. Ezzamel (1990) and Libby and Waterhouse (1996) suggested that "as firm size increases, the performance measurement process becomes more specialized and sophisticated" (Hoque & James, 2000, p. 03). There is also the conclusion reached by Hoque and James (2000) show that "it's the largest organizations that have performance measurement practices closest to that of the balanced scorecard. The probability that performance measurement is "balanced" appears to be higher for large organizations than for small ones" (Germain, 2004, p. 37).

The second trend recognizes the impact of size on management, but leads to different results, since during the deployment of the balanced scorecard in large organizations, communication and coordination problems emerge. Bescos (2003) indicate that "the larger the size of the organization, the more it sets up a management system of the administrative type with greater recourse to budgeting" (Choffel & Meyssonier, 2005, p. 70). Thus, the proposals for the contingency factor "size" are:

✓ **Proposal n°. 8A:** The size of the public organization isn't a decisive factor in the implementation of the balanced scorecard;

Versus

✓ **Proposal n°. 8B:** The public organizations' size influences negatively the balanced scorecard's implementation.

III-2-3- The balanced scorecard and Technology

The choice of the performance management system can also depend on the technology. In order for a non-profit public organization to be able to apply its strategy at all hierarchical levels, it needs to implement an effective information system. Edwards (2001) indicates that "the key to the successful implementation of any major management information system is the automation of the methodology through an enterprise-deployable application" (Edwards, 2001, p. 11). According to the same author, organizations that implement a tool such as balanced scorecard are those that use integrated information technology tools (Choffel & Meyssonier, 2005, p. 69).

Saulpic and Ponssard (2000) note that "the stakes associated with the IT aspects are very high because we must constantly navigate between two extremes: be content with "paper and pencil" (or Excel type software), which seems sufficient when using budgets as a management system, or "put the package together" (software, etc.) for a decentralized management mode" (Choffel & Meyssonier, 2005). The proposals related to the contingency factor "technology" are:

✓ **Proposal n°. 9A:** The balanced scorecard's implementation is facilitated by the use of information technology;

Versus

✓ **Proposal n°. 9B:** The use of information technology doesn't facilitate the implementation of the balanced scorecard in organizations with a centralized management system.

IV- Results and discussion :

From our overall analysis of the various debates concerning the balanced scorecard and especially those relating to its application to the non-profit public sector, we have been able to identify, from the five dimensions highlighted, nine conceptual propositions that are mutually

exclusive; e.g.; 1A versus 1B, 2A versus 2B ... We also noted that there are complementary proposals: 1A (the strategy determined upstream of the balanced scorecard design) and 6A (top down approach). In addition, some proposals seem to make sense jointly: 3B (adapting the balanced scorecard's structure to the characteristics of the public sector) and 5B (taking into account the organizational or sectorial context of the public sector when choosing indicators), where both proposals require the balanced scorecard to be adapted to the characteristics of public organizations environment. Also, there is a dependency relationship between propositions 8 and 9 and the power form. We can so try to group the different theoretical propositions according to "logical attractors". These attractors are reference configurations that take into account aspects of the public sector and arbitrate these different propositions. Based on theoretical and conceptual confrontations in the literature, we have identified five ideal types of reference shared by two dimensions: the form of power and the degree of the environment stability of non-profit public organizations, each of which has certain features:

- **Dimension n° 01:** The form of an organization's power;
 - ideal type n° 01: Centralized management;
 - ideal type n° 02: Decentralized management with few instruments;
 - ideal type n° 03: Decentralized management with process control.
- **Dimension n° 02:** The degree of the environment stability.
 - ideal type n° 04: Stable environment;
 - ideal type n° 05: Uncertain environment.

In fact, the theoretical proposals highlighted in our state of the art will be classified according to the five typical ideals proposed in the table below :

Table (1). Theoretical proposals classification

		Standards ideals				
		Ideal type 1 Centralized management	Ideal type 2 Decentralized management with few instruments	Ideal type 3 Decentralized management with process control	Ideal type 4 Stable environment	Ideal type 5 Uncertain environment
P R O P O S A L S	BSC & strategy	1A: The BSC ¹ as a strategic alignment tool	1B: The BSC as a lever for the formation of emerging strategies			
		2A: Public organizations seek operational excellence	2B: The BSC enables the public organization to achieve strategic excellence			
	BSC structure			3A: The generic BSC structure is well suited for public organization	3B: The BSC structure of Public organizations needs to be adapted to their priorities.	
	Performance indicators	4B : Many indicators	4A : Limited number of indicators			
		5A : The transfer of indicators from the private to the public sector is almost impossible	5 B : Possibility of transferring indicators from the private to the public sector, if the organization takes into account the specificities of its organizational context			
Deployment of BSC	6A : The Top-Down approach and	6B : The Bottom-up	6C : Global approach (top-down)			

¹ BSC: Balanced Scorecard.

P R O P O S A L S		alignment	approach	& bottom-up)			
	Identified contingency factors				7A: It's better to use the classic piloting tools	7B: The BSC is more adapted to the public performance management	
		8B: The size has a negative influence on the BSC's implementation	8A : The size of the Public organization isn't a decisive factor				
		9B: The information technology doesn't facilitate the BSC's implementation	9A: The information technology facilitates the implementation of the BSC				

The source: Developed by ourselves.

After classifying the theoretical propositions taken from the literature, we can analyze the structuring of the debates carried out. From the representation of the standard ideals (see table n°1), we have noted that there are much identified characteristics for the standard ideal n° 01. In addition, there is a common point between the ideal types 1 and 2, so there are strong common points between the ideal types 2 and 3 with shared characteristics. Finally, the ideal types 4 and 5 are totally independent and don't share any characteristics in common with the other ideal types.

Therefore, the implicit typology of the literature based on two dimensions (each dimension of which contains a number of typical ideals) is almost logical, as it responds perfectly to the specificities of the non-profit public sector, where several researches have been done on the form of public organizations' power as well as on the stability degree of their environment.

The dimension relating to the form of power seems quite natural to us since it corresponds to the most well-known management tools (the balanced scorecard, the French dashboard, budgets ...) and, in addition, it takes into consideration the fact that power in public organizations is generally centralized, but there are several public organizations that have been successful in monitoring performance through the decentralization of power. The second dimension (the degree of environment stability) is also relevant to our analysis given the nature of the non-profit public organizations environment.

IV-1- The form of power dimension (see figure n° 2)

From this analysis, it appears that the theoretical debates around the balanced scorecard are between two conceptions: the model of Kaplan and Norton on the one hand, and the common core of the other two models on the other hand. This common core of alternative propositions to the Kaplan and Norton model, which is shared by the ideal types 2 and 3, states that strategy is a lever for the formation of emerging strategies (1B), which the balanced scorecard enables the public organization to achieve strategic excellence (2B), that it's possible to transfer indicators from the private sector to the public sector (5B), that the size of the public organization isn't a decisive factor in the implementation of the balanced scorecard if power is decentralized (8A) and that the use of information technology in decentralized public organizations facilitates the deployment of the balanced scorecard (9A).

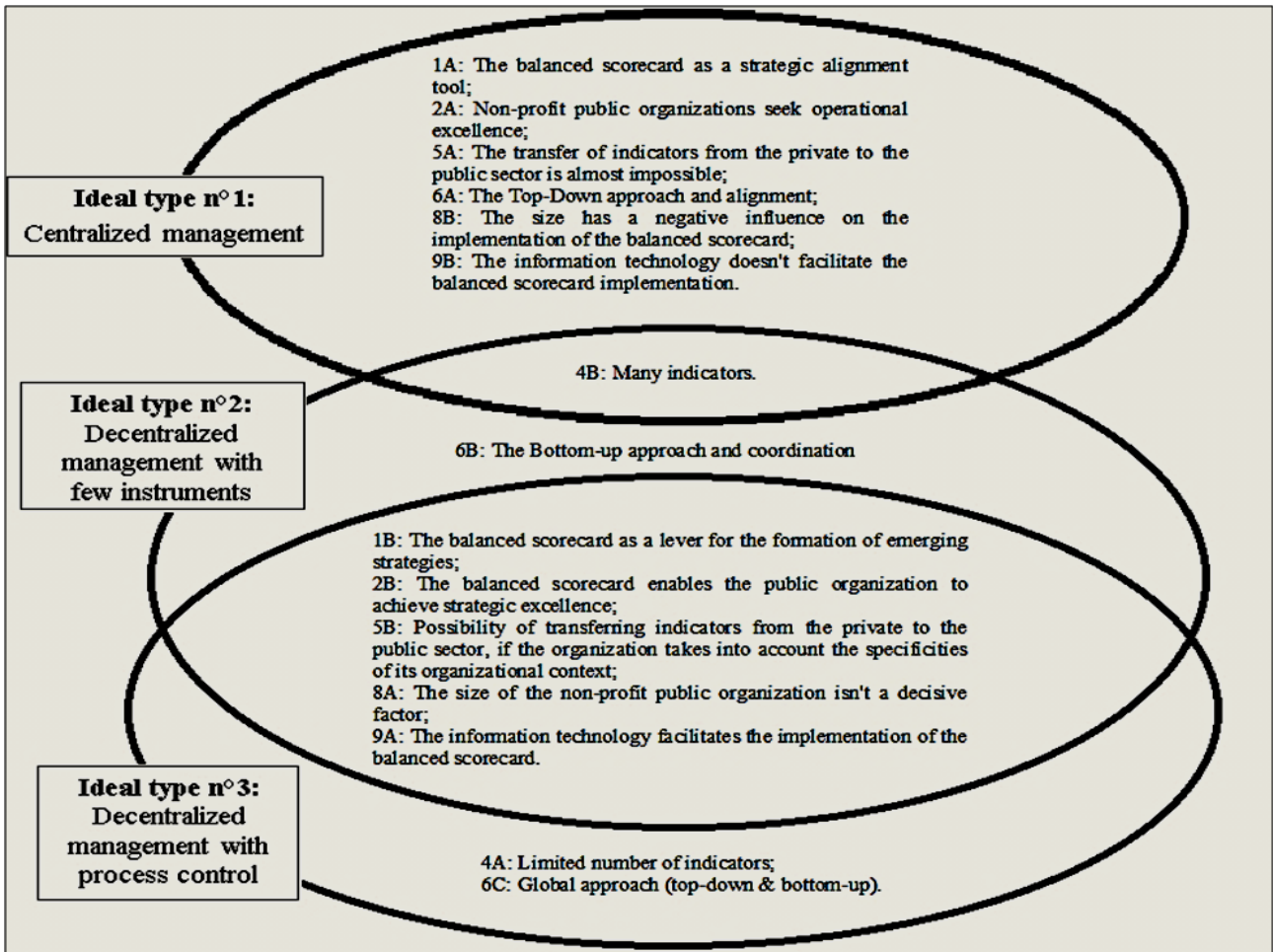
So, we can distinguish between two approaches where for some (ideal type 1) the balanced scorecard is the central means linking strategic representation and alignment of behaviors in a

global management system, while for others (ideal types 2 and 3) it's a tool that promotes the interaction of actors within the organization during a collective constructivist process in which managers and leaders will build and continuously evolve the organization's strategy.

Also, for some approaches (ideal type 1), the formation of a strategy appropriate to the non-profit public sector's specificities is an obstacle to design of the balanced scorecard. However, there are public organizations that have succeeded in designing it based on strategic excellence, whose strategy is based on the public services quality as well as clients (donors). Despite the difficulties involved in selecting the appropriate performance indicators for each of the balanced scorecards' perspectives, there are public organizations that have successfully implemented this tool (ideal type 2 and 3) and determined the appropriate indicators with their specificities; for example, the city of Charlotte in North Carolina has successfully implemented a balanced scorecard centered on clients .

There are also two different views on the influence of the organization size and the use of information technology on the implementation of the balanced scorecard. According to the first approach (ideal type 1), the size of a centralized organization doesn't have an impact on the balanced scorecard that it's up to the top of the organization to deploy it. Conversely, the other approach (ideal types 1 and 2) recognizes that successful implementation of the balanced scorecard in a large organization requires decentralization of power in order to address communication and coordination issues. In fact, large private organizations have successfully adopted the balanced scorecard because their management system is decentralized, allowing for a better flow of information. On the other hand, power is centralized in public sector organizations, which will create difficulties in implementing this tool. Despite this, there are public organizations that have been successful in benefiting from its advantages. In addition, the use of information technology in a decentralized organization will be more beneficial than in centralized organization.

Figure (2). Illustration of the intersection areas of "the form of power" dimension

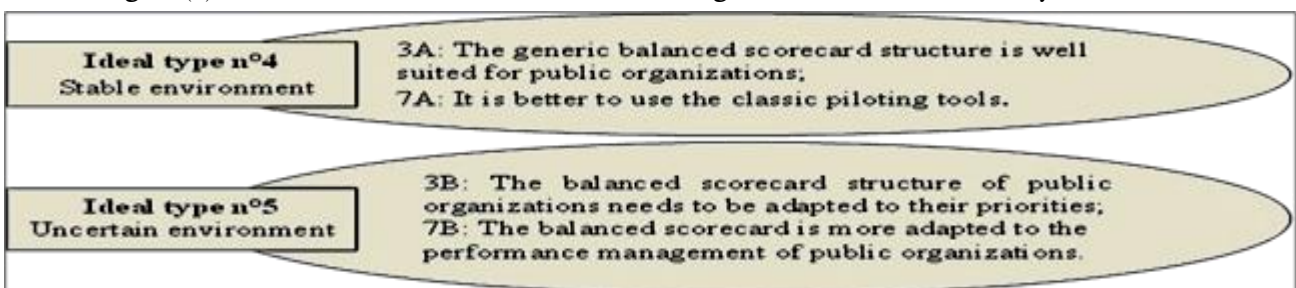


The source: Developed by ourselves.

IV-2- Degree of environment stability dimension (see figure 3)

From our analysis, we have seen that there are no common approaches between the characteristics of the two typical ideals (4 and 5) of this dimension, where each approach has an independent vision of the influence of the environment on the balanced scorecard. In fact, the first approach (ideal type 4) suggests that the generic balanced scorecard of public organizations is appropriate for this type of organization since there is almost no competition, but the other approach (ideal type 5) hasn't neglected the evolution of citizens' demands, which makes the environment of public organizations uncertain, despite the absence of competition. So, the balanced scorecard has to be adapted to these demands.

Figure (3). Illustration of the intersection areas of "degree of environment stability" dimension



The source: Developed by ourselves.

IV- Conclusion:

The Balanced Scorecard has been the subject of several debates about its adaptability to the public sector over the past twenty years. This synthesis of the debates on it has been produced with an emphasis on the theoretical and conceptual foundation, in addition, we have conducted an overall review, but with a much greater focus on the specifics of the public sector.

First, we analyzed the approaches related to the design of the balanced scorecard, then those related to its implementation. This led us to highlight five areas for reflection and confrontation between the authors and a certain number of alternative proposals for each of these areas. Then, these proposals were grouped into two dimensions that characterize the public sector. From this research, we have retained three questions that deserve to be explored, given the importance of the intersection area between two of the three typical ideals of "the power form" dimension.

Firstly, the question of the balanced scorecard's articulation with strategy is raised, and secondly, the difficulty of its implementing in public organizations due to the absence of a well-defined strategy. And with the size of these organizations and the use of information technology, do they have a decisive impact on the implementation of the balanced scorecard?

Concerning the first question, we have concluded that the balanced scorecard can be used as a tool for the strategy's deployment and as a means for its emergence. In fact, Errami (2013) has shown that "the control systems that contain the balanced scorecard are more concerned with encouraging interactive exchanges on strategy" (Errami, 2013, p. 107). For the second question, we have noted that implementing the balanced scorecard in public organizations isn't impossible, but requires them to change their management methods and to design a strategy that emphasizes the continuous improvement of public services and customer satisfaction. In the third question, we note that the balanced scorecard is more conceivable in large organizations, provided that their communication process will be effective by promoting the total or partial decentralization of power.

Finally, our contribution to the reflection on the balanced scorecard could be deepened by applying our reading framework to experimental work from the academic or professional literature. It could also serve as a field of reflection for future researchers.

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