

Repositório ISCTE-IUL

Deposited in *Repositório ISCTE-IUL*:

2025-06-02

Deposited version:

Accepted Version

Peer-review status of attached file:

Peer-reviewed

Citation for published item:

Barros, R. S. (2025). Research on the balanced scorecard for government entities: A literature review. *Journal of Public Budgeting, Accounting and Financial Management*. 37 (3), 415-440

Further information on publisher's website:

10.1108/JPBAFM-10-2022-0162

Publisher's copyright statement:

This is the peer reviewed version of the following article: Barros, R. S. (2025). Research on the balanced scorecard for government entities: A literature review. *Journal of Public Budgeting, Accounting and Financial Management*. 37 (3), 415-440, which has been published in final form at <https://dx.doi.org/10.1108/JPBAFM-10-2022-0162>. This article may be used for non-commercial purposes in accordance with the Publisher's Terms and Conditions for self-archiving.

Use policy

Creative Commons CC BY 4.0

The full-text may be used and/or reproduced, and given to third parties in any format or medium, without prior permission or charge, for personal research or study, educational, or not-for-profit purposes provided that:

- a full bibliographic reference is made to the original source
- a link is made to the metadata record in the Repository
- the full-text is not changed in any way

The full-text must not be sold in any format or medium without the formal permission of the copyright holders.

Research on the Balanced Scorecard for Government Entities: A Literature Review

Journal of Public Budgeting, Accounting & Financial Management

(Accepted Version)

Rúben Silva Barros

Instituto Universitário de Lisboa (ISCTE-IUL), Business Research Unit (BRU-IUL),
Lisboa, Portugal

E-mail: rasbs@iscte-iul.pt

DOI: [10.1108/JPBAFM-10-2022-0162](https://doi.org/10.1108/JPBAFM-10-2022-0162)

Acknowledgements:

The author gratefully acknowledges the comments and suggestions provided by the editors of the journal, Professor Giuseppe Grossi and Professor Umesh Sharma, as well as by the three anonymous reviewers. Additionally, I gratefully acknowledge the comments and suggestions received from Ricardo Barradas and from participants at the following conferences and seminars: the Accounting Day of Iscte, held in Lisbon; the 12th International EIASM Public Sector Conference, held in Madrid; the XXII Grudis Conference and Doctoral Colloquium, held in Coimbra; the 45th European Accounting Association Annual Congress, held in Helsinki; the 2023 Research Seminar of European University, held in Lisbon; and the XIX Congresso Internacional de Contabilidade e Auditoria, held in Coimbra. The author is also grateful for the financial support provided by Fundação para a Ciência e Tecnologia under the grant UIDB/00315/2020.

Research on the Balanced Scorecard for Government Entities: A Literature Review

Abstract

Purpose: New public management reforms have allocated a central place within public organizations to performance measurement. The balanced scorecard (BSC) is one of the models adapted and promoted for use in that setting. After more than 30 years of practice, this study reviews the leading literature published on the BSC for government entities and considers how it has been developed, the main insights gained, and what could be investigated further.

Design/methodology/approach: A literature review procedure inspired by a structured literature review process was conducted using the Scopus and Web of Science databases.

Findings: Our research approach allowed us to obtain 39 articles published in 26 journals, showing a steady interest over the period from 1999 to 2022. These studies mainly adopt a case study approach with a practical orientation. With diverse situations reported, ranging from more beneficial situations to ones involving greater difficulties, this study calls for future researchers to investigate not only the implementation and use issues of the BSC but also its continuing use over time and the course that its application may take. Additionally, future researchers should not ignore the political and social issues concerning its implementation and use. We also observe that qualitative approaches are likely to remain valuable research designs for pursuing our research suggestions.

Originality: This study offers a comprehensive review of the use of the BSC for government entities, connecting the results and considerations to further research with reflections on NPM.

Keywords: Balanced scorecard; BSC; Public sector; Government; Local government

Paper type: Literature review

1. Introduction

The emergence of the new public management (NPM) principles and the associated doctrines of emphasis on output control, private sector-like management practices, and tightfistedness in resource use (Hood, 1991, 1995; Funck and Karlsson, 2020), prompted a shift of public services to a more quantifiable and managerial emphasis. Through this, performance measurement has acquired increased importance and a central place in public institutions (Hood, 1991, 1995; Lapsley, 2008; Steccolini, 2019). NPM reform processes have been pursued and conducted with some reliance on accounting (Guthrie *et al.*, 1999; Olson *et al.*, 2000), with financial management representing the technical “lifblood” of NPM (Guthrie *et al.*, 1999). In fact, Olson *et al.* (2000) associate with NPM the concept of new public financial management (NPFM) as a label to incorporate a set of reforms of public service systems in which the development of performance measurement approaches is represented (see also Guthrie *et al.*, 1999). In light of this, performance models that were initially developed for the private sector have started to be applied in the realm of public services. One of these models is the balanced scorecard (BSC) (Modell, 2004, 2005; Lapsley, 2008).

Today, the BSC represents a strategy management system with an approach that focuses not only on financial aspects but also on measures that consider the clients, the internal processes, and learning and growth inside the organization (Kaplan and Norton, 1996, 2001). Although developed for the private sector, the BSC was rapidly modified for the public sector (Kaplan and Norton, 2001; Niven, 2008), which, supposedly, was able to guarantee the necessary architecture to represent the specificities of a public sector institution. However, its adoption (and that of performance measurement more generally) has prompted some scepticism. Modell (2004) suggests that the use of the BSC is a myth, and, although admitting that it has gained some popularity, Lapsley (2008) interprets that mythical characterization as an allegation that the model will fail to accomplish its intended goals. Interestingly, Lapsley (2008) also postulates that performance measurement, with its importance and centrality, will continue to be of interest to the many NPM players in the years to come, despite some probable dysfunctional effects.

Against this backdrop, and with a history of more than 30 years (Kaplan and Norton, 1992), it is argued in this study that the time has arrived to take stock and map the evolution of the research and the main insights that have been published in the best peer-

reviewed international journals about the BSC regarding governmental entities. To the best of our knowledge, no previous literature reviews explore the research published so far about governmental bodies. In addition, these organizations are characteristically prone to having a multitude of purposes and goals that pose additional challenges in developing and using the BSC model. Therefore, and given the purpose of the study, a literature review is conducted following a procedure close to a structured literature review (SLR) process (Massaro *et al.*, 2016). Based on the teachings of Massaro *et al.* (2016) about SLRs, the study answers three interrelated research questions (RQ):

RQ 1: How has the research published on the BSC for government entities evolved and developed?

RQ 2: What are the main insights reported about the BSC in government entities?

RQ 3: What should be considered and could be explored in future research on the use of the BSC?

By tackling these questions, this study intends to contribute to enhancing the current understanding of the BSC's use in governmental entities and providing some directions for researchers to advance the current knowledge. More specifically, by answering the first research question, it presents a picture of how research is being developed considering its characteristics and tendencies. With the second question, the study aims to ascertain the insights provided by the studies, specifically about the specific idiosyncrasies related to the design and implementation of the BSC in the specific case of government entities. Last, but not least, the third question allows to raise some possibilities for further research.

The remainder of the paper progresses in the following way. We next give a brief introduction to the BSC, the specificities of public organizations, and the modifications proposed for the BSC in public institutions. The research approach is outlined in the third section. The fourth section answers the first two research questions through an overview of the studies and a description of the main points reported in them. In the fifth section, to respond to the last research question, we outline points to consider in future research. The sixth section presents the conclusion of the work.

2. Balanced scorecard: beginnings and adaptation to the public sector

In light of the criticism concerning the inadequacy of focusing only on financial performance measures associated with traditional accounting systems (Johnson and Kaplan, 1987; Kaplan and Norton, 1992; Niven, 2008), in 1992, Kaplan and Norton proposed a new model – the balanced scorecard (Kaplan and Norton, 1992). The BSC was developed to permit managers to look at their business not only through the lens of financial measures but also from the perspective of performance measures of drivers associated with future performance (Kaplan and Norton, 1992, 1996) and activities pertaining to the entire organization (Niven, 2008). As such, the BSC “provides executives with a comprehensive framework that translates a company’s strategic objectives into a coherent set of performance measures” (Kaplan and Norton, 1993: 1–2). Indeed, although the BSC was developed as a performance measurement system (Kaplan, 2009) to improve the measuring of intangible assets (Kaplan and Norton, 2004), it has evolved into a whole strategy management system (e.g., Kaplan and Norton, 1992, 1996, 2001, 2004, 2006). Translating strategy into objectives, the BSC incorporates four perspectives – financial, customers, learning and growth, and the internal business process – into a single model (Kaplan and Norton, 1996, 2001). Kaplan and Norton (2001) state that the BSC employs a top-down logic that starts with the desired financial outcome within the financial perspective, followed by the customers and internal business process perspectives, and at the bottom the learning and growth perspective. With those four perspectives, objectives are organized and linked in cause-and-effect relationships (Kaplan and Norton, 2004). A visual representation of this architecture and relationships is provided in the strategy map (Kaplan and Norton, 2000, 2001, 2004).

Although originally developed to measure the performance of private organizations (Kaplan and Norton, 1996; Kaplan, 2009), which have a profit-oriented motive, soon the BSC started to be seen as a tool for public and non-profit organizations. Even considering it to be an appropriate model for non-profit and public organizations to transition to the 21st century (Niven, 2008), Kaplan and Norton (2001) highlight that, from 1996 to 1999, the BSC concept was accepted by and adopted in these organizations (an assertion that is reinforced by Arnaboldi *et al.* (2015)).

Additionally, Kaplan and Norton (2001) express the idea that this group of organizations could encounter some difficulties in the original architecture of the BSC. The main

challenge, undoubtedly, resides in the fact that public organizations are not primarily concerned about profit and their performance should be measured as the effectiveness of their delivery of benefits to constituents (Kaplan, 2009). Moreover, public organizations have a political focus and are driven by political decision making (Euske and Malina, 2014) as well as having cause-and-effect relationships that are complex and even unclear (CIMA, 2011). Indeed, as mentioned by Sharma and Gadenne (2011), transposing the BSC to public organizations involves some challenges, with their unique circumstances giving rise to adjustments in the design of the model. As the BSC was initially developed with the financial perspective at the top, a readjustment of the model was proposed, putting the customers or constituents at the top of the hierarchy (Kaplan and Norton, 2001; Kaplan, 2009). This line of thinking is also followed by Niven (2008), who, like Kaplan and Norton (2004), recommend placing the mission at the top of the BSC.

Early examples that appear in the literature on this rearrangement of the architecture, mentioned by some authors, include the case of the city of Charlotte, North Carolina (USA) (Kaplan and Norton, 1996; Quinlivan, 2000; Kaplan and Norton, 2001; considered by Niven (2008) as one of the best examples in this realm) and that of the Boston Lyric Opera (Kaplan and Norton, 2004).

3. Research approach

To proceed with the literature review, this study took into consideration previous published review works (e.g., Dumay *et al.*, 2016; Manes-Rossi *et al.*, 2020, Mattei *et al.*, 2021; Bisogno and Donatella, 2022; Nerantzidis *et al.*, 2022) and gained inspiration on the steps for developing a structured literature review as proposed by Massaro *et al.* (2016). Since an SLR allows researchers to analyse a corpus of literature, providing reflection and exploring future research paths as well as being replicable and unbiased (Massaro *et al.*, 2016), it offered a strong research approach for this study. Therefore, our review proceeded through several stages that will be explained in the following subsection.

3.1. Steps in the article selection and screening of the articles

Having defined the research questions presented in the introduction, the literature search was planned. First, a strategy based on a search for some keywords was prepared. To define the keywords carefully, a broad examination of previous studies was conducted. To achieve the objectives of this review, it was important to obtain a clear and comprehensive representation of terms connected both to the BSC and to the organizations included in the study (government entities) simultaneously. For the purposes of this study (and building on the explanation given in the introduction), government entities encompass government departments, government ministries, government agencies, government dependencies, municipalities, local authorities, and local public institutions. Accordingly, the keywords used were: (“balanced scorecard” OR “BSC”) AND (“public” OR “government*” OR “municipal*” OR “local”). Like the approach followed in the literature reviews conducted by Manes-Rossi *et al.* (2020), Mattei *et al.* (2021), and Bisogno and Donatella (2022), these keywords were then combined to search for articles in the Web of Science (WOS) and Scopus databases in February 2023. The same search string was used in both databases. The keywords were searched in the title, abstract, and keywords in both databases.

Next, the WOS and Scopus databases’ own filters were used to apply a set of exclusion criteria (Table 1 and 2 – prepared in light of what is portrayed in Ardito *et al.* (2015) and Mattei *et al.* (2021)). More concretely, it was decided that only papers that constituted articles or reviews would be included in this study and, as an additional way of ensuring the quality of these research works, all results that were not from journals ranked 2 or above in the 2021 Chartered Association of Business Schools (ABS) journal list were excluded. To this end, the option of articles or reviews in the document type filter was selected first; afterwards, the journals in the source title were manually selected. Articles of any discipline were allowed to guarantee an interdisciplinarity review and to ensure that contributions from different areas would be present. Additionally, no restrictions regarding language or time frames were imposed (a summary of the exclusion criteria is provided in Table 1). This procedure returned a total of 205 articles, which, after eliminating duplicates, left us with 152 articles. The results obtained are summarized in Table 3.

Table 1 and 2 around here

After these reduction steps, the first screening of the title and abstract was performed. As further inclusion criteria, studies that address any aspect or report insights into the design of, use of, or any experience with the BSC in any setting regarding government entities (in accordance with the information at the beginning of this section) were retained for the review, even if their main purpose is not connected to the BSC. Therefore, any study relating to education, health, cultural organizations (e.g., theatres or museums), the police, armed forces, or state-owned companies was disregarded. These settings have characteristics and missions that make them very specific and deserving of reviews on their own merit. If doubts remained after the screening of the title and the abstract, the article was downloaded and a search of the keywords and a brief analysis were undertaken to decide upon its inclusion or exclusion. More theoretical contributions or reviews that debate or analyse the BSC in the public sector were accepted in the final set of articles since they could offer important contributions to the topic of this study. The criteria were purposely kept somewhat broad to gain a good picture of the field. A summary of the inclusion criteria can be found in Table 2. This step yielded a final total of 39 articles (Table 3).

Table 3 around here

3.2. *Analytical framework and coding process*

In a structured literature review, it is common to define an analytical framework (e.g., Dumay *et al.*, 2016; Nerantzidis *et al.*, 2022) to help in the organization and analysis of the studies retrieved (Massaro *et al.*, 2016). Following this lead, an analytical framework was defined by using previously explored categorizations whenever possible or by adapting them to our aims. Building on the study by Massaro *et al.* (2016) and previous

reviews, we sought to select categorizations that could provide a concrete and far-reaching picture of the published literature on the BSC.

To answer the first research question in a structured way, some descriptive data are reported: more concretely, these constitute a descriptive analysis related to the journals in which our retrieved articles were published, the number of articles per journal, and the number of publications per year. Moreover, the retrieved literature was coded for the academic areas in which the article was published using the areas defined in the ABS ranking list for the journal (as performed by Nerantzidis *et al.*, 2022). From all the areas in which journals are ranked by the ABS, the study ended up with eight categories (accounting, public sector, operations and technology, management, ethics and social responsibility, sector studies, social sciences, and strategy). In conjunction with the first categories, these allowed us to explore the interdisciplinarity of the field and its spread through time and journals. To analyse the spread of the research in terms of the country to which the study or case refers, the geographic location was analysed by adapting the categorizations employed by Nerantzidis *et al.* (2022). The five categorizations adopted were interpreted, for the purpose of this study, as closely mimicking the borders of the five continents (Europe, Asia, Oceania, Africa, and America). One category of “not applicable” was created to include studies that did not identify any geographic location. Still gaining inspiration on the categorizations used by Nerantzidis *et al.* (2022), the retrieved literature was categorized according to the government level on which the study takes place or to which it refers. Theoretical contributions or literature reviews were left aside for this analysis. Nerantzidis *et al.* (2022) report six categories considering four levels of government institutions and a category to comprise multi-level organizations. Since the international level did not make sense for the organizations present in this study, it proceeded with only four categories, namely national level; regional level; local level; and a multi-level category. This categorization allowed us to explore where the BSC has been studied.

Furthermore, some codifications were performed to help us to establish how the studies were conducted and enlightened by different theoretical approaches. Using a categorization adapted from Guthrie *et al.* (2012), the research methods employed were recorded. Particularly, five categories were adopted, namely case/field study/interviews; content analysis/historical analysis; survey/questionnaire/other empirical approach; commentary/normative/policy; and theoretical/literature review. Following Guthrie *et al.*

(2012), if a paper was unclear regarding the research method category to which it should be allocated, the dominant method used was chosen. To complement the previous analysis in relation to case studies, the articles were further categorized by the number of organizations addressed. In recording this aspect, we ended up with five categories (one, two, three, four, and not applicable). Surveys were categorized as not applicable along with the theoretical works. Empirical studies were also coded for the theoretical approach followed and the combination of theories. In these categorizations, only empirical studies were considered as the intention was to provide an overview of the basis used to make sense of or explain the data collected or the findings obtained through either qualitative or quantitative approaches. For the theory categorization, we did not start with any previous categorizations from any author and took note of the theoretical background specifically expressed in each study. A more inductive approach, in which we let the articles emerge with the categorizations, was therefore adopted. Following Schmidt and Gunther (2016), if a study relied on more than one theoretical lens, equal weight was attributed to the lenses. The combination of theories was classified into four categories adapted from the study of Nerantzidis *et al.* (2022) to our circumstances. These categories were single theory; two theories; and no theory. Theoretical contributions and literature reviews were put aside for these two analyses. All these categorizations were organized using an Excel spreadsheet.

Finally, the articles were carefully analysed to obtain insights regarding the BSC. This step allowed us to answer the second research question. However, for this analysis, no previous categorization was used, and the results reflect the main insights rather than offering an exhaustive description of all the aspects in the studies.

4. Findings

In this section, we answer the first (subsections 4.1 to 4.6) and second (subsection 4.7) research questions. Subsections 4.1 to 4.6 report the coding of the articles, as expressed above. Section 4.7 provides an account of the main experiences reported. In the Appendix, it is possible to find the purpose of each of the studies retrieved for this literature review.

4.1. *Evolution of the publications over time*

The number of papers per year shows a constant rate of publication over time (Figure 1). In line with Lapsley's (2008) prediction, public performance measurement is an area of steady interest and attraction, and our findings provide evidence to support that prediction. The dataset is composed of articles published between 1999 and 2022. The first decade (roughly) accounts for slightly more than half of the articles, possibly due to the parallel development of the BSC's features in that period (Kaplan and Norton's first book was published in 1996 and their last one in 2008) and the consequent interest of academics. During this period, 22 of the 39 papers in the dataset were published. The year with the most articles was 2010, and, except for 2015 and 2019, at least one article was published in every year. Thus, continuous and steady academic interest is visible throughout the period of analysis.

Figure 1 around here

4.2. *Journals and academic areas*

The studies in our dataset were published in 26 journals. Of these, three journals that are more connected to discussions on the public sector published four articles each, while most of the other 23 journals only published one article (Table 4). When disaggregating the articles into academic areas (Table 5), it is apparent that half of the studies appeared in journals from the accounting domain, and the public sector domain occupies second place with roughly a quarter of the articles.

Tables 4 and 5 around here

4.3. *Geographic areas studied*

Of the empirical studies that reveal the target country of the study (Table 6), the geographic area most investigated is Europe (16 papers), followed by Oceania (nine papers), Asia (four papers), and countries from the American continent (two papers). The proliferation of the BSC in the public sector may be traced to the principles of quantification and orientation to results described in the NPM reforms. However, Guthrie *et al.* (1999) argue that cross-national differences and different NPFM development paths exist. Our results seem to support their argument. There are geographies that show more reports and analyses regarding the BSC (Europe) than others (America and Asia). In fact, NPM has occupied a notable position in the United Kingdom (Lapsley, 2008, 2009, 2022), with the Anglo-Saxon countries adopting NPM's ideals in a more central way (Steccolini, 2019). Additionally, the retrieved studies report on settings in the United Kingdom (Irwin, 2002; McAdam and Walker, 2003), Australia (Kloot and Martin, 2000; Umashev and Willet, 2008; Yetano, 2009; Sharma and Gadenne, 2011; Nuhu, 2017), and New Zealand (Griffiths, 2003; Greatbanks and Tapp, 2007), but there is a fair-sized contingent from southern European countries (Italy, Portugal, and Spain) and northern ones (Sweden and Denmark). This is an indication that the ideas of managerialism and the use of the BSC have spread amongst different cultures.

It is also noteworthy that African countries are absent from the dataset. This adds to the remark made by Hoque (2014) that knowledge is lacking and that it would be worthwhile exploring the BSC in public sector organizations in emerging economies. Another point is that the USA has only minor representation in our findings, which is interesting since the BSC was developed largely by scholars associated with Harvard Business School. Holmes *et al.* (2006) review the cases of Washington state and the City of Charlotte; North Carolina is also well known (e.g., Kaplan and Norton, 1996; Quinlivan, 2000; Kaplan and Norton, 2001; Niven, 2008).

Table 6 around here

4.4. *Research methods and the number of organizations studied*

Regarding the research methods followed, it seems that authors choose mainly to adopt a qualitative approach, such as case studies, field studies, or interviews, as these account for 74% of the studies (see Tables 7 and 8 for a more complete account of the research methods used and the number of organizations included in the analysis for case studies). This is probably connected to the fact that the BSC is a tool that is adapted to each context, with the context influencing the outcomes of that adaptation as well. The case study approach can bring to the debate the complexities associated with each organization, and it allows in-depth and rich analysis of the implementations. In fact, of the total number of studies that informed this investigation, there were only four report surveys (Ghani *et al.*, 2010; Wu *et al.*, 2010; Elbanna, 2013; Nuhu *et al.*, 2017). Amongst these case studies, most adopt a single-case approach (approximately 56% – Table 8). Multiple-case studies, with some authors reporting on two or more organizations, are also a research option (e.g., Griffiths, 2003; McAdam and Walker, 2003; Guimarães *et al.*, 2010). Longitudinal case studies are additionally performed (e.g., Greatbanks and Tapp, 2007; Modell, 2009; Modell, 2012; Pimentel and Major, 2014).

There are also six publications that do not report empirical studies, and these were categorized as theoretical works or literature reviews. In addition, there are four that undertake surveys as a research method (these are considered in the last category of Table 8 as well).

Tables 7 and 8 around here

4.5. *Level of government studied*

When considering the level of government studied (Table 9), it is possible to perceive that organizations at the local level are studied more frequently in our sample. Together, these organizations are present in 17 articles, a little over half of them. Following this category, studies on institutions at a more national level account for slightly more than 39%. Studies with a regional-level and multi-level approach are less represented, with 3% and 6%, respectively. This result therefore reinforces the suitability of the BSC for

different contexts independent of its hierarchal positioning in the public structure of activities.

Table 9 around here

4.6. *Theories and combinations of theories*

Of the 39 articles that were included in this literature review, six were not considered in this analysis because they are categorized as theoretical contributions or literature reviews (please refer to Table 7). Of the remaining 33 studies, only approximately 33% rely on a theoretical framework (Tables 10 and 11). Interestingly, most of the studies that make use of a theoretical background were published in accounting outlets, which could reinforce Steccolini’s (2019) claim that papers from the public administration literature take a more functionalist approach. Furthermore, it can be perceived that, of the 11 studies with a theoretical background, only eight rely on the use of a single theory, while three adopt combined theoretical approaches (Table 10). Therefore, in general, our analysis indicates that more than 66% of the empirical studies have no theory to accompany the results, taking a more practical orientation without being guided by any specific theoretical lenses.

As categorized in Table 11, a higher number of studies draw upon institutional theory approaches to anchor the observations made (Sharma and Lawrence, 2005; Kasperskaya, 2008; Fältholm and Nilsson, 2010; Modell, 2012; Sutheewasinnon *et al.*, 2016; Maran *et al.*, 2018; Bertz and Quinn, 2022). By looking into the concepts of isomorphism (e.g., Sutheewasinnon *et al.*, 2016) or decoupling and loose coupling (Kasperskaya, 2008), institutional theory has become a handy tool for investigating processes of change. Institutional theory is clearly called upon to study the institutionalization of performance measurement (Modell, 2022), and, through the spread of NPM reforms, the implementation of newer models involves processes of change (Steccolini, 2019), for which institutional theory can aid the understanding (see Modell (2022) for a reflection on institutional theory about performance management and measurement (PMM) in the public sector). Additionally, in the three studies that rely on more than one theoretical

lenses, institutional theory is present and accompanied by other theoretical lenses, such as technical rational theory (Sharma and Lawrence, 2005), critical theory (Modell, 2012), and structuration theory (Maran *et al.*, 2018). However, not only institutional theory is used by the authors. Additionally, actor–network theory (Zawawi and Hoque, 2022), fads and fashions (Modell, 2009), innovation diffusion theory (Zawawi and Hoque, 2020), and system theory (Roge and Lennon, 2018) are employed as a basis for studies. None of these studies combine more than one theoretical lenses.

Tables 10 and 11 around here

4.7. *Main issues addressed regarding the BSC*

As pointed out by Micheli and Kennerly (2005), at the time of their review, many cases present an application of the BSC but lack a deep analysis of it. However, with multiple cases appearing in the literature about the BSC, more insights into its evolution, virtues, and difficulties naturally accumulate. The next subsections explore the insights collected from the reports on local and governmental entities' BSC use.

4.7.1. *Ranking perspectives and designing the model*

NPM reforms may justly be said to be the starting point for public service managers to implement more business-like practices to modernize and transform the public sector (Lapsley, 2009). NPM promoted a paradigm shift to a quantifiable way of thinking (Lapsley, 2008, 2009; Steccolini *et al.*, 2020), with ideas for comparing performance with targets (Olsen *et al.*, 2000). This new paradigm probably found in the BSC a model that could accomplish these purposes. Besides, since its inception, the BSC has been seen as an adaptable model, meant to be customized by each organization intending to implement it. The BSC is adaptable to both the context and the organization (Holmes *et al.*, 2006). As an example, Griffiths (2003) mentions, for the three organizations that he studies, that the scorecard is modified to reflect their unique characteristics.

In this vein, the studies analysed provide some insights into the models developed and the choices of design made by public managers in their organizations. To begin with, public and non-profit organizations must (or are recommended to) alter the hierarchy of the model, prioritizing the constituents, that is, the stakeholders, rather than the financial aspects (see Section 2). Governmental entities abide by a far-reaching scope of activities intended to serve the public interest, which should be reflected in the BSC model adopted. NPM ideas may well be oriented towards emphasizing results (Lapsley, 2008), but results in these organizations should not focus solely on financial outcomes (Kaplan and Norton, 2001).

Therefore, in terms of arrangement, different solutions are reported. For a state rental organization in Fiji, Sharma and Lawrence (2005) provide insights into a BSC solution that retained the original format of the BSC. Conversely, Kasperskaya (2008) describes a BSC in a Spanish council that put the clients at the top. The same approach is followed by Mendes *et al.* (2012) for a waste division of a municipality. Bracci *et al.* (2017) examine two Italian public organizations, both of which present their strategy map with this different architecture, and the same applies to the Irish organization in Bertz and Quinn's (2022) study. Following this line, Modell (2009) refers to a BSC that encompasses a wider stakeholder focus. There is even a situation, reported by Røge and Lennon (2018), in which a business unit of a Danish municipality started to implement a performance measurement system inspired in the BSC with four perspectives but, in a further revision, reduced it to just three perspectives, excluding the financial one. Guimarães *et al.* (2010) also propose a model with both the financial perspective and the customer perspective at the top.

NPM ideas may be interpreted as a way to reduce public services' need for resources (Hood, 1995), which could represent a temptation to focus on finance and budgeting constraints. Nevertheless, the previously reported experiences with the BSC align with the downplaying of the financial perspective and a focus on measuring the service to the citizens by putting the corresponding perspective in a higher position on the strategy map. In the case reported by Røge and Lennon (2018), the financial perspective was abandoned because there was a propensity in the municipality to attach service quality to resource consumption and managers hoped to focus on outputs and outcomes.

All these findings reinforce the importance of adapting the BSC model to the inherent characteristics of the organization so that the implementation can succeed. Another design adaptation that seems to be quite common involves the naming of the model (e.g., Griffiths, 2003; Modell, 2009; Sutheewasinnon *et al.*, 2016; Bertz and Quinn, 2022) and the perspectives (Irwin, 2002; Bracci *et al.*, 2017). Some organizations in these studies tend to adopt names other than the balanced scorecard (e.g., Griffiths, 2003; Modell, 2009; Sutheewasinnon *et al.*, 2016; Bertz and Quinn, 2022). Bertz and Quinn (2022) mention that the manager of the organization was afraid that keeping the original name would lead the employees to perceive it as another irrelevant tool (the BSC became known just as the business plan). In turn, Chesley and Wenger (1999) report that an initial adaptation of the model involved a change in the labels of the perspectives, which enabled the start of the necessary strategic conversation, employees' buy-in of the model, and the legitimacy of the executives. This further emphasizes the adaptability of the model for each organization to encourage the buy-in to the idea and some strategies seeking to reduce the resistance among managers.

4.7.2. *Possible justification and reasons for adopting the BSC in public organizations*

Among the studies in our dataset, some of them refer to or mention NPM (Modell, 2005; Sharma and Lawrence, 2005; Kasperskaya, 2008; Nilsson, 2010; Zawawi and Hoque, 2020, 2022). Some of the points regarding the adoption of the BSC, in more general terms, can indeed be traced back to the ideas of a “government that works better and costs less” (Hood and Dixon, 2015: 265; see also Hood, 1991) or to the phenomenon of the “audit society”, which causes managers to look for ways to make their outcomes more verifiable (Lapsley, 2008, 2009). The reasons for adoption pointed out in the studies are varied. For example, they could be related to supporting “management by results” (Modell, 2009), accountability, transparency, and better use of public funds (Holmes *et al.*, 2006) or lightening the burden on taxpayers without losing service quality (Sharma and Lawrence, 2005). The implementation could even be linked to the political will unleashed by a fiscal crisis (as observed by Holmes *et al.*, 2006), the need to comply with legal requirements (Farneti, 2009; Sutheewasinnon *et al.*, 2016; Bracci *et al.*, 2017), the need for better planning and evaluation of operations (Yetano, 2009; Nilsson, 2010), or a way of introducing a longer-term emphasis (Modell, 2012). Sharma and Lawrence (2005)

mention at the outset of their article that public organizations face pressure to be more efficient and effective. Kloot and Martin (2000) provide evidence for that as well, as does Yetano (2009), observing that improvements were reported by interviewees. Additionally, adopting the BSC may be related to expectations of gaining legitimacy (Kasperskaya, 2008; Fältholm and Nilsson, 2010; Nilsson, 2010; Zawawi and Hoque, 2020). These reasons notwithstanding, Nilsson (2010) concludes as a corollary that different groups of actors (politicians, administrators, and operative employees) inside public organizations are likely to have different expectations regarding the implementation of the BSC or any performance management system.

4.7.3. Points regarding the entrepreneurs and consultants

Lapsley (2009) attributes growing significance in the public sector to management consultants, to whom the NPM reforms may have given an important push for working with public organizations. However, summarizing a set of results from prior studies, the author makes the case of a certain degree of disappointment with management consultants and some difficulties in taking advantage of their expertise. Indeed, our search in the articles in this study found some brief mentions of the hiring of external consultants. For the implementation, and probably even for the design, of the model, there are signs of the hiring of external consultants (e.g., Kasperskaya, 2008; Modell, 2009; Fältholm and Nilsson, 2010; Nilsson 2010; Sutheewasinnon *et al.*, 2016). Specifically, Sutheewasinnon *et al.* (2016) mention that a consulting firm played an important role in integrating the BSC into the performance model and in providing capital for its legitimization. This adds to Lapsley's (2009) idea of reliance on management consultants, attributing them more of a legitimization purpose than an instrumental one.

Moreover, based on institutional theory, a line of studies addresses the role played by so-called institutional entrepreneurs (e.g., Sutheewasinnon *et al.*, 2016). These authors' findings demonstrate the importance of having an entrepreneur and, more importantly, an entrepreneur with a stock of legitimacy capital, to advocate the implementation (Sutheewasinnon *et al.*, 2016). Zawawi and Hoque (2020) also report that the implementation of the BSC was promoted by the first CEO of the organization, who acted as a champion, and McAdam and Walker (2003) mention the importance of a champion

at a strategic level in one of the cases presented. In Bertz and Quinn's (2022) case study, the BSC, known internally simply as the business plan, was an initiative of a new director.

Nilsson (2010) stresses the importance of superiors and subordinates working together in designing the implementation process. In addition, as Farneti (2009) emphasizes in her case study, by working together in developing and implementing the BSC, the case organization was able to cultivate the dialogue between politicians and administrators.

In sum, all the previous points highlight the importance of having individuals who are knowledgeable about the design and adoption of the BSC and can drive the implementation of the model.

4.7.4. Main experiences reported on the implementation and use of the BSC

Over the years, the NPM initiatives and ideas have been questioned and criticized (e.g., Olsen *et al.*, 2000; Lapsley, 2008), with Lapsley (2008) referring to some doubts about the key elements of NPM, in which he includes performance measurement. At the time of his publication, research was still underdeveloped (Modell (2004) called for more research on systems like the BSC). Now, an accumulated body of published research allows us to study the BSC's solutions and its use in more detail. Either exploring what seem to have been successful implementations (e.g., Pimentel and Major, 2014; Bertz and Quinn, 2022) or reporting on less successful ones (e.g., Kasperskaya, 2008; Modell, 2009; Bracci *et al.*, 2017; Maran *et al.*, 2018), the experiences of implementation and use vary.

Sutheewasinnon *et al.* (2016) identify a more gradual implementation process of the BSC, with more and more of its elements being adopted, passing through various phases in the organization studied. In the last phase described, it is reported that the implementation started with features that were easier to understand, and many actors had become involved in it by the end. Being more pragmatic and instrumental also seems to be beneficial in the case of one of Kasperskaya's (2008) organizations, which searched for simpler formats (adopting only some elements of the BSC). Another example is the study by Greatbanks and Tapp (2007), who show gradual implementation from one area of the organization to the others within a structured process containing presentations and discussions. After implementation, the BSC design and use tend to proceed generically and evolve over

time. Sharma and Gadenne (2011) explain that the development of the performance measurement system passed through some interactions that eventually led to a model that differed from the original BSC. The same appears to have happened in Zawawi and Hoque's (2020) case organization and in one of those studied by Yetano (2009).

There is no doubt that the use of BSC elements can be seen as a stable and usable system (Zawawi and Hoque, 2022) with an easy philosophy (Mendes *et al.*, 2012). Additionally, the BSC has the capacity to change organizational life and define new ways of working (Kasperskaya, 2008), change behaviours (Greatbanks and Tapp, 2007), or change existing situated rationalities (Bertz and Quinn, 2022). The levels of service quality are said to improve with higher levels of BSC adoption (Ghani *et al.*, 2010). The BSC can assist in the alignment of programmes and resource allocation to the organization mission and in developing a shared vision (Griffiths, 2003) or aligning the interests in a purchaser-provider relationship (Zawawi and Hoque, 2022). Communication within the organization and externally to other parts of the government can benefit from the BSC (Irwin, 2002), as can the translation of political priorities (Farneti, 2009). Furthermore, the BSC may embody an interactive system that allows the breakdown of performance measures for different areas and levels, holding together employees and activities (Zawawi and Hoque, 2022). Similarly, Pimentel and Major's (2014) findings allow them to conclude on the successful and proper integration of a combination of the BSC and quality management in the management model of the organization under study. The benefits of using the BSC are certainly vast (see Holmes *et al.* (2006) for a more exhaustive account of the expected benefits of implementing the BSC in public agencies), and some studies report good rates of use of the BSC (Elbanna, 2013).

Through the sharing of ideas, the use of the BSC in the public sector may have introduced benefits that converge with the rationales of efficiency and effectiveness that are at the heart of NPM (Lapsley, 2022), but this managerial emphasis brought by NPM to public services is expected to face some challenges.

Regarding the BSC studies in our database, there is a case presented by Kasperskaya, (2008) in which the BSC of one of the organizations, with the clients perspective at the top of the strategy map, ends up having a ceremonial and symbolic role, without being used to support decision making, and therefore is decoupled from operational activities. This case, which began with the intention to transform the old ways of performance

measurement, was implemented symbolically merely to signal a modern organization, with some managers seeing no relationship with their job responsibilities. Similarly, there are situations in which organizations end up discarding the BSC altogether (Modell, 2009; Bracci *et al.*, 2017). In the case described by Bracci *et al.* (2017), the model failed due to strong resistance to change and difficulties in defining measures and identifying stakeholders. These are also possible reasons for the poor adoption and success of the BSC reported by Nuhu *et al.* (2017). Höglund *et al.* (2021) show that the introduction of a system in combination with the political authorities that supervise the agency led the BSC to be questioned in terms of legitimacy as a strategic management accounting system. Modell (2009) states that, due to the lack of managerial attention during restructuring, the use was halted, and, in the end, elements of an earlier performance system were incorporated into a new system. The author further concludes that the fashion-driven adoption of some techniques can lead to problems, but these adoptions, even when “rejected”, may influence the newer systems to be developed.

Some of these cases of disengagement with the BSC may be interpreted as evidence of resistance. As Lapsley (2009) hypothesizes, when introducing NPM ideas into public services, one should expect a degree of passive resistance through complex forms, and Lapsley (2008) suggests that dysfunctionalities may continue in the performance measurement of public services. Our findings indeed indicate that not all implementations progress well and that some resistance and difficulties can derail the use of the BSC entirely, even if some situations have a focus on stakeholders (e.g., Modell, 2009; Bracci *et al.*, 2017), as recommended.

Other problems and obstacles may also appear. There are cases that highlight difficulties regarding the cascading process (Umashev and Willet, 2008; Sharma and Gadenne, 2011; and Harahap (2021) give examples of a cascading process): inadequate education, sponsorship, and commitment (Farneti, 2009); the organizational culture (Sharma and Gadenne, 2011); motivation and political support (Kasperskaya, 2008); complexities regarding the involvement of political organs (Maran *et al.*, 2018); the definition of links between outputs and outcomes (Sharma and Gadenne, 2011); the representation of multiple outcomes (Yetano, 2009); a lack of time and human resources (Kasperskaya, 2008); and a lack of integration with a reward system (Maran *et al.*, 2018).

Similarly, data collection can be perceived as a challenge (Holmes *et al.*, 2006; Kasperskaya, 2008; Sharma and Gadenne, 2011; Maran *et al.*, 2018), with delays deriving from limited resources or time (Kasperskaya, 2008; Sharma and Gadenne, 2011), the lack of an integrated information system (Bracci *et al.*, 2017), or failure to provide the necessary data for strategic decision making (Roge and Lennon, 2018). Difficulties also seem to arise with causality and with the representation of complex causal relationships to be set aside in the early stages of institutionalization (Kasperskaya, 2008). Griffiths (2003) additionally reports that measures were not causally linked.

5. Discussion and directions for further research

Undisputedly, the NPM agenda and ideas have created fertile ground for much of the development of research on performance measurement in public organizations (Lapsley, 2008; Steccolini, 2019) and on the use of the BSC. NPM (and its NPFM ally) has a wide array of experiences and diversity in practice between different geographic regions, but performance systems are a key aspect (Guthrie *et al.*, 1999). Performance measurement and the implementation of proven private practices seem to be at the core of the NPM movement and reforms (Hood, 1991, 1995), with Lapsley (2008) predicting at the time of writing that performance measurement would remain an area of interest to those involved with NPM. The manner in which the toolkit of performance techniques, such as the BSC, contributes to helping public managers will probably persist in attracting academic interest. The BSC is portrayed as a model that is adaptable to public services (e.g., Kaplan and Norton, 2004; Niven, 2008), and our analysis summarizes some key considerations regarding the use of the model in government entities. Indeed, for these discussions to mature, earlier observations must be acknowledged, and “scholars who wish to contribute to changing and improving current practices and policies may need to ensure that the exploration of the past and the present offers insights and indications for the future” (Steccolini, 2019: 259).

Accordingly, opportunities remain to be exploited, and, in the subsections below, we address the third research question of our study by offering some considerations and ideas for future researchers to take into account as well as reporting on current situations that may provide a stimulus for further research into the BSC.

5.1. Further situations to consider in BSC design, implementation, and ongoing use

In the discussion about NPFM presented by Olson *et al.* (2000), the authors assert that often the performance information was inaccurate, complex, and even misleading, and it is important for the information generated to be of interest to diverse actors, for example politicians and service recipients. Following this reasoning, further designs and solutions of the BSC should continue to be directed to measuring what is valued by the public or the essential qualities that should drive public services, as posited by Guthrie *et al.* (1999). Certainly, the quantification of and orientation towards results, as backbones of the NPM ideals, are likely to remain well into the future and may come to be seen as sources of conflict that hinder the effective conducting and accomplishment of the mission in pursuit of the targets set (see Lapsley (2009) for examples). Moreover, one of the contentions of NPM, as Lapsley (2008, 2009) explores, is the possible establishment of tick box behaviour or resultant compliance in achieving targets, which could cause rigid interpretations that do not benefit the public or create value (Lapsley, 2009). The imposition of targets should therefore be undertaken with caution. It is important to avoid dysfunctional behaviours that may undermine public trust by focusing only on the accomplishment of the target in prejudice of the service (Olson *et al.*, 2000; see Lapsley (2009) for some cases of this). This is an aspect that could be explored further.

In addition, it cannot be overlooked that many activities are related to people, in different contexts, and it should be guaranteed that performance will be monitored appropriately to improve it (Olson *et al.*, 2000). Therefore, the BSC should be substantiated in the services that the organization wishes to provide.

Moreover, as indicated in the CIMA (2011: 20) report: “performance measurement is a process, not an event. It operates as continuous cycle, needing continuous development of people, processes and services.” This, to some extent, seems to find some confirmation in section 4.7.4 in that performance measurement in public organizations tends to evolve over time (Greatbanks and Tapp, 2007; Yetano, 2009; Sharma and Gadenne, 2011; Sutheewasinnon *et al.*, 2016; Zawawi and Hoque, 2020). It would therefore be worthwhile paying closer attention to how the BSC evolves and what are the challenges for its day-to-day use after implementation. Furthermore, according to the results presented by Modell (2009), solutions that may be created and implemented can show the influence of past experiences. At the same time, disengagement with the BSC could reveal

the stability of earlier mechanisms and practices (Maran *et al.*, 2018). On a similar line, Lapsley (2022) states that the introduction of NPM reforms does not happen in a vacuum and probably occurs as layers of change, with new practices and old ones being enacted simultaneously. The same reasoning could be applied here. Therefore, future research could take this issue into account and put it into wider contexts in further explorations of the idiosyncrasies of the BSC's implementation. Analogously, researchers could explore further how the past systems or other tools experimented with in these organizations may influence technical issues in the BSC solutions adopted or how they affect further revisions of the model. Following the suggestion of Modell (2009), it would be valuable to investigate how the histories and carry-overs of past experiences may result in the failure of the change process.

Additionally, despite some indications of the use of the BSC with various other tools and techniques (in concrete, the findings reported by Modell (2009) and Pimentel and Major (2014), i.e., the combined implementation with total quality management), the evidence presented in most of the studies is limited. Indeed, the BSC could be the foundation of an entire system (Kaplan, 2012), but much of the management accounting and control literature asserts that systems do not work in isolation (e.g., Malmi and Brown, 2008). As pointed out by Sharma and Sharma (2021) for private companies, the use of complementary systems extends the use of the BSC. Future researchers should not ignore what surrounds the BSC. The integration and use of both the BSC and costing techniques or the use of the BSC and the budgeting process, which is of paramount importance in the public domain, could be of great interest. It could also be worthwhile exploring how different controls would affect policies and decisions (Steccolini, 2019), create tensions, and, in combination, influence the value of the services provided by the organizations.

Moreover, further research on the BSC for government entities should take into account the fact that the lines between private and public sectors are becoming increasingly blurred, with public services being provided by different entities (Steccolini, 2019). Given their expected proximity to citizens, local authorities will probably be required to implement sophisticated performance solutions to help in these arrangements, and the BSC could provide assistance in that sense. Likewise, it is important to determine how the BSC could be involved in that network, how it creates tensions and constraints or offers benefits (Steccolini *et al.*, 2020), and/or how it is involved in the co-production of public services (Steccolini, 2019).

5.2. *Considering political and societal issues*

Another point that should be considered (as Modell (2005) advises) concerns the political and social processes surrounding the public sector. According to Olson *et al.* (2000), NPFM techniques are bound to notions of control and politics, and public services are activities related to people, whose lives and social contexts differ. Monitoring performance by focusing on internal causes may not adequately facilitate its improvement (Olson *et al.*, 2000). Conversely, the measurement of all political stakeholders' interests may lead to the absence of a coherent strategy, and the performance measurement system of the organization may become dysfunctional and unmanageable (Johnsen, 2001). Indeed, accounting in the public sector is undoubtedly complex simply because of the varied social and political contexts common to these organizations (Hoque, 2014) – a point that Höglund *et al.* (2021) underscore as the government's position and influence have had an impact on internal monitoring and overridden the use of the BSC.

Likewise, the study of the BSC and other performance measurement tools cannot be divorced from the broader political, societal, and cultural forces that influence and are influenced by them (Steccolini *et al.*, 2020). Guthrie *et al.*'s (1999) findings highlight the importance of cultural dimensions to understand the national experiences with NPFM. Extrapolating, the cultural aspects should also be important to BSC implementations. Moreover, public institutions are permeated by politics that affect governance arrangements and the philosophy behind reforms (CIMA, 2011). As Bracci *et al.* (2017) suggest, some attention should be directed to political contingencies when managers are designing and implementing the BSC for public organizations, while Yetano (2009) mentions that both legislation and the associated complexity of the local government environment influence the structure of the performance management system. This presents a challenge to the BSC as a performance model and raises the prospect that these forces could affect the design, implementation, and use of the model. As an example, the media and public opinion may have some influence (Höglund *et al.*, 2021).

Future research questions may include the following. How might a change of governments or local elected authorities affect the development, revision, and use of the BSC? How might the political positioning of the government or the local authorities change the system? How might conflicts between administrators and politicians affect and change the BSC in use? How might the political regulation affect and change the

practices adopted by public organizations, and how might that regulation collide with strategy development (Höglund *et al.*, 2021)?

Additionally, in line with the above, how the BSC could incorporate and contribute to local and government organizations to be more compliant with discussions of public concerns could be explored. In this regard, more current societal concerns, such as sustainability and environmental performance, are relevant. These concerns are becoming central issues in organizations, and government institutions cannot avoid them. The BSC will probably be an instrument to address them. Hence, studying the inclusion of an environmental dimension in the design option of governmental entities, the changes brought in, the complexities, the selection of indicators, and the way in which it is used for reporting to the varied stakeholders would be valuable.

5.3. *Research methods and theoretical approaches*

As Barros and Ferreira (2019: 356) express for control and innovation, performance measurements in public organizations “are complex and challenging realities to analyse” as well. Accordingly, a deeper appraisal of the BSC’s solutions, interactions, consequences, and effects, through a holistic view of situations that are fully grounded in its context, would be of the greatest value. Indeed, contemporary issues of performance measurement and management in public services are complex (Steccolini *et al.*, 2020), and trying to reduce these complexities invites the failure to see the subtleties of public management (Lapsley, 2008). Therefore, after the golden age of NPM, research still needs to be performed in the specific context (Steccolini, 2019), and case studies will allow researchers to bring up the complexities of each organization and report in depth on the circumstances of the BSC’s adoption and use. Qualitative methods are better able to capture all of these nuances. Research on the use of the BSC, given its specificities and customizations, best occurs in the real context in which it is enacted (Yin, 1981).

Pursuing the previous research agenda, future researchers could employ a variety of research designs. Single cases allow greater richness, offer a better understanding of context, and provide greater learning opportunities (Verleye, 2019). To answer the calls in the literature (e.g., Modell, 2009, 2004, 2012; Suthewasinnon *et al.*, 2016), longitudinal research strategies would be especially helpful (such as investigating some

paths mentioned here). As Yin (2018) emphasizes, for longitudinal cases, the interest lies in establishing how processes evolve, and their conditions change over time. Although some existing studies use this strategy (e.g., Greatbanks and Tapp, 2007; Modell, 2009, 2012; Pimentel and Major, 2014), future research approaches still need to follow the evolution of the implementation processes and managers' use of the solutions with a more dynamic approach. It should also be noted that some of the experiences described (subsection 4.7.4) indicate that the BSC is not static in public organizations and does not have the same characteristics in every organization. Therefore, accompanying the organizations over time and closely observing the modifications as they are occurring may strengthen the theory development.

Theory will also be a relevant way to counterbalance the more practical orientation of the studies (Table 11 – subsection 4.6) and to further the understanding of actors' behaviours, the courses of BSC implementation, and the implications for broader contexts (see Modell (2022) regarding the argumentation for institutional theory). General literature on public accounting research is criticized for underplaying the role of theories or at least making it less important to obtain more profound forms of theorization since they are being built on the ideas of NPM (Steccolini, 2019). It is certain that behaviours will not be captured by a neo-classical economic or principal–agent view (Steccolini, 2019), but, following an interpretative tradition, future studies could employ the new branches of institutional theory, such as institutional logics, to fuel the discussion and ask new questions. For example, Modell (2022: 362) discusses a growing number of studies about institutional logics but reports that “little attention has been paid to how PMM practices are implicated in a dynamic, recursive interplay with institutional fields across different level of analysis”. Furthermore, Modell (2022) argues that institutional fields present competing logics that coexist in public organizations and that enable a variety of courses of action. Exploring these conflicts and implications may constitute another possible direction for research. Moreover, these ideas of logics may be similar to some debates in the sociology of valuation and valuation studies regarding the plurality of social orders (Modell, 2022). Therefore, a way forward, as suggested by Modell (2022), is to make institutional theory enter into dialogue with the sociology of valuation and valuation studies (see Modell (2022) for a more complete account on this point).

In the opposite direction, as Massaro *et al.* (2016) highlight for one of the projects that they address in their paper, an insider (emic) perspective should also be of value. The

majority of the research conducted involves the researchers acting as outsiders, and offering the field interventionist research that is able to join the two perspectives would shed light on real-life events.

6. Concluding remarks and contributions of the study

More than 30 years have passed since the publication of the first article on the BSC (Kaplan and Norton, 1992), and, over the same period, public accounting research has been developed, probably triggered by the NPM reforms (Steccolini, 2019). The BSC was soon adapted to public organizations as performance measurement became a central element of NPM (Hood, 1991, 1995; Lapsley, 2008; Steccolini, 2019). With the changes that NPM has imposed, some dysfunctionalities were to be expected (Lapsley, 2008), and there is a suggestion that the BSC may be going out of fashion (Arnaboldi *et al.*, 2015). Nevertheless, Lapsley (2008) hypothesizes that performance measurement will continue to be a theme in the future, enduring through its continued use amongst diverse agents of NPM. Hence, this study's intention was to take stock of the research conducted to date regarding the use of the BCS in governmental entities. Accordingly, it presented a process developed around a structural literature review (Massaro *et al.*, 2016). Two research questions were posed to provide insights into the literature and a third one to inquire about the directions that future research may take. We performed a search of articles in electronic databases, which allowed us to capture a broad picture of the field as reported in the leading journals.

This search resulted in a literature review of 39 articles from 26 journals, mainly from the accounting and public sector ABS ranking domains, published between 1999 and 2022. We found steady interest and a continuous publication rate, concluding that authors resort mainly to case studies but that many studies lack a grounding in theory. Geographically, the biggest group of studies focuses on the European region.

Examining the studies collected also allowed us to synthesize some insights into the BSC's situation. Although some reported benefits are described in the presented cases, there are both situations in which applications of the BSC seem to have been more successful (e.g., Chesley and Wenger, 1999; Pimentel and Major, 2014) and cases in which the change to the BSC was resisted and the model ended up being abandoned (e.g.,

Modell, 2009; Bracci *et al.*, 2017; Maran *et al.*, 2018) or becoming just symbolic (Kasperskaya, 2008).

With both benefits and difficulties for the organizations striving to use the BSC, future research could explore some of the possibilities highlighted here. Specifically, future undertakings in the field should keep investigating some idiosyncrasies and the underlying dynamics related to implementation and use. It could be considered that the implementation and use of the BSC do not occur in a vacuum, that old practices will probably continue to be enacted (Lapsley, 2022), and that the BSC and control practices of different organizations will evolve and probably experience diverse interactions in the life of the organization. Additionally, further research on the ongoing use of the tool, how it is evolving, and the day-to-day challenges is a possible way to proceed. Conversely, failed BSC solutions may still influence future performance measurement solutions (Modell, 2009), and the BSC is not expected to work in isolation (e.g., Malmi and Brown, 2008). There are also new ideas about hybridization in which public services are provided by networks of different entities, either private or public (Steccolini, 2019). These are challenges for performance measurement and management and areas in which the BSC may provide support. Closely related to this point, future studies should also be performed in the wider social and political contexts, which may well influence the BSC's design, use, and path over time. Along with these suggestions, we propose that, in terms of research design, qualitative methods, with their possibilities of addressing the complexities of performance, control, and contexts, will persist as an adequate option, especially when developed in a longitudinal way. Furthermore, the ideas for future research presented here will suit this more qualitative approach.

Overall, this literature review will be pertinent both to the literature on performance management in public services and to practitioners. First, it is relevant to the research line that is devoted to studying the use of the BSC in public services, and performance measurement more widely, in the sense that it provides a stock of insights into the model and a reflection on the different experiences that are reported in the leading literature. It also highlights some considerations and points that could provide a stimulus for further research. This work would also be of interest to practitioners since it provides an analysis of the design and implementation issues of the BSC, which could provide preliminary support and useful initial information for decision making about the BSC.

These advantages notwithstanding, there are also limitations to be acknowledged in this work. The research approach followed limited the scope of organizations to be included in the review. BSC applications in public organizations like education, health, police or armed forces, theatres, museums, and state-owned firms were excluded. Therefore, future research could take the entire public sector into consideration.

References

The references marked with * are the papers retrieved and included in the literature review.

Ardito, L., Messini Petruzzelli, A., and Albino, V. (2015), “ From Technological inventions to new products: A systematic review and research agenda of the main enabling factors”, *European Management Review*, Vol.12 No.3, pp. 113-147.

Arnaboldi, M., Lapsley, I., and Steccolini, I. (2015), “Performance Management in the Public Sector: The Ultimate Challenge”, *Financial Accountability & Management*, Vol.31 No.1, pp. 1-21.

Barros, R. S. and Ferreira, A.M.D.S.D.C. (2019), “Bridging management control systems and innovation: The evolution of the research and possible research directions”, *Qualitative Research in Accounting & Management*, Vol.16 No.3, pp. 342-372.

*Bertz, J. and Quinn, M. (2022), “Situated rationalities and management control change – an empirical note on key actors, situated rationalities and generalised practices”, *Qualitative Research in Accounting & Management*, Vol. 19 No.1, pp. 77-100.

Bisogno, M. and Donatella, P. (2022), "Earnings management in public-sector organizations: a structured literature review", *Journal of Public Budgeting, Accounting & Financial Management*, Vol. 34 No. 6, pp. 1-25.

*Bracci, E., Maran, L., and Inglis, R. (2017), “Examining the process of performance measurement system design and implementation in two Italian public service organizations”, *Financial Accountability & Management*, Vol.33, pp. 406-421.

CIMA (2011), “Public sector performance: A global perspective”. Available at: https://www.cimaglobal.com/Documents/Thought_leadership_docs/NHS-public-sector/public_sector_report_web_oct_2011.pdf

*Chesley, J.A. and Wenger, M.S. (1999), "Transforming an organization: Using models to foster a strategic conversation", *California Management Review*, Vol. 41 No. 3, pp. 54-73.

Dumay, J., Bernardi, C., Guthrie, J., and Demartini, P. (2016), "Integrated reporting: A structured literature review", *Accounting Forum*, Vol. 40 No. 3, pp 166-185.

*Elbanna, S. (2013), "Processes and Impacts of Strategic Management: Evidence from the Public Sector in the United Arab Emirates", *International Journal of Public Administration*, Vol.36 No.6, pp 426-439.

Euske, K.J. and Malina, M.A. (2014), "Transfer of Performance Measurement System Innovations Across Economic Sectors". *Advances in Management Accounting*, Vol.22, pp. 25-42.

*Fältholm, Y. and Nilsson, K. (2010), "Business Process Re-Engineering and Balanced Scorecard in Swedish Public Sector Organizations: Solutions for Problems or Problems for Solutions?", *International Journal of Public Administration*, Vol.33 No.6, pp. 302-310.

*Farneti, F. (2009), "Balanced scorecard implementation in an Italian local government organization", *Public Money & Management*, Vol.29 No.5, pp. 313-320.

Funck, E.K. and Karlsson, T.S. (2020), "Twenty-five years of studying new public management in public administration: Accomplishments and limitations", *Financial Accountability & Management*, Vol.36, pp. 347-375.

*Ghani, E. K., Said, J., and Laswad, F. (2010), "Does level of balanced scorecard adoption affect service quality? A study on Malaysian local authorities", *International Journal of Managerial and Financial Accounting*, Vol. 2 No.3, pp. 256-274.

*Guimarães, B., Simões, P., and Marques, R.C. (2010), "Does performance evaluation help public managers? A Balanced Scorecard approach in urban waste services", *Journal of Environmental Management*, Vol. 91, pp. 2632-2638.

*Greatbanks, R. and Tapp, D. (2007), "The impact of balanced scorecards in a public sector environment: Empirical evidence from Dunedin City Council, New Zealand", *International Journal of Operations & Production Management*, Vol. 27 No. 8, pp. 846-873.

*Griffiths, J. (2003), "Balanced Scorecard Use in New Zealand Government Departments and Crown Entities", *Australian Journal of Public Administration*, Vol.62 No.4, pp. 70-79.

Guthrie, J., Olson, O. and Humphrey, C. (1999), “Debating developments in new public financial management: the limits of global theorising and some new ways forward”, *Financial Accountability & Management*, Vol.15 No.3-4, pp.209-228.

Guthrie, J., Ricceri, F., and Dumay, J. (2012), “Reflections and projections: A decade of Intellectual Capital Accounting Research”, *The British Accounting Review*, Vol. 44 No. 2, pp. 68-82.

*Harahap, R.M. (2021), “Integrating organizational- and individual-level performance management systems (PMSS): a case study in a large Indonesian public sector organization”, *Qualitative Research in Accounting & Management*, Vol.18 No.4/5, pp. 417-454.

Hood, C. (1991), “A public management for all seasons?”, *Public Administration*, vol.69, pp.3-19.

Hood C. (1995), “The ‘new public management’ in the 1980s: Variations on the theme”, *Accounting, Organizations and Society*, Vol.20, pp.93–109.

*Höglund, L., Caicedo, M.H., Mårtensson, M., and Svärdsten, F. (2021), “Strategic management accounting in the public sector context: the case of the Swedish Transport Administration”, *Journal of Public Budgeting, Accounting & Financial Management*, Vol.33 No.4, pp. 468-486.

*Holmes, J.S., Piñeres, S.A.G., and Kiel, D. (2006), “Reforming Government Agencies Internationally: Is There a Role for the Balanced Scorecard?”, *International Journal of Public Administration*, Vol.29 No.12, pp. 1125-1145.

Hoque, Z. (2014), “20 years of studies on the balanced scorecard: Trends, accomplishments, gaps and opportunities for future research”, *The British Accounting Review*, Vol.46 No.1, pp. 33-59.

*Irwin, D. (2002), “Strategy mapping in the public sector”, *Long Range Planning*, Vol. 35 No. 6, pp. 637-647.

*Johnsen, Å. (2001), “Balanced scorecard: theoretical perspectives and public management implications”, *Managerial Auditing Journal*, Vol.16 No.6, pp. 319-330.

Johnson, H.T. and Kaplan, R. S. (1987), *Relevance lost – the rise and fall of management accounting*, Harvard Business School Press, Harvard.

Kaplan, R.S. (2009), Conceptual foundations of the balanced scorecard. In Chapman, C.S., Hopwood, A.G., and Shields, M.D. (Eds.), *Handbook of management accounting research* (Vol. 3), Oxford: Elsevier. pp. 1253–1269

Kaplan, R.S. (2012), "The balanced scorecard: comments on balanced scorecard commentaries", *Journal of Accounting & Organizational Change*, Vol.8 No.4, pp. 539-545.

Kaplan, R.S. and Norton, D.P. (1992), "The balanced scorecard – measures that drive performance". *Harvard Business Review*, Vol.70 No.1, pp. 71–79.

Kaplan, R.S. and Norton, D.P. (1993), "Putting the balanced scorecard to work". *Harvard Business Review*, Vol. (September–October), pp. 134–147

Kaplan, R.S. and Norton, D.P. (1996), *The balanced scorecard: Translating strategy into action*, Boston, MA: Harvard Business School Press.

Kaplan, R.S. and Norton, D.P. (2000), "Having trouble with strategy? Then map it.". *Harvard Business Review*, Vol.78 No.5, pp. 167–176.

Kaplan, R.S. and Norton, D.P. (2001), *The strategic focused organization: How balanced scorecard companies thrive in the new business environment*, Boston, MA: Harvard Business School Press.

Kaplan, R.S. and Norton, D.P. (2004), *Strategy maps: Converting intangible assets into tangible outcomes*, Boston, MA: Harvard Business School Press.

Kaplan, R.S. and Norton, D.P. (2006), *Alignment: Using the balanced scorecard to create corporate synergies*, Boston, MA: Harvard Business School Press.

*Kasperskaya, Y. (2008), "Implementing the balanced scorecard: a comparative study of two Spanish city councils – An institutional perspective", *Financial Accountability & Management*, Vol.24 No.4, pp.263-284.

*Kloot, L. and Martin, J. (2000), "Strategic performance management: a balanced approach to performance management issues in local government", *Management Accounting Research*, Vol.11 No.2, pp.231-251.

Lapsley, I. (2008), "The NPM Agenda: Back to the future ", *Financial Accountability & Management*, Vol.24: pp.77-96.

Lapsley, I. (2009), "New Public Management: The Cruellest Invention of the Human Spirit?", *Abacus*, Vol.45: pp.1-21.

Lapsley, I. (2022), "Whatever happened to New Public Management?", *Financial Accountability & Management*, Vol.38: pp.471-482.

*McAdam, R. and Walker, T. (2003), "An Inquiry into Balanced Scorecards within Best Value Implementation in UK Local Government", *Public Administration*, Vol.81, pp. 873-892.

Mattei, G., Grossi, G., and Guthrie, J. (2021), “Exploring past, present and future research trends in public sector auditing research: a literature review”, *Meditari Accountancy Research*, Vol.29 No.7, pp. 94-134.

Malmi, T. and Brown, D. A. (2008), “Management control systems as a package – Opportunities, challenges and research directions”, *Management Accounting Research*, Vol.19, pp.287–300.

Manes-Rossi, F., Nicolò, G. and Argento, D. (2020), "Non-financial reporting formats in public sector organizations: a structured literature review", *Journal of Public Budgeting, Accounting & Financial Management*, Vol.32 No.4, pp. 639-669.

Massaro, M., Dumay, J., and Guthrie, J. (2016), “On the shoulders of giants: undertaking a structured literature review in accounting”, *Accounting, Auditing & Accountability Journal*, Vol.29 No.5, pp.767-801.

*Maran, L., Bracci, E., and Inglis, R. (2018), “Performance management systems' stability: Unfolding the human factor – A case from the Italian public sector”, *The British Accounting Review*, Vol.50 No.3, pp.324-339.

*Mendes, P., Santos, A.C., Perna, F., and Teixeira, M.R. (2012), “The balanced scorecard as an integrated model applied to the Portuguese public service: a case study in the waste sector”, *Journal of Cleaner Production*, Vol. 24, pp.20-29.

*Micheli, P. and Kennerley, M. (2005), “Performance measurement frameworks in public and non-profit sectors”, *Production Planning & Control*, Vol.16 No.2, pp.125-134.

*Modell, S. (2004), “Performance measurement myths in the public sector: a research note”, *Financial Accountability & Management*, Vol.20 No.1, pp.39-55.

*Modell, S. (2005), “Performance Management in the public sector: past experiences, current practices and future challenges”, *Australian Accounting Review*, Vol.15 No.37, pp.56-66.

*Modell, S. (2009), “Bundling management control innovations: A field study of organizational experimenting with total quality management and the balanced scorecard”, *Accounting, Auditing & Accountability Journal*, Vol.22 No.1, pp.59-90.

*Modell, S. (2012), “Strategy, political regulation and management control in the public sector: Institutional and critical perspectives”, *Management Accounting Research*, Vol.23 No.4, pp.278-295.

Modell, S. (2022), “New developments in institutional research on performance measurement and management in the public sector”, *Journal of Public Budgeting, Accounting & Financial Management*, Vol.34 No.3, pp.353-369.

Nerantzidis, M., Pazarskis, M., Drogalas, G., and Galanis, S. (2022), "Internal auditing in the public sector: a systematic literature review and future research agenda", *Journal of Public Budgeting, Accounting & Financial Management*, Vol.34 No.2, pp.189-209.

*Nilsson, K. (2010), "Expectations from Administrative Reforms: An Attempt to Implement the Balanced Scorecard in a Public Sector Organization", *International Journal of Public Administration*, Vol.33 No.14, pp.822-831.

Niven, P.R. (2008), *Balanced Scorecard step-by-step for government and nonprofit agencies (2nd Edition)*, Hoboken, New Jersey: John Wiley & Sons.

*Nuhu, N.A., Baird, K., and Appuhamilage, A.B. (2017), "The adoption and success of contemporary management accounting practices in the public sector", *Asian Review of Accounting*, Vol.25 No.1, pp.106-126.

Olson, O., Humphrey, C. and Guthrie, J. (2000), "Caught in an Evaluatory Trap: The Dilemma of Public Services Under New Public Financial Management", paper presented at The Chartered Institute of Management Accountants (CIMA) Seminar, September 2000, Available at: <https://ssrn.com/abstract=1372419>.

*Pimentel, L. and Major, M. J. (2014), "Quality management and a balanced scorecard as supporting frameworks for a new management model and organizational change", *Total Quality Management & Business Excellence*, Vol.25 No.7-8, pp.763-775.

*Quinlivan, D. (2000), "Rescaling the Balanced Scorecard for local government", *Australian Journal of Public Administration*, Vol.59 No.4, pp.36-41.

*Røge, K.M. and Lennon, N.J. (2018), "A study on the criteria of internal transparency, efficiency and effectiveness in measuring local government performance", *Financial Accountability & Management*, Vol.34 No.4, pp.392-409.

*Sayed, N., Lento, C., and Henderson, M. (2022), "Application of the Balanced Scorecard for strategy reformulation: Perspectives from a Canadian municipality", *Canadian Journal of Administrative Sciences/Revue canadienne des sciences de l'administration*, Vol.39 No.3, pp.328-346.

Schmidt, U. and Günther, T. (2016), "Public sector accounting research in the higher education sector: a systematic literature review", *Management Review Quarterly*, Vol.66, pp.235-265.

*Sharma, U. and Lawrence, S. (2005), "Public sector reform, global trends vs. local needs: the case of a state rental organization in Fiji", *Journal of Accounting & Organizational Change*, Vol.1 No.2, pp.141-164.

*Sharma, B. and Gadenne, D. (2011), “Balanced Scorecard Implementation in a Local Government Authority: Issues and Challenges”, *Australian Journal of Public Administration*, Vol.70 No.2, pp.167-184.

Sharma, D. and Sharma, U. (2021), “Analysis of balanced scorecard usage by private companies”, *Pacific Accounting Review*, Vol.33 No.1, pp.36-63.

*Sutheewasinnon, P., Hoque, Z., and Nyamori, R.O. (2016), “Development of a performance management system in the Thailand public sector: Isomorphism and the role and strategies of institutional entrepreneurs”, *Critical Perspectives in Accounting*, Vol.40, pp.26-44.

Steccolini, I. (2019), “Accounting and the post-new public management: Re-considering publicness in accounting research”, *Accounting, Auditing & Accountability Journal*, Vol.32 No.1, pp.255-279.

Steccolini, I., Saliterer, I., and Guthrie, J. (2020), “The role(s) of accounting and performance measurement systems in contemporary public administration”, *Public Administration*, Vol.98: pp.3–13.

*Umashev, C. and Willett, R. (2008), “Challenges to implement strategic performance Measurement systems in Multi-objective Organizations: the case of a large local government authority”, *Abacus*, Vol.44 No.4, pp. 377-398.

Verleye, K. (2019), “Designing, writing-up and reviewing case study research: an equifinality perspective”, *Journal of Service Management*, Vol. 30 No. 5, pp. 549-576.

*Wu, J. C., Tsai, H., Shih, M., and Fu, H. (2010), “Government performance evaluation using a balanced scorecard with a fuzzy linguistic scale”, *The Service Industries Journal*, Vol.30 No.3, pp. 449-462.

*Yetano, A. (2009), “Managing Performance at local government level: the cases of the city of Brisbane and the city of Melbourne”, *Australian Journal of Public Administration*, Vol.68 No.2, pp. 167-181.

Yin, R.K. (1981), “The Case Study as a Serious Research Strategy”, *Science Communication*, Vol. 3 No. 1, pp. 97-114.

Yin, R.K. (2018), *Case Study Research and Applications: Design and Methods (6th edition)*. Thousand Oaks, CA: Sage Publications.

*Zawawi, N.H.M. and Hoque, Z. (2020), “The Implementation and Adaptation of the Balanced Scorecard in a Government Agency”, *Australian Accounting Review*, Vol. 30, pp. 65-79.

*Zawawi, N.H.M. and Hoque, Z. (2022), “Network control and balanced scorecard as inscriptions in purchaser-provider arrangements: insights from a hybrid government agency”, *Accounting, Auditing & Accountability Journal*, Vol.35 No.3, pp. 981-1005.

Appendix:

Appendix Table around here

Figures

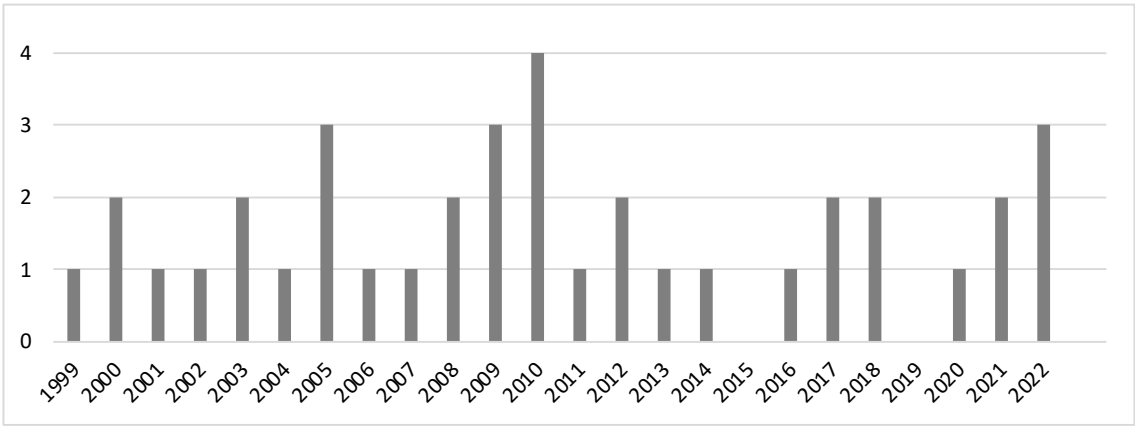


Figure 1: Distribution of articles per year

Source: Authors own work

Tables

Type of Publication	Exclude all papers not classified as an article or review.
2021 ABS Journal List	Exclusion of any work that was not published in a journal ranked a minimum of 2 in the 2021 ABS journal list in any subject area.

Research Focus and Setting of the Study	Exclusion of any study related to private organizations, education, health, cultural organizations (e.g., theatres or museums), police, armed forces, or state-owned companies.
--	---

Table 1: Exclusion criteria. Source: Authors own work

Research Focus and Setting of the Study	<p>Works (quantitative or qualitative) that reported any aspect of the BSC, addressing aspects regarding either its design, its use, or experiences of it in the organizations targeted by this study.</p> <p>Focus on organizations relating to government departments, government ministries, government agencies, government dependencies, municipalities local authorities, and/or local public institutions.</p> <p>Theoretical contributions, reviews, or literature review papers that debate or analyse the BSC in the public sector more generally.</p>
--	--

Table 2: Inclusion criteria. Source: Authors own work

	Scopus	WOS	Total
Keyword Search	1433	1060	2493
Restriction to Articles and Reviews	1030	767	1797
Restriction to journals classified as 2 or higher in 2021 ABS ranking list	92	113	205
Elimination of duplicate articles	39	113	152
Screening of the Title Abstract and Keywords	15	24	39

Table 3: Development of the database. Source: Authors own work

Journal	Number of articles	%
International Journal of Public Administration	4	10.26%
Financial Accountability and Management	4	10.26%
Australian Journal of Public Administration	4	10.26%
Australian Accounting Review	2	5.13%
Management Accounting Research	2	5.13%
Accounting, Auditing and Accountability Journal	2	5.13%
Qualitative Research in Accounting and Management	2	5.13%
Journal of Environmental Management	1	2.56%
International Journal of Operations and Production Management	1	2.56%
Managerial Auditing Journal	1	2.56%
Production Planning and Control	1	2.56%
Critical Perspectives in Accounting	1	2.56%
Public Administration	1	2.56%
Total Quality Management & Business Excellence	1	2.56%
Long Range Planning	1	2.56%
Asian Review of Accounting	1	2.56%
Abacus	1	2.56%
California Management Review	1	2.56%
British Accounting Review	1	2.56%
Service Industries Journal	1	2.56%
Canadian Journal of Administrative Sciences	1	2.56%
Public Money & Management	1	2.56%
Journal of Accounting & Organizational Change	1	2.56%
International Journal of Managerial and Financial Accounting	1	2.56%
Journal of Cleaner Production	1	2.56%
Journal of Public Budgeting, Accounting & Financial Management	1	2.56%
Total	39	100,00%

Table 4: Journals and number of articles per journal. Source: Authors own work

Area	Number of articles	%
Accounting	20	51.28%
Public Sector	10	25.64%
Operations and Technology Management	3	7.69%
Ethics and Social Responsibility	2	5.13%
Sector Studies	2	5.13%
Social Sciences	1	2.56%
Strategy	1	2.56%
Total	39	100.00%

Table 5: Academic areas of the articles retrieved according to the ABS ranking list.
Source: Authors own work

	Number of articles	%
Europe	16	41.03%
Asia	4	10.26%
Oceania	9	23.08%
Africa	0	0.00%
America	2	5.13%
Not Applicable	8	20.51%
Total	39	100.00%

Table 6: Geographic areas where the study was conducted. Source: Authors own work

	Number of articles	%
Case/Field study/interviews	29	74.36%
Content Analysis/ historical analysis	0	0.00%
Survey/Questionnaire/other empirical	4	10.26%
Commentary/normative/policy	0	0.00%
Theoretical/literature review	6	15.38%
Total	39	100.00%

Table 7: Research methods of the studies. Source: Authors own work

	Number of articles	%
One	22	56.41%
Two	5	12.82%
Three	1	2.56%
Four	1	2.56%
Not Applicable	10	25.64%
Total	39	100.00%

Table 8: Number of organizations studied. Source: Authors own work

	Number of articles	%
National level	13	39.39%
Regional level	1	3.03%
Local level	17	51.52%
Multiple levels	2	6.06%
Total	33	100.00%

Table 9: Number of articles per level of government. Source: Authors own work

	Number of articles	%
Single theory	8	24.24%
2 theories	3	9.09%
No theory	22	66.67%
Total	33	100.00%

Table 10: Articles and combination of theories.

	Number of articles	%
Institutional theory	5,5	16.67%
Actor-Network Theory	1	3.03%
Critical Theory	0,5	1.52%
Structuration Theory	0,5	1.52%
Fads and Fashions	1	3.03%
Innovation Diffusion theory	1	3.03%
Technical Rational Perspective	0,5	1.52%
System Theory	1	3.03%
No theory used	22	66.67%
Total	33	100.00%

Table 11: Theoretical approaches followed. Source: Authors own work

Appendix Table: Purpose of the retrieved studies. Source: Authors own work

Paper	Main Purpose of the Paper
Chesley and Wenger (1999)	The authors present a longitudinal case study of an office that implemented the BSC, examining how strategy models and organizations co-evolve over time.
Kloot and Martin (2000)	The paper investigates performance measurement systems in local government using the four BSC perspectives.
Quinlivan (2000)	The article proposes a solution for the use of BSC in not-for-profit organisations.
Johnsen (2001)	The study's aim is to identify theoretical perspectives and look at the implications for the use of the BSC in public management.
Irwin (2002)	The article provides an example of how the BSC and the strategy map were developed for a UK public organization.
Griffiths (2003)	The study examines how the BSC is used, assessing the extent of its use as a 'performance measurement system, a strategic management tool, and to discharge external accountability requirements in New Zealand government departments and Crown entities' (Griffiths, 2003: 71).
McAdam and Walker (2003)	The study dives into the use and development of the BSC as a tool for implementing the Best Value initiative in UK local government.
Modell (2004)	Looking into previous empirical evidence, the author analyses how competing performance measurement myths influence organizational action.
Sharma and Lawrence (2011)	The paper analyses the introduction of the BSC in a Fijian organization and other techniques, examining whether it was adopted for legitimacy reasons or economic rationalisation. The paper also investigates the consequences for Fijian society.
Micheli and Kennerley (2014)	The study provides a review of the frameworks used for public and non-profit organizations.
Modell (2005)	The author revises the developments at the time regarding performance measurement in the public sector, leaving some space for the BSC.
Holmes <i>et al.</i> (2006)	The paper assesses the applicability of the BSC to government organisations in developing countries, following a discussion on its use in government agencies.
Greatbanks and Tapp (2007)	The study provides an analysis, supported by empirical longitudinal evidence, of the implementation and use of the BSC in a department of a city council.
Kasperskaya (2008)	The study conducts an examination and description of the implementation of the BSC in two city councils within the same autonomous Spanish region.
Umashev and Willett (2008)	The case study aims to explore the implementation of the BSC, analysing the factors of success and failure from the perspectives of the organisation's senior managers.
Farneti (2009)	The article examines the implementation of the BSC in a local government organisation in Italy.

Yetano (2009)	The paper makes use of the BSC as a framework to examine how local governments use performance measurement and management systems.
Modell (2009)	The paper examines how experimenting with the implementation of total quality management and the BSC affects the progress of control practices in a government agency.
Wu <i>et al.</i> (2010)	The paper proposes a performance measurement model based on the BSC, combined with a fuzzy linguistic scale model, for public service.
Faltholm and Nilsson (2010)	Looking into different organisations, the paper examines the implementation of the BSC in a local government institution in northern Sweden.
Nilsson (2010)	Based on an attempt to implement the BSC, the author explores what different actors expect from it.
Guimarães <i>et al.</i> (2010)	The intention of the study is to analyse the potential of the BSC in the application to waste utilities, a responsibility of local authorities.
Ghani and Said (2010)	The study provides an assessment of the level of BSC adoption in Malaysian local authorities and the level of service quality.
Sharma and Gadenne (2011)	The paper analyses the implementation of the BSC within an Australian local government authority, identifying challenges and issues in its implementation and use."
Mendes <i>et al.</i> (2012)	The paper's aim is to propose and evaluate the BSC in the Urban Hygiene and Waste Division of a Portuguese municipality.
Modell (2012)	The author conducts a field study to examine how evolving practices based on the BSC mediate the process of strategy formation.
Elbanna (2013)	The study explores strategic management processes and impacts in federal and local public sector organisations within the United Arab Emirates.
Pimentel and Major (2014)	The paper analyses the implementation of total quality management and how its integration with the BSC impacted the effectiveness and management model of a government agency.
Sutheewasinnon <i>et al.</i> (2016)	The study analyses the development of the performance management system by the Thai government, providing an account of it and analysing the isomorphic pressures influencing its different stages.
Nuhu <i>et al.</i> (2017)	The aim of the study is to analyse the association between the diagnostic and interactive use of systems, as well as the success of the adoption of a range of management accounting practices in the public sector.
Bracci <i>et al.</i> (2017)	Comparing the BSC implementation in two case organisations, analysing 'whether the BSC development process can be effectively translated into the public sector context' (Bracci <i>et al.</i> , 2017: 407).
Roge and Lennon (2018)	The paper conducts a case study on the introduction of a PMS in a Danish municipality, where the BSC served as the inspiration, analysing how efficiency and effectiveness relate to the inadequacy of PMS in the public sector.
Maran <i>et al.</i> (2018)	The study analyses how and why factors related to external and organisational pressures play a role in the preference for the stability of 'old' practices rather than the change brought about by the implementation of the BSC.

Zawawi and Hoque (2020)	The development and evolution of the BSC model in a government entity is analysed to understand how it becomes a sustainable organisational practice in an entity that must deal with a purchaser-provider arrangement
Hoglund <i>et al.</i> (2021)	In a public sector agency, the authors elaborate on the formation of the organisation's strategy and how strategic management accounting is influenced by both internal and external actors, and, again, what this means for strategy.
Harahap (2021)	The integration between organisational and individual-level performance measurement systems in an Indonesian public organisation is examined.
Zawawi and Hoque (2022)	The article examines how a government agency used and implemented control mechanisms to align expectations in a purchaser-provider setting, focusing specifically on the provider and interpreting management control mechanisms (where the BSC is adopted by the provider) as an inscription.
Sayed <i>et al.</i> (2022)	Conducting a study in a Canadian municipality, the use of the BSC for strategy reformulation and performance measurement is explored, showing how a municipality can develop a strategy map with the BSC perspectives.
Bertz and Quinn (2022)	The paper explores the role of the situated rationalities of key individuals in a process of change that involved the implementation of a BSC model.