

## **The BSC as a support vector for the strategic management process of organizations: a systematic literature review**

## **Le BSC comme vecteur d'accompagnement de la démarche de management stratégique des organisations: revue de littérature systématique**

**JELLOULI Tarik**

Enseignant-Chercheur

Faculté des Sciences Juridiques, Economiques et Sociales de FES

Université Sidi Mohammed Ibn Abdellah

Laboratoire interdisciplinaire de recherche en économie, finance et management des organisations

Maroc

**Jelloulit@yahoo.fr**

**KSIR Yassir**

Doctorant

Faculté des Sciences Juridiques, Economiques et Sociales de FES

Université Sidi Mohammed Ibn Abdellah

Laboratoire interdisciplinaire de recherche en économie, finance et management des organisations

Maroc

**Yassirsir@gmail.com**

**Date submitted :** 17/03/2022

**Date of acceptance :** 03/06/2022

**To cite this article :**

JELLOULI T. & KSIR Y. (2022) «The BSC as a support vector for the strategic management process of organizations: a systematic literature review», Revue du contrôle, de la comptabilité et de l'audit «Volume 6 : Numéro 2» pp : 1 - 23

## Abstract

The literature about the BSC as a support vector for the strategic management process of companies has evolved exponentially over the last few decades. However, the divergence of research results means that the role of this tool in strategic deployment is still poorly understood. Based on a systematic review of empirical studies published between 1992 and 2020, this article proposes a framework that brings together a set of variables related to the strategic management process (strategic planning, strategy implementation and strategic decision-making) and its different stages. The ensuing results highlight several findings that would allow managers and decision-makers to better understand the contribution of this dashboard in terms of strategic management and researchers to better channel their efforts in studying this tool through the exploitation of the systematic literature review presented which provides a framework for the impact of the use of BSC on the strategic management of organizations.

**Key words :** Balanced scorecard; strategic management; strategic planning; strategy implementation; strategic decision-making.

## Résumé

La littérature sur le sujet du BSC comme vecteur d'accompagnement de la démarche de management stratégique des entreprises a évolué de manière exponentielle au cours des dernières décennies. Cependant, la divergence des résultats de recherche fait que le rôle de cet outil dans le déploiement stratégique est encore mal compris. S'appuyant sur une revue systématique des études empiriques publiées entre 1992 et 2020, cet article propose un cadre de référence qui regroupe un ensemble de variables liées au processus de management stratégique (planification stratégique, mise en œuvre de la stratégie et prise de décisions stratégique) et ses différentes étapes. L'objectif de l'article est de mettre en évidence plusieurs constats qui permettraient aux responsables et aux décideurs de mieux comprendre l'apport de ce tableau de bord en termes de pilotage stratégique et aux chercheurs de mieux canaliser leurs efforts dans l'étude de cet outil à travers l'exploitation de la revue de littérature systématique présentée qui fournit un cadre de référence quant à l'impact de l'utilisation du BSC sur le management stratégique des organisations.

**Mots clés :** Balanced scorecard ; management stratégique ; planification stratégique ; déploiement stratégique ; prise de décisions stratégiques.

## INTRODUCTION

Historically perceived as a tool of performance measurement, studies start to wonder about the ability of the Balanced Scorecard to support sustainable and efficient strategic management. This scorecard is currently used in a variety of ways, which suggests various influences on performance measurement and strategy management.

The undeniable importance of the implementation of a Balanced Scorecard for contemporary companies justifies the growing interest of researchers. However, while the number of articles on this subject has evolved exponentially over the last few decades, there is still no precise prescription of the impact of this scorecard on the strategic deployment in organizations. Several researchers have tested the effect of the BSC on a wide range of strategy-related variables. However, even though they tested similar variables, they found different degrees of correlation between the implementation of this tool and the success of strategic management in organizations. The importance of the BSC to the sustainability of strategy is therefore still poorly understood and the current state of the literature does not contribute significantly to improve our understanding of this relationship.

This article aims to go beyond the isolated and dispelled works on the impact of the BSC on strategic management in organizations by proposing a systematic review of empirical articles published between 1992 and 2020 on this subject. Our main objective is to integrate the results of these studies in order to identify the role of the implementation of this dashboard in the support of the various stages of strategic management in organizations. This will contribute to advancing our knowledge of the impact of modern management control tools on strategy and to better guide future research. It is in this sense that we asked the following research question: **How can the Balanced Scorecard be adapted to support the strategic management approach adopted by organizations?**

This article is organized as follows. First, we will explain in detail the concepts related to our research. Second, we will describe the purpose of our study. Then, we will explain the method used to select relevant articles. Next, we will present some general characteristics of the studies reviewed. Then, present and discuss the results of our study, and conclude with the main findings that will help us to answer the research questions posed.

### 1. LITERATURE REVIEW

Before presenting the results of the research, this section explains the conceptual framework that guided the systematic review of the existing literature, with a brief presentation of

research areas related to BSC and the use of this tool as a vector for strategic management in organizations.

### **1.1. BSC**

According to Kaplan and Norton, the Balanced Scorecard is not a simple dashboard for generating performance measurement indicators, but a management system that companies can implement as a vector of deploying and implementing their strategy. Kaplan and Norton propose the use of four perspectives in a balanced scorecard: customers, internal processes, organizational learning, and finance. Each aspect contains several indicators that are linked together through cause and effect relationships.

### **1.2. BSC as a strategic management tool**

The Balanced Scorecard is a strategic management tool that translates the organization's strategy into a series of objectives and indicators divided into different dimensions related to the company's performance. Generally, organizations that operate in a complex environment due to the size of their structures systematically use the Balanced Scorecard (Tapinos, et al., 2011).

The concept of the Balanced Scorecard is at the center of the works that must explain the different facets of strategy and the conditions for its sustainability. For Malina & Seltos (2001), the BSC presents a real opportunity to develop, communicate and implement a strategy. They have demonstrated that there is a positive correlation between efficient strategic alignment and the contributions of the Balanced Scorecard. For Malmi (2001), the adoption of the Balanced Scorecard at the organizational level is motivated, among other things, by the desire to translate strategy into measurable and achievable objectives. In the same context, Decoene and Bruggeman (2006) conclude from a case study of several companies that the cause-and-effect relationship between strategic alignment and company performance is easier to define by using the Balanced Scorecard. According to Vladimir & Mercedes (2001), the BSC is considered as an indispensable tool for strategic deployment that allows the translation of the organization's strategic vision into quantifiable objectives.

Generally, organizations use the Balanced Scorecard to place strategy at the center of their management processes. In this sense, the BSC has a very important role in describing strategy in a coherent way (Norton, 2001).

## 2. THE OBJECTIVE OF THE STUDY

This study is based on a systematic review of empirical articles published in respected journals between 1992 and 2020 on the impact of the implementation of a BSC on the strategic management approach of organizations. It mainly allows us to:

1. Study how the variable "BSC" was measured by the authors in the strategic management topic.
2. Identify the main explanatory variables that determine the role of this dashboard in supporting the strategic management process of organizations.

A few details are necessary to better understand our research problem, namely:

1. The choice of 1992 as the lower limit of the time horizon of our study is justified by the publication in 1992 by the Harvard Business Review of Kaplan and Norton article which defines the guidelines for the use and implementation of a BSC.
2. In this systematic review, we only considered empirical articles published in reputable journals. Indeed, we excluded non-empirical studies (conceptual works, meta-analyses, etc.) as well as those published in different support (book, internet, etc.). This allows us to have more comparable researches, which improves the quality of the results of the systematic review.
3. Finally, it is important to mention that our review only covers articles that have dealt with the relationship between strategic management and BSC.

## 3. METHODOLOGY

Before citing the methodological details of the study, it will be appropriate to answer the question: why conduct a systematic review? In the field of management, traditional narrative literature reviews have been widely criticized for their lack of relevance due to the use of a personal and generally subjective and biased methodology by the authors. To address this shortcoming, Tranfield & al (2003) propose to apply the specific principles of systematic review methodology commonly used in the medical sciences. The main difference between a systematic review and a traditional narrative review is that the systematic review uses a rigorous, reproducible, scientific, and transparent process. According to the same authors, a systematic review is different from a meta-analysis in that it does not use statistical and econometric procedures to synthesize results and analyze data. The main objective of a systematic review is to identify key scientific contributions to a field or issue and its results

are often presented and discussed descriptively. Applying the principles of systematic review limits systematic errors, and provides more reliable results to draw conclusions and make decisions.

After defining the research question, two steps are particularly important when conducting a systematic review:

1. Establishing inclusion and exclusion criteria
2. The strategy for selecting potential studies.

### **3.1 Definition of the research question**

The objective of this review is to describe the impact of BSC on the strategic management of organizations. As the concept of strategic management is vast, we have chosen to limit the work to the strategic management approach described by Stewart, which covers three main stages: planning, implementation, and decision making. It is in this sense that we asked the following research question: **How can the Balanced Scorecard be adapted to support the strategic management approach adopted by organizations?**

This research question is operationalized in three interrelated sub-questions

- 1- What is the impact of BSC on the strategic planning of organizations?
- 2- To what extent can the BSC be a vector for strategy deployment and implementation?
- 3- How can the 4 perspectives of the BSC be used in strategic decision-making?

### **3.2. Inclusion and exclusion criteria**

To optimize the identification and review of articles to be considered in our work, inclusion and exclusion criteria were developed. These criteria allow us to focus on the categories of research, methodology, findings, and periods that will be eligible for consideration in the review. In the context of our systematic review, the criteria for inclusion are:

1. Articles published after 1992
2. Articles published by scientific journals and indexed in scientific databases.
3. Articles mainly focused on the relationship between BSC adoption and strategic management of organizations.
4. Articles using a qualitative or quantitative methods or a mixed method.
5. Articles in English or French language.

For exclusion criteria:

1. articles published before 1992
2. theoretical articles, literature reviews, and meta-analyses
3. articles with weak or unrelated results

### **3.3 Identification of relevant studies**

Our objective was to determine the scientific research works published in English or French, which deal with the BSC and its impact on the strategic management of organizations. The search process was conducted between the beginning of March 2021 and the end of June 2021, taking account of scientific databases that include journals specialized in management, notably: SCOPUS, SCIENCE DIRECT, CAIRN, HAL ARCHIVES, JSTOR, SPRINGLINKER.

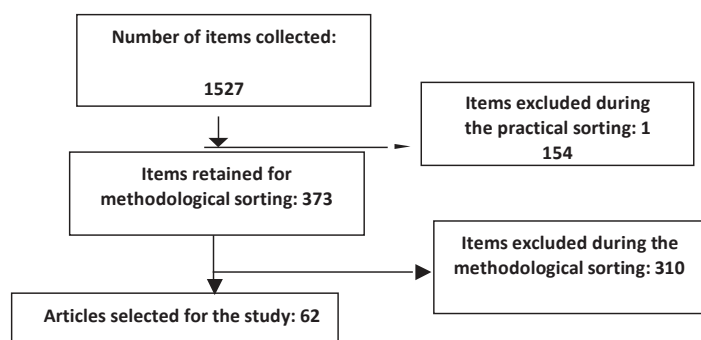
The documentary research in each of the databases was conducted in a systematic way using the following keywords:

("Balanced scorecard" OR "BSC" OR "Tableau de bord prospectif" OR "Tableau de bord équilibré" OR "tools of management control" OR "les outils de contrôle de gestion") AND (strategic management OR Strategy OR management stratégique).

### **3.4. Evaluation and selection of articles**

To ensure that the conditions for inclusion were met, the selected articles were screened using the approach initiated by Fink (2014). According to the author, there are two sorting models to be considered in a systematic review, the practical sorting and the methodological sorting. The practical sorting consists of checking the eligibility conditions based on the title, abstract, and publication date of the selected articles. This preliminary screening allowed us to exclude 1154 articles that did not meet at least one of the eligibility criteria. The remaining 373 articles were subjected to further sorting. The methodological screening took into account the quality of the articles, particularly the proposed methodology and the relevance of the conclusions. At the end of this screening, 310 articles were excluded.

At the end of this work, 62 articles were identified for this literature review (Figure 1).

**Figure 1: Systematic review flow chart**

**Source:** Adapted by the authors

For our study, we established a Microsoft Excel database that contained the reference of each article, the year of publication, the journal in which it was published, the sample size, the nationality of the companies studied, the sector(s) to which these companies belong, the statistical method used for the analysis of the data, as well as the abstract and results of each article.

### 3.5 Data extraction and information synthesis

After the identification of the articles to be included in the study, we proceeded to the extraction of data and the synthesis of information. In this sense, we decided to rely on the tools proposed by the content analysis method. This method allows us to objectively describe and quantify the researches (Evans & FitzGerald, 2002).

In our work, content analysis was used to categorize the stages of the strategic management process of an organization, namely: strategic planning, strategy implementation, and strategic decision making. To structure the analysis methodically, a categorization approach similar to the one used by Dixon-Woods & al (2005) was implemented.

Using a data extraction grid, our approach was completed at two levels as recommended by Tranfield & al (2003). The first level was used to identify the general characteristics of each study: author, year of publication, journal, geographical area, and sector of activity covered by the study, type of study, method of data collection and analysis, sample, and study participants. A table has been set up to collect this information. The second level of extraction identifies the results of the selected studies.

Subsequently, a categorization grid grouping the themes that were the object of the study was created. Concerning these themes, the variables used in the selected articles were coded as follows: 1 for positive impact, 2 for negligible impact. This coding simplified the use of

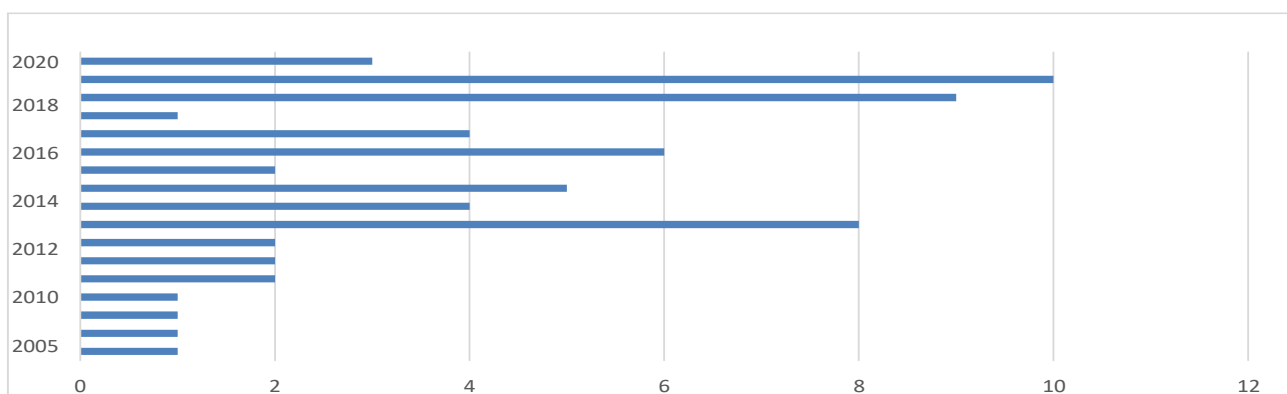


the data to clearly identify the trends in the literature.

#### 4. GENERAL CHARACTERISTICS OF THE STUDY

The distribution of the reviewed articles by year of publication shows that 2018 was an exceptional year for research on BSC as a vector for strategic management deployment (Fig. 2). Starting from a very limited number of articles per year for the period 1992-2010, the rate of article publication has remarkably increased since 2011 to an average of more than 5 articles per year for the period 2011- 2020.

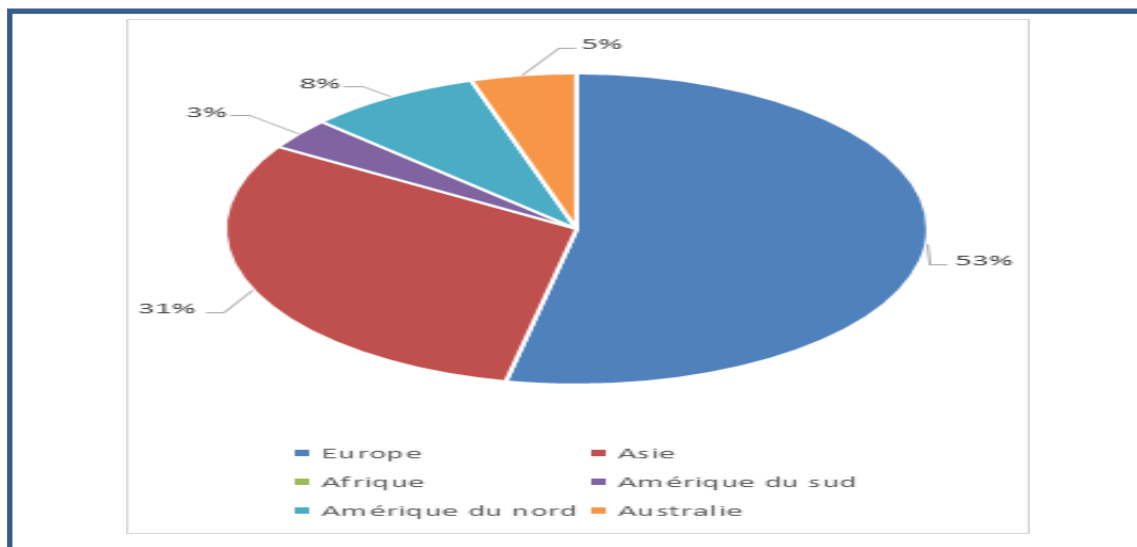
**Figure 2: Trend of publications by year**



**Source:** Adapted by the authors

As Figure 3 shows, European countries are the most frequently studied, followed by Asian firms and, to a lesser extent, American countries. At the country level, eight of the thirteen most studied countries are European (Table 1). The other countries are China (with 9 articles), Iran, Australia, the United States, and Malaysia. Furthermore, the distribution of the reviewed studies shows that the research on the link between BSC and strategic management was divided into several areas of activity. The public sector and the health sector were the disciplines in which this topic was most studied, with 8 and 7 of the articles respectively.

**Figure 3: Distribution of articles by continent**



Source: Adapted by the authors

**Table 1: Distribution of articles by country**

Netherlands	Number of items
China	9
France	6
Iran	5
United States	4
Germany	3
Australia	3
Portugal	3
Slovakia	3
Spain	3
Turkey	3
Italy	2
Malysia	2
Sweden	2
Other	14

Source: Adapted by the authors

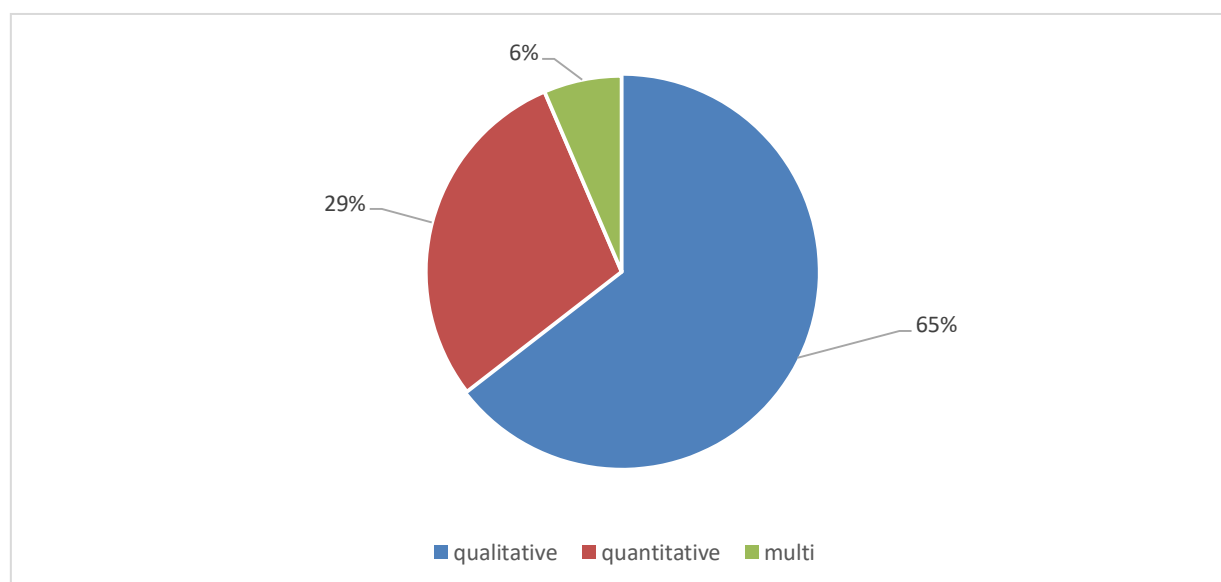
**Table 2: Distribution of articles by sector of activity**

Sector	Number of items
Public	8
Health	7
Bank	6
SME	5
Provision of Services	4
Tourist	4
Education	3
Energy	3
Industrial	3
Computer science	2

**Source:** Adapted by the authors

As shown in Figure 4, 65% of the selected articles were based on qualitative approaches, 29% of the selected articles were based on quantitative approaches and 6% of the selected articles used a multi-mode method combining quantitative and qualitative approaches.

**Figure 4: Distribution of articles by type of study**



**Source:** Adapted by the authors

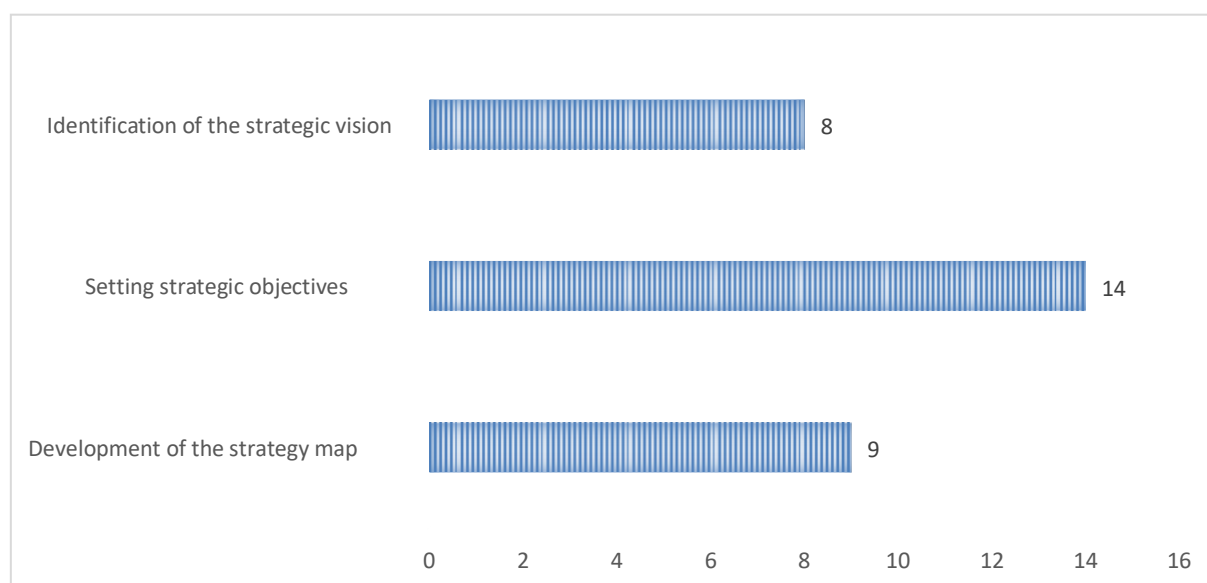
## 5. RESULTS

The categorization grid was used to examine the variables selected from the 62 articles included in our study. 11 variables were selected to better understand the literature trend on the impact of a BSC on the strategic management process. First, we will review the impact of this tool on strategic planning. Next, we will present the role of the BSC in strategy implementation and conclude by focusing on the influence of this tool on strategic decision-making at the organizational level.

### 5.1 The impact of the implementation of the BSC on the strategic planning of organizations.

Strategic planning involves several variables. These variables and the number of items associated with them are shown in Figure 5.

**Figure 5: Strategic planning variables**



**Source:** Adapted by the authors

The figure above reveals that the main articles dealing with the role of the BCS as a vector for strategic planning concern the setting of strategic objectives with 14 articles. In the second place we find the development of the strategy map with 9 articles and then the identification of the strategic vision with 8 articles.

#### 5.1.1 SETTING STRATEGIC OBJECTIVES

Among the articles dealing with the role of the BSC in the setting of strategic objectives of organizations, 86% of these articles have noted that the use of the BSC promotes the

identification of strategic objectives assigned to an organization. To this end, Hsu & Liu (2010), in a study of 47 companies in the automotive sector, show that the BSC facilitates the implementation of strategic environmental objectives of organizations in this sector. In the same dynamic, Rasoolimanesh & al (2015), in a case study of 113 public actors, demonstrated the existence of a positive correlation between the adoption of a BSC and the optimal setting of strategic objectives in urban development strategies by showing the role of leadership as a vector to support the implementation of this tool in a public context. In the same vein, Dreveton (2013), in a case study conducted at the level of a French public company, shows that the creation of a BSC can lead to the definition of a common vision of the company's strategic objectives.

In the same sense, Su Kang & al (2015) shows that the BSC approach is a vector for integrating the dimension of corporate social responsibility at the level of strategic objectives, which allows the development of these objectives in the most optimal way. Also, Hung Yi Wu (2012) developed a roadmap with the objective of helping management focus on strategy-related activities in the process of setting strategic objectives using the inputs of the BSC approach.

However, 2 articles show that the BSC approach does not have a significant impact on optimal strategic objectives set. To this end, Tapinos & al (2011), in a survey of 427 alumni database members, concluded that the use of BSC has an impact on some aspects of the strategic process, but it does not create significant differences when it comes to identifying the organization's strategic objectives.

### **5.1.2 DEVELOPMENT OF THE STRATEGIC MAP**

All 9 articles dealing with the impacts of using the 4 perspectives of the BSC in the development of an organization's strategy map highlight the added value of this tool in the implementation of the strategy map.

To this end, Luisa Alvarez & al (2019) show, in a case study, how the BSC can contribute to improving the effectiveness of the implementation of a strategy map. The authors demonstrated that categorizing the objectives assigned to a business administration department by using the four perspectives of the BSC is an effective method to better examine the performance and achievement of the set objectives.

In the same context, Hung Yi Wu (2012) indicates similar results in a study conducted in the Chinese banking context. The author shows that the BSC approach is an objective and

relevant way to construct strategy maps and that the frame work proposed in this study can also be applied to institutions in other sectors.

### 5.1.3 IDENTIFICATION OF THE STRATEGIC VISION

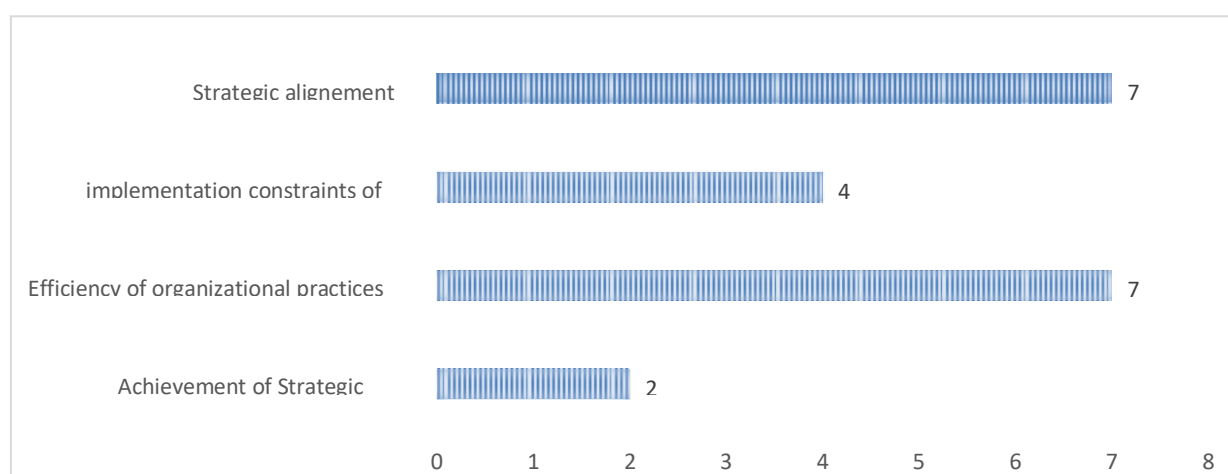
Like the studies that deal with the development of the strategic map, all the articles that shed light on the role of the BSC approach in the optimal identification of the organization's strategic vision confirm the positive correlation between these two variables.

In this context, Krystman (2013), in a study conducted about the Polish national strategy, confirms that the BSC will be an effective form of planning, implementing, and monitoring a national security strategy by stating that the construction of a scorecard for the national security strategy should start with the definition of a country's security vision. In a similar vein, Grigoroudis & al (2012), in a hospital setting, demonstrate that the development of such a scorecard system is of great importance because it is able to describe the vision of the organization and engage the various departments, units, and employees in achieving that vision because the balanced scorecard provides a more balanced view of the organization.

### 5.2 The impact of the implementation of the BSC on the implementation of the strategy.

32% of the selected articles highlight the impacts of BSC adoption on the strategy implementation process. The variables used to illustrate these impacts are presented in Figure 6.

**Figure 6: Variables related to the implementation of the strategy**



Source: Adapted by the authors

Four variables are mobilized in the literature to examine the impacts of the implementation of the Balanced Scorecard on the strategic deployment process: strategic alignment with 7 articles, efficiency of organizational practices with 7 articles, constraints on the implementation of the BSC with 4 articles, and achievement of strategic objectives with 2 articles.

### **5.2.1 STRATEGIC ALIGNMENT**

35% of the articles dealing with the impacts of the BSC on strategy implementation, put into perspective the role of this tool in the realization of strategic alignment. In a study conducted at the level of a business unit of a large Portuguese industrial company, Ferreira (2017) shows that the methodology proposed by the BSC can be used in an interactive way to promote learning and support the alignment of employees with the strategic vision set by the company. In the same dynamic, Brui (2018), in a study conducted in a library, reveals a positive relationship between the adoption of the BSC and the strategic alignment of the company, according to the author, the Balanced Scorecard constitutes a strategic management tool that allows a better understanding of the strategy which allows an effective strategic alignment. Wisniewski & Dickson (2001) also reached the same result by showing that the BSC provides a strategic management framework that can be applied to the performance of the police.

However, our literature review identified only 1 article that describes a negligible relationship between BSC adoption and strategic alignment. In this sense, Antonsen (2014) shows that the use of BSC reinforces formal control and reduce the opportunity for employees to contribute new ideas, which negatively influences employees' ability to understand the company's strategy.

### **5.2.2 THE EFFICIENCY OF THE ORGANIZATION'S PRACTICES**

Seven articles highlight the role of the BSC as a vector for evaluating the efficiency of an organization's management practices. The management practices on which the identified articles focused are: customer relationship management, supply chain management, information systems processes, project management, and accounting.

To this end, KIM & al (2003), in a study of 52 customers of an e-commerce company, demonstrated that the four perspectives of the BSC provide a practical guideline for evaluating the company's CRM activities.

In the same perspective, in the context of evaluating the effectiveness of the supply chain management of a Portuguese company, Afonso & Cabrita (2015) provide a conceptual framework for supply chain management that integrates financial and non-financial performance dimensions based on the inputs of the four dimensions of BSC.

In the same sense, Martinsons & al (1999) confirm that the BSC will allow managers to see the positive and negative impacts of IT applications and IS activities on the implementation of the strategy. Also, Pollo et al (2012) state that the BSC is considered as a high value-added analysis to standardize the decision-making processes to optimize the approach related to project management.

### **5.2.3 CONSTRAINTS FOR THE IMPLEMENTATION OF THE BSC**

Four articles show that the implementation of a BSC can be hindered by constraints that curbed the implementation of this tool at the level of organizations. The main obstacles mentioned in the studies are: the reluctance of managers to implement this tool and the lack of resources necessary for the implementation.

In this regard, Gallo & MIHALČOVÁ (2018) show, in a study of 60 tourism companies in Slovakia, that there are 2 barriers to the implementation of a BSC in these companies: the priority given by decision-makers to this tool and the lack of material resources to implement it. This trend is confirmed by Dobrovic & al (2018) in a study in the industrial sector incorporating 68 companies. The authors state that the rate of the use of this tool is 15%. According to them, this situation is explained mainly by the high cost of this project for the managers.

### **5.2.4 ACHIEVEMENT OF STRATEGIC OBJECTIVES**

The topic related to the role of BSC implementation in achieving the strategic objectives of an organization has been addressed in 2 articles that affirm the positive correlation between these two variables. The first study, conducted by Alvarez & al (2019), shows us the impact of ERP systems on the four dimensions of BSC and the leading role of BSC in achieving the organization's strategic goals. And the second study, conducted by Krystman (2013) in the public sector, who demonstrates that the BSC presents a framework for the realization of strategic objectives set by the Polish national security.

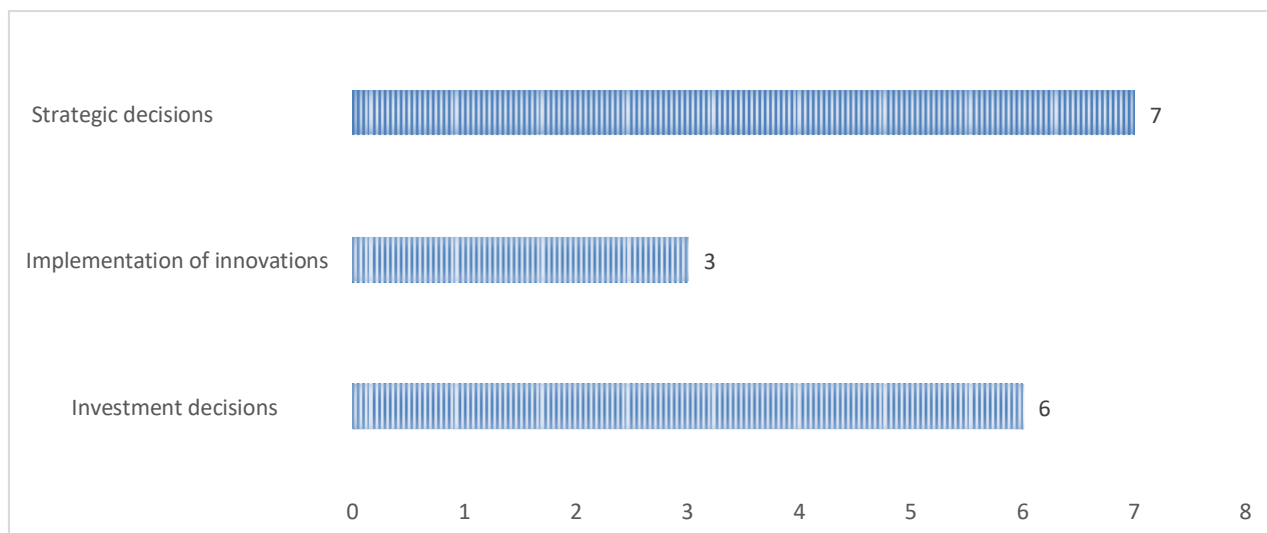
### **5.3 The impact of the BSC implementation on strategic decision making**

Sixteen articles show that the organization's strategic decisions are influenced by the



implementation of the BSC. Figure 7 exposes the different components of strategic decisions highlighted by the literature.

**Figure 7: Variables related to strategic decision-making**



Source: Adapted by the authors

### 5.3.1 STRATEGIC DECISIONS

The adoption of BSC within companies has a significant influence on the strategic decision-making process according to several authors such as H.Arasli & C.Alphun (2019). These authors point out, in a study conducted on 400 managers operating in the tourism sector, that the implementation of a strategic management tool such as the BSC can help SMEs or family hotelsto optimize the decision-making process. This trend is confirmed by Tjader & al (2014) who showedthat the Balanced Scorecard can be operationalized to serve as a basis for a company's strategic IT outsourcing policy decisions.

In the same dynamic, Abo-hamad and Arisha (2014) demonstrated, through a case study conducted in a hospital in Ireland, that the combination of MCDA tools and BSC contributes significantly to the decision-making process by explicitly fixing priorities between different performance measures.

### 5.3.2 INVESTMENT DECISIONS

Investment decision-making is also one of the motivations for BSC adoption identified in the literature. Chand & al (2005) confirm that the 4 dimensions of BSC can lead to the choice of the most relevant ERP system. This conclusion was confirmed by Wu & Kuo (2012) who developed a study of 158 Chinese hospitals and demonstrated that the BSC

structure can effectively integrate the necessary indicators to highlight the opportunity of IS investment.

In the same context, Dincer & Yuksel (2019), who evaluated investment decisions for renewables energies alternatives in a Turkish company based on the BSC dimensions, demonstrated that the use of this method is very useful for reducing subjectivity of strategic decisions.

### 5.3.3 IMPLEMENTATION OF INNOVATIONS

Fostering better implementation of innovations is also put forward by 3 articles as a motivation for BSC adoption. In a study conducted among 201 SMEs in Spain, R. Malagueno & al (2018) demonstrate that companies that use BSC present a higher capacity to implement operating innovations. In the same dynamic, Tsai & al (2009) confirm that the adoption of the BSC allows companies to integrate the sustainability dimension in their innovation.

## 6. DISCUSSIONS

The purpose of this section is to discuss the research questions outlined above:

- **What is the impact of BSC on the strategic planning of organizations?**

The impacts of the adoption of the BSC on the strategic planning of organizations are highlighted by 31 articles (some variables are repeated by several articles) that mobilize several variables to show the contributions of the BSC to the development of the strategic map, the setting of strategic objectives and the identification of the strategic vision. The impacts on strategic objectives are controversial, while several authors emphasize the positive relationship (12 articles), others show a negligible impact (2 articles). The role of the BSC in the development of the strategic map is highlighted by 9 articles, all of which show positive correlation between the implementation of this tool and the optimal implementation of the map. 8 articles deal with the ability of the BSC to identify the strategic vision of the organization, these articles show that the implementation of the BSC promotes understanding and mobilization around the strategic vision of the organization.

- **To what extent can the BSC be a vector for strategy deployment and implementation?**

Of the 20 articles identified that addressed the impacts of BCS adoption on strategy implementation, only 5 articles highlighted the insignificant impact of BCS implementation

on strategy deployment. The analysis identified several factors related to strategy implementation that are positively or negatively influenced by the adoption and implementation of the BSC. These factors include strategic alignment with 7 items and the assessment of the efficiency of the organization's practices with the same number of items, and secondly, constraints to the implementation of this tool with 4 items and the achievement of strategic objectives with 2 items.

- **How can the 4 perspectives of the BSC be used in strategic decision-making ?**

The analysis of the impact of the adoption of the BSC on the strategic decision-making process allows us to note a consensus in the literature on the positive role of this tool on the optimization of the decision making insofar as only 2 articles which underline the negligible impact whereas 14 articles show that the application of this tool is an opportunity to improve the relevance of the decisions taken by the managers and to reduce the subjective character of these decisions.

## CONCLUSION

This review provides an overview of the state of the literature and offers the opportunity to identify several aspects that mark this topic. First, it highlights the role of modern management control tools in the success of the strategic management process, from planning to decision making, through strategy deployment and implementation. Secondly, the exposition of the evolution of the number of published articles confirms the emergence of the Balanced Scorecard as an important area of study in management control. However, there is no evidence that a stage of "maturity" of this subject has been reached. In this respect, our analysis of the literature shows that more than 50% of the articles examined are case studies focused on particular cases that do not offer the capacity to compare with similar situations, which hinders the establishment of a solid theoretical basis.

This study helps to show a lot of aspects that have not yet been fully explored in the literature. Regarding geographical areas, studies on the impact of BSC on the strategic management process in Africa do not exist despite the economic development that this continent is experiencing. Relating to methodology, this review shows the need to adopt new methodological approaches, particularly with studies using multi-mode methods (only 3 studies using the multi-mode method were identified). In addition, a very large percentage of the data was collected from directors and managers, which may jeopardize the

quality of the results. To this end, a differentiation of the sources of data collection by adding employees of the organizations and partners can be a vector for strengthening the relevance of the literature on this topic. Regarding the impact of the adoption of BSC on strategic deployment, several aspects remain to be highlighted in the literature, notably: the perception of employees on the role of this tool in the strategic management of the company, the exploration of this subject in certain promising sectors of activity such as agriculture, the maritime sector, and e-commerce.

In conclusion, it is important to mention that this literature review contains some limitations. In terms of methodological rigor, the method presented could be refined by proposing new types of categorization focused, for example, on more modern and better separated strategic management processes. In addition, other elements that characterize the literature could be identified, such as the references used by the authors. In terms of expansion, other criteria could be taken into account for the choice of journals, other keywords considered, and other languages of publication considered.

## BIBLIOGRAPHY

1. Afonso, H. & Maria, R.C.(2015) Developing a Lean Supply Chain Performance Framework in a SME: A Perspective Based on the Balanced Scorecard. *Procedia Engineering*, 131, 270-279.
2. Alvarez, L., Soler, A. , Guiñón, L. , & Mira, A. (2019). A balanced scorecard for assessing a strategic plan in a clinical laboratory. *Biochemia Medica*, 29(2), 284-291.
3. Antonsen, Y. (2014). The Downside of the Balanced Scorecard: A Case Study from Norway. *Scandinavian Journal of Management*, 30(1), 40-50.
4. Arasli, H., Alphon, C., & Arici, H.E. (2019). Can balanced scorecard adoption mediate the impacts of environmental uncertainty on hotel performance? The moderating role of organizational decision-making structure. *Journal of Hospitality Marketing and Management*, 28(8), 981-1009.
5. Brui, O. (2018). Implementation of strategic management based on the balanced scorecard in a university library. *Library Management*, 39( 8), 530-40.
6. Chand, D., Hachy, G., Hunton, J., Owoso, V., & Vasudevan, S. (2005). A Balanced Scorecard Based Framework for Assessing the Strategic Impacts of ERP Systems. *Computers in Industry*, 56( 6), 558-572.
7. Da Costa Ferreira, A. M. S. (2017). How Managers Use the Balanced Scorecard to Support Strategy Implementation and Formulation Processes. *Tekhne*, 15(1), 2-15.
8. Decoene, V., and Bruggeman, W. (2006). Strategic alignment and middle-level managers' motivation in a balanced scorecard setting. *International Journal of Operations & Production Management*, 26(4), 429-448.
9. Dincer, H., and Yuksel, S. (2019). Balanced scorecard-based analysis of investment decisions for the renewable energy alternatives: A comparative analysis based on the hybridfuzzy decision-making approach. *Energy*,175,1259-1270.
10. Dixon-Woods, M., Agarwal, S., Jones, D., Bridget, Y., and Sutton, A. (2005). Synthesising Qualitative and Quantitative Evidence: A Review of Possible Methods. *Journal of Health Services Research & Policy*, 10(1), 45-53.
11. Dobrovič, J., Gallo, P., Benková, E., Čabinová, V., and Urbański, M. (2018). Balanced scorecard concept as a tool of strategic management and its usage in the construction industry. *Polish Journal of Management Studies*, 18, 59-72.
12. Dreveton, B. (2013). The advantages of the balanced scorecard in the public sector: Beyond performance measurement. *Public Money & Management*,33,131-136.
13. Evans, D. and FitzGerald, M. (2002). Reasons for Physically Restraining Patients and Residents: A Systematic Review and Content Analysis. *International*

Journal of Nursing Studies, 39(7), 735-743.

14. Fink, A. (1998). *Conducting Research Literature Reviews*. Los Angeles: SAGE Publications.
15. Grigoroudis, E., Orfanoudaki, E., and Zopounidis, C. (2012). Strategic Performance Measurement in a Healthcare Organisation: A Multiple Criteria Approach Based on Balanced Scorecard. *Omega*, 40(1), 104-19.
16. Hamad, A. and Arisha, A. (2014). Multi-Criteria Approach Using Simulation-Based Balanced Scorecard for Supporting Decisions in Health-Care Facilities: An Emergency Department Case Study. *Health Systems* 3, 1, 43-59.
17. Hsu, Y.L., and Liu, C. C. (2010). Environmental Performance Evaluation and Strategy Management Using Balanced Scorecard. *Environmental Monitoring and Assessment*, 170 (1), 599-607.
18. Ioppolo, G., Saija, G., and Salomone, R. (2012). Developing a Territory Balanced Scorecard Approach to Manage Projects for Local Development: Two Case Studies. *Land Use Policy*, 29( 3), 629-640.
19. Kang, J.S., Chiang, C.F., Huangthanapan, K., and Downing, S. (2015). Corporate Social Responsibility and Sustainability Balanced Scorecard: The Case Study of Family-Owned Hotels. *International Journal of Hospitality Management*, 48, 124-134.
20. Kaplan, R., and Norton, D. (2001). Transforming The Balanced Scorecard from Performance Measurement to Strategic Management: Part II. *Accounting Horizons*, 15, 87- 104.
21. Kim, J., Suh, E., and Hwang, H. (2003). "A Model for Evaluating the Effectiveness of CRM Using the Balanced Scorecard." *Journal of Interactive Marketing*, 17(2), 5-
22. Malagueño, R., Ernesto, L.V., and Jacobo, G. (2018). Balanced Scorecard in SMEs: Effects on Innovation and Financial Performance. *Small Business Economics*, 51(1), 221-244.
23. Malina, M., and Selto, F. (2001). Communicating and Controlling Strategy: An Empirical Study of the Effectiveness of the Balanced Scorecard. *Journal of Management Accounting Research*,(13,1), 47-90.
24. Malmi, T. (2001). Balanced Scorecards in Finnish Companies: A Research Note. *Management Accounting Research*, 12( 2), 207-220.
25. Martinsons, M., Davison, R., and Tse, D. (1999). The Balanced Scorecard: A Foundation for the Strategic Management of Information Systems. *Decision Support Systems*, 25(1), 71-88.
26. Norton, D.P. & R.S., Kaplan (2001). *How to use the Balanced Scorecard*, Paris, Librairie Eyrolles.

27. Nowakowska-Krystman, A. (2013). Balanced Scorecard as a Control Tool of the National Security Strategy. *Connections*,13(1), 53-70.
28. PGALLO, P., MIHALČOVÁ, B., Čabinová, V. , and TOMČÍKOVÁ, L. (2018). Application of the balanced scorecard as a strategic management tool in practice: A case of Slovak tourism sector. *GeoJournal of Tourism and Geosites*,24, 19-28..
29. Rasoolimanesh, S.M., Mastura, J. ,Badarulzaman, N. , and Ramayah, T. (2015). Investigating a Framework to Facilitate the Implementation of City Development Strategy Using Balanced Scorecard. *Habitat International*. 46, 156-165.
30. Tapinos, E., Dyson, R.G., and Meadows, M.(2011). Does the Balanced Scorecard make a difference to the strategy development process?. *The Journal of the Operational Research Society*, 62(5), 888-899.
31. Tjader, Y., Jerrold, H. M., Shang, J., Vargas, L., and Gao, N. (2014). Firm-Level Outsourcing Decision Making: A Balanced Scorecard-Based Analytic Network Process Model. *International Journal of Production Economics*,147, 614-623.
32. Tranfield, D., Denyer, D., and Smart, P. (2003). Towards a Methodology for Developing Evidence-Informed Management Knowledge by Means of Systematic Review. *British Journal of Management*, 14, 207-222.
33. Tsai, W-H, Chou, W.C, and Hsu, W. (2009). The Sustainability Balanced Scorecard as a Framework for Selecting Socially Responsible Investment: An Effective MCDM Model. *Journal of the Operational Research Society*, 60(10) ,1396-1410.
34. Vladimir, V.F., Mercedes, N.C., Francisca, C.M.M, and José, M.V (2020). Balanced scorecard: Key tool for strategic learning and strengthening in business organizations. *Academic Journal of Interdisciplinary Studies*, 9(3), 1-11.
35. Wisniewski, M., and Dickson, A. (2001). Measuring Performance in Dumfries and Galloway Constabulary with the Balanced Scorecard. *The Journal of the Operational Research Society*, 52(10), 1057-1066.
36. Wu, H.Y. (2012). Constructing a Strategy Map for Banking Institutions with Key Performance Indicators of the Balanced Scorecard. *Evaluation and Program Planning*,35(3), 303-320.
37. Wu, I.I., and Kuo, Y.Z. (2012). A Balanced Scorecard Approach in Assessing IT Value in Healthcare Sector: An Empirical Examination. *Journal of Medical Systems*,36(6),3583-3597