



## Research Article

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# Balanced Scorecard: Key Tool for Strategic Learning and Strengthening in Business Organizations

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### Abstract

*The Balanced Scorecard has been conceived as a key tool in administrative management processes, becoming significant contributions for business organizations. The objective of the article was to analyze the intention of analyzing the perspectives, advantages and possible barriers that limit the success and / or applicability of this administrative tool, achieving through the theoretical bases to demonstrate the usefulness of this management tool, which today It constitutes a coherent instrument whose indicators determine the parameters for the management measurement. The research had a descriptive-explanatory character, with longitudinal design. A digital documentary analysis was applied. The results were analyzed using the Balanced Scorecard Usage Survey 2018 system. The study revealed that this tool is considered an important contribution to the organizational management, with a high satisfaction for its use, finally guidelines for new investigations are recommended analyzing the causes of bad practices in its design and implementation.*

**Keywords:** *Balanced Scorecard, Organizational Management, Management Control, Strategic Maps, Strategic Alignment*

## 1. Introduction

In the administrative context, several tools, approaches and models arise that try to improve the effectiveness of organizations (Ganga, Ramos, Leal, & Pérez, 2015), given that the scope in which they

are carried out, attempts to transform positively in the way of managing them (Vega, 2015). In correspondence with (Sánchez, Vélez & Araújo, 2016) "The BSC is a strategic management tool that allows you to have under control and related all those measures that represent the key variables to run a business". In addition, it makes it possible to translate the organizational strategy, through a coherent set of action indicators, which, together with other management tools, distinguishes intangible assets as a new main actor in the Information Age (Vega, 2016). These two conceptions show that the BSC allows to measure its business units in a related way creating added value to its clients, consequently taking into account the potentialization of internal capacities, such as investments in personnel, systems and procedures with the necessary base to the improvement of the performance and future of business organizations.

In this order of ideas, according to the approaches of Vega & Comas, (2017) "The comprehensive scorecard emerged in the 90s and has evolved in the last 25 years towards a comprehensive control tool that has guaranteed the success in the management of many lucrative and non-profit organizations". For their part, Argüello & Quesada, (2015) rightly point out that "Since its appearance more than 20 years ago, the WCC has been used in many organizations as a model to measure performance and manage strategy." This statement is ratified daily, evidencing the success of the BSC for its progressive universal popularity (Zizlavsky, 2014 and Gradolí, 2017).

Based on the foregoing, the BSC has evolved favorably as support for organizational strategy and decision-making, both in the short and long term Carvajal, Velásquez & Almeida, (2018) taking into account since managerial context the recognition given to the integration of strategic direction, as in the same performance evaluation manifested by the business. What accounts for the achievements and scope of this management tool in terms of its evolution in the face of the complexity and transformations of the business world (Soler, Oñate & Naranjo, 2017 and Hernández, 2011).

Therefore, today the impact of the comprehensive scorecard as a complete management system with emphasis on performance measurement and also the rise of the administration of the strategies required for long-term objectives to be achieved is affirmed, because it facilitates the connection of vision and action (Lesáková & Dubcová, 2016), however the ultimate goal of a BSC is to appreciate the implementation of the strategy as a continuous process (De Flander, 2018)

In this framework of ideas, it should be noted in this regard that the most recognized background of the BSC is the Tableau de Bord emerged in France in the first half of the twentieth century, which shows financial and non-financial indicators to control the different business processes. According to Bourguignon, Malleret, & Nørreklit (2004), and Madsen & Stenheim, (2015), the Tableau de Bord as a concept conforms to the culture and ideology of the French.

For, Kaplan and Norton (1992), aware that the financial measures of business activity do not conform to the new competitive environment, decide to conduct a research study on a group of companies to explore new methods to measure the activity and the results obtained.

After the 1990s, its design is enhanced with the use of Strategic Maps that represent a valuable innovation in the management of organizations in recent years, helping the tangibility of the strategy (Kaplan & Norton, 2004). Standing out according to what has been expressed when starting a business it is necessary to keep in mind that designing the strategy does not guarantee that the objectives will be met, because basically only the organizational objectives and plans would have been determined, as well as the required actions for its fulfillment and the allocation of resources necessary for it, focusing on transforming the real today into the desired tomorrow, for which it is necessary to integrate the BSC, which contains the possibility of managing intangible assets, such as knowledge (Tello & Perusquia, 2016 and Hinterhuber & Popp, 1992). and represents "an aligned and global measurement model that allows the organization to be oriented towards value creation" (Pérez, Guillén, & Bañón, 2017), harmonizing financial and non-financial indicators, while providing the possibility of advance trends and execute a proactive strategic policy, being considered the modern strategic management model (Reija & Andalaft, 2006).

However, it has not yet been generalized in the business world and can be exploited much more in the academic context, which is why this research is necessary and important, delving into the

study of the main contributions that it has made in support of organizational management, as well as its limitations, through a critical reflection on its current state. Finally, it should be noted that the objective set forth in this article aims to analyze the advantages, contributions and barriers that have limited the success of the BSC, associated with its design and implementation in organizations, providing the theoretical basis for further research and showing the scope of research on this subject.

## 2. Methods

The research was descriptive-explanatory, with a longitudinal design based on the following questions: 1-What are the strategic contributions derived from the BSC in strengthening the organizational processes of companies? and 2-How has the use of BSC behaved in the framework of the search for Performance in Business Organizations?; to facilitate a critical and up-to-date meditation on its use, advantages, contributions and barriers that have limited its success, with the support of its own experience and that resulting from the study of the relevant and updated bibliography to make personal judgments.

The study was based on the search for digital information recommended by Yanez, Martinez, Mendoza, Lucano, Sanchez & Barros (2019) and Antonsen (2014), which first emphasizes the selection of information according to the level of knowledge and relevant data. Second, we proceed to the comparison, contrast and evaluation of the data obtained. Third, we must reflect on the knowledge that researchers are acquiring. Fourth, monitor and guide the direction of the research according to the interests of the researchers, establishing a data scaffolding.

In this way, primary documents from the databases were searched in indexed world impact scientific journals, among which it is worth mentioning such as the Scopus system, Web of Science (WOS), Network of Scientific Journals of Latin America and the Caribbean, Spain and Portugal (Redalyc), Electronic Library (SciELO) and the Regional Online Information System for Scientific Journals of Latin America, the Caribbean, Spain and Portugal (Latindex) among others, these queries were consulted for the prestige they possess which it guarantees the quality of its contents, especially for the theme that is addressed in this study. The purpose was to integrate and synthesize the knowledge generated, as well as identify areas of greater consensus, selecting two key words as descriptors: Balanced Scorecard and Balanced Scorecard, through the full texts of the articles, from the emergence of the topic until December of 2018.

The study of qualitative paradigm was based on the theoretical methods of Systemic approach; Analytical-Synthetic; Inductive - Deductive; and Historical - Logical; as well as the empirical method of Documentary Review, under a dialectical approach, leading to the critical study of previous research on the BSC. Additionally, it relied on the bibliometry and the study of the Balanced Scorecard Usage Survey 2018, which concerns the last study (10th.) executed by the consulting firm 2GC. In addition, the Publish or Perish software (Version 6.49) recommended by Harzing, (2019) was used to retrieve and analyze academic appointments and impact metrics.

## 3. Results

### 3.1 Definition and background of the Balanced Scorecard

The BSC is an appropriate organizational management tool to opt for a balanced group of objectives and indicators that manifest the strategic vision of the organization, in the same way it is leading them to meet the expectations of its stakeholders, in addition to articulating the organizational objectives with the individuals, once communicated the strategy, being able to evaluate the progress in its implementation (Quesado, Aibar & Lima, 2018). Table 1 shows the background of the BSC, at the authors' discretion, which are reflected chronologically through their main milestones.

**Table 1:** BSC Background

Date	Remarkable moments of BSC
<b>Mid 20th century</b>	The concept of Tableau de Bord appeared in France between the two world wars.
<b>60s in 20th century</b>	The General Electric company deployed a control panel to manage its processes from eight key areas of results. Although it was incipient, it was an initial step (Abdullah, Umair, Rashid & Naeem, 2013).
<b>1990</b>	The idea of the BSC arises. Kaplan and Norton investigate twelve North American companies, exploring new methods to measure their management (Rodrigues Quesado, Aibar & Lima, 2014).
<b>1992</b>	Article “The Balanced Scorecard-Measures that Drive Performance” (Kaplan & Norton, 1993), obtaining the Year’s Best Article in the Harvard Business Review (Massón & Truño, 2006).
<b>1993</b>	Article “Putting the Balanced Scorecard to Work” in the Harvard Business Review (Kaplan & Norton, 1993), highlighting that managers rarely think of measurement as an essential part of their strategy, so they emphasize the proposed use of the BSC.
<b>1996</b>	Book (Kaplan & Norton, 1996). It compiles everything learned to date and also reclassifies the original perspectives developed in the 1992 article. Book
<b>2000</b>	Book “The Strategy-Focused Organization: How Balanced Scorecard Companies Thrive in the New Business Environment” (Kaplan & Norton, 2000), articulating the main keys required for organizations to focus on their strategy.
<b>2001</b>	Book “How to use the Balanced Scorecard. To implement and manage your strategy” (Kaplan & Norton, 2001), specifying that in non-profit entities and public administrations, the financial perspective should not appear at the top, since financial achievement is not the fundamental objective of these organizations.
<b>2004</b>	Book “Strategic Maps” (Kaplan & Norton, 2004). It innovates in management, describing the strategy graphically, providing a framework to explain how it links intangible assets with value creation processes, based on a cause and effect design.
<b>2006</b>	Book “Alignment: Using the Balanced Scorecard to Create Corporate Synergies” (Kaplan & Norton, 2006). It exposes, through cases, the synergies within the BSC, addressing it as a methodology to achieve a continuous strategic alignment.
<b>2008</b>	Book “Execution Premium: Linking Strategy to Operations for Competitive Advantage” (Kaplan & Norton, 2008), presenting a comprehensive management model that solves how to integrate the strategy with the operations.
<b>2010</b>	The need to manage alliances with stakeholders, within the BSC, is introduced through the article “Managing alliances with the balanced scorecard” (Kaplan, Norton, & Rugelsjoen, 2010).
<b>2011</b>	The adoption of the WCC from a contingency approach was raised through the data provided by forty Dutch companies intensive in capital goods (De los Ríos, 2018)
<b>2014</b>	which includes factors such as: the strategy (prospective-defensive-analyzer), the stage of the life cycle of the organization, the sector of activity and the environment (Quesada, 2019).
<b>2015 and so on</b>	Several specialists mention the journey of the Administration by Objectives (APO), to the development of the Balanced Scorecard (BSC), taking into account the evolution of administrative concepts and strategy, including the introduction of various management paradigms, which are characterized from efficiency and optimization of production (APO), to the search for differentiation and a unique market positioning, to ensure the creation of value for customers and employees which allows the integration of the BSC

**Source:** Vega, Cejas, Navarro and Mendoza (2019)

Based on the foregoing, it is important to indicate that the BSC has evolved over three generations that, according to the specialists mentioned in advance, it should be noted:

1. 1st generation: they limit themselves to combining financial and non-financial measures, without having a design process that guarantees integration through cause-effect analysis.
2. 2nd generation: they rely on strategic maps.
3. 3rd generation: they are characterized by their speed, alignment and quality, facing the complexity of implementing the BSC in organizations with different units / divisions.

In consideration of what was expressed for (Massón & Truño, 2006) the BSC has evolved through four stages but there are no significant discrepancies between the two classifications, since they include similar contents, something analogous to what happens with the four stages they propose (Pérez, Guillén & Bañón, 2017): level 0 (Measurement system), level 1 (Integral measurement system), level 2 (Integral aligned measurement system) and level 3 (Global aligned integral measurement system).

According to a study conducted in recent surveys (2GC Active Management, 2017), 62% of organizations use some software to generate BSC reports and today (62%) dominate those designed internally, although consultants collaborate in the design of a 31% of these, being created only by consultants 7%. According to (Rigby & Bilodeau, 2018) five key trends emerged from the Bain & Company survey of 1,268 managers, conducted in 2017, in which respondents felt that current business leaders should trust and empower employees, do not order and control them (79%); and that culture is at least as important as the strategy for business success (75%). In addition, supply chain capabilities are increasingly vital to success in our industry (67%). Similarly, digital interruptions and software solutions quickly change the rules of the competition (66%)

The ranking of the management tools, according to their global use, in four moments within the period of the surveys applied by Bain & Company, are shown in Table 2.

**Table 2:** Ranking of management tools according to their global use

No.	1993	2000	2014	2017
1	Mission and Vision Statements (88%)	Strategic Planning (76%)	Customer relationship management (46%)	Strategic Planning (48%)
2	Customer Satisfaction (86%)	Mission and Vision Statements (70%)	Benchmarking (44%)	Customer relationship management (48%)
3	Total, quality management (72%)	Benchmarking (69%)	Employee engagement surveys (44%)	Benchmarking (46%)
4	Competition Profile (71%)	Outsourcing (63%)	Strategic Planning (44%)	Advanced Analytics (42%)
5	Benchmarking (70%)	Customer satisfaction (60%)	Outsourcing (41%)	Supply Chain Management (40%)
6	Payment for performance (70%)	Growth strategies (55%)	<b>Balanced Scorecard (38%)</b>	Customer Satisfaction (38%)

**Source:** Adaptation from (Rigby & Bilodeau, 2018)

In the study of (Massón & Truño, 2006), it is stated that in the first years of BSC history, the evolution of scientific production on it is valuable, being the most cited magazine the Harvard Business Review (356 citations), where the authors publish an article every two years and a book every three, predominantly empirical works. In a search by the authors (2014-2018), the results shown in Table 3 were obtained.

**Table 3:** References of the terms CMI and BSC in databases

YEAR	CMI					
	General	REDALYC	SCIELO	SCOPUS	LATINDEX	WEB OF SCIENCE
2014	17.100	383	480	99	41	915
2015	5.880	331	421	88	29	749
2016	4.370	271	333	69	19	556
2017	2.790	194	240	44	18	344
2018	1.390	107	118	24	7	199
<b>Total</b>	31.530	1.286	994	324	114	1.099

BSC						
YEAR	General	REDALYC	SCIELO	SCOPUS	LATINDEX	WEB OF SCIENCE
2014	17.600	455	1.230	630	42	5.850
2015	18.200	372	1.030	530	32	4.580
2016	24.300	288	767	401	25	3.360
2017	13.600	173	498	274	18	2.080
2018	5.810	99	243	130	8	965
<b>Total</b>	79.510	1.214	1.508	1.965	125	10.985

Source: Vega, Cejas, Navarro and Mendoza (2019)

Some of the main advantages, contributions and barriers of the BSC, according to the criteria of the authors, are shown in Table 4

Table 4: Advantages, contributions and barriers of the BSC

Advantages and contributions of the BSC	Barriers that may limit the success of the BSC
It is part of the strategic learning processes in organizations, providing them with a holistic view of performance.	If a balance between the indicators is not achieved through the perspectives and between the financial and non-financial metrics, as well as between the tangible and intangible ones, an imbalance in the organizational management can be caused (Kopecka, 2015).
It makes the use of the organizational information system profitable, rationalizing the use of indicators and strategic initiatives.	The definition of strategic objectives and indicators of very high or very low demand can lead to a discouragement in achieving compliance.
Visibly communicates the individual contribution of each employee, helping synergies and the development of organizational cooperation.	Not achieving the alignment of each employee and area of the organization with the organizational strategy, without making it the daily work of all, can cause a lack of synergy, dispersing efforts and resources.
It has a significant and positive influence on the intensive use of measures with a double purpose: on the one hand to favor decision-making, and on the other to guide all members of the organization towards achieving the results.	In some cases, decision making does not respond to the guidelines or measures that determine competitive success in organizations.
Provide the information and motivation necessary for value-based management; lead to the best decision making and problem solving.	It is possible that the information they can provide does not fit the key aspects of the strategic process and does not add value to management.
Align the strategic objectives in the long, medium and short term, linking them with the budgets, (LOGICALIS, 2016).	The lack of commitment of managers can cause the lack of leadership in its design or implementation.
Clarifies the performance compensation system and the individual and departmental evaluation criteria.	Dissociating from the expectations of the stakeholders, crossing the corporate contour under a global vision prevents the development of a comprehensive global aligned measurement system. Authors such as (Awadallah and Allam, 2015) point out negatively that the objective and definitions of the measures exclude key stakeholders, but that depends on how the BSC is conducted.

Source: Vega, Cejas, Navarro and Mendoza (2019)

In the search conducted in Publish or Perish, choosing the word Balanced Scorecard (2016-2019) as descriptor, 998 articles were obtained with 3 340 citations; average of 1 113 appointments per year; 3.35

citations for articles; 1.94 authors per articles; as well as an h-index of 25. According to zGC Active Management (2019), 48% of managers reported being in an executive management role, stating that 61% were very knowledgeable about the BSC. Around 75% recognized the use of this tool at the executive level, and more than 50% in functional management. 49% of organizations had more than 500 employees (Nogueira, López, Medina & Hernández, 2014).

The main informed function of the BSC was the support for the implementation of the strategy and it basically focuses on influencing the actions and behaviors of managers and individuals (79%). The survey confirms that the BSC enables the improvement in decision-making, for which it requires periodic reports and reviews, evidencing an increase in monthly reports (from 24% to 32%). 44% of organizations did not report the use of any software to help generate BSC reports. Today, third generation BSCs predominate, between 2 and 6 perspectives (average 4) were used, an average of 8.8 strategic objectives, 13.1 initiatives and 17.4 measures.

48% have multiple BSCs and 68% were created with the use of a sequential approach known as a waterfall. 62% of BSCs were designed internally. Although the consultants helped design more than a third of these, the participation designed exclusively by consultants was very low, with 7%.

The number of respondents who stated that their BSC was extremely or very useful, was similar to that of 2017 (75%). More than half of the units managed and maintained their BSC by themselves, which made the trend towards self-management continued, as shown since 2016 and approximately 70% of the measures chosen in the BSCs were quantitative (Roncancio, 2018).

The above is reflected in the following table.

**Table 5:** Results of the search record, applying the term: Balanced Scorecard during the time periods (2016-2019) in the Publish or Perish system

Article	Cites	Average appointments per year	Appointments per article	Authors per article	Index
998	3340	113	3.35	1.94	25

**Source:** Vega, Cejas, Navarro y Mendoza (2019)

#### 4. Discussion

Today organizations recognize the need to use other perspectives, beyond the classical ones, according to their structure and mission (Öztürk & Coskun, 2014), for example, the sustainability one presented by Hansen & Schaltegger, (2016). Similarly, in the context of the above, it should be noted that the strategic maps allow validating the designed hypotheses and the cause-effect relationship between the different perspectives and the strategic issues, objectives and defined indicators, standing out for their descriptive form of the strategy and its communication to the entire organization, better aligning its intangible assets towards tangible results.

In any case, the trigger for the second generation was the creation of the strategic maps and the third generation the increase in complexity in the organizational structure. However, referring in a timely manner to the software used, 33% rely on Microsoft Excel, and surprisingly 45% do not use any software to create the BSC reports. Thus, the main tools have varied over time, and it can be seen that only four of the 1993 ranking are still in the 2017 ranking, with a decrease in their use in each case: Benchmarking (from 70% to 46%); Customer satisfaction (from 86% to 38%); Total Quality Management (from 72% to 34%); and Mission and Vision Statements (from 88% to 32%).

In SCOPUS and WEB OF SCIENCE, the references of the BSC predominate, since they are primarily English-language journals, while in other databases the figures are similar with the WCC. The analysis of Balanced Scorecard Usage Survey 2018 highlights:

- The use of BSC is strongly biased towards large organizations.
- The role of the BSC in contributing to the evaluation of individual and team performance is notorious.

- Among the most prestigious software to implement the BSC are: Business Vision Suite; ISO Software; Isolution®; ClearPoint's strategy Software; Smartdraw; and Corporater Business Management-Corporater.
- Regarding the division for the BSCs of quantitative and qualitative indicators, the results are surprisingly consistent in all types of organizations and geographic areas, as quantitative measures predominate.

In the search through Publish or Perish, it stands out that in the 2016-2019 period, a considerable amount of articles and citations are obtained, with an average of 1,113 annual citations and 3,35 citations per articles, which highlights the high interest in the subject of BSC, evidenced by the high h-index (25) as a valuable metric that interlaces quantity with quality.

The authors, based on these results and their experiences in consultancies in this area, suggest as guidelines for future research, the study of the causes of bad practices developed in the design and implementation of the BSC, detailing the imbalance between the indicators through perspectives and between financial and non-financial measures, in addition to tangible and intangible measures; misalignment of employees and areas with the organizational strategy; the low responsibility of senior management with the strategy; and the mismatch with the expectations of the stakeholders, because they represent the main barriers that limit the success of the BSC (Srivastava, Shervani & Fahey, 1998). It also suggests that all these guidelines be taken into account in the Bain & Company survey.

## 5. Conclusions

The present study reveals that the BSC has made an important contribution to organizational management, becoming a powerful tool that provides an understandable framework to measure the most valuable organizational assets and capabilities, then traditional management systems, based primarily on financial metrics and tangible, they could not measure and manage correctly.

For about three decades, procedures and ideas aimed at polishing the design and implementation of the BSC have been continually refined, in search of its effectiveness, relying on alignment as one of its successful keys, as perceived in the empirical evidence, despite various criticisms, which are based more on the mishandling of the tool than on the self-value that it includes. The authors chronologically propose a dozen milestones in the evolution of the BSC, which does not represent an exhaustive list, being susceptible to being perfected, but encompasses transcendental moments in its development, which includes various evolutionary stages discussed briefly in this article.

The need to use some software for the BSC is highlighted, as well as in a third of the cases referred to, Microsoft Excel is used, while a majority figure, surprisingly, does not use any software. From the established approach of the Balanced Scorecard, the above is configured as a Key Tool in Strategic Learning and Strengthening in Business Organizations, given the inherent processes that identify the various studies that have revealed the options for implementing the BSC as a versatile tool, capable of evaluating the different ways of implementing the process in business organizations. This highlights the predominance of internally designed BSCs and the collaboration of consultants with about a third of the cases, the exclusive intervention of business consultants being very rare, which implies generating a holistic view on this.

The bibliometric study analyzed shows that references to BSC prevail in global impact databases because they rely primarily on journals primarily in English, while in regional databases the figures are equivalent for BSC and CMI. The general search shows a decrease in references, without diminishing the importance of the subject, given the complexity of contributing something new. On the other hand, the surveys carried out in 2017 show the wide satisfaction with the use of the BSC.

Among the main advantages and contributions associated with the introduction and implementation of the BSC in organizations are the generation of strategic learning; make the use of the information system profitable; significantly communicate the individual contribution of each

employee; align the long, medium and short term strategic objectives, relating them to budgets; and clarify the performance compensation system.

The authors propose as guidelines for new research, the analysis of the causes of bad practices in the design and implementation of the BSC, particularizing in the imbalance between the indicators through the perspectives and between the financial and non-financial metrics, as well as between the tangible and intangible; the definition of strategic objectives and indicators without an adequate level of demand; misalignment of employees and areas with the organizational strategy; the insufficient commitment of senior management with the strategy; as well as the mismatch with the expectations of the stakeholders, as these constitute the main barriers that limit their success.

The BSC was ratified as a valuable reporting tool for the execution of the strategy, and showed a continuous shift towards a more modern and advanced balance; which provided the possibility of transforming the vision into measurable objectives; focusing on the structure, alignment and stimulation of the entire organizational strategy that optimized its internal communication; in addition to keeping the strategy visible as a guide to generate information and statistics; as well as it offered the possibility of better information management. Most of the BSCs were based on a third generation design, which brought real benefits to the organizations that used them, which showed high levels of satisfaction, particularly in large organizations where various linked BSCs were required.

The most common use of the BSC was to help the organizational executive leadership to better manage the implementation of the strategy. Most of the BSCs were informed and reviewed quarterly, which provided effective executive control over the strategy implementation process.

Most organizations used some type of software automation to help build BSC reports, in many cases they were supported by Microsoft Excel. In the 2016-2019 stage, an important amount of articles and citations about the BSC were evident, exponents of the high interest of the scientific and academic community on this subject.

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