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BSC's Perspectives Ranking towards Organizational Performance: An Empirical Study Performed with Portuguese Exporters

Cidália Oliveira ^{1,2}, Margarida Rodrigues ^{3,4,5}, Rui Silva ^{6,7,*}, Galvão Meirinhos ⁸ and Mário Franco ⁵

¹ Department of Management, University of Minho, 4704-553 Braga, Portugal

² Research Center REMIT-Research on Economics Management and Information Technologies, Department of Economy and Management, Universidade Portucalense, 4200-072 Porto, Portugal

³ Instituto Europeu de Estudos Superiores, Department of Management, Universidade da Beira Interior, 6200-209 Covilhã, Portugal

⁴ CIDI—Centro de Investigação Desenvolvimento e Inovação, R. Universitária 200, 4820-509 Medelo, Portugal

⁵ CEFAGE-UBI Research Center, Department of Management and Economics, Universidade da Beira Interior, 6200-209 Covilhã, Portugal

⁶ CETRAD Research Center, University of Trás-os-Montes e Alto Douro—UTAD, 5000-801 Vila Real, Portugal

⁷ NECE-UBI (Research Center in Business Sciences), Department of Management and Economics, University of Beira Interior, 6200-209 Covilhã, Portugal

⁸ LABCOM-IFP, University of Trás-os-Montes e Alto Douro—UTAD, 5000-801 Vila Real, Portugal

* Correspondence: ruisilva@utad.pt

Abstract: Bearing the growing competition between organisations in mind, managers are focused on keeping on with the search for strategic alignment and performance monitoring. The literature has shed much light into the field of Management but a guide to monitor the defined strategy via Balanced Scorecard (BSC) is still lacking. Few studies have made their focus the question of which perspectives are the most relevant; it is therefore likely that there are different importance rankings between organisations with and without BSC. Highlighting the need to bring insight into this research field concerning the organizational performance measurement of the BSC, quantitative research was performed, to analyse the different rankings of the four perspectives, comparing organisations with and without BSC. The sample was composed of 107 out of the 250 major export organisations of Portugal. The outcomes confirm that the most relevant perspective is indeed the financial perspective, followed by the customer perspective, a finding unanimous in both types of organization (with and without BSC). For organizations without BSC, in third place stands the internal perspective, but, contrastingly, it comes after learning and growth perspective for organisations with BSC. The perspective of learning and growth differs in its rankings between organisations with and without BSC, as it shows up at third position for organizations with BSC, and at the fourth (last) position in organizations without BSC. This research has relevant outcomes for both managers and academia, as it is still a fertile ground, as it guides managers to identify the importance assigned by major exporters to different perspectives, in order to link its indicators. Despite having different levels of importance assigned to the third and fourth perspective, BSC is known and regarded as a meaningful management tool, even by managers who do not have BSC implemented. It conceivably still has growing possibilities in several activity areas.

Keywords: Balanced Scorecard; BSC; exporters; organizational performance



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1. Introduction

Increasingly, organizations are inserted in disruptive environments, so they must have the ability to respond in time to the demands posed by these environments, so that they can continue to meet their commitments just in time and leverage their competitive

advantage in a sustainable way. However, organizations have no control over their external environment, so their sustained growth varies according to how they adapt to it. Bititci et al. (2004) and Smith (2012) have argued that a company's ability to define and readjust its internal requirements to take advantage of the opportunities offered by its external environment and its ability to control its threats are determinants of its success. However, this constant adaptation by organizations to the external and internal environment is largely downstream of their global and corporate strategy, in which [1] considered that the "(o)rganisations must therefore implement sustainable strategies as an integral part of their growth and competitiveness strategy, to maximize their resources and have a positive impact on their performance". Additionally, the same authors have developed a conceptual framework for the topic under analysis, one which reflects the diagnosis of the internal and external environment, and the importance of the strategy formulation and inherent implementation, control, and evaluation. This means that the management control system produces effects on the organisation's strategy; Refs. [2,3] emphasised that strategy is influenced by the management control system, given its dynamic approach and emphasis on interaction and dialogue, meaning that its effective use transforms it into a communication tool [4–6].

This line of thought is in line with the fact that the use of financial and non-financial indicators provides a comprehensive and holistic view of the organisations, since these indicators should be interconnected and integrated into a single management tool that has the advantage of, in addition to combining the indicators from the different perspectives, characterising the strategy and conveying strategic information [7–11].

In this context, the Balanced Scorecard (BSC) is a well-known measurement tool or system that allows organisations to compare current performance against the outlined performance [7–11]. The BSC, besides being considered as a performance measurement tool, is also recognised as a communication system capable of providing effective communication to the whole organisation [10,12–14], and is therefore fundamental to the organization's management [15–18]. Its recognised added value lies, in particular, in the ability provided to managers to focus on the critical side of processes, through information [19], communication, commitment and responsibility to achieve not only short but also long term objectives [20]. Based on the monitoring of objectives, managers can know their positioning and redirect it if necessary [20–22], thus allowing it to be constantly adapted to the needs of the organization [23]. In view of these added values, the BSC is widely recognised and used [24], largely because it is accepted that organisational knowledge of resources and competencies is a valuable key factor [25–28].

However, although several organisations have successfully implemented the BSC, others have failed to do so [29–32]. Some authors consider that one of the ways to overcome this failure is through the reinforcement of learning, which plays a critical role in the implementation of the BSC [17,32].

Many authors recognise that these themes still need empirical research [32–35], namely, in what is considered to be a gap in the literature. Furthermore, there is still a need to guide managers towards its implementation [4,36–39]. Thus, in order to fill this gap, this research aims to:

- (1) characterize the level of importance assigned by major exporters to the different BSC perspectives;
- (2) confirm whether there are different levels of importance assigned to the different perspectives and their critical factors, by major exporters, independently of having or not having the BSC implemented.

To answer these objectives, the following research question was posed: Does the importance assigned to the different perspectives (financial perspective, customer perspective, internal perspective and learning and growth perspective) and their critical factors differ in organizations without BSC and with BSC?

This study provides extremely critical findings to provide a clear guide and overview when defining the strategy and its indicators; since all the indicators are interlinked, their

ranking position is crucial to provide further linkage to the following indicators or the next ranking's perspective.

After the Introduction, there follows the Literature Review, and the results obtained and their discussion; finally, the conclusions are presented.

2. Literature Review

2.1. Synopsis on The BSC

Knowing that traditional performance indicators are based only on accounting systems, Lau and Moser (2008) [40] highlighted the added value of Dashboards, which in the first instance communicate strategic objectives and subsequently monitor and analyse possible deviations between the real and the desired. In order that processes be evaluated and critical factors be flagged, it is essential for a given organisation to be able to find the indicators capable of measuring performance. In this sense, all of the organisation's employees may be involved in an integrated way, which may favour a more efficient evaluation of processes and resources [41–43]. However, the BSC was not the only tool proposed because, given the need to broaden the field of action by involving financial and non-financial, medium- and long-term indicators, other management tools emerged, such as, for example, the Tableau de Bord, and the Budget [44]. Recently, Jordan et al. (2021) [45] defined the following management control tools: steering instruments; behavioural instruments; dialogue instruments; Tableaux de Bord (TDB) and Balanced Scorecard (BSC). The TBD consists of a set of tables and graphs that provide comparisons between indicators, in order to assist managers in strategic decision making [46–48]. Although both tools, Tableau de Bord and BSC, use financial and non-financial indicators, the BSC is distinguished by the fact that it incorporates cause-effect relationships between indicators grouped into four perspectives. It is noted that traditional tools focus their attention on retrospective (financial) indicators, as they provide information about the past, and the traditional tools pay very little attention to trend indicators [45,49]. In other words, the BSC systematically includes the intangible, non-financial and qualitative factors linked to innovation capability and competitive situation when compared to the TDB [50]. The same authors argued that the BSC is a positive evolution of the TDB. The BSC, in turn, proves to be more dynamic, given that it resorts to the use of trend indicators, which enable future projections to be made, which may provide information relevant for the strategy reorientation [21,46–48,51,52]. Additionally, it is also very important that the management tools have the capacity to provide a correct alignment of the organisational strategy with the performance assessment, so that the planning should be in line with the performance assessment, which should be able to reflect the expectations of the shareholders [34,48,53–55]. The implementation of the BSC means the implementation of a flexible management control tool and also allows the link with the budget process; however, it focuses on actions and promotes organisational synergy [56].

Regarding the advantages of the BSC compared to Tableau de Bord, Russo & Martins (2004) [57] enumerated that: (1) Tableau de Bord is more directed to an operational management, while the BSC is closely linked to the strategy; and (2) Tableau de Bord originated from the need to manage critical factors of technical-productive scope, that is, more operational. The BSC, in turn, was developed by Harvard University Management professors, who had very strong ties with Strategic Management and its dissemination.

Through this focus integrated with the strategy and its dissemination [57], organisations will have the ability to distribute the different resources according to the decisions taken and the areas most in need. The BSC analysis is very simple to interpret since it summarises the strategic objectives as well as the organisational strategy. Tracking and following up the defined strategy are considered relevant advantages compared to other management tools that do not allow "opening the fan" and the respective face-to-face follow-up in the various organisational processes. This advantage makes the BSC a strategy implementation (and change) tool, since it alerts managers to the Critical Success Factors (CSFs) and encourages them to make decisions in line with the organisation's vision and

strategy [20]. CSFs are therefore valued by customers and promote the creation of value for the organisation and differentiation from the competition. This tool allows for better management and performance assessment, as it provides relevant, concise and balanced information, supported by indicators from four perspectives [58]. In order to allow efficient management, the cause-effect relationships highlight the activities or the activities that are at risk of not meeting the strategic objectives [15,59–61]. It also highlights the integration of the learning and growth perspective and the internal perspective, which enables a clear and fair assessment of employees and their belonging processes in order to determine incentives, rewards and progress of managers.

Although the BSC has existed for decades [54,62–64], recent studies have shown that it continues to be a fundamental management tool for companies that intend to add critical value to their business [8]. This critical added value has been demonstrated in recent studies [5,25,31,65,66]. For example, [16,67] advocated the position that the BSC items are capable of promoting learning and the alignment of employees with the companies' strategy, provided that the same items are used in a dynamic and interactive way; Arasli et al. (2019) [53,68,69] considered that the implementation of the BSC in organisations has a relevant influence on strategic decision-making processes and Dincer & Yuksel (2019) [37,70,71] proved that the use of the BSC reduces the subjectivity surrounding this process; Malagueño et al. (2018) [72–74] postulated that companies using the BSC demonstrated greater capacity to implement innovations at the operational level. As for Quesado et al. (2022) [31], the authors suggest that measurement of organisational performance through the BSC provides fundamental information for decision making, resource allocation, planning and control, influencing employee behaviour towards alignment with organisational objectives and also provides effective communication of corporate strategy [8] in order to influence people, processes and infrastructures with it [75–77]. Therefore, the original Kaplan and Norton indicators are considered for the measurement of the four perspectives based on the critical factors [45,78].

The following subsection reviews the literature on the four perspectives of the BSC.

2.2. *Balanced Scorecard Perspectives*

One of the distinctive factors of the BSC compared to other tools is the ability to transpose the organisational strategy into the cause-effect relationship between the strategic objectives grouped into the different perspectives, whereby its configuration, parameterisation and implementation require extreme rigour. From the definition of the global strategy, namely the mission, vision and values, the strategic plan may be established [9]. But in very turbulent environments, it becomes more difficult to maintain competitiveness and sustainable growth [79]. In this sense, the BSC is considered as an important aid for managers, as it allows them to focus on what is really important and not digress into exhaustive analyses of the immense amounts of information available in the organisations [10,19,74]. They point out that the immense amounts of information can be managed with the use of big data, as it fosters the improvement of the decision-making process and risk management, among other aspects, and is relevant to the BSC and other management areas, which represents an emerging topic [3]. In an aggregate analysis, positive financial results generally reflect successful strategic management. Taking into account the need for sustained value creation, the focus should be comprehensive, so as to enable, inter alia, the assessment of performance [55,80]. Given that the strategic objectives are grouped in the four perspectives, the organisation's managers are able to achieve an integrated focus of the objectives, which are properly aligned with the vision of the organisational strategy [65], as shown in Figure 1.

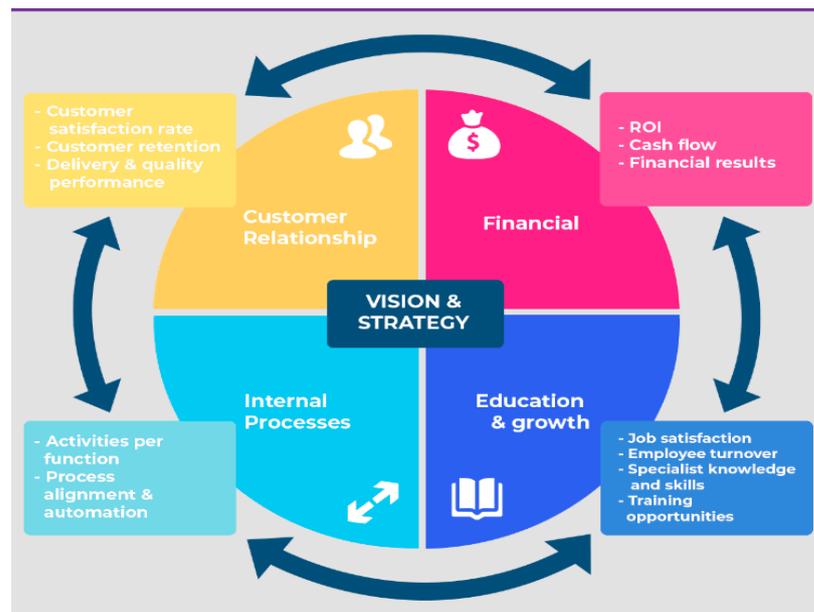


Figure 1. Balanced Scorecard perspectives (adapted from Jordan et al., 2021 [45]).

Thus, the financial outlook reflects financial measures such as income and productivity. Financial targets show the economic and financial reflection of decisions made in the past. There are several phases of the organisational cycle, but performance is directly dependent on the whole cycle, namely by growth, sustainability and return [81], in which all these factors are decisive in gauging the success of the BSC. The organisational strategy from this perspective is linked to the improvement of the organisational economic situation and the interests of the shareholders, because the increase of market share or the increase of productivity have to be related to the development of the strategic objectives and to the financial situation of the organisation [35].

The financial perspective reflects the financial sustainability of the organisation, knowing that the primary objective of organisations is financial solvency, as the organisation’s security and subsequent possibility of expansion depends on this. In the event organisations need financing, they have to show a good financial performance in order to be supported by financial institutions. Shareholders are considered to be the main stakeholders in this perspective, as they seek the highest possible return. Thus, this perspective is considered a pillar, as all cause-effect relations have a direct or indirect impact on this perspective [33].

In detail, some performance indicators and critical factors of the financial perspective are presented in Table 1, according to [45,78]:

Table 1. Financial Perspective.

Financial Perspective (Annex 1, 2.1)	
How do we appear to shareholders? How do they see our performance?	
Factors	Possible financial indicators
	Profitability
	ROI—Return on capital invested
Capacity to manage assets and results	RO—Return on Sales
	RCP—Return on equity
	EPS—Earnings per share

Table 1. *Cont.*

Financial Perspective (Annex 1, 2.1)	
Growth	
New products to attract new customers, new markets and the possibility of developing current ones.	ROI—Return on capital invested
	RO—Return on Sales
	RCP—Return on equity
	EPS—Earnings per share

Source: adapted from Jordan et al. (2015, p. 284) [45,78]

Supported by the literature reviewed above, the following research hypotheses are presented:

H1a: *The importance assigned to the financial perspective differs in organizations without BSC and with BSC.*

H1b: *The critical success factors of the financial perspective differs in organizations without BSC and with BSC.*

The customer perspective, on the other hand, is characterized by the concern with market segmentation, since the indicators of this perspective aim to measure the creation of value for the customer. This perspective seeks to analyse the degree of customer satisfaction and, to this end, aims to measure compliance with delivery deadlines, the level of product quality (goods or services), as well as customer satisfaction with the agreed price. The main objective lies in the creation of value, in order to satisfy and build customer loyalty. Customer satisfaction will lead to a higher level of customer retention and allow for improved market research. As a result, this value creation will generate confidence in shareholders to continue investing, to generate better financial returns for the organisation [35]. This perspective comprises a sequential analysis that enables one to check whether the path to be followed complies with the defined interests [81].

It is extremely important to define who is being served, i.e., to focus attention on the market segment it intends to serve, so that the organisation can adapt to the specific needs of customers. Therefore, organisations should segment the market by defining the target market according to customers' needs and the range of products available to them. And, whenever possible, organisations should exceed customer expectations, distinguishing themselves from the competition. The four characteristics most valued by customers are: quality, delivery time, performance/service and cost. These behaviours will naturally be reflected in the financial perspective [33]. Thus, Table 2 presents some performance indicators and critical factors of this perspective, according to [45,78].

Regarding the customers' perspective and supported by the arguments postulated above in the literature reviewed, the following research hypotheses are put forward:

H2a: *The importance assigned to the customer perspective differs in organisations without BSC and with BSC.*

H2b: *The critical success factors of the customer perspective differs in organisations without BSC and with BSC.*

With regard to the internal perspective, it aims to identify and analyse the critical processes for value creation regarding productivity and efficiency, based on both the short term and the long term [81]. The definition of the strategy of this internal perspective represents one of the most important definitions, as it will influence the entire internal functioning of the organisation. Consequently, the internal procedures that are measured through this perspective are aimed at creating value on the part of the customer, namely customer satisfaction and the consequent customer retention and progression of market share [35,82].

Table 2. Customer Perspective.

Customer Perspective (Annex 1, 2.2)	
How do we appear to our customers? How do our clients see us?	
Factors	Possible performance indicators
	Profitability
Securing a portfolio of clients that generates value	EVA—Economic value added/customer
	RVC—Profitability sales/customer
	Satisfaction
Achieving high levels of satisfaction	Customer satisfaction index
	Execution/delivery time
	Compliance with deadlines
	Retention
Ability to attract new customers and nurture current ones	Market Share
	Turnover—new customers
	Loyalty
Ability to retain current customers	Business Vol. growth based on current customers
	(existing customers/total customers) of year under review

Source: adapted from Jordan et al. (2015, p. 285) [78].

According to the internal perspective, managers pay special attention to organisational processes that they consider critical, because they want the conditions of the processes to be in accordance with what the customer demands. The innovation process, the operational process, as well as the after-sales process, are critical, as customer captivation and loyalty depend on them. Managers seek solutions to meet customer needs, so they provide dedicated support services, and an efficient response to complaints, in a timely manner and in accordance with market needs [33]. In short, managers want to define what to produce and how to deliver the desired value to the customer. Thus, they should value the assets and ask themselves how to improve the processes, eliminating waste and activities without added value. From this perspective, according to [45,78] some performance indicators and critical factors are shown in Table 3.

Briefly, the internal perspective aims to respond to the intrinsic needs of the aforementioned perspectives, to enable them to be sustained. The internal process consists primarily of four activities [83–85]: (i) product innovation and development; (ii) value enhancement; (iii) operational excellence and (iv) corporate relations. As far as costs are concerned, one must be aware of the impact that a given option will cause in the short and long term. It is known that the reduction of operational costs will cause short-term benefits; however, the costs related to innovation will only generate noticeable returns in the long term. For an organisation to be sustainable, it must plan for the short and long term [86]. Therefore, the following research hypotheses are posed:

H3a: *The importance assigned to the internal perspective differs in organizations without BSC and with BSC.*

H3b: *The critical success factors of the internal perspective differs in organizations without BSC and with BSC.*

Table 3. Internal Perspective.

Internal Perspective (Annex 1, 2.3)	
Which processes create value?	
Factors	Possible performance indicators
Organisation	
The aim is to ensure processes, not to increase functions	Lead time (delivery time)
	Lead time
	Lead time/production
Rationalisation	
Eliminate activities without added value	Unit cost of products
Quality	
Ensure high levels of product/service acceptance	Rejection rates—non-conformities
	Conformity control
Efficiency and effectiveness	
Optimising valuable resources for results	Productivity
	Capacity utilisation ratio

Source: adapted from Jordan et al. (2015, p. 286) [78].

Finally, the learning and growth perspective is characterized by the measurement of employee learning and growth, which, in turn, promotes organizational growth. Growth forecasting, and research and development of new products, as well as human resources development are integrated in this perspective [33]. This perspective identifies the objectives and indicators that support and enable the evolution of competencies in favour of the organisation's development. In other words, it puts into practice what is identified by the other perspectives, seeking to provide answers to questions such as: "where?" and "how? Thus, this perspective reflects the measures needed to develop the competencies, even if they are needed from other perspectives. This perspective is considered to be the lever for the other perspectives, as it makes the results of the first three perspectives possible. However, for that it is crucial to invest in the present so that in the future the infrastructures, competencies and resources match the market demands. To this end, the training of employees and the maintenance of information systems, as well as inspiring sufficient motivation, are of extreme importance [81].

The learning and growth perspective is the perspective least highlighted by the organisations, despite holding the key to sustainability. In this sense, organisations should promote an organisational culture that encourages employees' willingness to participate and feel involved, and for this purpose they should have the necessary resources to achieve their goals. For the remaining three BSC perspectives to be successful, it is crucial that employees be sufficiently qualified. There is a growing appeal to the importance and need to value human capital and invest in information and knowledge systems. The importance of training and motivation are considered key characteristics for the success of organisations. It is important that the organisation is aware of the evaluation that the employees make of the organisation itself, so there is an increasing evaluation of the satisfaction of the workers. On the other hand, the competencies, productivity and performance goals of the employees themselves that are aligned with the BSC objectives are also assessed [4].

Thus, the learning and growth perspective consists mainly in the capacity of the organisation to learn, adapt and grow. In this sense, the resources that the organisation allocates to research and development, mainly the human resources, are revealed as being extremely relevant [35]. In this sense, [45,78] identified some performance indicators and critical factors, which are shown in Table 4.

Table 4. Learning and growth perspective.

Learning and growth perspective (Annex 1, 2.4)	
Is the way to achieve the vision secured? Which employees should we retain? What is our organisational culture?	
Factors	Possible performance indicators
	Innovation
The aim is to ensure processes, not to increase functions.	No. of new ideas taken up
	No. of new products
	Satisfaction
High levels of commitment and motivation	Employee satisfaction index
	Amount of prizes awarded
	Qualification
Ensure staff knowledge levels.	No. of employees with training
	No. of hours of training
	Technology
Optimising valuable technological resources	No. of computerised workstations
	Amount of IT invested per employee

Source: adapted from Jordan et al. (2015, p. 287) [78].

In relation to the learning and growth perspective there is a concern in codifying the knowledge with heterogeneous characteristics and important routines, which may lead to tangible benefits in organisations directed to the public (final consumer) [5]. The ability of organisations to disseminate new ideas and new products translates directly into added value for them, as new products stimulate customer interest. This cutting-edge positioning attracts new customers and enables an increase in profitability [34]. Furthermore, due to the current technological turbulence and competitiveness, the retention and qualification of employees should be a primary focus in organisations [65].

In summary, Figure 2 shows the maximum objectives of this same perspective, as explained by Kaplan and Norton (1996b) [58].

**Figure 2.** Learning and growth perspective. Source: Adapted from Kaplan & Norton (1996b) [58].

In the tasks related to learning and growth and the internal perspective of resources and competencies, the BSC can serve as a performance monitor [65]. However, this perspective is still the one that requires more time for the correct definition of objectives and Key Performance Indicators (KPI). It is also evident that these indicators are adjusted less frequently due to the shortage of time available and the complexity inherent to change [66]. It is important to value this perspective, as learning and growth is based on a strategy based on organisational resources [87].

The integration of other indicators is crucial, since purely financial indicators may hide certain aspects that are very relevant for organisational management. It is essential

that management reconciles formal and informal processes [19]. On the other hand, the link between learning and competitiveness, sustained through the links with suppliers and customers, promotes competitive advantage. Thus, these connections between internal and external perspectives reinforce the importance of organisational control [88]. The literature recognises that managers focus their organisational analysis only on financial indicators, abstracting from the other indicators [80]. The BSC is therefore recognised as a financial and non-financial measurement tool, as in addition to measuring performance it demonstrates strong skills in communicating and implementing corporate strategy [8,62]. Due to the complexity and number of factors that intervene in performance, managers were encouraged to also integrate intangible indicators so as to enable a broader business vision [5,6,31,38,89]. Thus, the current business vision started to include an aspect more linked to knowledge (Kaplan & Norton, 2001b). It is also recognised that measuring resources requires a complex and detailed analysis; the BSC allows for individual analysis by perspective and then an integral analysis of the different dimensions [86]. It should be noted that through the BSC, communication is made possible in a more efficient way throughout the various organisational levels, due to the fact that it relates objectives, values, beliefs and continuous improvement behaviours [44].

Based on the literature review on this perspective, the following research hypotheses are presented:

H4a: *The importance assigned to the learning and growth perspective differs in organisations without BSC and with BSC.*

H4b: *The critical success factors of the learning and growth perspective differs in organisations without BSC and with BSC.*

3. Materials and Methods

The research methodology, for Lessard-Hébert et al. (2010) [90], is an integrated set of norms and procedures that guide scientific research and, furthermore, consists of the procedures that the researcher defines in order to be able to achieve the reality of the research, that is, the verification of their initial questions [49]. This means that the role of the researcher is the discovery of reality and not its creation or interpretation [91].

This research has these objectives: (1) to characterize the level of importance assigned to the different perspectives and their critical factors in leading exporters, differentiating between those without the BSC and those with the BSC; and (2) to verify whether there are different levels of importance assigned to the different perspectives and their critical factors in leading exporters without the BSC and with the BSC. Therefore, these objectives directed this study to the following research question: Do the levels of importance assigned to the different perspectives (financial perspective, customer perspective, internal perspective and learning and growth perspective) and their critical factors differ in organizations without the BSC and with the BSC?

Taking into account the defined research question and the research hypotheses defined in the previous section, the quantitative approach was adopted, since it aims to test and prove the theory, explicitly, based on a set of research hypotheses [89].

The same authors affirmed that the quantitative approach has implicit deduction, objective explanation, rigid research, measurement by quantitative data, i.e., the development of a quantitative, hypothetical-deductive study, of positivist positioning. This method presents external validity, as it allows for data generalisation; reliability, due to the use of questionnaires and subsequent statistical treatment; elaboration/construction validity, given that research hypotheses are presented, supported in the literature; internal validity, as inferences were rigorously established in view of the data obtained [89].

3.1. Sample and Data Collection and Analysis

The sample for this research was selected on the basis of [86] and is a non-probabilistic sample, i.e., it is a multi-cases sample, according to the same authors. In other words, the

250 largest exporters in Portugal, were selected, including public and private institutions, from various areas of activity, supported by the arguments that larger organizations are the most suitable for the use of the BSC [32,52,81,92].

For data collection, a questionnaire was developed, supported by the literature and based on the information gathered from the interviews conducted with four senior managers; so as to obtain feedback on the questions asked, confidentiality was assured. This methodological option followed that postulated by Anderson and Anderson (1998) [93] in order to obtain reliable and valid data, as well as to generalise the final results obtained [32]. Additionally, the four managers interviewed met the experience characteristics required by [94]. After the final validation of the questionnaire to be sent to the 250 selected companies, direct contacts were made with them to answer it (see Supplementary S2). Thus, 106 valid responses to the questionnaire were obtained (Supplementary S1), which were statistically treated using the SPSS software. The statistical techniques used were descriptive (Mean, Standard Deviation, Standard Error of the Mean), Cronbach Alpha and the Mann-Whitney test. The Mann-Whitney test is a non-parametric test, whose assumptions are that two samples are independent and random, and that the variables under analysis are numerical or ordinal [95,96].

3.2. Results and Discussion of The Obtained Results

The sample profile is relevant to study the differences between the two groups under study: organizations that do not have and those that have implemented the BSC, so it was considered essential to highlight the following sociodemographic data (Table 5). Additionally, from the responses obtained it was found that 63 companies have not implemented the BSC, while 43 use it.

Table 5. Sample characterisation.

Sociodemographic Data	Description
Average number of employees	The organisations that have not implemented the BCS show a lower number of employees working than the organisations that have implemented the BSC.
Public or private organisation	One hundred and three private and three public organisations with BSC implemented.
Legal form	Most organisations are public limited companies (n = 44), followed by private limited companies.
Age of respondents	With regard to the average age of respondents it is found that, in the case of organizations without BSC is between 30 and 39 years, while in those with BSC the average age is slightly higher, between 40 and 49 years.
Gender	The majority of respondents are male (with and without BSC).
Management level	The middle management level is the most representative in organisations without BSC and top managers are more representative in organisations with BSC.
Professional experience	The average experience is over 15 years in both types of organisations, with and without BSC.
Academic qualifications	Bachelor's degree, Master's degree

Source: Own elaboration.

This section presents the answer to the research question and inherent research hypotheses, in order to assess the importance that respondents attach to the different BSC perspectives in aggregate. Thus, it was considered the four perspectives, for classification of importance, in a macro way, according to the questionnaire shown in Supplementary S1.

The relative weight of each perspective corresponds to question 3 of the questionnaire, where the respondent is asked to assign the relative weight (from 0 to 100%) to the BSC perspectives proposed by [81].

In this context, Table 6 presents the summary of the descriptive statistics of the four research hypotheses defined relative to the BSC perspectives.

Table 6. BSC Perspectives—Descriptive Statistics.

Research Hypotheses	Without BSC			With BSC		
	Mean	Standard Deviation	Standard Error of the Mean	Mean	Standard Deviation	Standard Error of the Mean
H1a The importance attributed to the financial perspective differs in organisations without BSC and with BSC	2.95	0.958	0.121	2.88	0.956	0.146
H2a The importance attributed to the customer perspective differs in organizations without BSC and with BSC	2.94	0.84	0.106	2.64	0.656	0.101
H3a The importance attributed to the internal perspective differs in organizations without BSC and with BSC	1.87	0.566	0.073	1.85	0.573	0.089
H4a The importance attributed to the learning and growth perspective differs in organizations without BSC and with BSC	1.58	0.53	0.068	1.9	0.617	0.095

Source: Authors' elaboration.

The reading of Table 6 allows concluding the importance attached: (a) to the financial perspective, in which the respondents of the organizations without BSC present an average value very slightly higher than the average value of the organizations with BSC; (b) to the customer perspective, in which the respondents of the organizations without BSC present an average value well above the average value of the organizations with BSC; (c) the internal perspective, in which the respondents of the organizations without BSC present an average value almost identical to the average value of the organizations with BSC; (d) the internal perspective, the respondents of the organizations without BSC present an average value almost identical to the average value of the organizations with BSC. On the other hand, the results of the non-parametric Mann-Whitney test for independent samples applied to the four research hypotheses related to the four perspectives returned the following results (Table 7).

Table 7. Mann-Whitney test (Importance of the four perspectives).

	Research Hypotheses	Z Value	Sig.	Status
H1	The importance attributed to the financial perspective differs in organisations without BSC and with BSC	−0.83	0.934	Rejected
H2	The importance attributed to the customer perspective differs in organizations without BSC and with BSC	−1.992	0.046	Not rejected
H3	The importance attributed to the internal perspective differs in organizations without BSC and with BSC	−0.116	0.97	Rejected
H4	The importance attributed to the learning and growth perspective differs in organizations without BSC and with BSC	−2.217	0.027	Not rejected

Source: Authors' elaboration.

Once again, supported by the literature, it is observed that for more than a decade that organizations have started to emphasize the BSC, both in terms of strategy and in terms of organizational performance. This emphasis is acknowledged to the BSC due to the fact that it covers the traditional perspective, namely the financial perspective; however, it is not limited to the same since it aggregates other non-financial indicators from the various areas that make up the organisation. Managers recognise that the support only in financial ratios that reflect the past does not guarantee future sustainability [30,63]. However, despite the interconnection between the perspectives, it is observed that the least sustained connection is the learning and growth perspective, because at its beginning it was considered as the BSC “black hole”, visible in the non-rejection of H4. However, this situation is linked to the difficulty that managers feel in assessing their employees, because organisations mostly measure generic satisfaction, absenteeism and punctuality, and consequently do not interconnect this perspective with the organisational strategy [20]. Several studies point out that the fact that some intangible indicators cannot be measured through tangible indicators is often a brake on measurement [30]. Regarding internal development, it is recognised that organisational culture influences [91] denoting, furthermore, that organisational culture also has an influence on strategic success [11].

Within each perspective the critical success factors are also analysed, in accordance with the indicators defined by Jordan et al. (2015). In this scenario, the characterization of the critical factors of the four BSC perspectives (Table 7) and the research hypotheses defined (H1b, H2b, H3b, H4b) provide their objective analysis, both by descriptive statistics (Table 8), in which the average values do not differ much between organizations without BSC and with BSC, and by the use of the Cronbach Alpha calculation (Table 8).

Table 8. Critical success factors.

Research Hypotheses	Without BSC			With BSC		
	Mean	Standard Deviation	Standard Error of the Mean	Mean	Standard Deviation	Standard Error of the Mean
H1b						
Asset management (profitability)	3.21	1.18	0.149	3.02	0.913	0.139
New products and services (growth)	2.97	0.73	0.093	2.66	0.855	0.133
Value creation	2.73	0.904	0.121	3.28	0.916	0.147
H2b						
Customer Profitability	2.32	0.753	0.098	2.22	0.936	0.146
Customer Satisfaction	2.64	1.111	0.142	2.6	0.989	0.153
Customer Retention	2.11	0.858	0.11	1.98	0.612	0.096
Customer Loyalty	2.16	0.812	0.107	2.24	0.699	0.109
H3b						
Process Management	2.16	0.804	0.107	1.95	0.647	0.104
Rationalisation	2.0	0.719	0.094	2.1	0.664	0.104
Quality	2.80	0.953	0.123	2.68	1.035	0.162
Efficiency and Effectiveness	2.65	1.065	0.134	2.57	0.801	0.124
H4b						
Innovation Capacity	2.51	1.105	0.141	2.35	0.65	0.099
Satisfaction	2.12	0.618	0.08	2.27	0.708	0.111
Qualification	2.45	0.933	0.125	2.43	0.594	0.094
Technology	2.30	1.109	0.143	2.00	0.663	0.102
Cronbach Alpha	0.889			0.876		

Source: Authors' elaboration.

The Cronbach Alpha are considered good [79,88], so the Mann-Whitney non-parametric test was then applied for each of the critical success factors within each of the perspectives (Table 9).

Thus, in relation to the financial perspective it was found that both organisations without BSC and those with BSC attribute a higher average value to the financial perspective, when compared to the other perspectives. This aspect is understandable to the extent that their subsistence is dependent on sustained financial solvency. Thus, regardless of the type of culture, the largest exporters in Portugal highlight a preferential place for the financial perspective, since performance evaluation is associated, namely, with growth, sustainability and financial return, as mentioned above [12].

The customer perspective ranked second in terms of average importance. However, in this case, although both types of organizations position this perspective in second place, organizations without BSC present a higher average value than the organizations with BSC. It appears that organizations without BSC highlight this perspective just after the financial perspective, however, although the organizations with BSC attribute the same hierarchical position to this perspective, do not give it the same value. Considering that organizations with BSC focus mainly on the market, the relevance assigned to the customers perspective is somewhat intrinsic, so that they do not privilege this perspective as much as the organizations without BSC.

Table 9. Mann-Whitney Test.

Research Hypotheses	Z Value	Sig.	Status
H1b			
Asset management (profitability)	−0.621	0.535	Rejected
New products and services (growth)	−1.779	0.075	Rejected
Value creation	−3.117	0.002	Not rejected
H2b			
Customer Profitability	−1.246	0.213	Rejected
Customer Satisfaction	−0.75	0.940	Rejected
Customer Retention	−0.744	0.457	Rejected
Customer Loyalty	−0.852	0.394	Rejected
H3b			
Process Management	−1.298	0.194	Rejected
Rationalisation	0.697	0.486	Rejected
Quality	−0.142	0.887	Rejected
Efficiency and Effectiveness	0.455	0.649	Rejected
H4b			
Innovation Capacity	−0.391	0.696	Rejected
Satisfaction	−1.251	0.211	Rejected
Qualification	−0.480	0.631	Rejected
Technology	−0.792	0.428	Rejected

Source: Authors' elaboration.

In the case of organizations without BSC, the internal perspective and the learning and growth perspective obtained a third and fourth place, respectively, while in organizations with BSC they obtained a fourth and third place, respectively. It is noted that organizations without BSC attribute less relevance to the learning and growth perspective when compared to organizations with BSC. This analysis is somewhat in line with the level of education of the managers, since in organisations with BSC it was found that the proportion of master's degree and PhD is higher compared to organisations without BSC. On the other hand, it is understandable that organizations with BSC attribute a lower importance to the internal perspective, since they highlight the learning and growth that, in a way, already integrates the internal perspective, i.e., serves as a foundation to the internal perspective. In relation to the importance attributed to the internal perspective when compared with the learning and growth perspective, by the organisations without BSC, also in this case, it seems understandable since for organisations without BSC, the performance measurement at the learning and growth level may be more complex.

The statistical test carried out to verify the hypotheses associated with the importance attributed to these two perspectives finds that only two hypotheses (H2a: The importance assigned to the customer perspective differs in organisations without BSC and with BSC; H4a: The importance assigned to the learning and growth perspective differs in organisations without BSC and with BSC) were not rejected, as well as the fact that despite the different values assigned to the importance of each perspective it is considered that the learning and growth perspective could be even more valued if it were not for its complexity and difficulty in finding appropriate indicators for its measurement [11].

Therefore, the empirical evidence of each perspective was analysed individually and in detail—critical success factors. Thus, in relation to the financial perspective, respondents were asked to consider three critical factors: (a) asset and results management capacity, namely the organisation's profitability, where it was found that organisations without a

BSC have a more directed focus on this factor; (b) new products and services (growth); and (c) value creation, which has a greater weight for organizations with BSC, and where the analysis of the results obtained for the hypothesis associated with this critical factor revealed that there are statistically significant differences for the level of importance of the respondents of the organizations without BSC and with BSC. The construct that value creation differs in organizations without BSC and with BSC was not rejected, although the H1a concerning the financial perspective was rejected, because the other two constructs did not present a statistically relevant p value. Considering the distinctions with regard to organizations with and without BSC, it can be seen, also in this case, that organizations with BSC value more the creation of value, while organizations without BSC highlight more the customer portfolio and customer satisfaction. Naturally, the customer portfolio is also considered important for organizations with BSC, however, they are distinguished by the importance attributed to value creation.

In turn, the customer perspective has as its main mission the identification of customer satisfaction, i.e., with regard to delivery time, quality, and service, as well as price. Organisations recognise that price is a fundamental characteristic, because with satisfied customers, it is expected that they will remain loyal and, consequently, make possible the necessary confidence of shareholders in continuing to invest in the organisation itself. In conclusion, it is intended that this trust is rewarded through profits for the shareholders [35]. Thus, for the customer's perspective, respondents assessed four critical factors: (a) customer portfolio that contributes to the value of the company (Profitability); (b) high levels of customer satisfaction (Satisfaction); (c) new customers or the growth of current customers (Retention); and (d) maintaining current customers (Loyalty). In general, the respondents attributed greater predominance to critical factor (b), which concerns customer satisfaction. Thus, the results obtained show the relevance of the critical factor (b), a high level of customer satisfaction, which is understandable, since organizations aim to grow, and growth is only possible through customer satisfaction. Dissatisfied customers do not buy again products that in the past did not meet their expectations, so organisations see it as fundamental to focus on satisfaction, whether in organisations without BSC or with BSC. Although the remaining factors did not obtain great differences in the average values attributed, the one that obtained less importance was the critical factor (c) which concerns customer retention. Bearing in mind that critical factor (b), which relates to satisfaction, had the highest mean value and that (c), which relates to customer retention, had the lowest mean value, it seems to us that the respondents may have considered that a satisfied customer is a retained customer, so that retention may have been considered as a consequence of satisfaction, since the respondents from organizations without BSC and with BSC had identical answers. In so far as matters relevant to the critical factors of the customer perspective, none of the hypotheses formulated was confirmed, and it can be concluded that there are no differences between the importance attached to these critical factors by respondents from organizations without BSC and with BSC.

Regarding the internal perspective, the following critical factors were considered: (a) process management; (b) identification of non-value generating activities (rationalisation); (c) product quality; and (d) resources optimisation (efficiency and effectiveness). In general, respondents attributed greater importance to the critical factor concerning (c) product quality. Thus, it is apparent that there is a similarity between the results obtained in the critical factors from the customer's perspective and from the internal perspective, since the predominance of the critical factor of satisfaction, from the customer's perspective, is in line with the predominance of the critical factor (c) quality of products, from the internal perspective. In second place is the critical factor (d) optimising resources (efficiency and effectiveness). Regarding the two remaining factors (a) and (b), the variations between the importance assigned by the respondents of the organizations without BSC and with BSC, although differing, is not very significant. Regarding the factors of the internal perspective, none of the hypotheses formulated was confirmed, so it is concluded that

there are no differences between the importance attached to these factors by respondents of organizations without BSC and with BSC.

The need of alignment between the strategy and the critical factors related to the learning and growth perspective is recognised by several authors (Kaplan & Norton, 2007, Kaplan 2010b). Thus, for the learning and growth perspective, the critical factors analysed were: (a) employees' innovation capacity; (b) employees' satisfaction; (c) employees' qualifications; and (d) use of technological potential. In general, the respondents attribute a distinct preponderance to the critical factors of this perspective. Respondents from organisations without BSC placed the factors in the following order: first, (a); second, (c); third, (d); and fourth, (b). In turn, respondents from organisations with BSC placed the factors in the following order: first, (c); second, (a); third, (b) and fourth, (d). However, there is a relative agreement, since both attribute greater importance to critical factors (a) and (c) (employees' innovation capacity and employees' qualification) compared to critical factors (b) and (d) (employees' satisfaction and exploitation of technological potential). However, in both cases, the average values obtained in each of the factors are not very different. Also with regard to the individual analysis of the factors of the learning and growth perspective, none of the hypotheses formulated was confirmed, so it is considered that there are no differences between the importance assigned to these factors by the respondents of the organisations without BSC and with BSC [11,91,95,96].

Recognizing the importance of the management principle of ensuring a strategy at all levels of management assessment and monitoring, and monitoring the degree of its execution, the BSC proved to be a good tool to communicate the strategy to the entire organization. The BSC is distinguished by the use not only of financial indicators, but also by the use of short-term non-financial indicators, making it not merely a long-term analysis. This instrument encompasses an external and internal view of the organization as well, thus allowing only an assessment of performance at the level of results (occurrence), but specifically of trends [10,13,14,81]. In this sense, it is postulated that lagging indicators (characteristic of the financial perspective) that summarise past actions characterise the consequences of leading indicators (characteristic of the other three perspectives) [80]. In summary, we may refer that the leading or lead indicators identify the cause or origin, while the result indicators are the lagging or lagging indicators. Thus, it is acknowledged that the links show that the leading indicators, from the first three perspectives, foster the performance of the lagging indicator, belonging to the fourth perspective.

Synthesizing the results presented here, they showed that the BSC is valued by managers as a tool capable of adding critical value to their businesses [89]. Specifically, the companies with BSC participating in this research considered that the use of BSC promotes the commitment of all employees to the company's organizational goals [89], and provides learning for all and alignment of all with the strategy [5,25,31,50,65,66,91]. Put differently, this tool fosters effective communication and influences the commitment of people and structures [5]. In fact, management control, in the companies questioned that use the BSC, has reached a level of excellence with the use of the BSC, because it aims to align organizations to a single vision focused on the future, which corroborates the considerations of [5]. It was also found that companies with BSC present improvements in their performance, as a positive consequence of the monitoring and control of organizational objectives, which provides the adoption of preventive or corrective measures and also an efficient decision-making process [5]. From another perspective, it would be important that companies without a BSC participating in this study consider its implementation to improve their organisational performance so that the advantages of this management control tool mentioned by the aforementioned authors may take root.

4. Conclusions and Implications

Managers acknowledge that performance analysis supported only by financial indicators is insufficient, considering that these reflect the past and do not guarantee the organisation's future sustainability. Thus, it is acknowledged that organisations should

not only consider the financial perspective, but also the other perspectives, namely the customer, internal, and learning and growth perspectives.

Once again, it is clear that organisations started to emphasise the use of the BSC management tool more than two decades ago, not only for strategy alignment and monitoring, but also as a tool capable of assessing organisational performance.

The analysis of the empirical results reveals that, despite the recognised interconnection between the perspectives, managers attribute greater importance to the financial perspective. This result is understandable to the extent that, despite all developments concerning the assessment of organisational performance, financial indicators still continue to receive special emphasis from managers.

The results reveal that the customer perspective is in second place in terms of relative importance, i.e., right after the financial perspective. This position is unanimous in both organizations (with and without BSC), however, organizations without BSC attribute a significantly higher importance compared to organizations with BSC.

Learning and growth perspective is outstanding, as it differs in organisations with and without BSC. Organisations with BSC allocate this perspective at the third ranking while organisations without BSC recognize its ranking at the last position.

Despite the growing importance of the strategic objectives associated with the learning and growth perspective, this perspective occupied the third position in organizations with BSC, having even reached the last position in organizations without BSC. This difference in the level of importance proved to be statistically significant. In our view, this result stems from the difficulty managers feel in assessing their employees, since organisations mostly measure generic satisfaction, absenteeism and punctuality. However, they have difficulties in connecting this perspective with the organisational strategy [20]. It is precisely in this sense that the literature highlights the fact that qualitative indicators (intangible) cannot be objectively measured through indicators, which hinders their inclusion [30].

Regarding the importance assigned to the individual critical factors, related to the four BSC perspectives, it is highlighted that only the importance assigned to the value creation (financial perspective) revealed significant differences, with organizations with BSC attributing greater importance to this dimension compared to organizations without BSC.

The main contribution of this study lies in the identification of the high level of importance that managers (of organizations without and with BSC) attribute to the BSC contribution, with regard to strategic focus and organizational performance; it is possible to assess that the BSC is a management tool with strong contribution not only by those who use it, but also by those who, despite not using it yet, recognize its strong potential contributions.

Based on the above defined rankings in organisations with and without BSC, managers are able to define a strategy map, designing the order of their own perspectives, so as to identify the ranking of each indicator. This ranking is significant, to assure a correct interlinkage between indicators and their lead and lag effects. This calculation of relevance implies that the BSC still has the potential to increase its level of implementation, especially in the context of Portuguese organizations with greater export capacity.

Despite its contribution, this research is not exempt from limitations. The first limitation relates to the sample's size and scope, as it does not represent the entire organisation or population. The second lies in the geographical context. The third refers to the parametric test used, as there are many alternatives. On the other hand, these limitations may be addressed with future research, as the BSC remains a fertile topic in academia and business. Additionally, a future research clue is the inclusion of other constructs related to the BSC, namely associated with the phase of its adoption and implementation and/or the following phases. Naturally, other aspects related to the BSC may also be the object of study and dissemination of scientific knowledge. Finally, given the more quantitative nature of this research, as a proposal for future research we point out the possibility of using the mixed methodology.

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