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# **Existing Differences Between SMEs That Apply BSC and Those That Do Not**

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#### **Abstract**

This paper aims to confirm the importance of BSC (Balanced Scorecard) in SMEs' organizational performance. To perform the empirical study of this investigation, a field study, namely a qualitative approach, Multi Case Study was selected and developed in two small and medium organizations (SMEs) in the wine sector. One of the organizations, had the Balanced Scorecard (BSC) implemented while the other did not, which made it possible to ascertain the existing differences among SMEs that apply and those that do not apply BSC.

The results showed that BSC has impact on business success. SMEs benefit from the implementation of BSC, consequently SMEs were encouraged to adopt it based on the benefits in terms of performance and measurement of strategic objectives.

This study reflects that BSC has been a discussion and research topic over the last few years as it leverages business. Managers seek appropriate BSC tools to implement indicators and monitor these in accordance with the global organizational strategy. Besides BSC provides managers with relevant information to take decisions, define action plans and achieve the whole organizational control.

Keywords: Management Control; Balanced Scorecard; Performance; SMEs.

#### 1. Introduction

In recent decades Portuguese business structure has undergone sharp adjustments, reflecting changes in competition (China and other Eastern European countries). It is known that some sectors stand out more than others, namely the wine industry, tourism, catering and even agriculture. Among Portuguese organizations, SMEs have the greatest economic relevance. In the wine industry three-quarters of the organizations are SMEs and generate around 70% of the sector's turnover.

Given the relevance of SMEs, business success has increased supported by internal sets of Management Control Tools which guide business administrations and managers.

Bearing in mind the strategic relevance of Management Control Tools such as the need to interlink different organizational perspectives, Kaplan and Norton developed an important Management Control Tool, namely the BSC, in the 1990s. The well-known BSC as referred by [1][2] comprises four Perspective indicators: the Financial Perspective consisting of indicators that show the results of past actions; the Customer Perspective composed of indicators related to customer satisfaction; the Internal Perspective comprising processes referring to the potential to improve, and the fourth Perspective named Learning and Growth includes training and infrastructures to leverage organizational development.

BSC empowers strategic analysis, leads to value creation, as is the case with mapping and monitoring strategy in order to guide managers to interconnect operational performance with the strategic objectives, being considered as one of the most prevalent performance and strategic management tools [3][2].

As the strategic map is the basis for the BSC development, it characterizes the whole organizational strategy and describes the critical success factors of the organization. Furthermore, it illustrates the relationship between each of the four perspectives and their cause and effect relationships, showing an objective way of value creation to the entire organizational structure.

#### 2. Literature Review

# 2.1. Management Control

Management Control Tools have gradually become recognized, especially since the 1980s. At that time, public institutions began to pay more and more attention to performance appraisal and to continuous improvement projects. As the primary objective of public institutions is the analysis and identification of processes, products (goods or services), also for public institutions, performance measurement tools guide to identify deviations and follow action plans [4][5].

In the early 1990s managers confirmed that the analysis and monitoring of financial indicators hindered an overall overview, with a short-term focus only on financial indicators that compromised long-term options [6]. Following this path, [7] proposed to change General Electric's eight perspectives to four perspectives composing the Balanced Scorecard (BSC), one of the most widely used management tools for monitoring and balancing organizational performance indicators [7].

The BSC proposed by [7] argues that management cannot only concentrate on financial indicators, because the financial aspect, by itself, does not generate value. According to these authors, at the time of BSC's development, only 5% of operational employees knew the organization's strategy and only 25% of managers received incentives to achieve previously defined objectives. Additionally, 60% of organizations did not link budgets to strategy, while about 85% of managers devoted

less than an hour a month to organizational strategy. Thus, after having developed Case Studies over a year, in twelve companies, as reported by [8], the BSC was presented in 1992 as a multidimensional Management Control Tool, which over time has become a more complete management tool, as shown in Table 1:

System	Functionalities
Measurement System	- Specific indicators and objectives (1992)
Communication system	- Information of the organisation's strategic objectives (1992-1993)
Global and individual evaluation system	<ul> <li>Implementation of strategies</li> <li>Strategic implementation tool, transforming measures into specific actions and consequent value creation</li> <li>Measures and actions also of intangible values (1993; 1996-1997)</li> </ul>
Strategic management system	Decision-making aid     Evaluates and monitors the management system, linking intellectual capital to strategy, communicating across organisational borders (1996-1997; 2004)
Self-assessment system of the management system	- Concentration of intellectual capital in favour of the established strategy (2004-2008)
Strategic relations management system	<ul> <li>Strengthening strategic relations with the outside</li> <li>Bringing back extraorganizational relationships, giving primacy to strategic alliances (2010).</li> </ul>

Table 1. Evolution of BSC, Source: adapted from [9] cited by [10]

Based on the previously mentioned four organizational Perspectives, namely: Financial perspective, Customer perspective, Internal Perspective and Learning & Growth Perspective, managers have a balanced view. The perspectives are interconnected through cause-effect relationships, which lead to the defined strategic objectives [7].

Managers are able to have an individual overview on the one hand and an aggregated overview of the actual performance, on the other. Furthermore, a comparison between the actual and the budgeted organizational strategy is enabled [11], as shown in Figure 1.

Knowing that traditional performance indicators are based only on accounting systems, [12] highlight the added value of Dashboards. Sustained on the Dashboards, like BSC strategic objectives might be communicated and monitored. In order to have this overview, managers need to be aware of the importance of the Balanced Scorecard Steps, as described in Table 2.

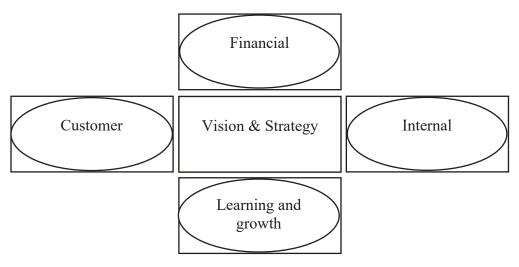


Figure 1. Perspectives of the Balanced Scorecard, Source: adapted from [4]

1.st Step	Strategy Development
2. <sup>nd</sup> Step	Definition and implementation of strategy support measures.
3.rd Step	Integration of measures into the management system.
4. <sup>th</sup> Step	Periodic verification of measures and results.

Table 2. Steps of the Balanced Scorecard, Source: Adapted from [13]

[14] argues that the implementation of the BSC is divided into the following steps:

- Define the sector of activity and evidence the role and development of the organization;
- Define the organization's perspectives;
- Define the organization's vision, taking into account each perspective;
- Identify critical success factors for the organization;
- Develop strategies to create an organizational balance across the organization;
- Set the goals to be achieved by the organization;
- Create and develop an action plan to execute the organization's strategy;

Managers should define the strategic indicators and their targets, in accordance with the organization's strategy, as seen in Table 3 in which the Process of Performing Strategy is highlighted.

Strategy development process	Objetives	Platform	Representative Activities
Mission, Vision and Values (What business are we in? Why?)	Reaffirm the organisational guiding lines	Set out how to execute the view	Mission analysis; Confirmation of vision; Central values;
Strategic objectives	Clearly set the financial target, as well as strategic	Establish the economic model that will be used	Mission measures Decomposition of value;

Strategy development process	Objetives	Platform	Representative Activities
(Where are we going?)	objectives that will lead to the overall strategy. throughout the strategic management process.		Strategic themes; Goals for the next 3- 10 years; Financial model.
Strategic analysis (What are our core objectives?)	Identify, through a structured analysis, the events, forces and experiences that impact and modify the strategy.	Define the link between influential forces and the value creation process.	Environmental analysis (Pestel / 5 Forces); Internal analysis (SWOT / Value Chain); Strategy for reviewing objectives; Identification of key subjects.
Formulation of the Strategy	Define where and how the organisation will compete.	Ensure that changes to the strategy are linked to changes in the planning and implementation of the process. Set the limits of admissible amendments.	Where to compete (niches); Differentiation (value propositions); How to compete (strategic map); Financial model/Stratex; Strategic change agenda.

Table 3. Process of Performing Strategy, Source: Adapted from [15]

Considering the strategy development process, it is verified that the point at which a given organization is, is measured by comparison to the goal. In this process it is effectively considered that the key to organizational success are employees [11]. It is known that the involvement and commitment of all the collaborators lead to a more efficient performance, so to have a clear overview about the Job Descriptions, the individual performance indicators also need to be clearly identified [16].

Despite its recognition, BSC was not the only tool proposed, given the need to broaden the field of action, involving medium and long-term financial and non-financial indicators, other management tools emerged, such as Tableau de Bord [17]. Although the Tableau de Bord and BSC tools use both financial and non-financial indicators, BSC distinguishes itself by incorporating cause-and-effect relationships between indicators grouped into four perspectives. BSC proves to be more dynamic, given its use of trend indicators, allowing future projections to be made, which may provide relevant information to reorient the strategy [18].

However, as noted and supported by the literature, BSC stands out as its applicability goes beyond the boundaries of private, for-profit companies, as it may also assist public institutions as public managers focus on performance indicators (KPI) and their causal relationships [19]. It is precisely on the basis of these gains that

the tool is also distinguished from the KPI Scorecard measurement system, as BSC, unlike the KPI Scorecard, interrelates strategic objectives in the four dimensions. Due to this limitation of the KPI Scorecard, strategic measurement of processes is achievable, in case that processes are interconnected with a global process [20].

Over the years there has been a need for the design of sustainability control mechanisms such as environmental sustainability [21]. Guidance on organizational sustainability is the key factor in justifying the integration of Sustainability Control Systems [22].

Over the past few years there has been much research and discussion on which definition of Management Control in the literature best fits the business reality [23].

Due to the high pressure to innovate, organizations and mainly managers seek Management Control tools [24], [25]. Consequently, Management Control gathers information to guide managers in decision making, planning activities and operational control [26]. A Control Tool goes beyond a monitoring process as it directs managers to decisions and guides their actions to reach their ultimate goal [27].

BSC influences managers' behavior as it highlights problems, avoiding the non-achievement of defined goals [28]. Furthermore, BSC promotes managers' capabilities to orientate the national and international market [29]. Overall, it provides all financial and non-financial information essential for making strategic decisions [30].

Management Control Tools should manage and coordinate communication between the different operational areas, so that stakeholders are able to coordinate, manage and dialogue about their needs [26]. [31] argue that much of the organization's financial success is related to its intangible resources.

# 2.2. Balanced Scorecard – its four Perspectives and the Strategic Map

From time to time, managers need to review and reconfirm their mission, namely to ask why this organization exists, what its values are, i.e., the attitudes and behaviors of the organization [32]. Organizations define their organizational mission to afterwards set internal and external goals [33]. Furthermore, the defined goals need to be aligned with the organizational mission. This alignment is performed by compliance of strategic objectives, resource allocation, organizational competencies, definition of responsibilities and competencies such as the development of strategic objectives [34].

[32] created an intermediate step between the definition and implementation of the strategy, which consequently will enable the analysis of the deviation between current and forecasted status for the next three to five years.

The mission has a more specific character, it defines how and in what way they should act to achieve the strategic objectives. Regarding vision, the internal and external environment elucidates where the organization intends to be in the future [35].

To make the communication of vision and strategy effective, it is important that the mission is defined by top management, while the strategy must be planned by all employees [36], [37]. Anchored in the BSC, several internal advantages are stressed,

such as strategically directioned communications and clearly conveyed information to employees using a common language. The added value consists mainly in a clear communication that allows all employees to understand and, consequently, work towards the same goal. In this sense, it is relevant to maintain intrinsic motivation, as employees often ask the following questions [36]: (i) Does my organization have a defined strategy for success? (ii) how does performance play an important role for the organization? It is essential that employees feel that they can contribute to the strategy. Organizations can link strategy maps to BSC to link all production units in a corporate way to vision and strategy [36].

[7] defined the concept of the BSC as an important instrument of performance evaluation, complementing the financial indicators that show the results of past actions with indicators of the operational side related to: customer satisfaction, internal processes and the learning and growth potential. Organizations need to improve the activities that lead to good financial performance in the future [7].

The BSC is considered a strategic management system involving the existing relationships between perspectives, aiming at the development of management processes based on the change of vision, strategy and the relationship between objectives and strategic indicators [38].

[39] argue that the BSC with its four perspectives is an adequate model to characterize the strategies devised for value creation. [40] reinforce this theory by encouraging four perspectives in the BSC that allow for a strategic analysis. In this sense, the financial perspective is geared towards a strategy of growth, profitability and risk. The customer perspective is driving the strategy of creating value and differentiation, based on the perspective of the customer. The internal process perspective focuses on the strategic priorities of business processes which create customer and business satisfaction.

Finally, the main priorities of the perspective of learning and growth are the organization's development and the creation of new cultures, such as innovation and growth.

BSC guarantees managers a management tool focused on the creation of the strategic map of their organizations, which forces them to act to the detriment of the competitive factors that can direct them to success, interconnecting operational performance to the strategic objectives [41].

Proof of this is that strategic maps represent the key characteristics of an organization's strategy, since they provide the fundamental points for the construction of the BSC, making it possible to understand the organization's strategy, how it intends to achieve it and how it intends to create relationships between the various objectives and each perspective [42].

Thus, the strategic map describes the entire strategy of the organization, describing all the critical success factors of the organization and the relationship between each of the four perspectives and the cause and effect relationships, objectively evidencing the creation of value for the entire organizational structure [43].

In the event that deviations from the target are identified, action plans need to be developed, as explained in Figure 2:

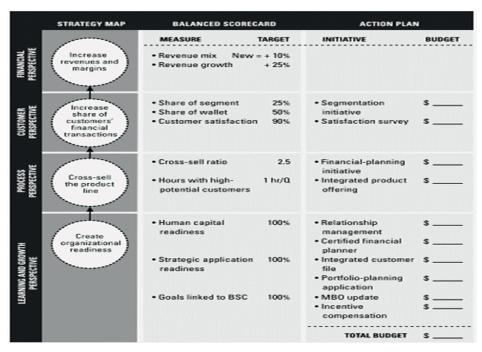


Figure 2. Comparison Between Strategic Targets and Obtained Results, Source: [44, p. 105]

BSC is designed based on four primary phases in order to reach the defined Strategy:

- i. plan/planing where financial results stand out. It consists in defining the organizational strategy and the four perspectives;
- ii. do definition of strategic objectives;
- iii. check/confirmation results are presented to top management in periodic monitoring meetings
- iv. act / corrective actions, meetings are held to define action plans, and new directions

In SMEs led by the entrepreneur and co-founder of the organization, usually the future successors will continue to work in the way the founder started.

[45] and [46] further argue that BSC should allow organizations to take advantage of all the qualities and creativity of all its employees in order to control the organization's business strategies.

[47] define organizational performance as an important indicator for assessing the operational efficiency of an organization. [48] argue that the performance of employees in an organization is viewed through two strands, behavior and results.

#### 2.3. Balanced Scorecard in SMEs

The performance of an SME business is influenced by ownership, management method applied, family involvement in management, legal aspects, and economic policies of markets and countries of operation [49]. In the wine industry, critical

success factors such as wine quality, brand, labeling and packaging are key factors influencing the volume of sales of Portuguese wine to the national and international markets. In addition to these key factors, there are also the particularities of the region, climate, soil, history, geography and culture, which are also essential for understanding the success of export sales [50]. [50] also stated that the relation between winegrowers and exporters is relevant. These mergers stand out, for example, through lower prices, product quality, the attractiveness of the packaging and the label. The relationship between the organization's performance, its competitiveness is aligned to the growth success of its business [37], [51], therefore to effectively align BSC, it is crucial to link it to strategy [52].

For [53][54] family organizations, are managed by their owner, who takes all organizational decisions.

In Portugal, there is still no key definition of the concept of family organization [55]. A family organization results from the strategy, vision and ability that the founder has in directing all his actions in order to grow the entire organization in a sustainable way, applying and investing all the necessary capital in human resources so as to achieve the necessary business objectives [56], [57].

The founders and owners of family organizations differ from other managers regarding the importance of the organization's solvency and business prestige [58].

The founder of the organization acts essentially as the organization's energizer and motivator, because he shares his values and convictions of the organization as a whole with all the elements of the organization, representing an important factor for the continuity of the organization. The continuity of the family allows the conservation of the values introduced by the founder, which are accepted by the collaborators. By effectively managing the resources available in the organization, together with strategic planning, management skills, owner decision-making and business orientation, an administration can achieve good results and growth [59].

There are authors who argue that family businesses should apply management control systems, namely the BSC [60], [61], as it is the management tool that best suits the family business relationship, family management – family business, functioning as an aid not only in the communication and training of organization members [61]. In this sense, below in Table 4 we can find the Balanced Scorecard of the SME with BSC:

Perspetives	Objec	tives Indicator		tors	Target	A	ction Plan
<u>Financial</u>	1. Increase profitability		Sales		≥ 5%		Promote the product at tional fairs and competitions;
Own capitals		≥ 5%					Creation of a web store on the ternet;
2.Reduce Costs	S	Costs p	Costs per unit		≤1	.0%	
3.Decrease average receipt time		verage re me	ceipt	≤30	) days		3. Resort to the importation of Spanish containers (bottles and carboys) since they have a lower cost;

4.Increase Gro Added Value	SS	Gross A	Added V	alue		≥ 200.000€
Customer	5. Increase Number of Customers		No. of total custom per yea		≥ 10%	1. Enhance contacts with agents for product placement abroad (UK, DE and new EU countries); 2. Direct placement of the company's products in Spain; 3. Creation of new brands;
No. of export customers per year		r	≥ 1	0%		
Internal Processes	6.Imp produ quali			ed led	≥ 90%	1.Investing in new equipment for the oenology laboratory;
7. Research for products	new	% inve 2017	% investment in R& 2017		D in	≥ 1% Turnover
Learning & Growth	Emplo Train	•	No. of training hours per year		>= 24	1. Protocol to train employees in the operationalization of organisational tasks

Table 4. Balanced Scorecard of the SME with BSC

The BSC supported the implementation of the strategy as well as the decision-making. Managers had to resort to strict procedures in order to ensure implementation:

- All employees of the organization had to be fully involved in the project;
- The head of the BSC implementation project was defined;
- Awareness was raised among all stakeholders of the importance of the BSC implementation project, and of the fact that it is a continuous endeavor and not a purely static tool;
- The organization had to identify potential elements which constituted a barrier to the creation and implementation of the BSC;
- The organization had to communicate effectively the mission, values and vision to all its employees, with the objective of ascertaining whether or not they identified with the strategy.

# 3. Methodology

This research focuses on Case Studies based on a qualitative and exploratory methodology, as it aims to understand differences in organizations with and without BSC.

We chose to conduct interviews because, according to [62], they represent a fundamental instrument for data collection for qualitative research. To this end, an interview guide (see Appendix A) with a structure and set of questions based on [63] was developed. Therefore, the research involves analyzing data collected through the interview method, visits to the organizations' facilities to monitor their business

activity, data collection from internal documents and quantification of the application of internal management control procedures.

Two small and medium-sized enterprises (SMEs) were selected from the wine sector in the northern region of Portugal. The sample served to study the relationship between management control and business success and to measure and evaluate the results obtained in the study time span, i.e., in the period 2014 and 2017. The sample was expected to enable a data analysis for the study of the relationship, which was to be conducted in phases. Firstly, interviews with business management were conducted, using a semi-structured interview guide based on the work of [63]. Direct observation of the activity of the organizations was carried out and documentary analysis of the data collected in the organizations was also done.

Phase 1 – The main aim of the interviews with the administrative staff of the companies was to collect data and information on them, concerning the characterization of the organization and its recent economic and financial developments, as well as the characterization of management control instruments implemented, among other information considered to be fundamental in the development of the study.

Phase 2 - In the direct observation of the activity our goal was to observe the activities of companies, the preparation of business plans and finally to be present at a monthly meeting where middle managers present and analyze the results of their area of responsibility.

Phase 3 - Finally, in the documentary analysis of the data collected in the companies, we analyzed the financial situation of the organization, the sectors and the evolution of what we intend to address in the case study:

- Business plan and its annual budget;
- Analysis of the results of the respective area of activity;
- Analysis of strategic planning and operationalization of the management control system;
- Analysis of the existing information system and the rules defined for management control;
- Analysis of existing resources within its activity, considering the operationalized management control system;

These three phases mentioned above allow us to link a number of views on the management control systems used by companies, to reduce subjectivity in the study of the information obtained.

The SME with BSC privileges gender equality (5 male and 5 female employees), employees with a lot of experience in the area and with training linked to management. It is clear here that the organization is interested in having qualified employees in its staff, as can be seen below in Table 5:

Average Age	39,3 years	
Gender	5 Male	
Gender	5 Female	
Managamant Lauri	2 Top Management	
Management Level	1 Intermediate Management	

	7 Operational Management		
	<5 years 2		
Experience in Management	5-10 years 3		
	>15 years 5		
Academic Background in Management	Secondary School Level – 7		
	Bachelor – 1		
	Master – 1		
	Other – Marketing 1		

Table 5. Sociodemographic Characterization of Interviewees (SME with BSC)

On the other hand, the SME without BSC, despite privileging gender equality does not have in its intermediate, operational or top-level staff, many employees with academic training linked to management. It only has a certified accountant, who works in an external accounting office. However, many of the employees have more than 15 years of experience in the business sector, as can be seen in Table 6 below with summarized information.

Average Age	48 years
Gender	3 Female
	3 Male
Management Level	2 Top Management
	0 Intermediate Management
	3 Operational Management
Experience in Management	<5 years 1
	5-10 years 1
	>15 years 3
Academic Background in Management	Secondary School Level – 4
	Bachelor – 2
	Master – 0
	Other – 0

Table 6. Sociodemographic Characterization of Interviewees (SME without BSC)

## 4. Analysis of the Results

The criteria that characterize a successful organization are common between organizations with and without BSC implemented, namely customer acquisition, customer loyalty and satisfaction, turnover, product quality and internationalization of products and brand, while it is notable that the perspective with the most relevance, immediately after the financial perspective, is the customer perspective

The success of the last five years, in comparison to the predicted success for the same time span is more aligned to its strategy in the case of the SME with BSC. In the organization with BSC the main key factors for success are related to customer satisfaction, loyalty, volume of orders, the turnover and the increase in revenue. Other factors that contributed to the organization's success in the last five years and especially in the last year were the brand expansion through internationalization and the increase of exportations. BSC enabled a better understanding of the success

achieved by the organizational performance, such as better communication among departments and employees.

Regarding question nr. 3 of the Interview Guide (Attachment 1 "In your opinion, has this organization, over the last 5 years, been as successful as expected? Why?"). They justified their responses by stating that the organization improved its organizational performance and benefited from the introduction of BSC. All respondents responded positively, stating that the organization had had business success in the last five years. On the other hand, regarding question nr. 3 of the Interview Guide (Attachment 1 "In your opinion, has this organization, over the last 5 years, been as successful as expected?? Why?" The SME without BSC did not achieve business success in the previous five years, with the main reasons being: strong competition, high wine prices, order failures, volume decreases, lack of diversified products, missing partners and competitors in the sector. Furthermore, the SME without BSC has not been successful in recent years and there was a reduction of 30% in turnover. Negative feedback from customers, which leads the organization to lose customers, a decrease in revenue and a negative business performance were identified. Concerning the perception of the performance evolution, the organization with BSC confirm that they are able to focus on strategic changes. It improved its organizational performance and benefited from the introduction of the BSC. The interviewees also highlighted the fact that with the introduction of the BSC, the organization improved its organizational performance, communication between departments and employees. The BSC enabled the SME to redefine itself as an organization outlining its priorities, operational activities, business strategies, and processes and working methods, but above all, it guided management decisions.

Organizations without the BSC have the perception that BSC has a positive influence on organizational performance and strategic changes. Furthermore, they consider that the BSC might be relevant to guide the organizational structure and sustainability, to compete in the activity sector, by innovating, developing products and achieving economic recovery and success. In SMEs without BSC, managers would welcome its introduction, in accordance with [64], [65], to provide them with useful information for decision-making, planning and evaluation of the organization's activities, to combat the scenarios of uncertainty and business complexity that may arise and to be fundamental for the creation of business strategies.

In the SME without BSC it is well known that profitability in both the financial and customer perspectives is the most important for this organization. BSC was initially a simply model of performance measurement, but it became a model of strategic management, strategic communication and change management. [66] state that financial indicators translate organization strategy through growth, profit and value creation, customer indicators focus on customer value creation, and internal indicators of learning and growth are characterized by measuring their success in the medium and long term through the flexibility and adaptability and adequacy of intangible assets. The literature recognizes the importance of intellectual capital and organizational learning in the overall performance of an organization [67]. BSC plays a fundamental role in organizations because it enables competitive advantages and the achievement of business success in the face of uncertainty and economic difficulties

[65]. Furthermore, SMEs without BSC showed a lack of business control grounded on management limitations and on the undefined organizational structure. In general, small and young organizations perform better than older and larger ones, as small organizations are more concerned with business performance [68].

On the other hand, the SME with BSC benefited from the adoption of the BSC in its business management, because it obtained better results, increased performance, whereas organizations without BSC, showed several limitations which constituted a barrier to positive financial and operational results.[69], [70] argue that BSC should adapt and support the organization's business strategy in order to achieve superior performance. [71] highlighted the importance of turnover, as the performance increase is linked to organization's results.

When comparing the importance given to each Perspective by SMEs with BSC and SME without BSC, we verify that organizations with BSC have a more accurate and equal distribution, as seen in Table 7 below:

Perspective	Average Relevance
FINANCIAL	27%
CUSTOMER	24%
INTERNAL	11%
LEARNING & GROWTH	10%

Table 7. Average Relevance of each Perspective (SME with BSC)

In contrast, organizations without BSC focus much more, in an unbalanced way, on the Financial Perspective:

Perspective	Average Relevance
FINANCIAL	41%
CUSTOMER	21%
INTERNAL	19%
LEARNING & GROWTH	19%

Table 8. Average Relevance of each Perspective (SME without BSC)

The top managers of the SME without BSC attributed a weight of 60% and 70% to the Financial Perspective, which doubtless confirms their main focus on this l Perspective. Without a management tool it is difficult to align the relevance of the perspectives, so managers without BSC highlight the Financial Perspective.

Regarding the academic background, some differences were identified, as organizations with BSC have staff from the Management field, whereas those from organizations without BSC have an engineering background. Considering these differences, it is notable, as [72] argue that SMEs should improve management knowledge because the renewal of knowledge and the development of professional aspects are essential for SMEs. [2][73] confirm that there is a need to define professional competence, but above all, to identify the people with the best knowledge

and skills that allow and contribute to the organization's success thereby improving their business and performance.

[39] emphasize the importance of alignment of the objectives in the four perspectives, representing the key factor for value creation through a consistent internal strategy elaborated by the whole organization. Organizations with BSC can distribute and balance the importance of all the perspectives in an adequate way, whereas organizations without BSC miss this balancing feature. Furthermore, inefficient or lack of communication by managers may be a barrier to implement strategies [74], [75]. According to [76] many managers seek to align the objectives of the BSC's perspectives to identify new businesses, increase their competitive advantages, in order to achieve better organizational performance. Finally, [77] consider that a strategically aligned model is one that contemplates a strategy that can integrate and relate the external environment (market) to the internal environment (organizational structure). Organizational strategies are aligned to gather individual strategic indicators or definitions in a comprehensive way [78], [79].

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# **Appendix A - Interview Guide**

#### **GUARANTEE OF CONFIDENTIALITY**

This study aims to evaluate the importance of Management Control Tools and their impact on organizational performance.

The Balanced Scorecard (BSC) is a recognized management tool that translates the vision and strategy of organizations through a set of performance indicators, based on critical factors. The data obtained will be aggregated to allow their processing and conclusions. This way, we not only assure the total confidentiality of the data, but we also guarantee the study in aggregate form. In this context, we ask you for the utmost rigor and objectivity in order to ensure that the analysis is performed with the desired validity and reliability

1. What is important in this company? Score each of the statements from 0 to 100.

This company attaches importance to human resources. High cohesion and morale are	
important in this company.	
This company attaches importance to the growth and provision of new services. How fast you	
are facing new challenges is important.	
This company attaches importance to permanence and stability. Efficiency, incremental	
changes are important in this company.	
This company attaches importance to competition and results. Achieving goals is important in	
this company	
Total	100

100

2. What are the criteria you can point out to characterize this company as a successful company sector?	y in the
3. In your opinion has this company, over the last 5 years, been as successful as expected? Why?	
4. In your opinion, did this company last year achieve the expected success? Why?	
<ol> <li>Indicate how much relative weight each Perspective has for this company.</li> <li>Consider a total percentage of 100%</li> <li>Financial Area</li> </ol>	
This company is concerned with asset and earnings management capabilities (Profitability)	
This company seeks new products and services by reaching new customers and markets or increasing current ones (Growth).	
This company aims to create shareholder value (Value Creation)	
Total	100
Customer Perspective	
This company tries to secure a customer base that contributes to the value of the company (Profitability)	
This company aims to achieve high levels of customer satisfaction (Satisfaction).	
This company has the ability to captivate new customers or increase the number of current	
customers (Retention)	
This company has the ability to keep current customers (Loyalty)	
Total	100
Internal Perspective	
It is recognized that this company exists to ensure processes and not accumulate functions (Process Management)	

#### **Learning and Growth Perspective**

(Efficiency and Effectiveness).

In this company, employees are able to present new ideas (Innovation)	
This company guarantees high levels of motivation and commitment (Satisfaction)	
This company ensures knowledge levels of employees that enhance their performance	
(Qualification)	
Total	100

This company can optimize the utilization of the resources on which the results depend

This company identifies non-value generating activities (Rationalization)
This company ensures high acceptance rates of its products (Quality)

Total

# 6. Indicate how much relative weight each Perspective has for this company. Consider a total percentage of 100%.

Financial Perspective	
Customer Perspective	
Internal Perspective	
Learning & Growth Perspective	

#### 7. Question for organizations with BSC implemented:

- a) What is your opinion about the organizational (non-financial internal) performance of the last 5 years?
- b) Does BSC allow the company to focus on strategic changes defined by managers?
- c) Do you perceive that BSC contributes to the previously defined organizational performance?

#### 8. Question for organizations that have not yet implemented BSC

- a) Do you think BSC could allow the company to focus on strategic changes previously defined by managers? Why/ why not?
- b) Do you think that BSC will be a tool capable of enhancing the organizational performance of your company? Why/ why not?

### Sociodemographic Characterization of the Interviewee

Age:

Gender:

#### What level of management are you in?

Top management

Intermediate Management

Operational management

# How many years of professional experience do you have in this area?

≤5 years

5-10 years

>15 years

#### Do you have a degree in Management

Nο

Bachelor

Master

Other

#### References

- [1] Z. Hoque, "20 years of studies on the balanced scorecard: trends, accomplishments, gaps and opportunities for future research," *Br. Account. Rev.*, vol. 46, no. 1, pp. 33–59, 2014.
- [2] E. G. Hansen and S. Schaltegger, "The sustainability balanced scorecard: A systematic review of architectures," *J. Bus. Ethics*, vol. 133, no. 2, pp. 193–221, 2016.
- [3] T. W. Guenther and A. Heinicke, "Relationships among types of use, levels of sophistication, and organizational outcomes of performance measurement systems: The crucial role of design choices," *Manag. Account. Res.*, vol. 42, pp. 1–25, 2019.
- [4] R. S. Kaplan and D. P. Norton, The Balanced Scorecard: Translating

- Strategy into Action. Boston: Harvard Business School Press, 1996.
- [5] P. Taticchi, F. Tonelli, and L. Cagnazzo, "Performance measurement and management: a literature review and a research agenda," *Meas. Bus. Excell.*, vol. 14, no. 1, pp. 4–18, 2010, doi: 10.1108/13683041011027418.
- [6] M. E. Porter, "Capital Disadvantage: America / s Failing Capital Investment System," *Harv. Bus. Rev.*, no. september october 1992, pp. 65–82, 1992.
- [7] R. S. Kaplan and D. P. Norton, "The balanced scorecard measures that drive performance," *Harvard Buiness Rev.*, no. January-February, pp. 71–79, 1992.
- [8] A. Gumbus and R. N. Lussier, "Entrepreneurs Use a Balanced Scorecard to Translate Strategy into Performance Measures," *J. Small Bus. Manag.*, vol. 44, no. 3, pp. 407–425, 2006, doi: 10.1111/j.1540-627X.2006.00179.x.
- [9] H. Saraiva and M. Alves, "Balanced Scorecard em Portugal: sua difusão, evolução e consequências da sua utilização," *Rev. del Inst. Costos*, vol. 11, pp. 1–20, 2013.
- [10] C. Oliveira, "Balanced Scorecard, Cultura Organizacional e Desempenho: O Caso das Maiores Exportadoras de Portugal," University of Minho, 2018.
- [11] M. Chavan, "The balanced Scorecard: a new challenge," *J. Manag. Dev.*, vol. 28, no. 5, pp. 393–406, 2009.
- [12] C. M. Lau and A. Moser, "Behavioral Effects of Nonfinancial Performance Measures: The Role of Procedural Fairness," *Behav. Res. Account.*, vol. 20, no. 2, pp. 55–71, Jan. 2008, doi: 10.2308/bria.2008.20.2.55.
- [13] R. Anthony and V. Govindarajan, *Management Control Systems*. Mc Graw Hill, 2003.
- [14] L. M. de Oliveira, J. H. Perez Junior, and C. A. dos S. Silva, *Controladoria estratégica*. São Paulo: Atlas. 2004.
- [15] R. S. Kaplan, D. . Norton, and E. Barrows Jr., "Developing the Strategy: Vision, Value Gaps, and Analysis," *Harvard Bus. Publ.*, vol. 10, no. 1, pp. 1–5, 2008.
- [16] H. C. Oliveira, L. L. Rodrigues, and V. Eiriz, "Balanced Scorecard and Learning Organization: Case Study," *Rev. Universo Contábil*, vol. 8, pp. 167–183, 2012, doi: 10.4270/ruc.2012436.
- [17] M. Gautier and M. C. Lupé, *Les tableaux de bord de la fonction personnel*. Entreprise moderne d'édition, 1978.
- [18] J. Russo, Balanced Scorecard para PME e pequenas e médias instituições. 2015.

- [19] T. Northcott, D.; Taulappa, "Using the balanced scorecard to manage performance in public sector organizations," *Int. J. Public Sect. Manag.*, vol. 25, no. 3, pp. 166–191, 2012.
- [20] R. S. Kaplan, "Strategic performance measurement and management in nonprofit organizations," *Nonprofit Manag. Leadersh.*, vol. 11, no. 3, pp. 353–370, 2001.
- [21] F. T. Rothaermel and A. M. Hess, "Building Dynamic Capabilities: Innovation Driven by Individual-, Firm-, and Network-Level Effects," *Organ. Sci.*, vol. 18, no. 6, pp. 898–921, 2007, doi: 10.1287/orsc.1070.0291.
- [22] A. Caglio and A. Ditillo, *A review and discussion of management control in inter-firm relationships: Achievements and future directions*, vol. 33, no. 7–8. Elsevier Ltd, 2008.
- [23] B. De Souza, V. Cláudio, P. Ferreira, and D. Vargas, "Impactos da gestão por competências," *X Congr. Nac. Excel. em Gestão*, 2014.
- [24] H. Jordan, J. C. E. Neves, and J. A. Rodrigues, *O Controlo de Gestão Ao serviço da Estratégia e dos Gestores*, Áreas Edit. Lisboa, 2002.
- [25] M. Á. Calderón Molina, B. Palacios Florencio, J. M. Hurtado González, and J. L. Galán González, "Implementing the balanced scorecard: its effect on the job environment," *Total Qual. Manag. & amp; Bus. Excell.*, vol. 27, no. 1, pp. 81–96, 2016, doi: 10.1080/14783363.2014.954364.
- [26] H. Jordan, J. Carvalho das Neves, and J. Rodrigues, *O Controlo de Gestão ao serviço da estratégia e dos gestores*, 10th ed. Lisboa: Áreas Editora, 2015.
- [27] A. Greenhill *et al.*, "Playing with science: Exploring how game activity motivates users participation on an online citizen science platform," *Aslib J. Inf. Manag.*, vol. 68, no. 3, pp. 306–325, 2016.
- [28] J. Mundy, "Creating dynamic tensions through a balanced use of management control systems," *Accounting, Organ. Soc.*, vol. 35, no. 5, pp. 499–523, 2010.
- [29] J. Fijałkowska and C. Oliveira, "Balanced Scorecard in Universities," *J. Intercult. Manag.*, vol. 10, no. 4, pp. 57–83, 2018, doi: 10.2478/joim-2018-0025.
- [30] C. C. S. Vicente, M. J. Major, J. C. C. Pinto, and J. Sardinha, "Estudo do papel dos controllers de gestão em Portugal," *Rev. Port. e Bras. Gestão*, no. 3, pp. 66–79, 2009.
- [31] D. J. Teece, G. Pisano, and A. Shuen, "Dynamic capabilities and strategic management," *Strateg. Manag. J.*, vol. 18, no. 7, pp. 509–533, 1997.
- [32] R. S. Kaplan, "The Execution Premium: Linking Strategy to Operations for

- Competitive Advantage," *Harvard Bus.*, pp. 1–8, 2008, doi: 10.2308/accr.2010.85.4.1475.
- [33] D. Li, L. Eden, M. A. Hitt, and R. D. Ireland, "Friends, acquaintances, or strangers? Partner selection in R&D alliances," *Acad. Manag. J.*, vol. 51, no. 2, pp. 315–334, 2008, doi: 10.1002/smj.
- [34] C. M. Daily, S. T. Certo, and D. R. Dalton, "Investment bankers and IPO pricing: Does prospectus information matter?," *J. Bus. Ventur.*, vol. 20, no. 1, pp. 93–111, 2005, doi: 10.1016/j.jbusvent.2003.10.003.
- [35] J. S. Harrison, M. a. Hitt, R. E. Hoskisson, and R. D. Ireland, "Resource complementarity in business combinations: Extending the logic to organizational alliances," *Journal of Management*, vol. 27, no. 6. pp. 679–690, 2001, doi: 10.1016/S0149-2063(01)00118-0.
- [36] R. S. Kaplan, "Leading Change with the Strategy Execution System," *Harvard Bus. Publ.*, vol. 12, no. 6, pp. 1–16, 2010.
- [37] G. Cokins, "Driving Acceptance and Adoption of," *J. ofCorporate Account. Financ.*, pp. 69–74, 2013, doi: 10.1002/jcaf.
- [38] J. Azeitão and J. Roberto, "O planeamento estratégico e a gestão estratégica nas PME," 2010.
- [39] R. S. Kaplan and D. P. Norton, *Strategy Maps: Converting Intangible Assets into Tangible Outcomes*. Boston: Harvard Business Press., 2004.
- [40] R. S. Kaplan and D. P. Norton, "Having Trouble With Your Strategy," *Harv. Bus. Rev.*, vol. 5, pp. 167–176, 2000.
- [41] C. A. F. Amado, S. P. Santos, and P. M. Marques, "Integrating the Data Envelopment Analysis and the Balanced Scorecard approaches for enhanced performance assessment," *Omega*, vol. 40, no. 3, pp. 390–403, 2012.
- [42] A. J. R. Santos, *Gestão estratégica: conceitos, modelos e instrumentos.* Escolar Editora, 2008.
- [43] R. S. Kaplan and S. R. Anderson, "Time-Driven Activity- Based Costing," *Harv. Bus. Rev.*, vol. 82, no. 11, pp. 131–138, 2004.
- [44] R. S. Kaplan and D. P. Norton, "How to implement a new strategy without disrupting your organization," *Harv. Bus. Rev.*, vol. 84, no. March, p. 100, 2006, doi: Article.
- [45] R. Simons, "Control in an age of empowerment Boston." MA: Harvard Business Review Press, 1995.
- [46] D. Madsen and K. Slåtten, "The balanced scorecard: Fashion or virus?," *Adm. Sci.*, vol. 5, no. 2, pp. 90–124, 2015, doi: 10.3390/admsci5020090.
- [47] S. E. Jackson, R. S. Schuler, and J. C. Rivero, "Organizational

- characteristics as predictors of personnel practices," *Pers. Psychol.*, vol. 42, no. 4, pp. 727–786, 1989.
- [48] J. Ferreira, A. Caetano, and J. Neves, *Manual de Psicossociologia das Organizações*. Escolar Editora, 2011.
- [49] J. H. Astrachan, S. B. Klein, and K. X. Smyrnios, "The F-PEC scale of family influence: A proposal for solving the family business definition problem1," *Fam. Bus. Rev.*, vol. 15, no. 1, pp. 45–58, 2002.
- [50] L. M. D. C. Vareiro, P. C. Remoaldo, and J. A. Cadima Ribeiro, "Residents' perceptions of tourism impacts in Guimarães (Portugal): a cluster analysis," *Curr. Issues Tour.*, vol. 16, no. 6, pp. 535–551, 2013.
- [51] T. W. Y. Man, T. Lau, and K. F. Chan, "The competitiveness of small and medium enterprises: A conceptualization with focus on entrepreneurial competencies," *J. Bus. Ventur.*, vol. 17, no. 2, pp. 123–142, 2002.
- [52] M. Tsamenyi, S. Zheng, and S. Sahadev, "The relationship between management control systems and business strategy in China," *Adv. Int. Account.*, vol. 27, no. 1, pp. 193–203, 2011.
- [53] R. C. Anderson and D. M. Reeb, "Founding-family ownership and firm performance: evidence from the S\&P 500," *J. Finance*, vol. 58, no. 3, pp. 1301–1328, 2003.
- [54] F. Silva and N. Majluf, "Does family ownership shape performance outcomes?," *J. Bus. Res.*, vol. 61, no. 6, pp. 609–614, 2008.
- [55] I. Mandl, "Overview of family business relevant issues," *Contract*, no. 30-CE, p. 164021, 2008.
- [56] D. L. McConaughy, C. H. Matthews, and A. S. Fialko, "Founding family controlled firms: Performance, risk, and value," *J. small Bus. Manag.*, vol. 39, no. 1, pp. 31–49, 2001.
- [57] M. N. Sánchez, Z. F. Rodr\'\iguez, M. C. Mart\'\inez, and B. U. Sánchez, "Impacto de la Implicación Familiar y de Otros Accionistas de Referencia en la Creación de Valor," *Rev. Estud. Empres. Segunda Época*, no. 2, 2009.
- [58] B. Arosa, T. Iturralde, and A. Maseda, "Outsiders on the board of directors and firm performance: Evidence from Spanish non-listed family firms," *J. Fam. Bus. Strateg.*, vol. 1, no. 4, pp. 236–245, 2010.
- [59] T. Mazzarol, S. Reboud, and G. N. Soutar, "Strategic planning in growth oriented small firms," *Int. J. Entrep. Behav.* & Res., 2009.
- [60] L. Songini, L. Gnan, and T. Malmi, "The role and impact of accounting in family business," *J. Fam. Bus. Strateg.*, vol. 4, no. 2, pp. 71–83, 2013.
- [61] J. Craig and K. Moores, "Strategically aligning family and business

- systems using the Balanced Scorecard," *J. Fam. Bus. Strateg.*, vol. 1, no. 2, pp. 78–87, 2010.
- [62] R. Quivy and L. van Campenhoudt, A pergunta de partida. Gradiva, 1998.
- [63] C. Oliveira, "Balanced Scorecard, Cultura Organizacional e Desempenho: O Caso das Maiores Exportadoras de Portugal," University of Minho, 2018.
- [64] R. Simons, "The role of management control systems in creating competitive advantage: new perspectives," *Accounting, Organ. Soc.*, vol. 15, no. 1–2, pp. 127–143, 1990.
- [65] L. Burney and S. K. Widener, "Strategic Performance Measurement Systems, Job-Relevant Information, and Managerial Behavioral Responses— Role Stress and Performance," *Behav. Res. Account.*, vol. 19, pp. 43–69, 2007.
- [66] A. Oliveira, C., Pinho, J., Silva, "The relevance of learning and growth in organizations that adopt and do not adopt the bsc- characterization of the cultural profile," *Revi sta Eletrônica Gestão Soc.*, vol. 12, no. 33, pp. 2584–2602, 2018.
- [67] C. Bratianu, "Intellectual capital research and practice: 7 myths and one golden rule," *Manag. Mark.*, vol. 13, no. 2, pp. 859–879, 2018, doi: 10.2478/mmcks-2018-0010.
- [68] J. L. Miralles-Marcelo, M. del Mar Miralles-Quirós, and I. Lisboa, "The impact of family control on firm performance: Evidence from Portugal and Spain," *J. Fam. Bus. Strateg.*, vol. 5, no. 2, pp. 156–168, 2014.
- [69] K. Langfield-Smith, "Management control systems and strategy: a critical review," *Accounting, Organ. Soc.*, vol. 22, no. 2, pp. 207–232, 1997.
- [70] L. Gani and J. Jermias, "The effects of strategy--management control system misfits on firm performance," *Account. Perspect.*, vol. 11, no. 3, pp. 165–196, 2012.
- [71] J. Burns, M. Quinn, L. Warren, and J. Oliveira, *Management Accounting*. McGraw-Hill Higher Education, 2013.
- [72] S. De Freitas and M. Oliver, "How can exploratory learning with games and simulations within the curriculum be most effectively evaluated?," *Comput. Educ.*, vol. 46, no. 3, pp. 249–264, 2006.
- [73] C. Wiley, "A comparative analysis of certification in human resource management," *Int. J. Hum. Resour. Manag.*, vol. 10, no. 4, pp. 737–762, 1999.
- [74] G. Cokins, "Enterprise performance management (EPM) and the digital revolution," *Perform. Improv.*, vol. 56, no. 4, pp. 14–19, 2017.

- [75] R. Lueg and P. Julner, "How are strategy maps linked to strategic and organizational change? A review of the empirical literature on the balanced scorecard," *A Rev. Empir. Lit. Balanc. Scorec. (July 6, 2014). Corp. Ownersh.* & Control, vol. 11, no. 4, pp. 439–446, 2014.
- [76] I. J. Farrell, Aligning IT to Corporate Objectives: Organisational factors in use. Citeseer, 2003.
- [77] J. C. Henderson and H. Venkatraman, "Strategic alignment: Leveraging information technology for transforming organizations," *IBM Syst. J.*, vol. 38, no. 2.3, pp. 472–484, 1999.
- [78] H. H. Hawass, "Exploring the determinants of the reconfiguration capability: a dynamic capability perspective," *Eur. J. Innov. Manag.*, 2010.
- [79] H. López-Ospina, L. E. Quezada, R. A. Barros-Castro, M. A. Gonzalez, and P. I. Palominos, "A method for designing strategy maps using DEMATEL and linear programming," *Manag. Decis.*, 2017.