IMPLEMENTATION OF BALANCED SCORECARD: CASE STUDY OF A PORTUGUESE HIGHER EDUCATION INSTITUTION*

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Abstract

Contemporary organizations need to follow their performance over a continuous period, as the short period is not enough to provide complete control. Bearing this in mind, performance measurement indicators must be reflecting the organizational strategy, not just in the short term, but also in the medium and long term. In the past, especially in industrial enterprises, a high interest in measuring organizational performance was noted. Afterward, the need for effective performance management has also gained increased recognition and interest in Higher Education Institutions (HEIs). Considering the transversal demand for management control tools, the Balanced Scorecard (BSC) gained special highlight, based on its four interlinked perspectives (financial, customer, internal processes, and learning & growth), originally developed by Kaplan and Norton. The BSC was selected for this research, as it has been already implemented by multiple HEIs, to guide managers and directors in their decisions and contribute to greater efficiency. It was, therefore, also selected for the implementation by an analyzed Portuguese higher education institution. This research aims to contribute to the empirical and practical understanding of BSC implementation in higher education, whilst providing orientation to directors and managers of HEIs. With the implementation of this tool, managers and directors can monitor the organizational performance and follow the defined strategy in the medium and long term. Based on these findings, other institutions could use this study as a guide and a benchmark.

Keywords: *Balanced Scorecard, performance, higher education, a Portuguese higher education institution*

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1. INTRODUCTION

Managers need to monitor their performance over a continuous time horizon, based on efficient performance measurement indicators. This need to monitor effective performance management has gained increasing recognition also in Higher Education Institutions (HEI) as the Balanced Scorecard (BSC) has been recognized as one of the most implemented strategic performance measurement guides (Guenther & Heinicke, 2019; Hansen & Schaltegger 2016), among a broad range of existing management tools, such as Tableau de Bord, SMART and several other well-known management tools. Among the existing management control tools, the BSC was selected for this research, given that in HEI it has been widely implemented (Fijałkowska & Oliveira, 2018). As communication assumes a relevant role, BSC can promote communication among members (Kaplan, 2008, 2010b, 2010a; Oliveira et al., 2020). This has led numerous organizations to implement the BSC while aiming to improve their performance (Quesado et al., 2018).

Considering the digital area, in which decisions need to be taken fast, the knowledge process is even more relevant (Busco & Quattrone, 2015; Cokins, 2013; Rikhardsson & Yigitbasioglu, 2018).

Bearing in mind the relevance and the power to leverage performance, this research intends to describe the several steps related to a BSC implementation in an HEI in the north of Portugal. Currently, detailed implementation phases are missing in the literature, as most benefits and limitations are highlighted. In line with this gap, along with the first interview with the President of the analyzed HEI, this missing guide was pointed out, as he referred that guidelines to implement the tool are still missing in the literature. Considering the existing gap, this research will serve as a guide for managers in Higher Education Organisations to implement the tool and reach greater efficiency in organizational effectiveness.

Supported by this management tool, managers will have access to the status of performance indicators to evaluate the degree of accomplishment of these indicators by monitoring their performance. The performance measurement tool was designed having as guidelines the four original perspectives designed by Kaplan & Norton (1992, 1993, 1996). Despite the recognized advantages, it is known that communication and comprehension of the BSC are difficult due to its complexity (Lueg & Julner 2014).

The main objective of this paper is to fill a current gap and to guide managers of HEIs to accurately measure and manage performance.

2. RESEARCH PROPOSITIONS AND OBJECTIVES

Although there is a great variety of research carried out on the BSC, throughout the literature review it was stated that there is a lack of detailing of the implementation steps of the BSC in an HEI.

Considering the above stated, the following proposition was put forward: Can BSC help HEIs in monitoring performance?

The purpose of the research was to guide HEI managers in controlling and monitoring performance, so the following propositions were identified:

- Understand the relevance of the BSC in an HEI;
- Detail the implementation steps of the BSC in an HEI.

To accomplish the defined research propositions, the following specific research objectives have been identified:

- Improve organizational performance by monitoring and controlling objectives.
- Identify BSC objectives, indicators, and targets for HEIs.

This research intends to contribute to the area of Management Control in an organization of the Higher Education sector. As a result of rigorous BSC implementations, managers of HEI can assure efficient performance management and allow precise and detailed timely monitoring of the organizational objectives.

3. LITERATURE REVIEW

3.1. The relevance of management control tools in organizations' performance

The management control function originated in the US, but in recent times it has been considered and boosted throughout Europe (Jordan, Neves & Rodrigues, 2003). Dupuiy and Roland (1999) characterize management control as an organizational summary, as it is composed of the characteristics of several areas.

Due to the constant market evolution, organizations face new challenges especially in the management control systems of organizations, as managers need analytical instruments to follow the development and be able to make decisions. Management control systems ensure efficient monitoring of organizational performance (Epstein & Roy, 2007). Managers can influence other members of the organization to implement the organization's strategies (Anthony & Govindarajan, 2007).

To implement a management control system, it is necessary to use tools that help managers set objectives, draw up a plan to achieve those objectives, as well as to monitor and evaluate the achievement of these objectives (Chand et al., 2005; Jensen, 2000; Otley, 1999). The management control system will depend on some characteristics and culture of the organization, as well as on the profile of the organization's managers (Cameron & Freeman, 1991; Gatti, 2015; Oliveira, Pinho & Silva, 2018) It is necessary to make an analysis of the organizational environment and to determine the existing constraints, which will depend on the strategy, objectives and future vision (Denison & Mishra, 1995; Kaplan & Norton, 1996b, 2001). Management control goes far beyond the traditional accounting system. At the first stage, it focuses on historical data, afterward, it focuses on short-term forecasts, on articulating the whole process, namely, on the goal setting, planning, and monitoring of results to make decisions about the direction of the organization (Bourne & Neely, 2003). These are catalysts of action and are not mere documents or bureaucracy; they deal with historical management of information but, above all, focus on the future, employee behavior, incentives, and bonuses, and the operating segments (Suma & Lesha, 2013).

Alsharari, Eid, and Assiri (2019) state that the elements of intellectual capital are also a part of organizational strategies.

Reporting Technique (SMART) of Measurement System is based on the Input-Processing Output Model or Measurement System based on Benchmarking of Adams, Schroere Czarnecki (1999), Quality-Profit Relationship System (Consumer Lenses) of Nilsson, Johnson, & Gustafsson, (2001), among others. Organizational sustainability triggered the need to integrate Sustainability Control Systems (Ditillo & Lisi, 2016).

Additionally, managers have the need to support their decisions with management tools, so, over time, numerous tools have been developed, such as Cross & Lynch's (1992) Strategic Measurement and Reporting Technique (SMART); measurement system, based on the input-processing output model or measurement system based on benchmarking by Bogan & English (1994); Adams Typical Model System, Adams et al., (1999), and quality-profit relationship system (consumer lenses) by Nilsson et al., (2001), among others.

Despite the wide variety of management tools, the literature highlights Tableau de Bord and BSC as classics, which have particularities in common, namely the global view of organizational strategy (Bourguignon et al., 2004). The Tableau de Board is based on an integrated reporting system, adopting a pyramidal organizational analysis, composed of three levels, these being strategies, organizational management, and operational management (Lebas, 1994). In turn, the BSC links the implementation and monitoring of the strategy through perspectives and respective indicators (Kaplan & Norton, 2007). Through the implementation of the Tableau de Board or BSC, the organization obtains a global view of the organization.

The individual tools include a set of activities and instruments that can vary from organization to organization, regardless of whether or not it is a for-profit one. The selection of a management control system should fit the reality of each organization, namely the size, business, management style, and organizational culture (Epstein & Roy, 2007).

Bearing this in mind, management control cannot be characterized as an oversight process, as it detects compliance with norms, procedures, and laws. Management control gathers information, which is the basis for managers to make decisions, to draw strategies, and to reach the main purpose of the organization (Frigo, 2012; GarcIa-Valderrama, Mulero-Mendigorri, & Revuelta-Bordoy, 2009). According to Jordan, Carvalho das Neves and Azevedo Rodrigues (2011) entrepreneurs consider management control as an instrument of general management used to monitor the various sectors of the organization.

The interest of managers, teachers, and researchers improved in this area through the development of theoretical practices, methods, and bases (Kaplan & Norton, 1996a). The concept of management control is relatively recent in organizations, although its importance is steadily increasing, as it is extremely useful and provides up-to-date information to guide managers through information analysis (Kaplan & Norton, 1992)

The management control system is singular to each organization. Since the size, organizational culture, environment, and type of business have to be adequate, it corresponds to the ongoing effort to achieve the stated goals (Jordan et al., 2011). Besides the ability to guide managers to take decisions, the BSC also promotes communication of corporate strategy to lead behavior and guide organizational performance (Spear & Roper, 2016). In the past, managers felt a lack of tools to measure the impact of communication on their organization because of its intangible nature (Ritter, 2003).

3.2. Balanced Scorecard evolution

The designation itself shows the fundamental characteristic of this strategy implementation tool, namely to balance between performance indicators (Kaplan & Norton, 1993). Ribeiro (2008) states that the design of the BSC is based on two basic principles, related to the term balance and the term measurement. The former reflects the importance of combining short and long-term objectives for using financial measures and non-financial measures. The second principle reflects the need to define indicators that are objective, clear, and measurable (Kaplan & Norton, 1992, 1996a, 1996b). The first BSC study was carried out in 1990 by David Norton and Robert Kaplan including twelve large US firms (Kaplan, 1992, 1996). The main motivation that led David Norton and Robert Kaplan to conduct the study was the need to change the existing accounting-based financial models. Organizations faced a new context of rapid and continuous changes in their competitive environment. After its publication in 1992 in Harvard Business Review, the BSC was gradually diffused in the Anglo-Saxon and Scandinavian countries (Kaplan & Norton, 1992, 1996a, 1996b). Thus, a new model was needed which, in addition to financial indicators, would include non-financial indicators. The traditional financial indicators were no longer sufficient in the new business models in which knowledge-based assets such as human resources and information systems were becoming increasingly important (Kaplan et al., 2008). Financial performance indicators are mostly used to determine the real value of the organization and to know the value of its market share (Grafton et al., 2010). This new model proved, from the outset, to be easy to understand, and at the same time to be consistent, capable of making all those involved in business management interact with each other (Kaplan & Norton, 2001). Thus, the BSC became the perfect tool for all business areas, and employees of the organization were to be aligned around strategic objectives (Gumbus & Lussier, 2006).

The BSC initially focused primarily on for-profit organizations (private sector), however, a great potential for implementation at non-profit organizations has been noted (Kaplan, 2001a). In the case of non-profit organizations, due to their nature, the financial perspectives do not have the same positioning as for-profit organizations (Kaplan & Norton, 1996a). Thus, a readjustment in the connection of perspectives was required, since the positioning of the customer perspective is at the top for non-profit organizations. The classic configuration is best suited for private for-profit organizations (Chan, 2004; Kaplan, 2001a). Organizations regardless of whether they are for-profit or not-for-profit should focus on continuous improvement to follow the defined strategy (Kaplan, 2001b).

In parallel with the implementation of the BSC, public organizations, similar to private ones, can link mission, strategy, and day-to-day operations (Kaplan, 2001a). To have a functional link, it needs to be linked to a robust organizational strategy and to combine with performance measurement systems (Langfield-Smith, 1997). Managers of non-profit organizations have a huge concern, precisely in this area that relates organizational performance measurement and management, because financial indicators, particularly in this category of organizations, are not sufficient for tracking mission and motivation. To achieve more accurate monitoring, the success of non-profit organizations must be measured based on the effectiveness and efficiency of their objectives (Kaplan, 2001a).

The context in which the Balanced Scorecard arose is characterized by several factors, such as the relationship between tangibles and intangibles, the value of the human context, and the value of information (Gatti, 2015). The BSC concept, proposed by Kaplan and Norton in 1992, was the major driver for the use of non-financial indicators, proposing that organizations make balanced use of both indicators to measure their organizational performance (Kaplan & Norton, 2004).

The BSC is a strategic management system based on indicators that stimulate performance, allowing the organization to have a global, present, and future vision of the business (Kaplan & Norton, 1996c; Lueg & Vu, 2015). The measurement of results and the use of drivers allow the organization to act according to its strategy. The BSC is a management tool that seeks to give a global and integrated view of the organization's performance according to the financial perspective, complemented by three new non-financial perspectives considered to be fundamental for good performance in the future (Kaplan & Norton, 1992). A main goal of the BSC is to materialize the vision and strategy of the organization through objectives and performance indicators, organized according to four different perspectives: financial, customers, internal processes, and learning and growth. These indicators should be interconnected to communicate a small number of broad strategic themes, such as organization growth, risk reduction, or productivity growth (Kaplan & Norton, 1996a). The Balanced Scorecard is a management tool that provides managers with a comprehensive and integrated view of organizational performance based on four perspectives (Kaplan & Norton, 1992) and balances between short and long term such as external and internal objectives.

3.3. The Balanced Scorecard perspectives

The BSC allows managers to gain insight into the business from four important perspectives (Kaplan & Norton, 1992). In their original version, Kaplan and Norton (1992) propose to monitor performance through four perspectives of analysis, although they recognize that they can be adjusted according to the organization's mission and strategy (Jordan et al., 2011). The indicators of the four perspectives of the BSC should be seen as a suggestion and adapted to each organization, so according to the needs of each organization, changes can be made in the perspectives proposed by Kaplan and Norton to fit each organization (Russo, 2015). The BSC is based on the global vision of the organization's strategy based on its four perspectives in which interconnected indicators and objectives are established on a cause-and-effect basis across all perspectives (Kaplan & Norton, 1992, 1996b).

For managers, it is extremely relevant to have a guide to provide them an orientation of how to allocate resources, independently of being tangible or intangible (Silva & Oliveira, 2020).

To align the implementation of the BSC, the strategy should be implemented in a top-down method, going from strategic level to operational level (Norreklit et al., 2008).

As referred, the BSC gathers financial and non-financial, short-term and long-term, as well as qualitative and quantitative indicators (Kaplan & Norton (Carmona, Iyer & Reckers, 2011; Hansen & Schaltegger, 2016; Kaplan & Norton, 1992, 1996b). The interlinkage of these indicators promotes financial success through cause-and-effect chains (Hansen & Schaltegger, 2016).

Regarding the financial perspective, it represents the organization's long-term goals, identifies the way shareholders see the organization and is linked to the interests of the organization's shareholders. This perspective is directly related to the financial nature with an expectation of a good capital return. Kaplan & Norton (2001b) consider that the increase in the value of companies to their shareholders comes from two aspects: the income from growth and revenue growth, as strategy, presuppose the increase of revenues in new markets, and from current customers, through the offer of complete solutions of products and services. The financial indicators to be selected for the BSC should take into account the strategy adopted by each organization, which is related to the stage of the life cycle in which the activity of the organization finds itself. According to Kaplan and Norton (1996b) there are three themes of financial dominance that can lead to the defined strategy: growth and income mix to reduce costs and increase productivity, use of assets, and investment strategy. The financial perspective indicators should verify if the strategy defined and its execution collaborate to increase the organization's results (Grafton et al., 2010). Jordan, et al. (2008) provide a summary of critical factors and possible performance indicators. The financial perspective can be defined as directly related to the interests of shareholders and their indicators should reflect if the implementation and execution of the strategy collaborated to improve the results (Oliveira, 2018).

The customer perspective identifies the way the organization intends to be seen by its customers; to be successful and grow, managers have to know their customers' needs, such as the factors that are most valued. Kaplan and Norton (1996b) report that in the BSC customer perspective, organizations identify the customers and the market segment in which they chose to compete. BSC enables the organization to translate into specific measures the factors that are important for customers, which is generically referred to as customer service. The customer perspective is concerned with the factors that contribute to the consolidation of the customer relationship and that enable the organization to achieve its financial objectives in a sustained manner (Kaplan & Norton, 1996c).

Organizations usually include two sets of indicators from the BSC customer perspective. The first set is composed of generic results indicators, which the organization intends to obtain based on the formulated and implemented strategy. Although generic and applicable to all types of organizations, they must be adapted to the target from which the organization expects to achieve maximum growth and profitability. The second set represents the drivers of the results that the organization expects to achieve from its customers. These indicators should demonstrate what the organization has available to its customers to achieve high levels of satisfaction, retention, acquisition, and possibly market share (Kaplan & Norton, 1993, 1996b).

Regarding the internal perspective, it draws direct attention to critical internal activities and processes which are essential to both customer satisfaction and to achieve the organization's financial objectives, and consequently the satisfaction of shareholders.

The internal process perspective identifies the most critical achievements to reach the objectives of the two previous perspectives (Al-Omari et al., 2020). Furthermore, the objectives, goals, and indicators presented in this perspective should enable the organization to answer the questions concerning the processes organizations have to excel in (Saraiva & Alves, 2013).

The internal processes aim to reach the vital components of the organizational strategy, trying to respond to the challenges, namely how to grow, how to produce, how to deliver the proposed value for customers, how to value assets, how to improve processes, and reduce the costs of the productive component (Oliveira, Pinho, & Silva, 2018). According to Kaplan & Norton (2001b), the learning and growth perspective covers key factors related to growth, because they form the basis for improving quality and innovation.

Regarding the learning and growth perspective, in the original version of the BSC, Kaplan, and Norton (1992) designated the fourth perspective as innovation and learning. However, in 1996, admitting that the innovation process is an integral part of the organization's internal process Perspective, the designation of the fourth Perspective was changed to learning and growth. Thus, it was considered that the fourth Perspective should identify the infrastructure that the organization must build to grow and develop in the long term. This Perspective includes a set of intangible values - human capital, information capital, and organizational capital. The implementation of the BSC has had a notable increase being considered as relevant and capable for improving performance in organizations that do not have the BSC implemented yet (Oliveira, Pinho & Silva, 2018).

Kaplan and Norton (1996b) state that the objectives of the learning and growth perspective are to provide the infrastructure to achieve excellent results in the first three BSC perspectives. Furthermore, it reinforces the vision of future investment in areas such as human resources, systems, and procedures to achieve the goals of financial growth in the medium and long term (Jordan, et al. 2008). The Perspective of learning and growth aims to ensure the organization's growth in the medium and long term, through investments in equipment, research, and development of new products and services, as well as the development of human resources. It corresponds to a profound analysis that identifies organizational infrastructures and resource allocation (Kaplan & Norton, 1992, 1996b).

This management tool allows the timely monitoring of the objectives of the organization and consequently of its employees, increasing the likelihood of success in the fulfillment of the commitments and the growth of the organization.

4. METHODOLOGY

4.1. Implementation of the Balanced Scorecard in higher education institutions

HEIs are among the most important organizations in societies, which are facing a complex change and uncertainty in the economic, political, social, educational, technological, and environmental fields, requiring new forms of management to make them more flexible and efficient in responding to social demands (Aktas, 2015). Decision-making processes in HEI have become increasingly complex. Universities are subject to quality assessment procedures valuing academic, research as well as business criteria. To make universities more competitive and sustainable over time it is necessary to introduce and develop strategic management models to govern internal results as well as strengthen external relations (Fijałkowska & Oliveira, 2018). In higher education, there are time-honored traditions related to performance measurement that today are driven by the need for external accountability requirements which must be implemented in a system of accounting and financial reporting (Fijałkowska, 2017) Traditionally, performance measurement and reporting, which are the requirements for effective accountability, draw on a financial model based on profitability, cash flow, and sales growth among others. However, financial indicators by themselves are unable to adequately represent the set of factors associated with organizational excellence (Fijałkowska, 2017b). Ruben (1999) points out that traditional indicators are insufficient to present a comprehensive picture of the current situation of an institution because they do not reflect some of the key success factors for a college or university nor capture many of the dimensions of a university's mission, vision, or strategic directions.

The BSC can be used as a tool to coordinate the activities of a university's academic and non-academic departments and the mechanisms for budgeting and targeting agreements (Küpper, 2013). The objective of the concept is to overcome the disadvantages of traditional measurement performance systems, which are based only on financial results (Pietrzak, Paliszkiewicz & Klepacki, 2015). The implementation of the BSC may contribute to greater transparency and accountability of the HEI (Fijałkowska & Oliveira, 2018). Papenhausen and Einstein (2006) describe the implementation of the BSC at the University of Massachusetts - Dartmouth College of Business emphasizing the need for active contributions from everyone at the university to make the BSC successful. Similarly, Tapions, Dyson, and Meadows (2005) presented the alignment between organizational strategy and performance measurement at Warwick University (UK). Umashankar and Dutta (2007) discuss how the BSC approach can be applied to higher education in India. Al-Hayaly and Alnajjar (2016) used the BSC to study knowledge management processes and their impact on organizational performance in private universities in Jordan. There are several universities all around the world that have implemented the BSC, highlighting a large range of universities especially in the US, UK, Australia, Canada, and Jamaica (Fijałkowska & Oliveira, 2018).

As there is a growing need to measure performance and accountability at universities, it is necessary to rethink and reformulate the measurement frameworks of excellence. The BSC can be a tool for linking the universities' vision, mission, strategies, and operational activities and for mapping of goals and objectives, as well as performance.

4.2. Participants

Despite the numerous manuals of methodological procedures regarding research in social sciences, usually case studies follow their methodological perspective, as there is no single method for data collection (Ryan, Scapens, & Theobold, 2002). Following this path, the sources of empirical evidence used in this explanatory study were semi-structured personal interviews (primary sources). These semi-structured interviews, being one of the most common methods in qualitative research, seek to achieve a deeper knowledge of a social phenomenon, leveraged on individual experiences of the interviewees (Patton, 1990).

To perform this case study, five interviews were conducted based on questions that resulted from the literature review. Although authorization was given for the recording of the interviews, permission was not granted for the identification of the interviewees so they were coded as I1, I2, I3, I4, and I5.

Table 1. Interviewee profile

Code	Sex	Years of experience	Academic degree	Interviewee	Interview duration
I1	Female	30	Ph.D.	Rector	90 minutes
I2	Male	22	Ph.D.	Director	70 minutes
I3	Male	25	Ph.D.	Director	77 minutes
I4	Male	10	Master	Director	60 minutes
I5	Male	16	Ph.D.	Director	62 minutes

Source: Authors

4.3. Data collection

Despite the recognized relevance of interviews, it is acknowledged that data and information need to be supplemented by other forms of data collection, to allow the triangulation of data. Documentation is a fundamental factor, not only to validate and prove the information obtained through other data sources (Yin, 2003) but also to help clarify processes, define activities and provide accounting information. Consequently, to achieve more information for this research, access was granted to economic and financial data. Official and internal accounting documents were analyzed to obtain information on salaries, service provision, number of hours per teacher, such as the number of students per degree and per course.

The analyzed HEI monitored its performance, by using the Microsoft Excel tool. However, monitoring was focused on individual performance aspects, instead of providing a complete overview of the institution. Furthermore, the indicators were not clearly defined, nor were the relation between or dependent on the analyzed perspectives. This led the HEI to confirm the need to have an accurate management control tool.

As mentioned before, the empirical research consists of qualitative methodology, based on a semi-structured interview guide (see Appendix I). This guide was developed by the authors, with no direct link to previous interview guides, as the aim was to implement a management tool for a specific institution. Through the use of the qualitative methodology, a better understanding is achieved about the existing gaps and the way that the limitations can be improved to reach the outlined objectives.

As mentioned previously, the first interview was performed with the rector of the HEI, while the subsequent interviews were scheduled periodically, once a month, with the whole team.

In the first phase a draft version of the tools was designed, by performing the following steps:

- Write down the defined strategy for the organization in the next three to five years.
- Break down the strategy into four perspectives, namely, financial, customer, internal, and learning and growth.
- Allocate indicators that will allow for measuring and achieving the strategy for each perspective.
- Identify targets for each indicator of each perspective.

- Define which indicators are lead and which are the led indicators, to have clear cause and effect relations between them.

The first phase was the one that provided relatively few doubts, as the strategy was already defined, so it was just to decompose the strategy, to understand and try to have clear thought about the strategy itself. It was followed by the second phase which took more time and attention, as the strategy needed to be aligned and decomposed into four perspectives. Indeed, this was one of the hardest phases. However, the third phase was also very time-consuming, as the definition of correct indicators to measure exactly what the organization needs, keeping time in mind, and the global strategy, was exhaustive, albeit determinant. In case that inadequate indicators were defined, the whole strategy would be compromised. The fourth phase, the identification of the targets, was performed based on historical records. Despite not having a management control yet, the HEI used to do a split analysis of the management control, based on several not-linked Excel sheets. That notwithstanding, historical records could be found to guide the target definition. The new targets were defined, based on an improvement rate of 10%, and based on historical data waged by the forecasted volumes (such as the number of students). At last, the interlinkage between led and lead indicators was defined, which is much more complex than it sounds, as the indicators between Perspectives need to be gathered, to provide the defined strategy.

The process was performed over five months, considering that in the last month small general adjustments were made. The implementation time plan is summarized in Table 2.

Table 2. Implementation plan

Meeting	Interviewees	Aim	Scheduling
1. meeting	I01	Define strategic goals	First two weeks
2. meeting	I02-I05	Decompose the strategy into four perspectives, namely, financial, customer, internal, and learning and growth.	First - second month
3. meeting	I02-I05	Allocate indicators that will allow to measure and achieve the strategy for each perspective.	Second-third month
4. meeting	I02-I05	Identify targets for each indicator of each perspective. Define which indicators are lead and which are the led indicators, to have clear cause and effect relations between them.	Fourth month
5. meeting	I02-I05	Identify targets for each indicator of each perspective. Define which indicators are lead and which are the led indicators, to have clear cause and effect relations between them.	Fifth month

Source: Authors

5. RESULTS AND DISCUSSION

Management control has indeed reached a very high importance level. Highlighting this relevance, the BSC aims to align the organization towards a single vision for the future, to explain the challenges and priorities, and to create action plans that ensure an evolution in performance compared to the current state. Therefore, it is important to define clearly the strategy to understand how to improve it in a more comprehensive method.

Bearing this in mind, our interviews have confirmed the relevance of having defined clearly the Mission and Vision of an organization. Based on the first interview with I01, it was confirmed that: "*Indeed the first very challenging step is to build a team and define the mission and also the vision. Based on the Vision we define a goal, I mean a path, to know where to go*". This sentence is in line with the literature, considering that Kaplan and Norton (1992), as well as Jordan et al. (2011), had precisely the goal to monitor performance adjusted to the organization's mission and strategy.

Regarding the question, if students and employees are aware of the organization's vision, I01 referred that *"the mission and vision are clear for our employees, as we have several meetings to shed some light on this topic. Regarding our students, we keep them updated and informed about our willingness to grow".* Considering the same question, the answers provided by I03 and I04 were aligned, namely, they referred that some students do not know about the plans, regarding the future. I03 said: "*Probably this can be improved, I do not know if it is due to lack of communication, or if, indeed, the way we communicate is not the most efficient one. Sometimes, I recognize that students are not aware of our intentions to grow and to have new courses*". In the same vein, I04 confirmed: "*Between employees, namely teachers, I think most of us are aligned and are aware of the intention to grow and to have a diversity of new courses, but our students are not as informed as we think they are. Communication should be improved".* Considering these statements, we find a clear link to the literature, considering that the Management Control Tools enable communication and guide behavior and organizational performance (Spear & Roper, 2016). Several managers felt, just as these interviewees did, the need to have an auxiliary management control tool to enable and monitor the effect of communication on organizational performance (Ritter, 2003).

Concerning customer satisfaction, namely the second perspective, we do know that for several organizations it is crucial, as based on customer satisfaction, organizations can reach their needed financial solvency. In the literature, we found precisely this confirmation in Kaplan & Norton (1996c), as they refer that the alliance of the customer relationship supports financial objectives. Keeping this question in mind, aligning the literature to the answers of our interviewees, we consider it relevant to highlight some extracts of the interviews. I01 referred: "*For sure we care about customers' satisfaction. We have a questionnaire that we send to all our students asking them about their opinion, our weak and strong points, to improve. Furthermore, due to our organizational culture, students feel free to contact us anytime they need to solve a problem*". In the same vein, I02 referred: "*We are aware of the best marketing that we can have, namely satisfied students. We know that if we can satisfy our students, then they will choose our Institution again to do a Master's degree or other kinds of specific courses*". Also, I03 and I04 stressed the importance of student satisfaction. I03 said: "*Every time we feel that a student starts to be demotivated, we try to talk to him to understand how to help. I think this is one of our main strengths, alongside our ability to teach*". "*We have several former students whose children are now doing their Bachelor's degree here. I mean, this is a sign of satisfaction*", said I04. "*Students are, in general, satisfied with the way we teach and prepare them for the market, which is important for us*", said I05.

The main focus is given to customers' satisfaction, as this perspective is leading the other three perspectives. Interviewees stressed out, that if they focus on the satisfaction of their students and improve their internal constraints, linked to the premises of learning and growth perspective, the final goal will be achieved, namely to have satisfied students that guarantee the needed income. To achieve this final goal, the indicators of each perspective need to be interlinked, so that they reach the common aim from top to bottom.

Considering the positive answers regarding customer satisfaction, in this case, student satisfaction, we acknowledge that an integrated tool is still missing to sustain all these perceptions and isolated forms of measuring. We confirm that nowadays, despite having improved the ways to develop performance, the main focus of participants remains on the financial perspective, mainly on turnover, new products, and growth rates, as confirmed in previous research (Oliveira, 2018).

Bearing this in mind, the development of indicators to monitor the growth rate, analyzed monthly to calculate deviations and identify actions is crucial for this Institution. So, the implementation of the BSC was started and developed with the group of interviewees. As expected, several meetings were postponed or shortened, due to other priorities that were set for the same period. Notwithstanding some constraints, which were expected at the beginning with the identification of indicators, their interlinkage, and form of measurement, several months later a draft tool was developed to start measuring and monitoring performance in an aggregated manner.

6. CONCLUSIONS

Bearing in mind the research objectives of this study, namely to understand the relevance of the BSC in an HEI, as well as to detail the implementation steps of the BSC in an HEI, the interviews led us to confirm the first proposition. The first proposition consists in understanding the relevance of the BSC in HEI, as throughout the interviews we found out that all the interviewees confirm the importance of having an aggregated management control tool.

Furthermore, regarding the second proposition, namely to detail the implementation steps, this was clear in the several meetings that were held to build up the BSC for this particular institution.

Regarding the micro objectives of this research, it was noted that all the participants felt that the performance of the organization would improve based on monitoring and controlling objectives. As the monitoring would be enabled, the objectives, indicators, and targets would also help to identify the BSC objectives, indicators, and targets for the intended HEI.

With this study, the relevance of the BSC in HEIs was confirmed and the details of the implementation steps were identified for a particular HEI. Regarding the implementation steps, these were indeed difficult to align, as the first target was to clearly document the strategy of the institution and, secondly, to define indicators to interlink the four perspectives. Furthermore, during the fellow meeting, the measurement methods were fixed and tested, as several indicators had been eliminated, as they weren't able to interlink, in a lead or lag interrelation. Finally, after several months, a draft version was defined, to be tested with real values.

The implementation of the BSC enables accurate information for decision making, efficient development, and growth of the organization. As the BSC allows for information to be obtained in an aggregated and interlinked manner, decisions can be made in a timelier and sustainable way. Consequently, members can define targets related to turnover and the growth rate and set new goals for the next school year. Furthermore, the growth in the number of students, the regularization of fees, such as the renewal of enrolments, is monitored. Finally, it enabled us to aggregate information regarding the correct allocation of resources.

An efficient BSC implementation improves organizational performance by monitoring and controlling objectives, allowing managers to act immediately to adopt corrective or preventive actions to achieve the objectives.

7. LIMITATIONS AND FUTURE RESEARCH

As the management control area is crucial and since there is the need to adapt constantly to the market demands, the performance of the BSC by itself should be evaluated as some adjustments might be necessary.

Furthermore, this study consisted of a single case study, which enriches the research on one hand but can be considered to be a limitation on the other hand, due to the single focus on this institution. For future research, it would be useful to have comparative case studies, to obtain in-depth details of each implementation.

In addition, as the timespan to implement the tool was relatively short, some indicators may have to be reinforced and the form of measurement might have to be reviewed, to allow clear target measurement. Following this constraint, it would be useful to proceed with research in organizations that have already implemented the tool to understand which points they changed after implementation to guide managers in future implementations.

As soon as the whole analysis of the already implemented tool is performed, the implementation steps and some indicators might be replicated to other HEIs. Furthermore, research of benchmarking of indicators in the same sector, namely higher education, might be performed to identify the strengths, points to improve, opportunities and inherent threats.

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PRIMJENA BALANCED SCORECARDA: STUDIJA SLUČAJA INSTITUCIJE VISOKOG OBRAZOVANJA U PORTUGALU

Sažetak

Suvremene organizacije trebaju nadzirati svoje performanse kroz dulji vremenski period, s obzirom da nije moguće u potpunosti kontrolirati iste u kratkom periodu. Imajući na umu navedenu činjenicu, važno je osigurati da pokazatelji organizacijskih performansi odražavaju strategiju organizacije, ne samo u kratkom, već i u srednjem te dugom roku. U prošlosti, posebno u industrijskim poduzećima, velika se pozornost posvećivala mjerenju organizacijski performansi. Kasnije se potreba za efektivnim menadžmentom performansi ukazala te privukla povećani interes i u institucijama visokog obrazovanja. Imajući na umu transverzalnu potražnju za alatima menadžerske kontrole, posebnu je pozornost privukao koncept Balanced Scorecard (BSC), kojeg su razvili Kaplan i Norton, zasnovan na četirima perspektivama (financijskoj, perspektivama kupca, internih procesa te učenja i rasta). Pristup BSC-a je izabran za ovo istraživanje, s obzirom da je prethodno korišten u većem broju institucija visokog obrazovanja, kako bi pomagao u menadžerskom odlučivanju i doprinosio većoj učinkovitosti. Stoga je izabran i za implementaciju u analiziranoj instituciji visokog obrazovanja u Portugalu. Cilj rada je doprinijeti teorijskom i praktičnom razumijevanju implementacije BSC-a u visokom obrazovanj, kao i pružiti orijentaciju menadžerima institucija visokog obrazovanja. Korištenjem ovog alata, menadžeri mogu pratiti organizacijski učinak te pratiti izvršenje strategije u srednjem i dugom roku. Na temelju ovih rezultata, i druge institucije bi mogle koristiti ovaj rad kao vodič i temelj za usporedbu učinka.

Ključne riječi: *Balanced Scorecard, performanse, visoko obrazovanje, institucija visokog obrazovanja u Portugalu*

APPENDIX I: INTERVIEW GUIDE

Goals:

- Understand the relevance of the BSC in a Higher Education Institution
- Detail the implementation steps of the BSC in a Higher Education Institution.

Introduction:

1 What is the organization's mission?

2 Can you provide some details about the organization's vision? Where do you intend to be in five years' time?

3 Are your students and employees aware of the organization's vision?

4 How do you adjust the vision and mission to changes in the external environment?

5 In addition to these introductory questions, related to the general strategy, i would like to know a few more details, about management control.

6 Do you consider that control and guidance is crucial? Would you like to mention the tools or methods that support management control?

7 Efficient management in terms of the allocation of human resources is crucial for the effective performance of the organization. How do you perform this analysis?

8 How do you calculate the minimum number of registrations to reach the break-even point?

9 Is student satisfaction valued?

10 Do students who finish their bachelor degrees have any type of incentive to do their master's degree at this organization?

11 Is the way you control the organization based on objectives?

12 How do you carry out the deviation analysis, that is, the comparison between the budgeted value and the real value?

13 Do you think that the current management control system could be improved?

Thank you very much for your cooperation!