

ENHANCING A UNIVERSITY'S PDI BASED ON BEST PRACTICES: AN INTEGRATED APPROACH TO BENCHMARKING AND BSC



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ABSTRACT

This paper aims to comparatively analyze the Institutional Development Plan (IDP) of the Federal University of Espírito Santo (UFES) in relation to the IDPs of seven other Brazilian universities: Federal University of Santa Maria (UFSM), Federal University of Santa Catarina (UFSC), University of São Paulo (USP), University of Campinas (UNICAMP), São Paulo State University (UNESP), Federal University of Bahia (UFBA) and Federal University of Ceará (UFC). The research uses the benchmarking methodology and the BSC tool to identify best practices in the formulation of goals and indicators related to the institutional challenges and cross-cutting objectives of the PDI 2021-2030 of UFES. Through the Balanced Scorecard (BSC) approach, the institutional challenges were categorized into strategic perspectives and compared to the plans of the universities analyzed. The results point to congruences between the challenges faced by the institutions and highlight opportunities for improvement in the implementation of goals and performance indicators at UFES. The research concludes that benchmarking, combined with BSC, is an effective tool to improve institutional strategic planning and strengthen university governance.

Keywords: Benchmarking. Institutional Development Plan. Balanced Scorecard. University Management. Goals and Indicators.

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INTRODUCTION

CONTEXTUALIZATION

Strategic planning was introduced in public administration a few decades ago, in a context opposite to that of private institutions. While in these institutions the strategy is used as a true weapon of survival in a highly competitive environment, in public institutions it is a means of improving the quality of public service provision. (Johnsen, 2016)

In the sphere of higher education, the guarantee of quality standards is a principle established by the Federal Constitution and is not limited to the area of teaching: it also covers areas of research and extension, which, according to what is established in the Magna Carta, are inseparable (Brasil, 1988, art. 207). In this sense, strategic planning has a lot to contribute to higher education institutions achieving the desired quality in these three major areas, which form the tripod of the Brazilian university. (Moita; Fernando; 2009).

The formulation of strategic planning became mandatory in universities in 2004, through Federal Law No. 10,861/2004, which established the so-called Institutional Development Plan (PDI), with a dual purpose: to be an instrument for evaluating the quality of higher education and to be a tool for medium and long-term strategic management. (Fonseca, 2023)

According to Pascuci et al. (2016), strategic management in public universities faces significant challenges due to the organizational complexity of these institutions. It involves the reconciliation of multiple interests, adaptation to the constant changes in the academic environment and the need to align institutional management with the social and political demands of higher education.

The general objective of this work is to comparatively analyze the Institutional Development Plan of Ufes with those of seven other universities, using Benchmarking and BSC, in order to obtain subsidies for the formulation of indicators related to the institutional challenges and cross-cutting objectives proposed in the institution's PDI 2021-2030.

To this end, three specific objectives are proposed: a) To analyze and categorize the Institutional Strategic Challenges and Cross-Cutting Strategic Objectives present in the PDI of Ufes, through the BSC Tool and compare them with the challenges proposed in the PDI's of other universities for Benchmarking; b) Identify in the Institutional Development Plans of other universities the challenges equivalent to those established in the PDI of Ufes; Describe the corresponding indicators; c) Indicate opportunities for improvement through

the inclusion of indicators identified in the development plans of other universities, outlining paths and possibilities for improvement in the strategic planning of Ufes.

Considering the congruences in the external environment of federal universities, which face several similar issues such as budget constraints, or even in the internal environment, such as the dropout of qualified professionals, academic retention, among many others, it is quite reasonable to conjecture that the strategies established to deal with institutional challenges in one institution could have some level of applicability in another, promoting organizational knowledge sharing.

THEORETICAL FRAMEWORK

STRATEGY

In general, the literature presents strategy as the product of strategic planning (George; Desmidt, 2018). This, in turn, is described as a set of disciplined actions aimed at producing fundamental decisions "that shape and translate the culture of an organization, informing who it is, what it does, and why it does it" (George et al., 2017).

For Wolf and Floyd (2016), the main objective of strategic planning is to influence the strategic decision of an organization for a certain period and covers a series of actions whose degree of formalism of these procedures varies according to the organization.

Implementation of the strategy, according to Håkonsson; Burton; Obel (2012), is the realization of the strategy and what the company does" and encompasses "the communication, interpretation, adoption and promulgation of strategic plans" (NOBLE, 1999). It is considerably more difficult than its formulation, and it is an area where many organizations fail (Nutt, 1999).

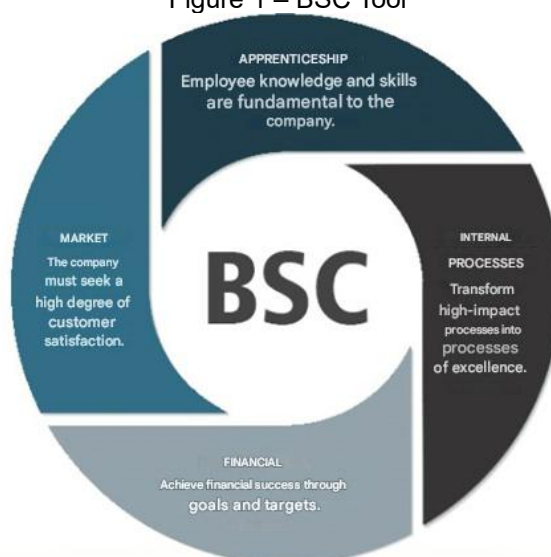
For Brenes et al. (2008), for the strategy to be successful, it depends on the involvement of everyone in the strategy formulation process, from top management to employees, thus ensuring the so-called strategic alignment of the participants, which will be addressed in more detail in the next topic.

The literature also presents strategic tools that help in the implementation of the strategy. One of the strategic tools most used by organizations is the Balanced Scorecard (BSC), developed by Robert Kaplan and David Norton in the 1990s (Kaplan; Norton, 2000).

BSC AND BENCHMARKING

The BSC presents four perspectives that must be considered by planners to achieve the vision established in the organization's strategy: financial perspective, customer perspective, internal process perspective, and organizational learning perspective. The financial perspective has to do with the financial resources linked to the implementation of the strategy; The market or customer perspective is linked to satisfaction and acquisition of new customers; The internal process perspective refers to the critical processes to achieve excellence and finally, learning and growth, refers to the competencies necessary to carry out the strategy. In the context of public management, the client perspective is called society, considering that it is the one to whom the provision of the public service is intended.

Figure 1 – BSC Tool



Source: Adapted from Kaplan and Norton (2000).

Furthermore, Kaplan and Norton (2000) suggest the construction of a "strategy map" - a tool to communicate both the strategy and the processes and indicator systems, which will assist in its implementation. The map shows the cause-and-effect relationships through which improvements create the desired outcomes, and presents four regions that correspond to the BSC Perspectives.

However, strategy maps don't have to be set in stone. In the context of public administration, Kaplan and Norton (2004) present cases of organizations that built strategic maps with structures different from the usual ones. For these authors, the four perspectives of the BSC can be changed if the organization considers it pertinent.

Bampi and Diel (2013) indicate that the combination of Benchmarking and BSC is a viable arrangement to promote strategic decision-making, based on indicators from the real world. Internal benchmarking, when integrated with the Balanced Scorecard (BSC), emerges as an effective approach to improve organizational performance. This combination allows institutions to identify and adopt the best internal practices, aligning them with their strategies and objectives, in order to improve their strategic performance.

A Benchmarking is an ongoing process of comparing an organization's practices, processes, and performances with the best practices in the market or of companies operating in a similar industry. The objective is to identify opportunities for improvement and innovation, as well as to adopt practices that provide greater efficiency and competitiveness. The concept of benchmarking emerged in the United States in the 1970s and, since then, has been a fundamental tool for organizational development in several areas, such as quality management, operations, and business strategies.

Benchmarking can be classified into different types, depending on the focus and approach of the comparison. According to Camp (1989), there are three main forms of benchmarking: internal, competitive and functional. Internal benchmarking involves the analysis of processes and practices within the same organization, aiming to improve internal processes. Competitive benchmarking involves comparing performance to direct competing companies, while functional benchmarking refers to comparing practices in specific areas or functions of companies that do not necessarily compete with each other.

The strategic planning of universities is formalized through the Institutional Development Plan (PDI), a document that establishes the institution's mission, vision, values, objectives, and strategies. This plan guides the three main areas of the HEI: Teaching, Research and Extension. According to Sant'ana et al. (2017), the PDI works as a strategic management tool, serving both for the evaluation of institutions by the competent bodies and for monitoring and improving the implementation of the defined strategic actions.

METHODOLOGY

The research carried out aimed to "Comparatively analyze the Institutional Development Plan of Ufes with those of other universities, using Benchmarking and BSC, in order to obtain subsidies for the formulation of indicators related to the institutional challenges and transversal objectives proposed in the institution's PDI 2021-2030".

Thus, the research was structured from a predominantly qualitative approach, exploring the experiences, perceptions and meanings attributed by people to the events in their environment, detected through interviews, observations, and analysis of documents and texts.

As for the ends, research can be defined as applied research, as it aims at the solution of a real problem, which in the case in question arises from the Institutional Development Plan of Ufes. It is also a descriptive research, considering that it exposes characteristics of a certain population or a certain phenomenon. (Vergara, 2006)

As for the means, the research fits as a case study, considering that the research analyzed the special case of the implementation of the PDI of Ufes. According to Vergara (2006, p. 50) the case study "[...] it is the one circumscribed to one or a few units, understood as a person, family, product, company, public agency, community or even country. It has a character of depth and detail. It may or may not be carried out in the field [...]".

First, a bibliographic research was carried out, with the objective of collecting secondary data to contextualize and support this work, identifying the main theories, methods, results and gaps in knowledge.

According to Vergara (2006, p. 48) "bibliographic research is the systematized study developed based on material published in books, magazines, newspapers, electronic networks, that is, material accessible to the general public".

For the elaboration of the bibliographic research, researches, theses, articles and dissertations published in Scielo were considered in this work, using the keywords: "Institutional Development Plan" and "Benchmarking", and the publications of the last 5 years were selected.

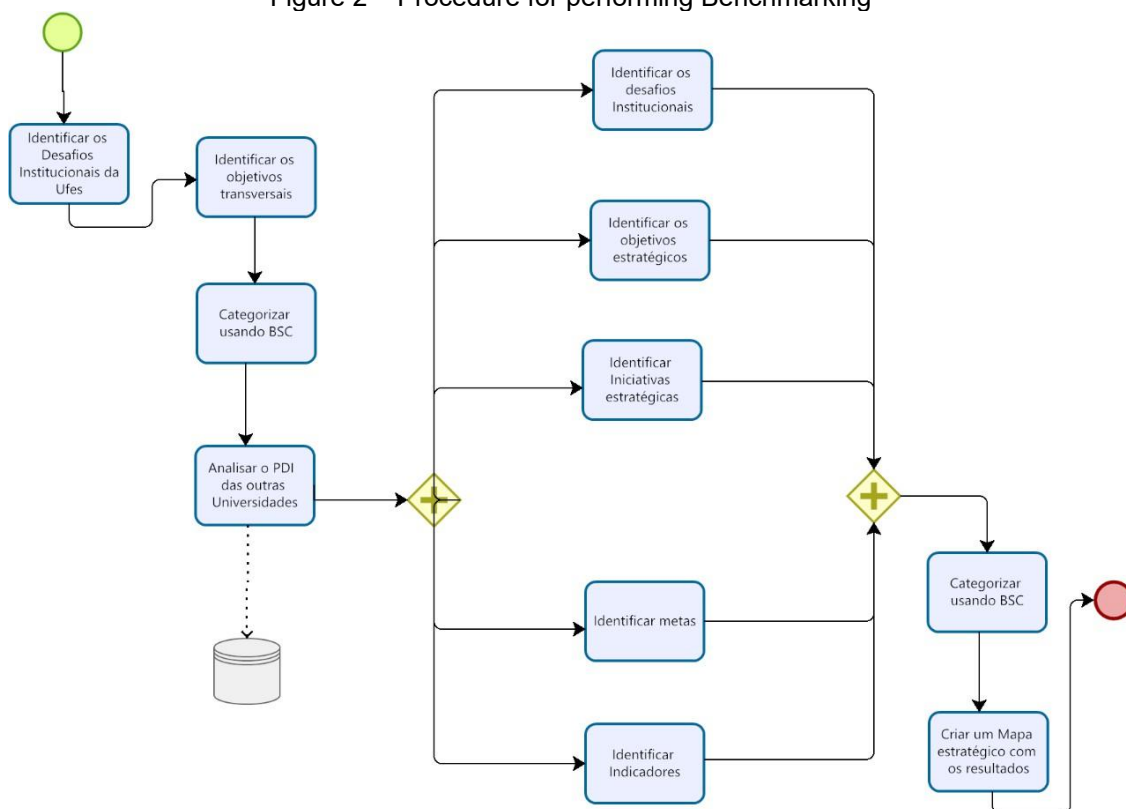
Secondly, a documentary research was carried out, based on the analysis of the PDI of Ufes and 7 other universities, in addition to documents such as the Management Report prepared annually, to obtain primary data related to the strategic content, with the purpose of obtaining information and making comparisons, in order to identify congruences and gaps in the structuring of institutional plans.

The Institutional Development Plans of the three universities USP, UFSM and UFSC were analyzed in order to detect strategic initiatives, goals and indicators that could potentially be used by Ufes to boost its strategy.

RESULTS

For the Development of Benchmarking, the following steps were followed, according to the procedure proposed in Figure 2:

Figure 2 – Procedure for performing Benchmarking



Source: Prepared by the author.

MISSION, VISION AND VALUES OF PDI UFES (2021-2030)

The first step to carry out the Benchmarking proposed in this research was to verify the mission, vision and values established in the PDI 2021-2030 of Ufes. This step is very important, as all other results from the Benchmarking must be adjusted with these strategic elements presented in Chart 4. If any strategic initiative, goals or indicators are not aligned with this strategic content, they should be immediately discarded.

Table 1 - Elements of the PDI 2021-2030

| | |
|---------|--|
| Mission | To generate scientific, technological, educational, cultural and social advances, through teaching, research and extension, producing, transferring and socializing knowledge and innovations that contribute to the formation of citizens, aiming at sustainable development at the regional, national and international levels |
| Vision | To be recognized as a public institution of national and international excellence in teaching, research and extension, committed to social inclusion, interiorization, innovation and sustainable development of Brazilian society, in particular the State of Espírito Santo. |

| | |
|--------|--|
| Values | <ul style="list-style-type: none"> • Commitment to the interests and needs of Brazilian society, in particular Espírito Santo; • Dialogue and partnership with society; • Defense of the public, free, secular, multiethnic and socially referenced university; • Commitment to excellence in teaching, research and extension; • Defense and respect for the ethnic-racial, gender, cultural, social and regional diversities of our population; • Democratic, transparent, participatory and effective management; • Commitment to valuing people and uncompromising defense of Human Rights in guaranteeing the Democratic Rule of Law; • Commitment to the collective, plurality, accessibility, affirmative action and democratization of access and student permanence; • Permanent defense of university autonomy; • Guarantee of freedom to teach and learn; • Operations based on ethical and sustainability principles (social, economic and environmental) |
|--------|--|

Source: Prepared by the author, adapted from the UFES PDI 2021-2030.

Aligning Institutional Challenges with BSC

The second step was the analysis and categorization of the Institutional Strategic Challenges present in the PDI of Ufes, through the BSC Tool.

The third step to carry out the proposed Benchmarking was to describe the connection of the cross-cutting strategic objectives with the BSC Perspectives and the Institutional Challenges. The result is presented in Table 4.

Table 1 – BSC x Cross-cutting Strategic Objectives

| BSC PERSPECTIVE | INSTITUTIONAL CHALLENGES | TRANSVERSAL STRATEGIC OBJECTIVE - UFES |
|------------------|---|--|
| FINANCIAL | Environmental and economic-financial sustainability | <ol style="list-style-type: none"> 1. Promote the vision of sustainability, based on the UN-SDGs, at all levels of education. 2. Encourage research in the area of sustainability. 3. Stimulate extension actions that promote environmental sustainability. 4. Develop assistance policies aimed at sustainability. 5. Ensure the Environmental and Economic-Financial Sustainability of the University. |
| SOCIETY | Institutional Image | <ol style="list-style-type: none"> 1. Promote the institutional image and the sense of belonging in relation to students and graduates 2. Promote the institutional image through research. 3. To disseminate the institutional image before society through extension activities. 4. Promote the institutional image before the assisted community. |

| | | |
|----------------------------|--|--|
| | | 5. To disseminate the image and increase the visibility of the institution at the regional, national and international levels. |
| | Affirmative Actions | <ol style="list-style-type: none"> 1. Improve academic and pedagogical policies aimed at affirmative action and respect for diversity in Teaching/Research and Extension 2. To promote extension actions aimed at affirmative action. 3. Implement affirmative policies and actions in the selection processes of the incentive to teaching, research and extension 4. Promote affirmative actions within the scope of the University's management. |
| | Innovation and Social Responsibility | <ol style="list-style-type: none"> 1. encourage innovation and social responsibility actions in teaching activities. 2. Encourage research focused on innovation and social responsibility. 3. Promote extension actions aimed at innovation and social responsibility 4. Encourage innovative policies aimed at assistance 5. Consolidate innovative management practices. |
| PROCESSES | Infrastructure and accessibility | <ol style="list-style-type: none"> 1. Ensure/expand/consolidate adequate infrastructure for teaching/research and extension; 2. Ensure accessibility, in its multiple dimensions, to the academic community in teaching, research and extension activities. 3. To foster extension activities aimed at accessibility in its multiple dimensions. 4. Strengthen accessibility policies, in their multiple dimensions, to the academic community 5. Provide adequate infrastructure for the University's activities |
| LEARNING AND GROWTH | Internationalization | <ol style="list-style-type: none"> 1. Expand mobility actions, visits, partnerships and international exchanges. 2. Establish academic policies aimed at the internationalization of student training. 3. Promote and expand the insertion of researchers in international technical-scientific partnerships. 4. 4. Promote extension practices and collaborative networks with a view to internationalization. 5. Strengthen the policies of assistance and reception for foreign students and researchers. 6. Ensure the University's internationalization initiatives |
| | Health promotion, development and valuing people | <ul style="list-style-type: none"> • Ensure and expand actions to promote health, leisure, sports, culture and art in teaching activities. • To foster research on the themes of health promotion, leisure, sports, culture and art. • Ensure and expand actions to promote health, leisure, sports, culture and art in extension activities. • Stimulate and expand actions to promote health, leisure, sports, culture and art. • Ensure and implement actions to promote health, leisure, sports, culture and art. |

Source: Prepared by the author, adapted from the UFES PDI 2021-2030.

Development of Benchmarking

From the alignment between BSC Perspectives, Institutional Challenges and Cross-Cutting Strategic Objectives developed in the previous stages, it was possible to develop Benchmarking, in order to detect the strategic initiatives, goals and indicators of the universities selected for analysis. The result is presented in Appendix A.

The results found confirm the premise that universities share congruences in their internal and external environments, facing similar challenges and even adopting convergent strategies in the face of these demands, enabling the applicability of shared strategic models.

An example of complementarity between the strategic plans of universities is the challenge "Environmental and economic-financial sustainability". For USP, waste reduction was the central point of its strategy; for UFSC, renewable energy; for UFSM, the reduction of water waste; for Unicamp, the preservation of green areas; for UNESP, recycling. Each university contributes with a different indicator, aligning with its strategy, but all indicators converge in such a way that they could compose the strategic plan of a single university. Ufes could adopt all these indicators, either to monitor the results arising from the use of photovoltaic solar energy in its plants, or even other strategic initiatives related to sustainability.

Furthermore, the methodology used to carry out internal Benchmarking confirms the effectiveness of the BSC Tool to support the comparison of institutional strategies. Through it, the different strategic challenges of universities were grouped, according to each perspective. It was observed that some Challenges fit into more than one Perspective.

In other words, the BSC was the key to developing a strategic map that would enable the monitoring and comparison of the performance of each institution for each of these challenges and ensure the integration of initiatives, goals and indicators, based on the dimensions presented.

The methodological procedure proposed in Figure 2 proved to be valid, and can potentially be used in the context of other institutions or strategic units to reproduce the same type of analysis.

Using the established criterion of aligning the results found with the mission, vision and values established in the PDI of Ufes 2021-2030, it was observed that all results were aligned, and it was not necessary to exclude any of the strategies detected.

FINAL CONSIDERATIONS

The present study aimed to comparatively analyze the Institutional Development Plan (PDI) of the Federal University of Espírito Santo (UFES) with those of seven other universities, using the benchmarking technique. The purpose was to identify good practices, goals and indicators that can contribute to improve the formulation and implementation of the UFES PDI, especially with regard to the definition of clear goals and indicators for monitoring institutional challenges.

The results obtained showed that the universities analyzed share similar institutional challenges, such as internationalization, accessibility, sustainability, valuing people and infrastructure. However, while some universities already structure their IDPs with objective goals and defined indicators, UFES still has challenges in this regard. In this way, benchmarking allowed the identification of good practices that can be adapted to the reality of UFES to make its planning more effective and aligned with its institutional mission.

The methodology adopted confirms the effectiveness of the Balanced Scorecard (BSC) as a central tool for structuring and comparing institutional challenges among the universities analyzed. The model made it possible to categorize the challenges and align them with the four strategic perspectives (Financial, Society, Internal Processes, and Learning & Growth), ensuring coherence between challenges, goals, and indicators. In addition, the methodological procedure proved to be replicable for other universities or strategic units.

In addition, the research evidenced the importance of a well-structured PDI for the strategic management of public universities. Proper planning allows for greater transparency, facilitates the monitoring of goals, and strengthens institutional governance. The adoption of specific performance indicators and targets helps to measure progress and enables necessary adjustments throughout the execution of the plan.

Finally, this study contributes methodologically by proposing an internal benchmarking model applicable to other federal universities. The methodology used can be replicated by other higher education institutions that seek to improve their strategic plans and raise the quality of teaching, research and extension.

As a suggestion for future studies aligned with this research, it is recommended:

1. To carry out a comparative evaluation of the IDPs of UFES over different periods, identifying progress, recurring challenges and areas that need greater attention. This

analysis can provide insights into the effectiveness of the strategies implemented and guide necessary adjustments.

2. Comparative evaluation between the indicators adopted and the performance in the national and international rankings of teaching quality.
3. Analyze the adoption of technological tools that facilitate the monitoring and evaluation of IDP actions, promoting greater efficiency in the management and transparency of processes.
4. Analyze the adoption of artificial intelligence to verify the best practices of strategic management in teaching, research and extension of a university.

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