



Balanced Scorecard: Strategic Planning for a Sustainable Development Research Centre

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Introduction

- The development of management strategies, as well as strategic planning, fits any type of environment or organization. This research shows the reality of the Energy Efficiency and Sustainability Research Group – Greens and its aim to promote sustainability through excellent research. Being linked to a university, the Center understands that universities have enormous potential to contribute to the formulation of public policies and the implementation of the Sustainable Development Goals.
- To reach this stage, it is necessary to implement forms of performance measurement derived from their strategies and capabilities. This brings the Balanced ScoreCard (BSC), whose measures should be used to articulate organizational strategy then communicate it to the community and help align interdepartmental and individual initiatives, to achieve a higher goal synergistically.
- The adaptation and/or adequation of organizational management tools for research group management, are relevant to a qualified scientific production, due its process of planning, implementation, alignment and deployment for strategy

Balanced Score Card – Perspectives and Premises

- BSC it is a strategic management system that uses performance indicators organized around four dimensions. The entire established structure fits strategy, strategic map, objectives and indicators that derive from the organization's mission statements and vision. In the original BSC, for each perspective there is a guiding question for selecting the most appropriate strategic objectives. Therefore, the BSC has the premise that there is “a way” for the organization to go from formulating its strategy, which is stated in its mission, vision and values, to the results that will come from them
- BSC enables the identification of potential value-added areas and prepares the strategic process by defining the strategic map. This, in turn, will make it possible to understand the impacts of other aspects of these dimensions, not only being linked to operational aspects, but also to strategic strategies, development, and value creation

BSC – Original Dimensions

Financial Perspective	For financial success, how should we be seen by our shareholders?
Customer Perspective	To achieve our vision, how should we be seen by our customers?
Internal Processes Perspective	To satisfy our shareholders and customers, which business processes should we excel at?
Learning and Growth Perspective	To achieve our vision, how will we preserve our ability to change and improve?

Source: Authors (2020)



Objectives

- Applicate BSC as a research group management tool
- To present results of the strategic planning process and the use of the Balanced Scorecard as a strategy management system for the Center for Sustainable Development



Methodology

- The research was qualitative and based off of a singular case study. Unsystematic observations and bibliographic research were used
- As for the data collection technique, an interview was made with the director of the Center, for a better understanding of its management and goals. As for the data analysis technique, content analysis and triangulation were used
- An adaptation of the original structure of the BSC was made. In this approach, it was called the BSC Greens Group, renaming Traditional BSC's perspectives by "Dimensions" as well as changing their positions and their guiding questions.

BSC Greens Group

Dimensions	Guiding questions
Scientific Research Perspective	How do we want to be seen by our maintainers and the academic community?
Academic Community Perspective	What scientific means should be present for the dissemination of our research?
Enabling Internal Processes Perspective	To satisfy our stakeholders and the academic community, which internal processes should we perform optimally?
Staff Learning and Development Perspective	For the best results in our processes, how will we align and develop our human, information and organizational capital?

Source: Authors (2020)

Guidelines and Strategics Objectives

Scientific Research Perspective

How do we want to be seen by our maintainers and the academic community?

[Intellectual Production] [Social Insertion] [Scientific Collaboration]

Academic Community Perspective

What scientific means should be present for the dissemination of our research?

[Qualified Journals] [International & National Events] [Media Reference] [Exchanges]

Enabling Internal Processes Perspective

To satisfy our stakeholders and the academic community, which internal processes should we perform optimally?

[Profile Selection] [Planning & Scheduling] [Portfolio Themes / Research] [Periodic Portfolio] [Editing, Layout & Translation] [Submission]

Staff Learning and Development Perspective

For the best results in our processes, how will we align and develop our human, information and organizational capital?

[Human Capital] [Information Capital] [Organizational Capital]

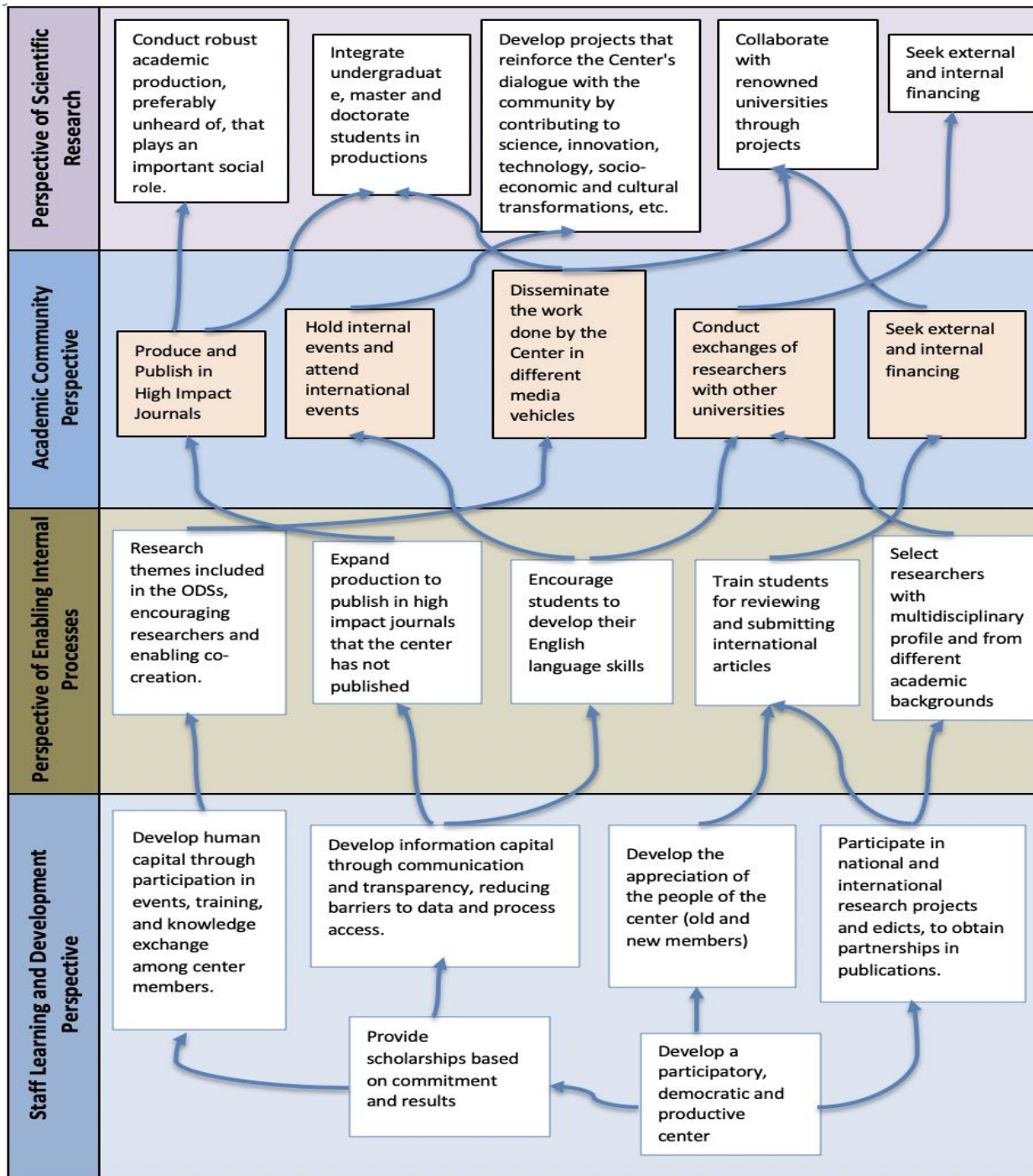
Results & Discussion

- From the **Scientific Research Perspective**, Guerra (2019) points out that Greens aims to be seen as one of the most productive research centers, in relation to high impact publications, with the participation of undergraduate, master and doctoral students. The link with the social area is one of the main concerns, and the center seeks to make projects that unite them to the community. Regarding scientific collaborations, Greens has several projects with international universities such as Cambridge University, Hamburg University, Manchester University, University Institute of Lisbon with the University of Chile. Currently, the center has national and international funding to carry out its projects, such as Fapesc (Santa Catarina State Research Support Foundation) and abroad, Global Challenges Round Tables of the United Kingdom and Research Councils United Kingdom.
- As for the **Academic Community Perspective**, Guerra (2019) stresses the center's concern with publishing its work in high-impact journals. The center currently wants to publish at least four articles per year in journals with an impact factor of over 2,5. Currently, Greens publications are present in at least ten different journals such as the Journal of Cleaner Production and Natural Resources Forum. The center hopes to increase its level of publication and someday publish in Nature or Science.

Results & Discussion

- Regarding the **Enabling Internal Processes Perspective**, Guerra (2019), emphasizes the need for researchers with a multidisciplinary profile, from different academic backgrounds and degrees. Greens conducts weekly, semi-annual, and annual schedule planning for work groups. A working group is composed of the researchers responsible for a particular research or project. The center space, which has good infrastructure, is available daily. Beginners also learn the process of editing and diagramming, while translation is currently a challenge.
- As for the **Staff Learning and Development Perspective**, researchers are constantly improving. Guerra (2019) believes that researchers with different academic backgrounds bring success to the center. All researchers at the center have access to information from the working groups, the purpose of which is to create co-creation space. That is why researchers are motivated to participate democratically and productively. The center has an anarchic structure deliberately so that any of the researchers are free to create new productions. Also, participates in research projects and aims to continue participating and strengthening partnerships, as well as constantly seeking new partnerships. Finally, the biggest financial benefit that Greens provides are scholarships, made available according to students' commitment and results.

Greens Strategic Map



Source: Authors (2020)

Conclusions

- In order to help Greens achieve its goals and manage the research group, the study aimed to apply the BSC, called BSC Greens Group. Following the steps of the BSC, the group's mission, vision and values were defined and validated with the coordinator and responsible for Greens. Subsequently, strategic maps were defined based on the following perspectives: (1) Scientific Research; (2) Community; (3) Enabling Internal Processes; (4) Staff Learning and Development. Greens has an adequate physical structure. In addition, undergraduate, master's, doctoral and professors students develop and promote research and extension at the university and in the community in which they operate.
- The study contributes, for practical purposes, to structure the goals and assist in the management of the group. The study also contributes, regarding scientific purposes, bringing an adaptation and/or adequacy of the BSC to a research group. This research is limited to the theory and methods used. The research is also limited to the research group studied, however, just as it was possible to adapt the BSC to the Greens, it may be possible to adapt the BSC to other research groups. It is suggested for future studies, the adaptation of the BSC in other research organizations and a study years later to analyze how much the BSC contributed to the results.

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