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Strategic Management Tools Assisting in the Search for the Measurement of Sustainability

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Abstract

The present work aims to examine concepts and propose the measurement of sustainability when these aspects are considered in the formulation of organizational strategy. The instruments of the strategic management become more effective when they complement and are integrated to the aspects of sustainability. Their contribution enables organizations to track the impacts of their actions on the environment, their social responsibility and sustainable development. The information can be obtained through literature review, taking contact with case studies about global organizations geared to current trends. The collected data should cover concepts such as corporate governance, strategy, tangible and intangible assets, performance control, awards, operations and certifications. The theme intends to add value to the society and the scientific community as it is focused in aligning sustainability and strategic management, showing itself as the basis of an evident positive organizational performance in competitive organizations. Implications of the present study have crucial characteristics in the recent history of alignment of organizations to the sustainable development. This occurs because the society is only worried about the natural resources after using them in an unbridled way, since the beginning of our civilization. The contribution of this study is noted as a complete set of sustainable management concepts that can benefit all individuals, since organizations will use their tangible and intangible assets with responsability and focus on economic performance. It is remarkable to assign the importance to the mentioned identity, because it constitutes a critical factor of major success for the current growth of the global sustainable management. It does not consist of ephemeral reality or trend; there is no life in community without this care.

Keywords: Strategic management. Sustainable development. Sustainability. Balanced Scorecard.

1 Introduction

The sustainable thinking needs to be present in society seeking to preserve the planet's natural resources. Sustainable development is the ability to meet the needs of the present generation, in order not to compromise future generations and not to deplete resources.

For ALIER (1998, p. 102), the term "sustainable development" combines the ideas of "economic development" and "carrying capacity." For ALMEIDA (1999), the notion of sustainable development is used in order to grant a new project for society, ensuring the survival of society and nature.

This concept was first used in 1983 on the occasion of the World Commission on Environment and Development, designed by the UN. Chaired by the then prime minister of Norway, Gro Brundtland Halem, this committee proposed that economic development be integrated with the environmental issue. The works were completed in 1987, with the presentation of a diagnosis of the global environmental problems, known as the Brundtland Report.

It is urgent to develop new combinations of resources in the form of innovations in its various configurations, to achieve global and sustainable targets. (FIALHO, 2008).

Discussions about sustainability must take a practical and operational character. It is essential to reflect on the measurement of the sustainability, inserting it in the decision-making process affecting all

organizational levels. This measurement can be performed by a set of indexes or indicators. The measurement function will not vary according to the type chosen for the measurement.

It is necessary to use these indicators focused on measuring environmental, social and economic aspects in world companies. Some of them may be mentioned as: Dow Jones Sustainability Index, Ecological Footprint Method and Global Reporting Initiative (GRI).

The instruments used to manage the strategy come in handy, thus integrating the aspects of sustainability. Among the existing models, there is the Balanced Scorecard (BSC), considered as a good alternative when it comes to dealing with sustainability and also when it comes to passing good strategies for organizations.

Developing strategies means finding appropriate actions to achieve the objectives. Activities such as analysis, planning and selection of strategies, which increase the chances of the organization to achieve its goals, should be taken into consideration.

This paper aims to identify and analyze aspects of sustainability, when considered in the formulation of organizational strategy as a good management practice.

In the survey, theoretical and actual practices of global organizations on strategic management and sustainability are approached through literature review. The work adds value to society, as it became usual nowadays for organizations to use their resources with environmental responsibility.

1.1 Research Method Used

The research method used in scientific texts is justified by the need for an adequate scientific basis and search for the best research approach being used to forward the research questions.

According to BARROS and LEHFELD (2000), this study is classified as descriptive research, when the researcher describes the research object without interferences. This research was conducted by means of documental or bibliographic review.

According to MIGUEL (2007) the literature search should promote literature review to identify and meet the development of knowledge in the area where the search is developed.

FILIPPINI (1997) defines seven categories for the survey data with the research methods. One category is the theoretical / conceptual method. This method aims at discussing conceptual concepts from literature and bibliographic reviews, analyzing the frequency of occurrence of a certain phenomenon, its relationship and connection with other phenomena, as well as its nature and characteristics, without manipulating it.

In this paper, it was studied the strategic management concepts associated with the sustainable development concepts, observing some formatted reports in order to show the corporate sustainability.

We tried also the concepts of the Balanced Scorecard as a management tool of corporate strategy, also associated with the sustainable development.

Finally, we surveyed good management practices in companies that are using the strategic management tools with the sustainable development approach.

2 Strategic Management Alignment with the Sustainable Development

It can be affirmed that strategic management tools represent more than presenting financial options for the growth of organizations.

The financial measures record and report partially the history facts and the past actions, but do not provide adequate guidance for decisions. Other aspects must be taken into account to promote the success of the decisions, such as sustainability.

In fact, individuals are concerned with natural resources only after enjoying them wildly, since beginning of times.

Organizations are responsible when it comes to fulfilling the commitment to environmental conservation, which is not only temporary action, but an essential part of the same. It is necessary to highlight the guidelines that go with the strategy and management together with the stakeholders.

KAPLAN AND NORTON (2008) state that prior to the formulation of strategy, managers needs to agree on the purpose (mission), the internal compass that will guide its actions (values) and on their aspirations regarding future results (vision).

One must consider innovation as a path in the search of sustainable development organizations. It must be linked not only to the areas of technology or research and development, but also to management, leadership, marketing, business model.

The term "sustainability" has emerged in the early eighties, defined as being able to meet the needs, not affecting or reducing the opportunities of future generations. It would be the organization of processes and permanent actions, i.e., not ceasing to exist over time, by the depletion of natural resources, thus maintaining the established standard of quality (BELASCO, FISCHER, FEDATO 2011).

It is essential that sustainability takes a practical character. The measurement requires the same emphasis, being present in the decision-making process at all levels of the organization. The measurement can occur when making contact with the set of indexes and indicators.

The incessant search for indicators and indices of sustainable development is a widely discussed issue both nationally and internationally. They were developed for reasons of lack of methodologies and quantitative assessment - significant limiting factor and lack of environmental statistics.

Idealizing something by applying the concept of sustainable development is essential to establish indicators, objectives and targets that can measure when it comes to sustainability. Thus, indicators consist of selected parameters and considered separately or together, useful to reflect on certain conditions of the systems under consideration.

Sustainability indicators represent different magnitudes of environmental indicators, because they must incorporate the time dimension and limits. This topic describe some reports of measuring sustainability recorded in the literature and business practices: Dow Jones Sustainability Index, Ecological Footprint Method and Global Reporting Initiative (GRI).

2.1 Dow Jones Sustainability Index

Dow Jones launched the first set of global sustainability indexes in 1999, called Dow Jones Sustainability Index. These indices are focused on how the company recognizes the risks and opportunities arising from sustainability issues in their business. It is managed by SAM (Sustainable Asset Management), a Swiss asset management company specialized in companies that have committed to the connection between its social, cultural and environmental features.

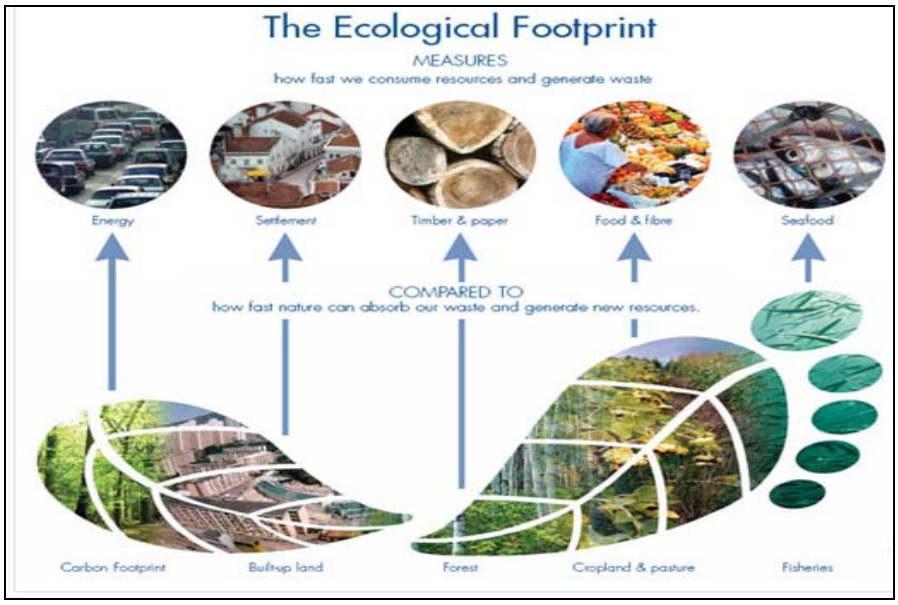
These global indexes are the pioneers in monitoring the financial performance of leading companies focused on sustainability around the world. Thus, the portfolios of sustainability could be managed properly, because these indices convey credibility.

Currently, around 60 DJSI licenses are held by asset managers in 16 countries to manage a variety of financial products, including active and passive funds, certificates and segregated accounts. In total, over US$ 8 billion based on that index are managed. (DJSI, 2012)

Choosing a company to compose a list of the DJSI creates expectations about the potential benefits. It is expected that the sustainable development and the inclusion of the company in this privileged group facilitate the access to resources, collecting benefits regarding the economy and company strategy.

2.2 Ecological Footprint

The index is able to measure the amount of land area and a human population requires water to produce the resources consumed and to absorb the carbon dioxide emissions, using current technology.



Source: Ecological Footprint – Global Footprint Network (2012).

Figure 1: Description of the flowchart on the Ecological Footprint.

Designed in 1990 by Mathis Wackernagel and William Rees, University of British Columbia, the Ecological Footprint is currently discussed and used by scientists, companies, governments, agencies, individuals and institutions working to monitor the use of ecological resources and promote sustainable development.

2.3 Global Reporting Initiative – GRI

Sustainability reports are presented as an important management tool and reporting practices of social, environmental and economic enterprises. While these numbers have remained stable in Europe, Oceania and North America, there is a significant growth in developing countries. KPMG/SUSTAINABILITY/FBDS/UNEP (2008).

The Global Reporting Initiative sustainability report makes reference throughout the planet, based on continuous learning, research and public comments in regular cycles, gathering hundreds of partners in a voluntary process, multi-stakeholder and consensus. The trend is that more and more companies adopt the international standard of the GRI report, thus facilitating the analysis and comparability of their performances.

The reports convey the organizations commitment to transparency and dialogue, be either NGOs, businesses or public agencies; offer of pragmatic content and necessary knowledge so that these organizations can make that commitment, and ultimately, the content has offered an organic approach and interdisciplinary in which social scientists, environmentalists and business entities can work together on innovative solutions for the utilization of existing resources on the planet.

In December 2006, the Portuguese version was launched in Brazil, after a stage of hard work involving the Institute, the Brazilian Association of Business Communication (Aberje) and the Center for Sustainability Studies of the Getulio Vargas Foundation (GVces). The launch of the GRI G3 was an aspect of great development in the case of sustainability reports, in a democratic way, which involved more than 4,000 people around the world and for its improvement. (GRI, 2012)

3 Instrument for Strategic Management – Balanced Scorecard

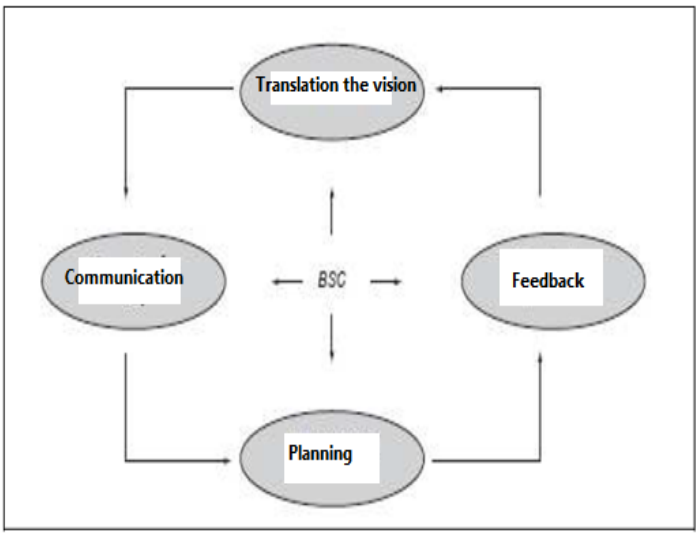
The current organizations will succeed if given the chance to invest in their intellectual assets and their management, they should focus on processes that put the customer first. Investing in acquiring these new capabilities, its success or failure will be measured in the short term by the traditional financial accounting model developed for this commercial and industrial enterprises, measures the events of the past, not the investment in capabilities that provide value to the future.

It appears that there are several models: Performance Measure Questionnaire (1990), Strategic Measurement and Reporting Technique (1991), Balanced Scorecard - BSC (1992-2001), Seven Performance Criteria (1993), Model Quantum Performance Measurement (1994), and Integrated Dynamic Performance Measurement System (1996-2000), Performance Measurement System Global (2001) and Performance Prism (2001-2002). Given the importance of them, the BSC deserves attention since the 90's.

The BSC model reflects the need for organizations to reflect their strategic concerns, changing the focus on production for the quality of products and services, which is a critical part of business since 1990.

For the realization of strategic planning, Balanced Scorecard works with four perspectives: Financial, customer, internal processes and learning.

A macro objective must be created to each area. The same will be broken into several goals and each should have an indicator, which is controlled by one goal. Finally, the action has to be developed and reach the desired goal. The main processes and their functions can be summarized as follows:



Source: PRIETO et al. (2006)

Figure 2: Key processes and functions of the BSC.

Translating the vision helps managers to develop consensus on the strategy of the company, directing the action at the local level, communication and connection – allows managers to communicate the organization's strategy and goals to connect the units and individuals; planning business - allows the company to integrate the business plan and financial plan; feedback and learning – gives the company the capability of strategic learning, which involves gathering feedback, testing the hypotheses on which it based the strategy and making adjustments as needed.

In the center of the BSC management system, the company is able to monitor the short-term results from the perspectives and evaluate the strategy in the recent performance. Conditions are created for companies to modify the strategy based on real time learning.

3.1 Implementation of the Balanced Scorecard

There is a wide dissemination of the concept mentioned, but there is no standard method for its implementation. A proper implementation of this method is through a vision of the strategy shared by all employees, vision translated into objectives, measures, targets and initiatives for each perspective, and the strategy describes how the organization intends to create value for shareholders, customers and society in general (JORDAN, 2005).

It should be noted that the BSC is not only focused on a methodology for large companies. Any company interested in ensuring the implementation of its strategies must use this methodology in the same way as the strategic planning is recommended: it is important to know the strengths, eliminate or adjust the weaknesses, take advantage of the opportunities and avoid external threats. To this end, we have:

1. Set the industry, describe its development and the role of the company;
2. Establish and confirm the company's vision;
3. Establish the perspectives on which the BSC will be built;
4. Decompose the view according to each perspective and formulate the overall strategic goals;
5. Identify the critical success factors, i.e. factors necessary for the vision to be successful;
6. Develop measures to identify causes and effects and to establish a balance between measures in selected perspectives;
7. Establish Scorecard (inclusive) at the top of the company;
8. Decompose the Scorecard and its measures by organizational units;
9. Formulate goals for each of the measures used;
10. Develop an action plan to achieve the established goals and vision;
11. Implement the BSC.

3.2 Sustainable Balanced Scorecard

The beginning of sustainable BSC was proposed by JOHNSON (1998), which demonstrated the possibility of integrating environmental issues in the traditional BSC. On that occasion, it was presented the operation of the proposed model, not referencing the concept of what exactly this new management methodology would be.

There are different approaches in the literature regarding the terminology suggested for the Balanced Scorecard, with an emphasis on sustainability, getting names like Balanced Environmental Scorecard.

BSC environmental models are structured in four possibilities. According to FIGGE et al. (2002), MONTEIRO; CASTRO and PROCHNIK (2003), they are:

1st Possibility - Inclusion of environmental indicators from the perspective of internal processes or changes in traditional perspectives through the incorporation of indicators, aimed at sustainable aspects.

2nd Possibility: Models that propose the inclusion of environmental indicators in the traditional perspectives of the Balanced Scorecard.

3rd Possibility: Models that propose the creation of complementary perspectives to traditional perspectives, focusing on sustainability and environmental management.

4th Possibility: Models aimed at creating BSC-specific departments. However, there is a unique opportunity to structure the BSC to measure the strategic management aspects associated with sustainable aspects. Several times, the models differ from each other according to the different indicators used.

3.3 Model of the traditional BSC Inclusion of Environmental Indicators

This model considers the BSC as an integrator of human resources relations and of the environment to the traditional model of the BSC; it incorporates the social and environmental aspects of the economic view of the traditional model. Its proposal is to integrate an eco-social vision in the management entities,

thus considering the BSC as an ideal instrument for the integration of corporate management, human resources and the environment. It proposes the incorporation of the social variable, incorporating aspects related to environment and human resources.

The researchers suggest environmental indicators (related to economic, financial and operational) and indicators related to personnel management, in order to help companies control their direct and indirect impacts on the social aspects, help manage stakeholders, help understanding the impact of social and environmental issues, among others. They are indicators that assess the impacts of social actions on sales on the stock price and the impact of process efficiency.

The model proposes to use a set of indicators organized according to the planning of the life cycle of products, by the method of activity-based costing – ABC. Indicators are suggested as: environmental assessment costs, environmental costs of prevention, environmental costs of internal failures and external environmental costs of social and environmental failures.

The indicators are aligned in the four perspectives in order to direct the assessment of achievement of corporate strategic goals, preserving the structure of the BSC.

3.4 Model BSC with traditional complementary approach to the sustainable development

The main characteristic of the same is to present changes in the BSC by including a new perspective, which has reference to social and environmental aspects in an integrated or separated way.

In BIEKER and MINDER (2001) models, the authors demonstrate a complementary perspective called "perspective of the company / sustainability." However, environmental issues are not worked in the fifth perspective, but also in other perspectives, by changing the emphasis of other perspectives.

The model of MOLLER and SCHALTEGGER (2005), which is intended not only to integrate a new perspective, but to restructure the remaining existing perspectives, with the inclusion of environmental indicators. The model of FIGGE (2002) not only creates a new perspective, but also works on social and environmental perspectives, also through the inclusion of environmental indicators.

Thus, the proposed models in this stream of research present a structural complementation in the traditional BSC, which address the social and environmental aspects through specific perspectives. Therefore, the models innovate by complementing the traditional structure of the BSC with the addition of new perspectives.

4 Good Practices of Strategic Management with the Sustainable Development

In this chapter, it was listed current practices of global organizations that use Sustainability Indicators and Balanced Scorecard as a model of sustainable management.

4.1 Dow Jones Sustainability Index – Petrobras

For the sixth consecutive year, Petrobras is part of the Dow Jones Sustainability 2011-2012. The organization is characterized as one of the companies recognized for having the good practices in managing social, environmental and economic world. According to the evaluation criteria of the index, the Company obtained an improvement in the assessment of its economic and social dimensions and maintained its performance in the environmental dimension.

In the oil and gas, Petrobras had a significant increase in the indicator refining / clean fuels, achieving a rating well above the industry average, as a result of investments made by the Company in refining, to improve the quality of fuel produced.

In this edition, 342 companies from 30 countries participating in the index in 57 industry sectors, 23 companies in the oil and gas. Currently, more than $ 8 billion are invested in funds based solely on the

companies belonging to the DJSI. The permanence in the index reflects the commitment of Petrobras in aligning its growth to the sustainable development, minimizing and mitigating the impact of its activities on the environment and generating returns for shareholders. (PETROBRAS, 2011)

4.2 Ecological Footprint - Alliance for Sustainability

The Global Footprint Network's partners play a vital role in guiding our research agenda and contribute to the development of methodology and standards. Alisos is an organization committed to promoting a new development model in Latin America. The organization implements innovative strategies and actions to identify critical points, progressing as a sustainable manner, which contributes to the well-being of the planet and improve the quality of life of its inhabitants.

The organization mentioned works to achieve sustainability in Latin America through multi-stakeholder dialogues, involving stakeholders from different perspectives. It seeks to identify critical points and opportunities for changing in both public and private sectors. Also, the implementation of strategies and actions create changes today, ensuring a sustainable tomorrow. It promotes a culture of sustainability that respects the limited capacity of the planet's resources. (ALISOS, 2011)

Alisos develops alliances with the leading public and private organizations as well as with civil society, to ensure the necessary changes that will create new social, cultural, economic and political models.

4.3 GRI – Natura Cosmetics

Brazil occupies a good position in the ranking regarding GRI companies. Natura Cosmetics company was pioneer with the publication of its 2004 report.

For the 11th consecutive year, the Annual Report was published by Natura, drawn from the guidelines of the Global Reporting Initiative (GRI), for the period from January 1 to December 31, 2010. We adopted the version of the GRI G3 and the fourth consecutive year, the application level A + for the reporting of economic performance, social and environmental reached.

Making contact with the GRI Annual Report 2010, continuing an intense cycle of structural changes, Natura is able to seize the opportunities that the market for personal care products, perfumes and cosmetics offers in Brazil and Latin America.

The organization says that innovation is increasingly important in all aspects of our business, not only for product development, but the business model, building relationships and solutions in the face of environmental challenges.

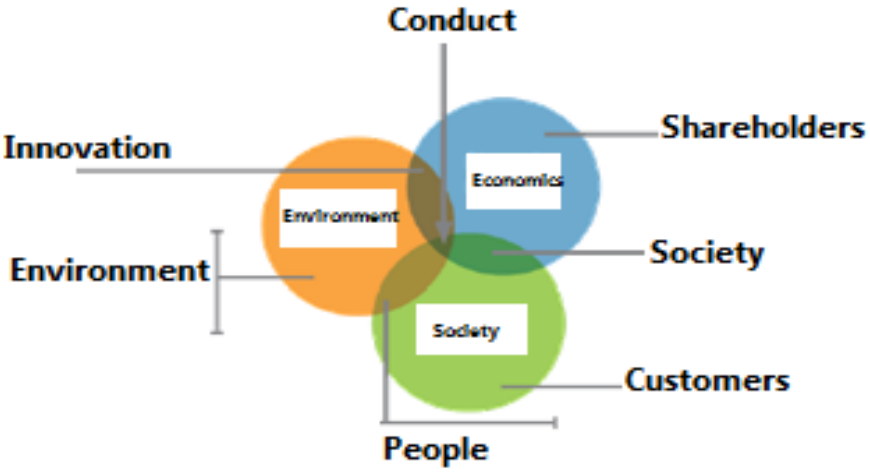
Natura shows its understanding and its vision of sustainable development, a theme that has become one of 12 drivers of the organization's culture. It is remarkable quality as the company integrates sustainability issues in strategic planning and operational management of the organization, in order to contribute in the short and long term to improve the social, economic and environmental challenges in local, regional or global places (e.g.: Relation between the start of manufacturing and international climate change management). (GRI NATURA, 2011)

4.4 Sustainable Balanced Scorecard

Endesa is the leading Spanish electric company and the largest private energy sector in Latin America. It is present in 10 countries: Spain, Portugal, Ireland, Greece, Morocco, Argentina, Brazil, Chile, Colombia, and Peru. The strategy of Endesa in Latin America is oriented to achieve broad business platform capable of harnessing the great potential of growth and profitability that the region offers.

The company's sustainability policy is based on shareholders, customers, creativity, innovation, environment, people and society. These pillars base the activities in the strategic plan. (GOMES et al. 2011)

In its strategic plan, the Endesa BSC use the tool as a central instrument of management and has a structure of performance indicators guided by four perspectives: shareholder, customer, employee and society.



Source: ENDESA (2011)

Figure 3: Dimensions of the company Endesa.

The BSC's Endesa is constantly evolving process, as well as the formulation of its strategy.

- Shareholders: Includes performance indicators that measure shareholder value and return on average capital employed.
- Guest: Covers the Endesa brand image in the world.
- Contributors: The perspectives of the employees discuss the strategy for managing their intangible assets required for the performance of organizational activities and relationships with its partners at the level of quality ever higher.
- Company: This is about the sustainability incorporating the social and environmental criteria in its strategy and management models, enabling the achievement of business objectives and maximizing value creation in a long-term perspective, respecting the communities in which they operate between trying to be most admired companies in the world.

Endesa seeks in its BSC, highlighting its strategy and its success based on the principles of TBL, showing business growth in harmony with employees, communities / society and the environment.

5 Final Thoughts

It is remarkable to say now that sustainability is very important when considering the same strategy in the formulation of an organization. The analysis of concepts and the proposition of new alternatives with regard to sustainability can be observed in this study through literature review and case studies of organizations that are reference when dealing with this reality, determining the similarities between the measurement indexes and how sustainability can add to the strategy.

So it can be seen that the goal was completed, as the theme adds value to society in general, aligning the strategic management and the sustainability as an important competitive advantage of organizations today.

It is assumed that the contribution of this study for the overall benefit of society is the one which organizations will use in their own tangible and intangible assets, focusing on accountability and performance. It is a critical success factor for the sustainable management world to grow even further, given that there is life in the community without proper management, and sustainability must be added, when linked to strategy.

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