Indicators of strategic management: a contribution to sustainable operations

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Abstract
The instruments used to manage operations have to add to sustainable. The aim is to analyze aspects of sustainability when are considered in formulating organizational strategy while good operating practices. In the research, discusses the theory and actual practices of organizations on strategy and sustainable operations through a literature review.

Keywords: sustainable operations, strategic management, indicators, success cases

Introduction
It is remarkable the number of organizations that incorporate sustainability concepts into their operations and processes. These concepts related to the strategies and indicators adopted by them, enables the development of these organizations deploying actions more profitable and effective, adding value to society.

Using indicators of strategic management, the companies can enjoy deep knowledge of the business, establishing its focus. Thus, they are able to identify their strengths, exploring the business opportunities that arise, and knowing your weaknesses, so the companies can be prepared to threats encountered a new business reality.

The modern business reality arises with technological change and globalization that are able to assist in the implementation of innovative models of governance, culminating in a lasting sustainable business management.

An important point to be mentioned is the most viable choice for strategic indicators that can contribute to the improvement of processes and operations, managing risk, diversity and volume of information generated, adding sustainable value.

In literature and media are examples of indicators that have focused on measurement of environmental, economic and social organizations in the world, such as Dow Jones Sustainability Index and Global Reporting Initiative - GRI. After this contextualization, it becomes urgent to develop new combinations of resources, in the
form of innovations in its various configurations, thereby establishing strategies to achieve global and sustainable goals.

Formulate strategies means finding appropriate actions to meet the targets set. Activities should be considered as analysis, planning and selection of strategies, taking advantage of the opportunities the organization has to reach their goals and achieve sustainable competitive advantage.

The instruments used to manage the strategy, such as performance indicators, only have to add up when they are integrated with aspects of sustainability. Among the existing models, Balanced Scorecard (BSC) has been considered as a suitable alternative to deal with sustainability and convey good strategies for organizations. This model is recognized as a strategic management system with indicators that considers different aspects (financial and nonfinancial).

The present study aims to verify and analyze the aspects of sustainability when they are inserted in the formulation and implementation of organizational strategy as an example of good management practice.

The research addresses theoretical knowledge and current practices of global organizations focusing on strategic management and sustainability through literature review. The study adds value to society in general, because it is usual that organizations need to use their resources to social and environmental responsibility.

The information could be obtained through a literature review, making contact with case studies of global organizations endowed with current trends in management.

The study collects data as strategy, corporate governance, active interest, tangible and intangible assets, control the performance of operations, awards and certifications.

**Theoretical Framework**

Decision based in strategic, tactical and operational actions, become assertive when there is a particular focus of activity by the company, culminating in more competitive edge to meet their needs and commitment to the expectations of its customers.

To follow up actions previously determined, the indicators generally present themselves as an excellent tool because they reflect business reality. Thus, if the complete realization of shares is difficult, the manager will be able to visualize the consequences, and, if necessary, implementing changes.

The strategic management tools are much more than just options to increase the gain of organizations. The financial measures record and report the facts of the history and past actions, but do not provide adequate guidance for decisions to be made. It is important to consider other aspects to the success of organizations, as sustainability. In fact, individuals are concerned with natural resources belatedly after use without control in the past.

**Strategic management and sustainable operations**

Organizations are responsible to fulfill the commitment to environmental conservation, not only with temporary actions, but making it essential part of them. It is necessary to highlight the guidelines that go with strategy and management as well as with the stakeholders. Picture 1 illustrates the integration of parts: resources, stakeholders, management, mission and strategy.
(Kaplan 1993) states that before formulating strategy, managers must establish an agreement about the purpose (mission), about the north of its operations (values) and about their aspirations related to future results (vision). The mission and values of the organization remain stable over time.

The vision, although less stable than the mission and values, remains around three to five years of strategic plans. Despite this stability, most organizations start your strategic planning evaluation and confirmation of the mission statement, vision and values.

One must consider innovation as an important tool for deploying sustainable development in organizations. Sustainability must be present in key management areas: leadership, marketing and business model.

The term sustainability emerged in the early eighties, aiming to satisfy the needs and does not affect the opportunities of future generations. Consists in organizing processes and permanent actions, caring for the resources are not exhausted over time, wishing to maintain the established standard of quality (Fischer, Fedato and Belasco 2005).

It is essential that sustainability takes a practical nature. It is important to highlight sustainability in decision making at all levels of the organization. The measurement can occur with the use of indices and indicators. Measure is to quantify, summarize, simplify, compare and communicate relevant information to decision-making.

The strategy of deploying indexes and indicators of sustainable development consists of a widely discussed issue both nationally and internationally. They were developed for reasons of lack of methodologies and quantitative assessment - thus consist of indicators and selected parameters considered in isolation or combined together, useful to reflect on the conditions of the systems under consideration.

The sustainability indicators represent different magnitudes of environmental indicators because they must incorporate the dimension of time and limits. In this topic, some indicators of measuring of sustainability are described and are widespread in world literature: Dow Jones Sustainability Index and Global Reporting Initiative – GRI.

**Dow Jones Sustainability Index**

The Dow Jones Sustainability Index (DJSI) was born in 1999 and is the world's most influential metric for sustainability.

The Sustainable Asset Management (SAM) is known as the asset management company which assesses companies applying to join the index. It has access to almost 100 responses on the sustainability performance of over 1200 companies belonging to 58 sectors. Currently, 317 are global companies in the DJSI, among them seven Brazilian.

There is a projection that by 2015, 15% to 20% of the world's assets are managed according to sustainability guidelines, information from the SAM and DJSI become more relevant to the impact on free cash flow of companies, besides the risk and return to the investor.
These indices are the global pioneers in monitoring the financial performance of leading companies in the world sustainability focused. Thus, the portfolios of sustainability could be managed appropriately, they are indexes that convey credibility.

Being a Sustainable Company does value the company's stock increase, encouraging them to pursue sustainable practices and convince other companies to adopt these actions. It is a way to induce firms to be concerned about the environment and society, adding value.

Choosing a company to join the DJSI list generates expectations about the potential benefits. It is expected that sustainable development and the inclusion of the company in this privileged group, facilitates access to resources and benefits the economy and company strategy.

Global Reporting Initiative

The Global Reporting Initiative (GRI) is a guide to reporting of sustainability recognized worldwide. It was created in 1997 by the American nongovernmental organization Coalition for Environmentally Responsible Economies (CERES) and by United Nations Environment Programme.

Aiming to make the sustainability reporting as a routine practice and amenable to comparison, the GRI released the "Guidelines for Sustainability Reporting." The guidelines are divided into three types of information standard, as follows:

- Profile: information that provides context for understanding the overall performance and company strategy.
- Management Approach: data whose purpose is to explain the context in which performance must be interpreted in a specific area of the organization.
- Performance Indicators: exposes information about the economic, environmental and social performance.

The aim is to help companies and their stakeholders in the communication of their contributions to sustainable development, improving the quality and utility of sustainability reporting (GRI 2006). Considering the economic, environmental and social aspects, follow the table 1 below with the detailing of this guide.
Aspects of the GRI Performance Indicators

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<th>Economic</th>
<th>Environmental</th>
<th>Social</th>
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<td>Materials</td>
<td>Teaching Work and Labor Policies</td>
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<td>Market Presence</td>
<td>Energy</td>
<td>Human Rights</td>
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<td>Direct Economic Impacts</td>
<td>Water</td>
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Chart 1: Aspects of the GRI Performance Indicator. (GRI 2011)

Thus, it is clear that sustainability reporting presents unique management and reporting tool. While these numbers are stable in Europe, the continent Oceania and North America, there is a significant growth in developing countries (Sustainability/Fbds UNEP 2008).

The Global Reporting Initiative elaborates sustainability reporting that are reference throughout the planet, based on continuous learning, research and public comments in regular cycles, bringing together hundreds of partners in a voluntary, multistakeholder and consensus.

Instrument of Strategic Management - Balanced Scorecard

The Balanced Scorecard is a management method that establishes performance indicators capable of deploying the business strategy initiatives, goals, objectives and measures. This tool that enables the capture, description and modification of non-tangible assets of an organization in value to stakeholders (Kaplan and Norton 1997).

The current organizations will succeed only if they invest in their management and intellectual assets. Should focus on processes that put the customer first, figuring the environmental perspective as key. So it will not be measured in the short term for a traditional model taking into account only the financial aspects.

It appears that there are several management models in chronological order of creation: 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 these, noteworthy, since the 90s, the BSC.
The BSC model reflects the need for organizations to convey their strategic concerns, shifting the focus on production (1980) for the quality of products and services, critical part of business since 1990.

**Models that include environmental indicators in the traditional model of BSC**

The author (Banegas 2000) considers the BSC must harness people management and environment to the traditional model of the BSC. His proposal is to integrate the management of entities a EcoSocial vision and so the model works as an ideal instrument for the integration mentioned.

Some researchers suggest environmental indicators (related to economic, financial and operational aspects) and indicators related to personnel management, in order to help companies control their indirect impacts regarding the management of stakeholders, among others. Assess impacts of social actions on sales, stock price and also process efficiency.

The indicators are aligned to the four perspectives in order to direct the assessment of the achievement of the strategic objectives of the company, while preserving the structure of the BSC. Below are success stories involving content previously transmitted.

**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 best 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 economic and social 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 is invested in funds based solely on the companies belonging to the DJSI. The stay in the index reflects the commitment of Petrobras in aligning their growth to sustainable development, minimizing and mitigating the impact of their activities on the environment and generating returns for shareholders.

**GRI-Natura Cosmetics**

For the 11th consecutive year was published the Natura Annual Report, drawn from the guidelines of the Global Reporting Initiative (GRI) for the year 2010. The version adopted was the G3 of GRI and the fourth consecutive year, the A + application level performance in economic, social and environmental was reached.

The organization says that innovation is relevant aspects of business, not only for product development, but in the commercial area, building relationships and solutions in the face of environmental challenges.

Natura presents his understanding and vision of sustainable development, a theme that has become one of the 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 to short and long term to improve the social, economic and environmental conditions in local, regional or global.

**Sustainable Balanced Scorecard – Endesa Group**

The Endesa Group Leads the Spanish electricity sector and leads 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. Endesa's strategy in Latin America is aimed at achieving a comprehensive business platform able to harness 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 support the activities in the strategic plan. The Endesa's BSC is constantly evolving process, as well as the formulation of their strategy.

- Shareholders: Includes performance indicators that measure shareholder value and return on average capital employed.
- Customers: Involves Endesa's brand image in the world.
- Employees: The employees' perspective addresses the management strategy of its intangible assets necessary to carry out organizational activities and relationships with its partners at the level of quality ever higher.
- Society: This is about the sustainability incorporating social and environmental criteria into their 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, seeking be between most admired companies in the world.

**Conclusion**

Sustainability is very important when considering the same strategy in the formulation of an organization. Analyzing concepts and proposing alternatives with regard to sustainability can be seen in this study by the literature review and case studies of organizations that are reference when dealing with this reality.

It is possible to see that the objective was completed, the theme adds value to society in general, aligning strategic management and sustainability as a competitive advantage of organizations.

Assuming that the contribution of this study to the general benefit of society is one in which organizations will use their own tangible and intangible assets, with a focus on responsibility and performance.

Discussions on sustainability and sustainable development (SD) have changed the public managers, organizations and universities over the last decade. It is important to seek establish sustainable practices as routine, being a necessity imposed by society, relating its concepts and principles in the management of their operations, permeating the majority of its business processes.

**References**
Ana-Airport-PT. 2013. Available at: http://img.pai.pt/mysite/media/15/08/5/31469897-fc3c-4ee1-b66f-55eb5b75a16f.jpg (acessed date February 02, 2013).
Sustainability, FBDS, UNEP. 2008. GRI. Brazilian Organizacional Stakeholder Meeting:São Paulo.