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Abstract

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strategy and goals are driving the operations to a satisfactory sustainability performance.

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1. Introduction

The sustainability theme has won the top of the big business priorities with the broadening of the debate on global warming. Business practices aligned with fairer socio-environmental values have been sought with the objective of implementing a responsible management based on the principles of the corporate governance (Arruda & Quelhas, 2010). The same authors confirm that large companies from different segments periodically publish sustainability reports and policies where it is already possible to evidence the incorporation of processes of technological innovation based on the role of leadership with a focus on the mapping and management of environmental risks, in the relationship with the customers, suppliers, community and opinion makers.

However, this concern with the environment needs to be systematically expanded throughout the entire production chain, generating an awareness of the organizations about the potential degradation of the environment generated by their productive activities. A sense of urgency is needed in the pursuit of sustainable practices.

The concept of sustainability began to gain relevance during the last 25 years as a result of major disasters and environmental accidents, when the awareness that these events represented a real challenge to the survival of mankind arose. Currently there are several interpretations about the sustainability concept, elaborated according to the area and objectives of the study developed by the various sectors.

According to Boff (2012), the classic and most widespread definition is from the Brundtland Commission (WCED, 1987), which states that "the sustainable development is the one that meets the needs of the present generation without compromising the ability of future generations to meet their needs and aspirations".

In this study, the concept of sustainable development is being treated as a synonym of sustainability. In general terms, we can say that sustainability aims to establish a balance between what nature can offer us, what is the limit for the consumption of natural resources and the improvement in our quality of life. However, the sustainable development aims to preserve the ecosystem, but also to meet the socioeconomic needs of communities and maintain the economic development. However, within the business context, an interesting approach is that sustainability must be composed of three dimensions: economic, social and environmental, also known as Triple Bottom Line (TBL), a concept that emerged from the study by Elkington (1994), also known as 3P, People, Planet and Profit.

The TBL concept became more widespread with the publication of the book "Cannibals with forks: the triple bottom line of the 21st century business" in 1997, representing an expansion of the traditional business model, based heavily on the economic dimension, to a new model, which also considers the environmental and social performance of the organization, as well as the financial performance (Elkington, 2012).

According to Almeida (2002), the economic dimension includes not only the formal economy, but also the informal activities that provide services to individuals and groups and thus increase the monetary income and standard of living of the individuals. The environmental dimension encourages companies to consider the impact of their activities on the environment, in the form of use of the natural resources, and contributes to the integration of environmental management into the work routine. The social dimension consists of the social aspect related to the quality of life of human beings, such as their abilities, dedication and

experiences, covering both the internal environment of the company and the external environment.

As Friedman (1970) and Jensen (2001) state, the traditional view of business is to promote value maximization for shareholders. However, the concern about sustainability makes management more complex, particularly when it needs to create value for all the stakeholders and reconcile objectives that include financial and non-financial decisions, impacts on the environment and on the society. In the stakeholder view, social and environmental objectives must also be incorporated into the decision-making process as well as measured and monitored continuously.

In view of the complexity of organizations communicating their economic, social and environmental performance and their interrelationships, it is incumbent on an investigative study to understand how companies have incorporated this culture within the organization and which management strategies they have used in the pursuit of the sustainable development in its fullness. Thus, within this context, a question that can be asked is how to demonstrate how the management actions are operationalized, with regard to the establishment of goals and objectives, that allow to comprehensively address all the dimensions of sustainability.

It is perceived that within the organizations, each of the dimensions (economic, social and environmental), generates different opinions and approaches on how to deal with the challenges of the present, reflecting, therefore, the degree of importance attributed to each different hierarchical levels of the company (Arruda & Quelhas, 2010).

According to Chamusca et al. (2008), it is not enough, however, that occurs this dissemination of the values of sustainable development and actions to guarantee the results of this strategy. Strobel et al. (2004), emphasize that organizations should be concerned with creating appropriate mechanisms to measure them, focusing on the economic, social and environmental pillars.

Then, Elkington (1999) and Schaltegger et al. (2002) argue that the relatively new discipline of sustainability management, focused on measuring and quantifying impacts, needs to be integrated into the everyday decision-making and accountability processes, including sustainability reporting.

According to Veiga (2010), the search for a synthetic index of sustainable development, which must be composed of several dimensions, can be counterproductive or even misleading due to the diversity of variables. Consequently, developing a multi-dimensional performance management system is a significant challenge, especially if it is aggregated with possibilities to measure not only the economic dimension but also the environmental and the social ones.

However, to implement goals that address sustainability dimensions and strategies, managers need to better understand the implications of their decisions and the actions they can take to produce a better performance and the impacts generated by those activities, since sustainability strategies are addressed in the context of Strategic Business Planning (SBP).

Epstein and Roy (2001) corroborate this assertion when they say that the success of a corporate social responsibility strategy for example should be seen in a long-term horizon so that both the main indicators and the delays of performance can be examined.

Mikhailova (2004) states that the corporate sustainability management is much more than doing what is good for the sustainability because it requires vision and strategy, principles, policy and procedures, a program with tangible goals, and measuring progress and performance.

Oliveira et al. (2012) complement that in the dynamics of the business environment, always in constant change, it is fundamental that the goals and objectives established in the SBP are properly measured and accompanied by performance indicators that will translate their effectiveness over time.

In this context, the creation of the Balanced Scorecard (BSC), developed by Robert Kaplan and David Norton, has become a widely used methodology in companies and it is an effective tool for management

and planning (Prietro et al., 2006). According to Kaplan and Norton (2000), the BSC provides managers with a comprehensive view that clearly translates the company's strategic objectives into a coherent framework of the performance measurement of the operation. These are performance indicators that are logically interconnected within four perspectives, that is, financial, customer, internal processes and learning and growth, which allow an evaluation of the performance of the operation, translating the mission and strategies, objectives and measures.

According Kaplan and Norton (2004, p. 34): "The objectives of the four perspectives are connected with each other by cause and effect relationships. From the top, it is assumed that financial results will only be achieved if the target customers are satisfied. The value proposition for customers describes how to generate sales and increase customer loyalty. The internal processes create and fulfill the value proposition for the clients. Intangible assets that support internal processes underpin the pillars of the strategy. The alignment of objectives in these four perspectives is the key to the value creation, and therefore to a focused strategy with internal consistency".

Thus, when thinking about SBP and BSC, with its four perspectives, it is understood that there are available and effective tools of management that allow the elaboration and monitoring of the SBP of an organization. However, it is not clear how the economic, social and environmental dimensions of the sustainability can be addressed in this context. It is also difficult to know how important a business organization is for sustainability issues.

Thus, the objective of this work is to propose, for the business management strategy, a tool supported in the BSC that contains indicators of sustainability performance in the economic, social and environmental dimensions, in order to allow the managers to elaborate and follow the SBP, so that it can be assessed if an institution is achieving adequate levels of sustainability.

For the proposal of a new look on the evaluation of the performance of sustainability in an organization, the present study is characterized as an exploratory research, which is indicated to define researches whose "[...] the chosen subject is little explored [...]" (Gil, 2008, p. 43). The qualitative and quantitative data of the study are obtained through a bibliographical research on the themes of Strategic Business Planning (SBP), Balanced Scorecard (BSC) and sustainability. The selection of texts was guided by the identification of publications related to the use of SBP and BSC by organizations and the relevance of the use of performance indicators related to sustainability. Based on studies already developed, we sought to identify in the publications, the existence of practices related to the evaluation of the organization's performance regarding its level of sustainability, within the economic, social and environmental dimensions.

The analysis of data for proposal construction adopts a prescriptive approach, since it seeks to observe different ways of evaluating the organization's sustainability performance (Rubenstein-Montano et al., 2001). Considering the complexity of simultaneously evaluating the economic, social and environmental efficiency within the strategic objectives of an organization, an evaluation of the actions of the SBP is proposed, within the perspectives of the BSC and the impacts and contributions that these actions can promote within the dimensions of TBL. Through this analysis it is calculated a sustainability indicator for each action of the SBP, which will allow an evaluation of the level of sustainability that this action is providing within the organization. In addition, it is also proposed to create a general indicator of sustainability within each perspective of the BSC and each of the dimensions of sustainability.

Through the SBP sustainability indicators and the general sustainability impact indicator, some examples of analysis are simulated and illustrate what level of sustainability a given organization is facing in relation to the actions of the pre-established SBP and its impacts generated in each one of the TBL dimensions.

2. Strategic Planning and Balanced Scorecard

The Strategic Business Planning (SBP) has a diversity of concepts. According to Kotler (1992), the SBP is a managerial methodology that allows to establish the direction to be followed by the organization, aiming at a greater degree of interaction with the environment, considering the macroeconomic issues, macro policies, macro strategies and the objectives of the organization.

For Drucker (1977), the SBP is an ongoing, integrated, systematic, organized and forward-looking process, allowing the organization to make the best business and product decisions while minimizing risk.

According to Falsarella and Jannuzzi (2017), the SBP is directly related to the strategic management. It is conceived from an analysis of the internal and external environment, through the construction of a matrix that presents threats and opportunities and strengths and weaknesses, with the purpose of contributing to define the essential components for the strategy unfolding. At the end of the preparation of the SBP, the following components are defined:

- ✓ Vision - expresses the organization's self-image, the way in which it wishes to be recognized in the future. It should be defined and elaborated in a clear and comprehensible way so that it is useful and functional for all involved, unifying expectations, facilitating communication and giving a sense of direction to the activities and goals of strategies;
- ✓ Mission - indicates the identity, the area of activity and the target public of the organization. It should be expressed in a language that is easy to understand, but it contains the main references that will guide the organization's strategic definitions;
- ✓ Values - are intrinsic to each type of organization. They represent aspects related to ethics and transparency, respect for diversity, teamwork, citizenship, concern for sustainability, among others;
- ✓ Objectives - determine what the organization aims to achieve in a given period of time. They can be corporate or departmental;
- ✓ Goals - are fractions of the objective. Each goal quantifies and stipulates how long each objective fraction will be achieved;
- ✓ Strategies - are more appropriate action plans or paths to be executed to achieve a goal. Involve the action plans that will become projects;
- ✓ Indicators - are measures that indicate a trend of what is happening. These are attributes that can be quantified at any given time. They serve to assess whether a particular goal is being achieved.

One of the management tools used to measure the efficiency and effectiveness of the strategies and to verify if the goals and targets are being achieved is the BSC. According to Kaplan and Norton (1997), it is a dynamic visual tool that is translated in a system of measurement and performance evaluation that allows the quantification of critical intangible assets of an organization such as people, information and organizational culture, as shown in Figure 1. In this Figure, it is possible to verify the dynamics between the perspectives, showing the alignment of the intangible assets, with the strategy and the creation of long-term value for the shareholders, so, from the learning and growth dimension , an alignment and preparation of human capital is created for the internal processes perspective, which will be developed with a focus on creating value for the client and, consequently, for the shareholders in the financial perspective.

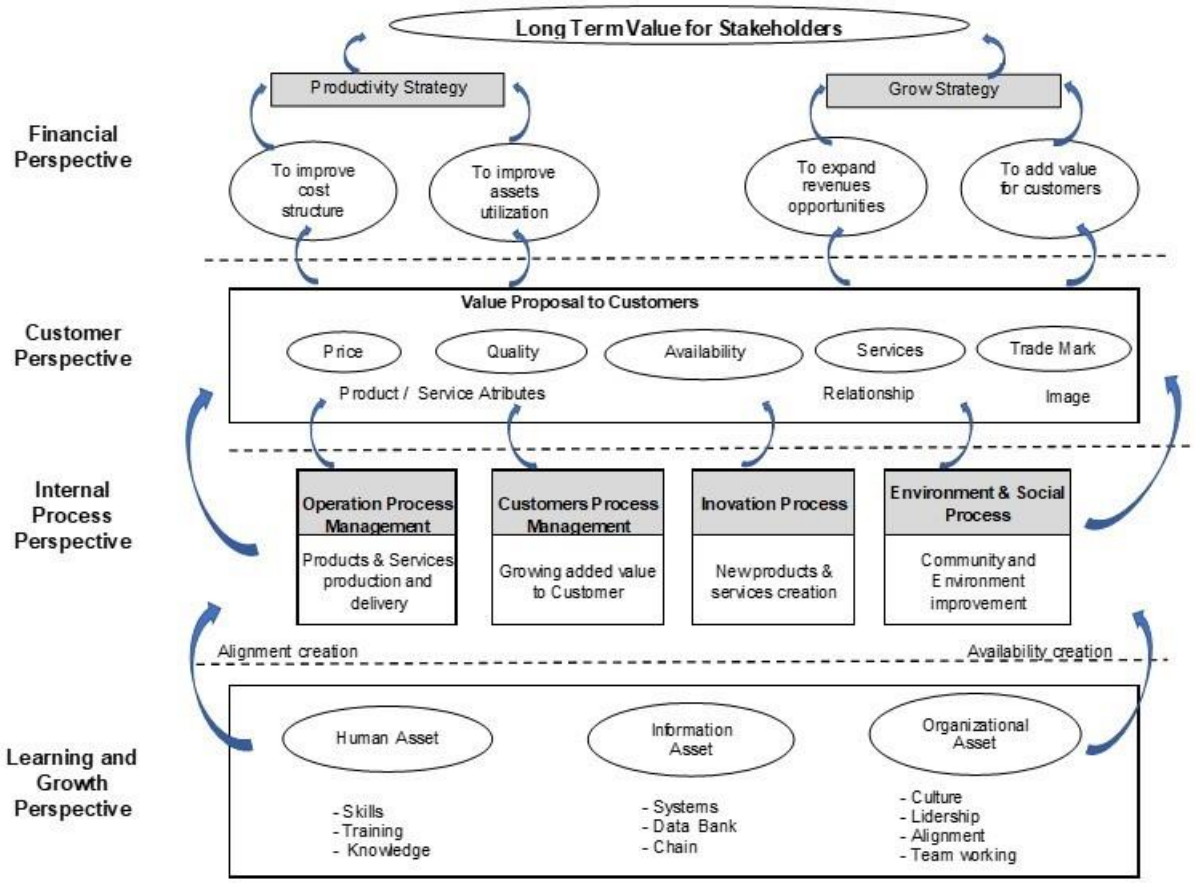

Figure 1. The alignment of intangible assets in value creation
Source: Adapted from Kaplan and Norton (2004, p. 54).

Considering the SBP in the traditional business context, it can be said that it is already widely disseminated, as well as it is possible to identify its components often well integrated within the perspectives of the BSC, thus providing an effective management of the strategic objectives of the BSC. The Figure 2 illustrates an example of such integration describing strategic objectives, action plans or strategies, indicators and targets that are appropriately integrated with the BSC's perspectives.

STRATEGIC PLANNING 2018

PROPOSAL FOCUS (VISION)			
To be recognized as best in class supplier for product "A" at market segment			
STRATEGICS GOALS			
A- Market Development	B- Process Improvement	C- Personel Development	D- Product Development
PERSPECTIVES	ACTIONS	INDICATORS	GOALS
Financial	A1 - To increase annual revenues	A1 - New business acquisition	A1- Revenues growth of 10% per year
	A3- To launch 01 new product at aftermarket segment	A3- Number of offers/ month at aftermarket segment	A3- 4 (four) offers / month
	D1- To reduce the "time to market" for new products development	D1-Effective leadtime in months for new product launch	D1- Reduction from 24 to 18 months
	D2- To develop the product A new application platforms	D2- New applications released and approved	D2- 06 (six) new applications/year
Customers	A2- To increase the engineers visit frequence at customers	A2- Number of visits performed/month / engineer	A2- Minimum 2 (two) visits / week/engineer
	A4- To offer products at export segment through local customers	A4- Number of offers/ month at export market segment	A4- 2 (two) offers / month
	D3- To develop new material spec aiming the parts weight reduction	D3- Quantity of prototypes delivered for customer validation	D3- 02 (two) applications /month
Internal Process	B1- To implement at shopfloor the LEAN concept	B1- Percentage of lines with "lean process"	B1- to reach 75% in 2018
	B2- To review the "supply chain" strategy	B2- Percentage of Customers at condition "ex-works" delivery	B2- to reach 80% in2018
	B3- To reduce the finished parts internal scrap	B3- Monthly scrap level	B3- Maximum 1,5%
	B4- To increase the inventory turns	B4- Number of inventory turns / month	B4- to reach 4 to 6 turns /month
Learning and Growth	C1- To implement the "Lean Manufacturing" trainning at shopfloor	C1- Hours /month of "lean manuf." trainning	C1- 30 (thirty) hours/month
	C2- To apply trainning reinforcement for production management	C2- Hours/month of managment trainning	C2- 20 (twenty) hours/month
	C3- To apply trainning in "costs" for management and operators	C3- Hours/month of "costs" trainning for managers and operators	C3- 20 (twenty) hours/month

Figure 2. Strategic Planning Integrated to the Balanced Scorecard
Source: Prepared by the Authors.

In this example, from an analysis of the internal and external environment and through the construction of a matrix that presents threats and opportunities and strengths and weaknesses, the managers responsible for the elaboration of the SBP can define the following strategic objectives:

- ✓ A. Market Development;
- ✓ B. Process Improvement;
- ✓ C. People Development;
- ✓ D. Product Development.

Based on the established strategic objectives, a set of relevant actions can be determined. For example, the objective of Market Development could be:

- ✓ A1- Increase annual revenues;
- ✓ A2- Increase the number of visits made by product engineers to customers;
- ✓ A3- Launch the product in the aftermarket;
- ✓ A4- Make offers for export through current customers.

The next step would be to classify each stock within the BSC's outlook. In the example in Figure 2, the actions A1 and A3 would be classified within the financial perspective and the actions A2 and A4 next to the customer perspective. In the same way the other actions would be classified according to their pertinence.

From this stage, the determination of the indicators that should guide the measurement and control the progress of the actions towards the strategic objectives begins. Thus, the conduct of the development of the

SBP can be monitored within the context of the four perspectives of the BSC. However, the analyzes concerning the dimensions of sustainability (economic, social and environmental) are not contemplated in the integration of these two concepts.

3. SUSTAINABILITY

From the early days of the Industrial Revolution, the use of nature's resources had already intensified around large settlements, for example cutting forests for the extraction of wood to produce fuel for ovens. By this time, the awareness that the SBP of the consumption of forests was taking a rhythm far greater than its capacity for recovery was born.

Hans Carl von Carlowitz, a forestry specialist and mine inspector in the Freiberg region of Greater Saxony, recorded in his work, Sylvicultura Oekonomica in 1713, what can be considered as the first definition of the concept of sustainability, when he defended the idea that "sustainability literally means continuity, permanence, restoration, consistency in an uninterrupted effect. " At that time, the author coined the rule that the tree consumption should be ins the same quantity that forests can be recovered through replanting or natural growth (Carlowitz, 1713, in Schulze & Schretzmann, 2006).

The humanity continued to evolve engaged in a model of immediate consumerism, pressured by the model of the continuous growth of industries that began to intensify the exploration and transformation of the planet's resources.

In the 1970s, scientific publications about the imbalances caused on the planet as a result of the advance of industrialization (Froelich, 2014) were intensified. At that time, the publication of The Limits of Growth (Meadows et al., 1972), at the request of the Club of Rome (an informal association of entrepreneurs, statesmen, and scientists), already showed the concern of a possible social economic collapse in the 21st century.

The latent need to continue the debate over the planet's resources led the United Nations (UN) to create in 1983 the World Commission on Environment and Development (WCED), chaired by the former Prime Minister of Norway Gro Harlem Brundtland.

The commission aimed to propose new norms of international cooperation that could guide global policies and actions to promote changes in the model of control and conservation of natural resources. In 1987, the commission produced the report called the "Brundtland Report", also known as "Our Common Future", where the term sustainable development was officially presented at WCED, and the consensus was reached for the first time on the most widely accepted version of the definition of sustainable development: "sustainable development is the one that meets the needs of the present without compromising the ability of future generations to meet their own needs" (CMMAD, 1988, p. 46).

Through an environmental impact management, organizations begin to identify the complexity of the concept of sustainable development, where, starting from the observation that any productive activity will generate positive and negative externalities, it induces a new management model based on decisions not only in the economic dimension but also takes into account the social and environmental dimensions (Zylbersztajn, 2010).

Inspired by the content of the Brundtland Report (Wced, 1987), which emphasized the need to include the economic, social and environmental dimensions in business models, as a sine qua non condition of a common planetary strategy for environmental and resource management, capable of stopping, reducing and postponing the bad effects of the changes (Sachs, 1993), the author Elkington (1994) coined the term Triple Bottom Line (TBL) in English, known as 3P, that is, People, Planet and Profit.

At the United Nations Conference on Sustainable Development, held in Rio de Janeiro in 2012, called Rio +20, it was sought to increase coherence in the work of international institutions related to the social, environmental and economic pillars and it was proposed to the international community the (TBL) that is environmentally responsible, socially just and economically viable (Giovannonni & Fabietti, 2014).

It is a new paradigm for organizations that seek to adapt to a sustainable development model, promoting harmonious relations between the economic, social and environmental dimensions, in the long term, able to provide growth and development for the human community, with equity, while at the same time guaranteeing the physical and biological support of the ecological systems (Elkington, 1999).

The Figure 3 illustrates the pillars of the sustainable development where the three dimensions are related in such a way that each interaction between two dimensions results in a viable, fair and livable activity, and of the three, would result in the achievement of sustainability (Oliveira et al. 2012).

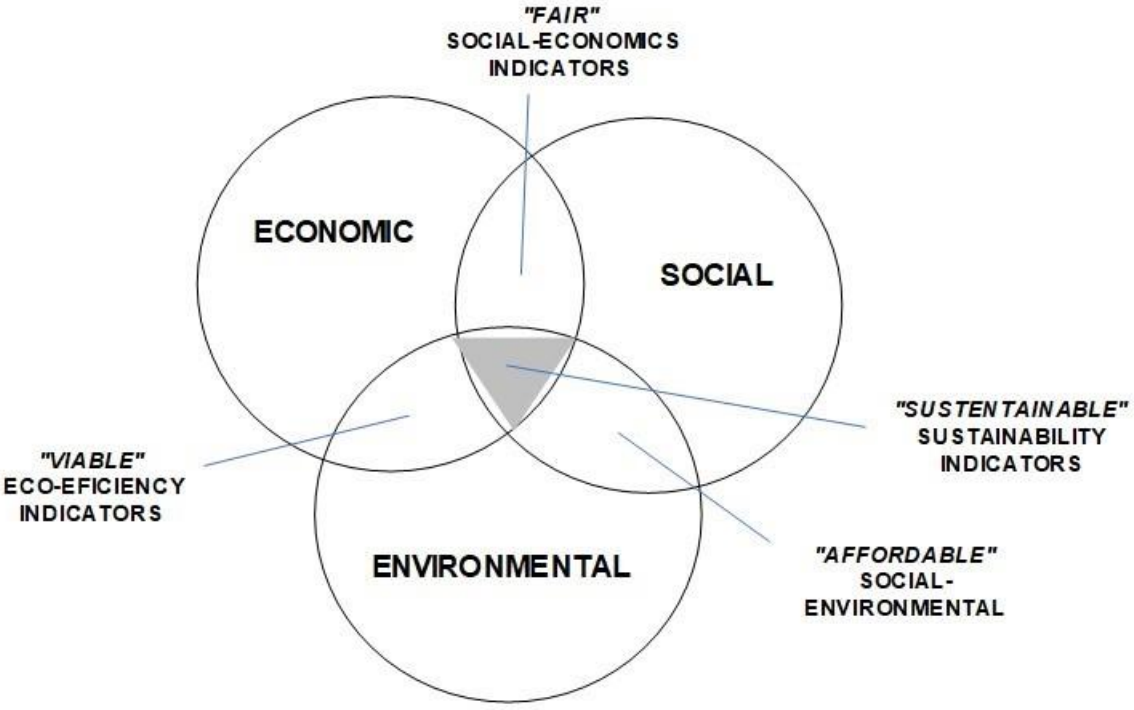

Figure 3. Dimensions of Sustainability and Indicators
Source: Adapted from Caetano et al. (2012, p.29).

The introduction of the concept of sustainable development in organizations using the three dimensions of sustainability is still a major challenge, since the concept of the man-nature relationship still prevails as a synonym for sustainability, leading to a prioritization of the economic-environmental dimensions (Drexhage & Murphy , 2010).

The principle for introducing the TBL concept into the business routine requires management discipline to set its goals and objectives according to each of the dimensions of the sustainability. However, it can also be recognized that the only way to ensure the effective management of these impacts is by measuring them with appropriate indicators that can be inserted into the organizations' SBP.

The performance indicator itself, also called KPI, is defined as a quantitative value measured over time that allows information on attributes and results of a specific process to be acquired with the main objective of clearly showing managers and employees what is expected of them in performing the functions within the organization (Francischini & Francischini, 2017).

According to Batista & Silva (2006) in Will & Briggs (1995), the establishment of a system of indicators is an effective way to provide managers adequate information to demonstrate their performance over time and to allow the preparation of forecasts, monitoring of spatial and temporal variables and fundamental for the decision-making process.

Thus, indicators, just as they are used to measure whether the objectives and goals of the SBP, integrated with the BSC's perspectives, are being achieved, could be used to evaluate the performance of an organization's strategic management in the context of sustainability dimensions.

4. Proposal for Use of Sustainability Performance Indicators

A good place to view how sustainability is being addressed in all its dimensions is through the SBP and its management tools, such as the Balanced Scorecard (BSC). However, as it can be seen in the example in Figure 2, the perspectives of BSC do not reflect the context of the three dimensions of sustainability.

In this sense, the proposal of this work considers the possibility of using the integration of the TBL concept, within the perspective of the BSC without entailing a greater complexity in the operationalization of the objectives and goals of the already established SBP.

As a first step to this integration process, the proposal is to correlate the impacts that each strategic action can represent in each of the dimensions of sustainability (economic, social and environmental) quantitatively, establishing a score for these impacts, as described below:

- ✓ High impact = 300 (the strategic action has a high contribution to a certain dimension of sustainability);
- ✓ Medium impact = 200 (the strategic action has a medium contribution to a certain dimension of sustainability).
- ✓ Low impact = 100 (the strategic action has low contribution to a certain dimension of sustainability).

Considering the difficulty of quantifying these impacts, as there may be a certain subjectivity in the classification of the same for each action, the task of classification between high, medium or low impact could be attributed to a committee of managers, obtaining an average and more comprehensive evaluation, according to the opinions.

Thus, for each of the strategic actions, the simultaneous correlation for each of the three dimensions is made. For example, recalling Figure 2, the "increase billing" action may have a high impact on the economic dimension (300), low impact on the social dimension (100) and a medium impact on the environment (200). In another example, the action "developing new material to reduce product A's weight" can have a high impact on the economic dimension (300) as well as on the environmental dimension (300), supposedly because it is an alternative material that has a high recycling potential, and low impact on the social dimension (100).

In this way, a correlation between the strategic actions and the expected impacts in each of the dimensions of the TBL can be constructed, according to Figure 4, obtaining an initial evaluation of the strategic actions defined in the SBP and integrated in the BSC, regarding their impacts towards sustainability.

This preliminary evaluation allows the manager, after the classification of the level of impact in the dimensions of sustainability, to review its strategic actions and adjust them in a way that it can better impact the dimensions of the TBL, without prejudice to the overall strategy of the organization.

PERSPECTIVES	ACTIONS	IMPACT AT SUSTAINABILITY DIMENSIONS		
		A-Economic	B-Social	C- Environmental
Financial	Action A1	300	300	200
	Action A3	300	200	200
	Action D1	300	200	100
Customers	Action A2	200	200	100
	Action A4	300	200	200
	Action D3	300	200	100
Internal Process	Action B1	200	200	300
	Action B2	300	100	200
	Action B3	300	200	300
Learning and Growth	Action C1	200	300	100
	Action C2	100	300	100
	Action C3	100	300	100

Figure 4. Correlation of the Impacts of the strategic actions in the TBL
Source: Prepared by the authors.

In order to improve the evaluation that is applied in the example of Figure 4, it is further proposed to classify each of the actions according to their scope within the dimensions of sustainability and evaluate how each action acts simultaneously in the three dimensions.

Considering the basics of TBL and its traditional graphical representation presented in the Figure 3, the dimensions have a dynamic interaction with each other and so a given action may be contributing simultaneously to a single dimension, to two dimensions or even to three dimensions as shown in Figure 5. From this graphical representation of the TBL, it can be seen that the actions can generate the following contributions:

- ✓ Single Contribution in each of the dimensions, where it can be agreed as being grade 1 of contribution;
- ✓ Double contribution, which can be agreed as a contribution grade 2. Actions can be measured with socioeconomic indicators, known as "fair"; socio-environmental indicators, known as "liveable" or with eco-efficiency indicators, known as "viable";
- ✓ Triple contribution, being able to be agreed as a contribution grade 3 that represents an indicator of effective sustainability, because its impact contributes simultaneously to each dimension of the TBL. The ideal would be to develop the maximum number of actions that bring this multiple contribution.

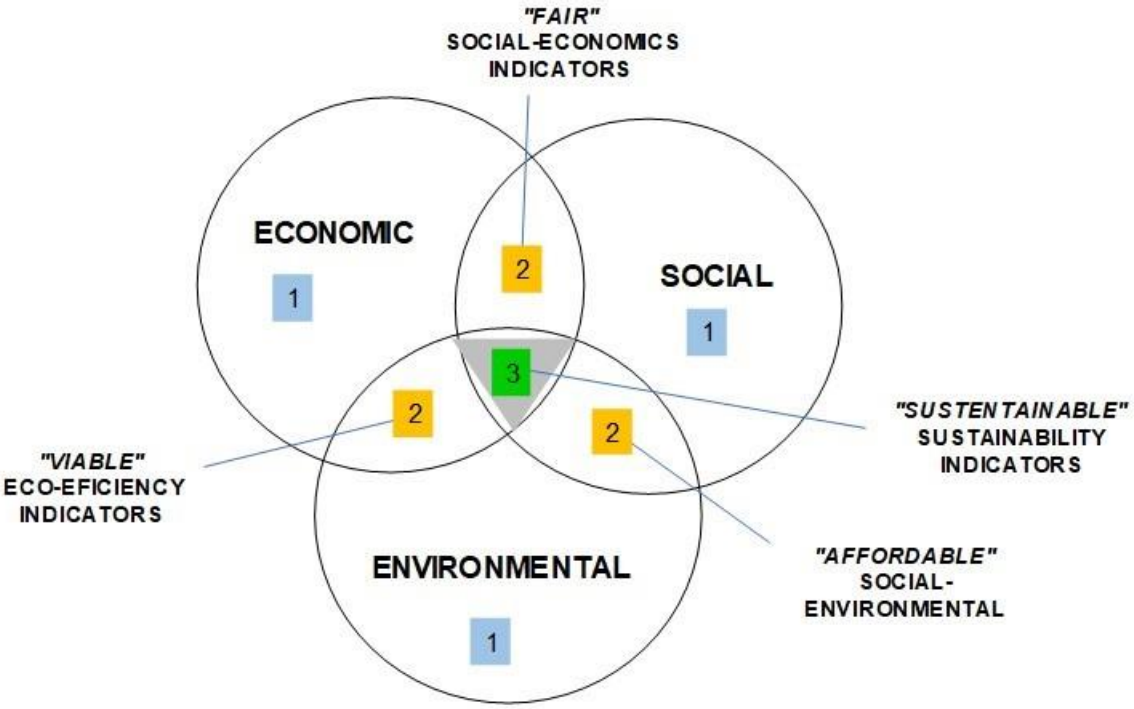

Figure 5. Contribution of actions to the dimensions of sustainability.
Source: Adapted from Caetano et al. (2012, p. 29) and proposed by the authors.

A proposal to simultaneously consider both the effects of the impacts of the strategic actions of the SBP on each of the dimensions of the TBL, and the degree of contribution of these actions simultaneously can be represented by Figure 6.

Through the correlation of the impacts of the actions in the dimensions of sustainability and the degree of contribution, a score can be calculated, which can be considered as an **indicator of sustainability by SBP action**. The formula for the final score of each strategic action can be calculated by multiplying the effects in columns A = Economic, B = Social, C = Environmental and D = Degree of contribution and thus a sustainability indicator per action of the SBP is obtained.

Thus, for action A1, increase annual billing, for example, we will have [A x B x C] x [D] / 10^7 = [300 x 300x 200] x [2] / 10^7 = 3.6 (sustainability indicator of the action A1).

The 10^7 factor is only adopted for the rounding effect of values that are inferior to a dozen and to allow an easy interpretation.

PERSPECTIVES	ACTIONS	IMPACT AT SUSTAINABILITY DIMENSIONS			TRIPLE BOTTOM LINE	Sustainability Indicator by SBP Action
		A-Economic	B-Social	C- Environmental	D-Sustainability Degree	AxBxCxD/ 10^7
Financial	Action A1	300	300	200	2	3,6
	Action A3	300	200	200	2	2,4
	Action D1	300	200	100	1	0,6
Customers	Action A2	200	200	100	1	0,4
	Action A4	300	200	200	2	2,4
	Action D3	300	200	100	1	0,6
Internal Process	Action B1	200	200	300	3	3,6
	Action B2	300	100	200	1	0,6
	Action B3	300	200	300	2	3,6
Learning and Growth	Action C1	200	300	100	2	1,2
	Action C2	100	300	100	1	0,3
	Action C3	100	300	100	1	0,3

Figure 6. Sustainability indicator per SBP action
Source: Prepared by the authors.

In this example, the degree of contribution 2, from action A1, can be attributed considering that the strategic action will have a simultaneous effect on the economic and social dimensions, since with the increase in billing there will also be an increase in the number of direct employees for the manufacture of the product. Regarding the environmental contribution, this strategic action does not have a scope that foresees the reduction of impacts to the environment, such as the consumption of resources such as water, fuels and energy.

In this way, the achieved score for action A1, can be interpreted as an indicator of sustainability for the strategic action of increasing the billing.

Applying this same procedure to action D3, Developing new material to reduce product A's weight, for example, there is a grade 1 contribution rating. This classification can be attributed taking into consideration that the strategic action will have a specific effect only in the economic dimension, resulting from the optimization of the product weight, which can make it more competitive and will provide greater market share. This action is not expected to have a contribution effect in the social and environmental dimensions, where it is expected, for example, only the maintenance of the number of employees, using the engineering resources already available for the development of the new material, as well as the organizational structure production. Likewise, the requirements for environmental impact control will be maintained for the application of the new material.

Thus, for the action D3 there is [A x B x C] x [D] / 10^7 = [300 x 200x 100] x [1] / 10^7 = 0.6 (D3 action sustainability indicator).

Analyzing the sustainability indicators of each SBP action, it can be observed that the higher the nominal value of the SBP, the more adequate the levels of sustainability that the organization is achieving per share.

In a condition of maximum contribution of an action of SBP, where its impacts on the dimensions of sustainability and the degree of contribution are maximum, we would then have [A x B x C] x [D] / 10^7 = [300 x 300x 300] x [3] / 10^7 = 8.1 (maximum sustainability indicator of a SBP action).

This action could for example be focused on a condition in which the organization will acquire new business contracts and to develop a manufacturing production line within a lean manufacturing concept

where we would have a maximization of the production efficiency, smaller index of waste and investments in the treatment of waste and reduction of the raw material consumption. In this way, the economic dimension would be privileged with the increase of billing and financial results, the social dimension would be contemplated with the hiring of specialized and properly trained labor in a new concept of manufacture and the environmental dimension would be properly considered through the waste treatment activities and environmental impacts, by reducing the material consumption. As to the degree of contribution of this action within the TBL as a whole, it is perceived that it has a scope in the three dimensions simultaneously. Through the individual analysis of each SBP action on its impacts in each dimension, as well as its degree of contribution within the TBL, it gives managers an understanding of how actions can contribute to the sustainability of the organization as a whole, allowing them to be reformulated in order to obtain a better sustainability indicator during the preparation of the SBP.

In addition to this analysis, it is also possible to promote a general qualitative and quantitative evaluation of all actions within each of the dimensions of sustainability, proposing the creation of a General Impact Indicator by perspective of the BSC and by dimension of sustainability**.**

The objective is to verify what impacts are being generated within each of the dimensions of the TBL and the perspectives of the BSC. It is therefore a vertical analysis of the impacts in each of the dimensions, covering all perspectives simultaneously, as shown in Figure 7.

		IMPACT AT SUSTAINABILITY DIMENSIONS			TRIPLE BOTTOM LINE	Sustainability Indicator by SBP Action
PERSPECTIVES	ACTIONS	A-Economic	B-Social	C- Environmental	D-Sustainability Degree	AxBxCxD/ 10^7
Financial	Action A1	300	300	200	2	3,6
	Action A3	300	200	200	2	2,4
	Action D1	300	200	100	1	0,6
		300	**233**	**167**		
Customers	Action A2	200	200	100	1	0,4
	Action A4	300	200	200	2	2,4
	Action D3	300	200	100	1	0,6
		267	**200**	**133**		
Internal Process	Action B1	200	200	300	3	3,6
	Action B2	300	100	200	1	0,6
	Action B3	300	200	300	2	3,6
		267	**167**	**267**		
Learning and Growth	Action C1	200	300	100	2	1,2
	Action C2	100	300	100	1	0,3
	Action C3	100	300	100	1	0,3
		133	**300**	**100**		
General Impact Indicator		**242**	**225**	**167**		
		ECONOMIC	SOCIAL	ENVIRONMENTAL		

Figure 7. Overall impact indicator by BSC perspective and by sustainability dimension
Source: Prepared by the authors.

In order to calculate the indicator, it is done the simple arithmetic mean of the values attributed to the

impacts of the actions within each of the dimensions and perspectives, creating the general impact indicator by perspective of BSC and by dimension of sustainability.

In the example of Figure 7, for the environmental dimension, the financial perspective is = Σ (200 + 200 + 100) / 3 = 167, in comparison with the other dimensions, SBP actions from a financial perspective promote a LOW impact on the environmental dimension, contributing just a little to the environment; from the customer perspective = Σ (100 + 200 + 100) / 3 = 133, the SBP actions from the clients perspective also promote a LOW impact on the environmental dimension; within the perspective of internal processes = Σ (300 + 200 + 300) / 3 = 267, the actions of the SBP in the internal processes perspective promote a MEDIUM impact on the environmental dimension; within the learning and growth perspective = Σ (100 + 100 + 100) / 3 = 100, the actions of the SBP also promote a LOW impact on the environment dimension.

From these analyzes for each of the perspectives, it is possible to determine a general impact indicator that is calculated by the arithmetic mean of the simultaneous impacts within each dimension and between all the perspectives. For example, for the environmental dimension = Σ (167 + 133 + 267 + 100) / 4 = 167, as also shown in Figure 7.

From a general analysis, it can be stated in this example that the environmental dimension is the least favored in comparison with the other dimensions. In addition, it can also be said that the economic dimension, in the general evaluation, is being the most favored. From this analysis, the actions of the SBP could be reassessed, aiming to achieve a balance in the three dimensions of sustainability and perspectives of the BSC.

The analysis of the proposed indicators, the Sustainability Indicator by action of the SBP and the General Impact Indicator by the perspective of the BSC and by the sustainability dimension, the possible correction of actions and the comparisons between several periods of elaboration of the SBP can provide a performance evaluation of the sustainability of the organization.

This proposal therefore allows an organization to make a prior assessment of the sustainability indicators during the preparation of the SBP and its revisions, as well as allowing the use of these results as indicators of sustainability performance at the end of each period, the company's commitment to sustainable practices.

5. Conclusions

This study developed a proposal for a business management strategy, supported by the BSC, presenting sustainability performance indicators in the economic, social and environmental dimensions, which allows managers to elaborate the SBP and assess whether the organization is achieving adequate levels of sustainability.

It is noticed that through the proposal presented, any organization that is willing to structure its SBP, can obtain a measurement that guides, in a qualitative-quantitative way how much the company is operating in a sustainable way. In this way, managers will be able to evaluate the impacts and contributions of the actions within each of the BSC's perspectives, thus promoting a direction of the efforts in the pursuit of objectives and goals, at the moment that the SBP is being elaborated, making modifications, aiming at not a particular dimension of the sustainability.

The continuous practice of analysis of the sustainability indicators by action of the SBP and of general impact will promote a history of the evolution of these indicators, and will be able to measure the sustainability performance of the organization in the exercise of its activities.

Given the need to create sustainable practices within the business environment, the adoption of sustainability indicators will allow a more assertive management of changes in the organizational behavior in the consumption of natural resources, in the generation of impacts on the environment, in the concern

with social issues, to the detriment of economic issues, as well as serve as an element to create the annual corporate sustainability report in the three dimensions of sustainability.
The proposal also allows the organization to create a competitive differential in the segment in which it operates, publishing its sustainability performance indicators for customers, stakeholders and the community in general.

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