

THE BSC IMPLANTING PROCESS IN A NUCLEAR RESEARCH CENTER IN BRAZIL

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ABSTRACT

The dynamics of the economical development founded due to the markets globalization and also to the increasing of the competition based on innovation, whose leadership belongs to the richest countries, presses for changes and moves the national and regional innovating systems.

In a world of constant change, getting along with the external changes became one of the most relevant factors of the organizational success. Knowing and interpreting the external reality; monitoring the transformations; finding the opportunities and being able to answer fast and adequately; neutralize or minimize the threats: these and other abilities are constantly done by the most successful organizations, as part of a structured and conscious process focused on results .

The technological research institutes were created in order to support the industries in their effort to overcome the competition by innovating. It is related, in last instance, to be an integrating part of the national or local innovating system, essential to the economical development and also to the improvement of life quality. However, they are put in this mutation atmosphere and fight for adapting to the new premises of the organizational success in order to have their mission fulfilled.

In this context, the Development Center for Nuclear Technology – CDTN, makes an effort to adequate its strategically planning, by introducing and adapting the best administrating practices known nowadays. Among them, the *Balanced Scorecard* – BSC. This paper presents a brief form of each elaborating form of the strategic planning and also of the BSC implantation, it also clears up the level achieved by the organization and discusses the difficulties it faced.

1 INTRODUCTION

In the 90's, the public research and development institutions have being pressured by the government and also for the society in order to justify with results the governmental resources invested in them. It is necessary that they transfer the research results to a productive environment. Due to this, they are fulfilling their institutional missions, playing the role that belongs to them in the economical and social development of the country.

Then, the institutions have been structured for obtaining the expected results in the scientific and technological fields. There is a concern about having a strategical management focused on results. Another factor related to the change of posture of the governmental institutions was to learn how to deal with the constant changes of the external environment that became a relevant critical factor of success. This has led such organizations to the strategical planning and also to the use of managing models that aim at a better performance, achieving success and fulfillment of their mission. Nowadays, their standards of success are very close to the ones that the companies had in the past.

The present text describes the experience of a public research and development institution – Nuclear Technology Development Centre (CDTN), that searches for a better way to face these questions. The methodology of its planning and the planning of measuring the institutional performance are presented.

2 THEORY

The change is a constant aspect in the environment of the organizations and dealing with it became one of the most relevant factors of the organizational success. Such success is related to the capacity of knowing and interpreting the external reality and also of monitoring the changes. Finding the opportunities, being able to answer fast and adequately and evaluating the threats and difficulties aiming at neutralizing them. It is not possible anymore to manage an organization without a consistent and dynamic planning of its activities modifying the attempts of right and wrong for a structured way of managing the institution and having better results of its actions.

The planning is the initial function of the administration. Before executing any administrative function, the administration needs to plan, that is, to determine the institution objectives and the necessary means to achieve them properly, [1].

According to the author's point of view, the planning process leads to important definitions: mission, view and organizational objectives. The mission means the reason of its existence; it is the OBJECTIVE OR REASON for which the organization was created and what it should offer. The mission is supposed to answer three basic questions: who are we? What do we do? And why we are doing what we are doing? The mission involves the essential objectives of the business and focuses out of the organizational environment in order to supply the demands of the society, of the market or of the client. Only from this precise definition of the institutional mission, it is possible to decide where to go and the best way to follow.

According to Schermerhorn [2], planning is the process to establish objectives and determine what need to be done to achieve them. It means, deciding previously what, where and how to do it. The advantages of planning are: it allows to increase the convergence point of the efforts and the organizations become more flexible to the adaptations and adjustments according to the needs of the process. A very well focused organization knows what it does better, its weak points and is aware of the necessities of the clients and knows exactly how to satisfy them. If the organization has flexibility, it operates in a dynamic way, thinking about the future. It is fast and agile, it comes before emergent changes and takes advantages of the opportunities; helps the administrator in the management for being guided by results, priorities advantages and changes.

The organizations must be effective because effectiveness leads to growth [3]. But, keeping the growth process requires organizational efficiency and planning helps the management process to grow. It also improves the control, involves measuring and evaluating the results performance and correction of any action in order to improve the process, if necessary [4]. Surviving in the information era is conditioned to the utilization of the systems of performance measure, which derived from the strategies and of the systematic following of the results indicators. The planning makes it possible and progress, in relation to the fulfillment of the objectives, can be easily measured by the performance indicators.

In the 50's, strategic planning appeared as a technique structured when the companies began concerning about the external environment. The first attempts resulted in hard planning's. *"The first step in the evolution of the strategic management was given in the end of 50's, when the companies created a systematic approach to decide where and how they would operate in the future"* [5].

In the 60`s and 80`s, the strategic planning was characterized by “*top-down*” approach where only the high staff used to think about the objectives of the organization and also ways to make to execute them . In the 90`s, began the process to involve the whole managing with crescent autonomy in the decisions of the tactic and operational levels.

Nowadays, the strategic planning is still responsibility of the high managing members, but should involve the whole organization. It is composed of long term guiding focusing on the future of the organization by an environmental mapping, where opportunities and threats are present and their strength and limitations evaluated .The strategic planning is related to three parameters: knowledge, future vision and external environmental factors and internal organizational factors. In the intermediate level, the tactical planning transforms the translation and interpretation of the strategic decisions into concrete plans, according to hierarchic level. Finally, in the operational level, the plans for each task are established, it is where it is definite “what” to do and “how to do” it. As it is inserted in the logic of a closed system, operational planning is focused on the optimization and maximization of the results, while tactic planning is focused on the searching for satisfactory results.

3 PLANNING EXPERIENCE IN A RESEARCH INSTITUTE

The Nuclear Technology Development Center –CDTN is a research institute that belongs to the Nuclear Energy National Commission - CNEN, a federal autarchy linked to the Ministry of Science and Technology– MCT.

In the review of the strategic planning of CDTN, where it was considered the horizon of PPA 2004-2007 of the Federal Government, it was noticed that the guidelines, the objectives and institutional goals were well structured and defined when they referred to the plans related to the improvement of the management. It did not happen with the P&D projects, that were not lined to the global guidelines of the institution and did not necessarily contemplate the defined goals, in a way that it was possible for the Direction to follow and evaluate the results. The projects that were being developed were many, considering the work force and the laboratorial infra-structure, and there was no adequacy of the financial resources to the necessities

Aiming at correcting the hierarchical question and adequating the number of projects to the reality of the financial resources of personnel and infra-structure it was created a participative way of the planning of the action plans of the areas of the institution competence (nuclear technology, nuclear safety, environment, materials and health) and a coordinator of the projects became official. The adopted premise was that a deeper dedication of the researches and technologists would make possible a deep analysis of the environment and a better definition of the general objectives. I was decided to implant in the organizational environment, “Câmaras Temáticas de Assessoramento”, that were in charge of elaborating the analysis of the internal and external environments and propose objectives and themes for the researches, for which projects of scientific and technological development were presented. These had priority, according to the methodology based on the lining of the research activities with institutional mission and objectives by means of criteria related to the capacity and institutional interest [6].

In 2005, it was developed a methodology to review the strategic planning of CDTN which is shown in the scheme shown in Figure 1.

The first step was to think again about the mission due to the new reality that involves the organization. In fact, it was necessary a new writing that expressed the present reality of the organization. It also caused a change in the view. The next step was a reflection about the scenarios that are related to the organization and were extended to the international and national scenarios which involves CNEN and the internal to CDTN.

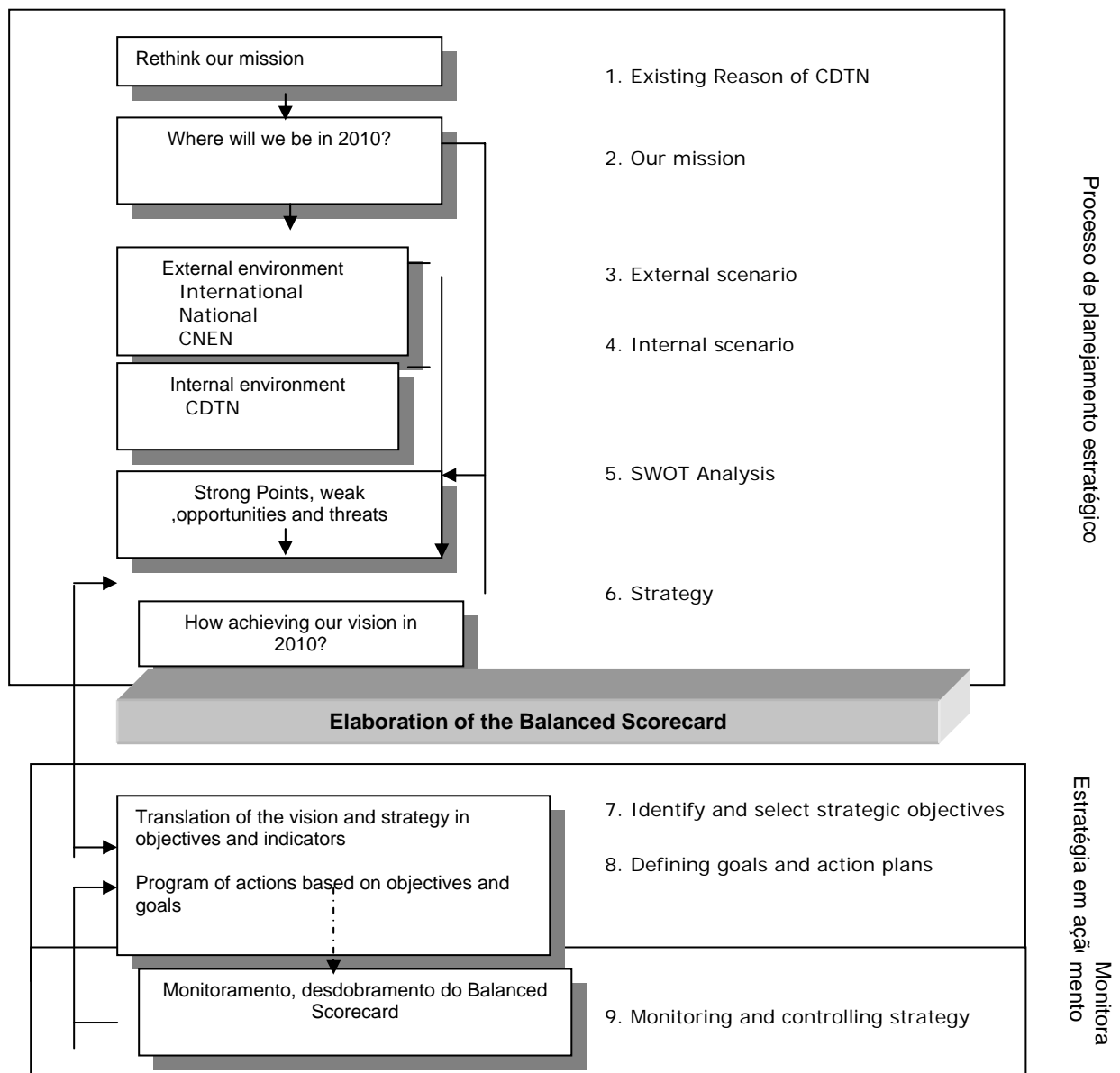


Figure 1- Steps of the strategic planning at CDTN

Based on the scenarios, it was elaborated a SWOT matrix and of the crossing of its 4 dimensions it was defined the strategies to achieve the vision of 2010. Next, it was worked in the Balanced Scorecard and the process was concluded by elaborating the action plan and the accompaniment of executing the goals.

Council of Strategic Administration - CGE, the high managing staff of the centre headed the review of the strategic planning, with weekly meetings of four hours each (100 work hours). The new vision was defined as: “Generate and divulge knowledge, make available products and service focusing on the society benefit by research and development on the nuclear and correlated areas”. The vision was analyzed again and adjusted for 2010 and answers to the following question: Where do we want to be in 2010? The agreement of the high direction was for the following vision: “Conquering the recognition of the society by an effective contribution to regional and national development”.

At the same way, the values were reviewed and defined as: ethical behavior, competence and updated technique, compromise with the society, the institution and with safety. All this information and also the analyses is the basis on which the strategy of the Center will support in order to be stronger, grow and give more and better results to the society. Finished this activity, it was worked the Balanced Scorecard, transforming the vision in possible acts to be fulfilled in 2010. In Figure 2, it is presented in panel board of the Center.

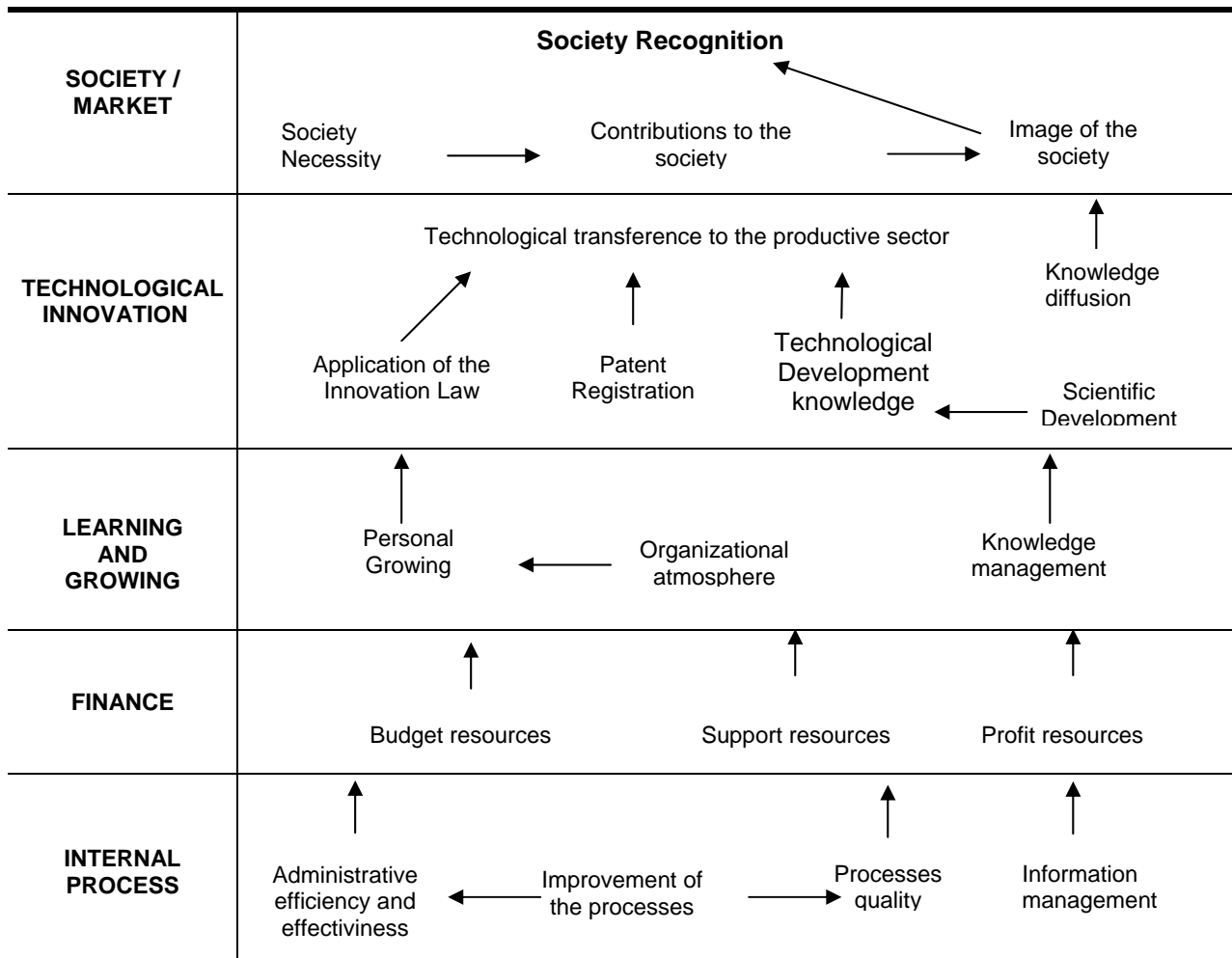


Figure 2 – Board panel of the research Center

Strategical guidelines were defined for the five perspectives, the strategical objectives and the critical factors of success. For each strategical objective, goals were defined at a short period of time and the indicators (drivers and outcomes). In the end of each exercise it is done a seminar allows CGE to do a critical evaluation of the institutional performance.

4 CONCLUSIONS

In the last decades, the public research institutions have tried to answer positively to the new challenges that they were submitted to, of an effective participation in the systems of regional and/or national development.

The utilization of modern management techniques focused on management for results has been one of the inducing factors of the institutional success in this work.

CDTN obtained a qualitative performance in its management perseverance by adopting a planning methodology, control and evaluation of its activities. The perseverance and adequacy of such practices, could guide the Centre to a continuous growth and, consequently, to the fulfillment of the institutional mission helping the economic and social development of Brazil.

The Council of Strategic Administration, that represents the high management of the Center dedicated most part its time to elaborate the strategic planning. A new experience was acquired by the SWOT matrix using and the balanced scorecard methodology, which until now was new for the administration staff. It obliged the institution to make systematic following of the plans, what resulted in the search of software just for this purpose. The Centre developed its own program called PAA – Action Plan and Attendance. The PPA synthesizes the objectives and the goals with a determined time to be fulfilled.

The initiative amazed some employees who were not used to be checked and asked for results. But at the same time, it was an advance for obtain results. There is a guiding of the actions. The financial resources were distributed in a better way. Even the personal evaluation had benefits.

Another benefit that the strategic planning brought was the initiative of a transparent management of all interested people, employees, suppliers, clients, and society, once it is exposed in the public management board, located in the *hall*, where most part of the people circulate, all the goals and its results, in short, all the strategic planning , costs, etc.

The results indicators and the trend make stronger the path to reach the results, once corrections can be done when necessary. Finally, the cycle PDCA happens in four annual stops in order to certify if the path is correct.

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