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# Scientific Innovation to the Institutional Development: A study of Case at Federal Institute of Education, Science and Technology of Acre (IFAC), Brazil

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#### Abstract

The strategic planning of educational institutions has been researched empirically, although the complexity of these organizations constitute of a privileged object of research of the processes of formulating strategic plans. This study took place at the Federal Institute of Education, Science and Technology of the State of Acre in the Brazilian Amazon, to answer: How the Institutional Development Plan (IDP) can contribute to the effectiveness in the fulfillment of institutional responsibilities? The overall objective is to demonstrate the contribution that the Institutional Development Plan can bring to an educational institution, in order to contribute to the success and minimize the risk of failure. As a result, it proves that it is possible to leverage the institutional development, through scientific innovation made on community consensus, supported in strategic planning, through systematic control (1); The scientific innovation in consensus with the democratic participation of society as tools to support the strategic planning does not represent efficient method to leverage institutional development, and their applicability becomes inadequate and difficult (2). The plan is an articulator mechanism of public policies, allowing seeing the commitment of internal and external stakeholders around the Strategic Planning (3). This task may be useful in developing plans for innovation and modernization of decision-making processes in a public institution of education.

#### 1. Introduction

The current economic scenario shows increasingly demanding markets and fierce commercial rivalry, which makes it vital to organizations using management tools and techniques that can assist in the decision making process. The Strategic Plan, which became the focus of attention of top management of companies, turns to positive measures that can be taken by a company to face better the threats and seize the opportunities found in their environment.

It is known that, as a set of functions, public organization enters into an environment in which it interacts with various agents. These relationships do not end in the monetary field, in which the State acts as a collector and as an economic agent, extending through regulations and rules, which even define the forms of relationships. Therefore, the finding of public need to be satisfied through social production to be held by the State leads to quantify the resources required to be obtained for quality in the administration of public services.

In this context, it will be defined the characteristics of strategic sources and their subjects, and how they can be a differential when inserted in the IDP, thus creating more opportunities for educational enhancement, resulting in the development of the State in several axes, encouraging expansion of job offers.

#### 2. Methodology

In academy, the observation of the complexity of relationships, their peculiarities and contradictions, has encouraged researchers to opt for adoption of new prospective of visualization of how these arrangements are expressed in space and time. One of these options is related to the adoption of Qualitative Method, as an analytical category of observation of phenomena; it is how it operates in this work, following the recommendations of Vergara [1]. Concerning to the objectives, this task follows a descriptive character, since aimed to describe how Institutional Development Plan (IDP) can contribute to the



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effectiveness in the fulfillment of institutional responsibilities. In addition, as to the means, the research is characterized as bibliographic, field, in the form of Case Studies.

#### 3. Theoretical and Conceptual Review

The research is supported by *Theory U*, whose purpose is to present a social theory of transformative change that will help leaders to confront their challenges. In this sense, Scharmer [2] states that a theory is a method of management of changing aimed at leadership as a process of social innovation and knowledge, developed all around the world, the *Theory* in the context of comprehensive points: executives of corporations and their managers, politicians and public servers and civil activists and revolutionaries, scientists and intellectuals.

According to Sarkissian [3] the essence of Theory U is to present a profound opening of the heart and mind in order to generate a future marked by actions of the present rather than past patterns, thus, the future is accessible today and built from the present. Senge et al. [4] characterized the Theory U as a sequence of actions ranging from feeling the situation, seeking to observe the different aspects that may influence the changes in the organizational context; in witness, allowing to reflect on the issues bringing up the inner knowing and ultimately achieve, act to bring something new to the reality, within the concept of organizational learning, where the rational mind is not the deeper source.

The use of the Institutional Development Plan by Educational Institutions in Brazil, can be considered a novelty, which is being applied only a short time, considering that higher education in Brazil, with the creation of the first universities, completed in the same period about a century. In this context, the IDP still crawls in the reality of Brazilian education, its origin, according to Brazil [5], is the National Guidelines and Framework Law (Lei de Diretrizes e Bases da Educação – LDB).

#### 4. Results

The autarchy studied in this assignment has being acting in the State of Acre located in the Southeast Amazon. According to data collected from IBGE [6], this Brazilian state has a national border with the states of Amazonas and Rondônia; it has international border with Bolivia and Peru, two Andean countries. Its territory has an area and approximately 165 thousand square kilometers, with a territorial organization characterized by five regions. Thus, the IDP should represent the commitment of IFAC, in offering a professional and public education, free, with social and technological quality at all levels and modalities, contributing to the scientific, technological and socio-cultural development of the state, region and country without losing sight of its inclusive and sustainable nature.

In this sense, the plan should start from a conception of planning as an ongoing process of reflection and action. Planning has functions to base decisions, streamline processes and use of resources, and help the institutional actions along the time.

#### 4.1 Survey of aspects of the Institutional Development Plan for Innovation at IFAC

As teaches Segenreich [7], the proposal of construction of IDP, at first, it is done as part of the process of planning of the proposed work process. It is necessary to analyze the trajectory of the Institution, in terms of experiments already performed in the institutional planning or in the legal plan proposal. It is considered that the definition of strategic plans at the institutional level, as the Ministry of Education (MEC), through specific legislation, has required it is not an entirely new system, for many educational institutions. However, for IFAC, which is in implementation phase, it is a new theme for the Academy community.

The PDI has its roots in two assignments defined by the National Guidelines and Framework Law (Lei de Diretrizes e Bases da Educação – LDB) which is the responsibility of MEC, it is the accreditation and institutional evaluation. As in many other aspects, the law enunciated these tasks leaving its details for further regulation. In this sense, the approach of Theory U overtakes the traditional analytical thinking and scientific problem solving models from the past, of historical, simulations, diagnostics, "brainstorming" and the creation of future



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scenarios of how we know today, and introduces us in the creation of the new from the emerging future, which is present in the field where the activities take place.

According Brazil [8], the construction of the IDP can be done freely, so that the institution can exercise its creativity and freedom, in its elaboration process. However, the thematic axes contained in the legislation must be present, once they will be taken as reference by the organs of control, evaluation and supervision.

# 4.2 Mapping of strategic sources of information to be included in the IDP for innovation of IFAC

And it is this source that Theory U point seeks to explore as suggested Scharmer [2]. So, *Presencing* is the vision of our deepest source, that is, it is to feel and operate from the highest future potential of someone. It is the state that we experience when we open not only our minds, but also our hearts and our wills, our impetus to act in order to deal with what is emerging around us as the new realities.

In this sense, all steps of this movement are extremely important, but it is in the base of the U, which is the central point of this movement and the theory as a whole. In this point is that the *Presencing*, a combination of feeling with the presence, and that means connecting with the source of future highest possibility and bring it for now. Thus, mapping the strategic sources of information to be included in the IDP, the Statement of Goals and Commitments Agreement were identified; Government Plan of Acre State; Economic and Social Indicators; Civil Society and Management Report.

In this context, all axes and courses, research and extension should be defined as the study of strategic sources of information described in this subsection, performing a specialized care according to the needs of each regional state of Acre. Thus, Acre society will benefit from a range of opportunities in Education, Science and Technology making possible the professional qualification from an interactive practice with the reality of the place.

#### 4.3 Analysis on the scientific innovation as a Development tool of IFAC study.

The operational analysis of this task starts with the symbolic letter U, with upward movements on right side of the U. The first of them is the *Let Come*, which corresponds to acceptance of the new beginning to be observed after passing through the base of the U. The bottom of the U letter is a space for reflection – there, individuals already have more knowledge about themselves and the environment, and now they have the opportunity to understand the current situation and initiate a process of innovation, which is the rise in U. in this part, all new ideas are put into practice, which does not means "the end", since the process can start again or the steps to be revised, if necessary.

The second is the upward movement of put into practice, i.e., crystallize the vision and the intent and glimpse the future that wants to emerge. The following is the Embody, which suggests putting into practice the construction of a prototype of fast-cycle in order to achieve and demonstrate the future we want to materialize. Finally, the movement of the U concludes with the Perform, which corresponds to the development and institutionalization of the new reality in the context in which it operates.

In Accordance with Hernández et. al. [9], an innovation in the teaching system departs from the internal needs of the teaching staff, it does not come from administrative or institutional commands, supporting the view that the entrepreneur is not the only driving force for innovation. Innovation in educational system is conceived as it seeks to provide answers to concerns from a practice that does not meet the expectations of teachers and students.

#### 5. Conclusion

Meeting the overall objective to show the contribution that the Institutional Development Plan can bring to an educational institution, in order to contribute to the success and minimize the risk of failure, after answered the specific objectives, supported by the document analysis



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and interviews, it is concluded that the IDP as a strategic planning tool, and it can contribute to the management of Educational Institution.

When available to members of the academic community, who participated in the drafting and implementation of the planning process, from this knowledge allows perspectives to draft perspectives to the institution, focusing on desired future by the internal and external community.

Strategic planning can bring numerous benefits to the Public Administration, among them: assistance in the effective use of resources; enables a better positioning of the locality, state or country, with the creation or use of opportunities; fosters collaboration between the private and public sectors; and acts in a short term.

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