

## **STRATEGIC PLANNING AS A TOOL FOR INSTITUTIONAL ALIGNMENT: NOTES OF THE IMPLEMENTATION PROCESS OF A FEDERAL INSTITUTE OF PROFESSIONAL, SCIENTIFIC, AND TECHNOLOGICAL EDUCATION**

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### **ABSTRACT**

This article aims to contribute to better practices in using the Strategic Planning tool, through the analysis of the potential and difficulties identified by the Managers, on the strategic planning tool, and the development and implementation of the tool at the Instituto Federal Catarinense. The survey took place through a structured questionnaire, applied to IFC Managers, from October 6th to 25th, 2019. In the survey results, referring to the strategic planning tool, the identified potentialities were the principle of continuity of processes; change in innovation processes; and clarity in the development of strategic planning stages. The identified difficulties were resistance to process change; follow-up/monitoring of the achievement of objectives; and amount of information needed to use and monitor the tool. Regarding the development and implementation of strategic planning, the identified potentials were the use of data as a basis/aid for the development of other documents and/or actions; institutional alignment; and involvement of the institution's managers. The identified difficulties were the number of actors involved in the implementation process; follow-up/monitoring in achieving goals; and knowledge of the tool by managers. Among the contributions to best practices in future strategic planning implementations, the following stand out: the need for prior verification of data and information about the Institution; diagnosis of the knowledge of the Managers about the strategic planning tool and the adequate training for the Institution's reality; presentation of the proposal to the Managers and identification of the actors who will take part and contribute to the strategic planning process, clarifying each step of the process; use of technology in the control process, optimizing data and information systematization; and everyone's engagement. **Keywords:** Planning. Strategic planning. Federal Institute. Public administration.

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## 1 INTRODUCTION

Public and private organizations are constantly challenged to keep up to date with technological innovations, process improvements, and the identification of new needs. For the management of organizations, these adaptations or changes can occur through the rethinking of processes, the implementation of management tools, or the search for efficient practices in light of organizational objectives.

A management tool, known and applied in the private sector, is strategic planning, which is progressively growing in the public sector, mainly due to the demand from society for a quality service provision (Silveira & Lunkes, 2018).

This quality, better, the effectiveness is also required in Public Education Institutions and, as strategic planning is not restricted to one type of organization, having the flexibility of use and being capable of adaptations, it presents itself as an option for the area of Education (Barcellos & Cassanego, 2018; George, 2020; Silveira & Lunkes, 2018).

The Federal Institutes, in addition to complying with the principles of legality, impersonality, morality, publicity, and efficiency, strive to seek best practices and their sharing, as a way/means to expand and contribute to discussions and respective experiences. And yet, committed to the concerns of Society and charged with defining efficient practices, with transparency and focus on the process and results, the Federal Institutes have been constantly engaged in using tools, known, and used in the private sector and by public bodies, in its institutional planning and respective consequences, which meet the specificities of Educational Institutions and assist in their Management.

The Federal Institutes, members of the Federal Network of Professional, Scientific and Technological Education, have as their references the educational policies and guidelines of the Ministry of Education, and act as promoters of programs, projects, and actions, committed to "Local Productive Arrangements" (APLs), and, with social and cultural arrangements. The Federal Institutes, meeting the INEP/SERES requirement, use institutional planning - PDI and seek to develop their middle activities, in the fulfillment of their core activities, through the articulation between Teaching, Research, and Extension, allied to the production of Science and Innovation Technological.

The PDI is a mandatory document for Higher Education Institutions and a necessary item for the IES accreditation process. Decree n°. 9.235, of December 15, 2017, deals with the exercise of functions of regulation, supervision, and assessment of higher education institutions and higher undergraduate and graduate courses in the federal education system (Magro & Rausch, 2019).

Art. 21, of the same Decree, presents the minimum elements that the PDI must have, requesting, in item I: "mission, objectives, and goals of the institution in its area of operation and its history of implementation and development, if applicable;", items that are part of the construction of strategic planning (Decree n°. 9.235, 2017).

According to the National Education Development Fund, "Strategic Planning is the process of analyzing the organization from various angles, defining its directions through a direction that can be monitored in its concrete actions by the 'strategic plan'" (FNDE, nd).

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As strategic planning examines the present situation of an organization, and, with the knowledge acquired, it is possible to draw strategies for the desired future; it is plausible to say that strategic planning contributes to the best management practices.

In this article, we sought to answer the question: what contributions can be presented for future implementations of strategic planning in Federal Institutes?

Answering this question, the potential and difficulties identified by the Managers were analyzed regarding the strategic planning tool and the development and implementation of the tool at the Instituto Federal Catarinense.

This research is relevant because it presents contributions to better practices in the future implementations of strategic planning in Federal Institutes, reflecting in the improvement and assistance of Management, in the efficient use of resources, and in the perception's improvement of the effectiveness of the services provided.

This article is structured in sections: Introduction; Theoretical framework, with concepts on planning, strategic planning, and the emergence of federal institutes; Methodology; Data analysis; Final Remarks and references.

## 2 THEORETICAL FRAMEWORK

### 2.1 Planning

For authors in the area of administration, planning is the path we must follow to achieve the desired result (Lacombe & Heiborn, 2003). It means thinking about the future in a structured way, deciding today, looking for a possible more assertive decision process. This decision process involves several variables and actors, showing its complexity and reinforcing the planning tool as a viable solution (Oliveira, 2013).

Peter Drucker (1962) comments that, in planning, we decide today which will have threads in the future, and not future decisions with threads to come (Braga & Monteiro, 2005). Thus, planning is thinking today, deciding today, executing today, seeking impacts, projections, and future results (Lacombe & Heiborn, 2003).

Several understandings of planning are presented by Mintzberg (2004, p.22-26). Planning is: "thinking ahead"; "it is to control the future"; "it is decision making"; "it is integrated decision making"; "it is a formal procedure to produce an articulated result, as an integrated decision system"; still, planning is a formal, rational process, articulated with the interest of formulating strategies for decision-making.

For Sampaio (2001, p. 41) planning refers to the "process that selects a course of action, reorienting a set of means to reach its end; that is, planning is a methodology and not an end."

In the same direction, Oliveira (2013) corroborates by saying that planning is a methodical process, which involves present decisions with future impacts. The result is not the focus, but the consequence of the process. The author adds that planning is "a process composed of interrelated and interdependent actions aimed at achieving previously established goals." (Oliveira, 2013, p.6).

Also, according to the same author, it is understood that the purpose of planning is to systematize administrative actions, through the analysis of present decisions, which will have future consequences, efficiently, seeking to mitigate uncertainties, achieve the achievement of

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the proposed objectives and goals by the Organization. In addition, Organizations have distinct hierarchies, and when we talk about planning, there are three hierarchical levels: strategic (top of the pyramid that defines the strategic objectives to be followed), tactical (an intermediate level that focuses on achieving objectives), and operational (are action plans focusing on basic activities) (Oliveira, 2013).

Strategic planning, for Silveira and Lunkes (2018, p. 31), is to articulate the “opportunities offered by the external environment to the company's internal conditions, identifying and highlighting the strengths and ensuring that the weaknesses do not harm, in order to meet your future goals.”

For Gentilini (1999, p. 10), in the study entitled Crisis and educational planning in Latin America: trends and perspectives in decentralization, in the concept of effectiveness, he pointed out: “the effectiveness of planning, as one of the dimensions of management, depends on much of the intermediary and local instances of the State and of those who exercise, at a moment, political power.” It also highlights:

In this sense, planning is not limited to a technical and specialized activity, but to a practice that is part of a social process that, in the final analysis, is constructed/reconstructed on a daily basis by a diversity of social actors, among which, whether planners who can make a contribution to the advancement or regression of this process (Gentilini, 1999, p. 31).

In this way, several actors can collaborate to improve the planning.

In the next subsection, the discussion will be on strategic planning.

### 2.2 Planejamento Estratégico

Strategic planning emerged in the 1960s, amid discussions about the risks and uncertainties of long-term planning. “Strategic planning is a multifaceted, complex and time-consuming process (...)”. A tool that, in its first uses, encountered resistance, lack of understanding and discredit. It was only years later that it was recognized as a successful tool, when properly implemented (Ansoff & McDonnell, 1993, p. 295).

The definition of strategic planning for Rasmussen (1990) is:

plan the future in view of the psychological and physical limitations and the strengths and weaknesses of an organization, considering the changes in the behavior of the macroenvironment regarding the economic, political, technological, social, ecological, legal, geographic, demographic and, mainly, competitive segments (Rasmussen, 1990, p. 34).

Strategic planning, for Braga and Monteiro (2005, p.19), is an administrative process that seeks to point the direction of the institution, responding to primordial questions, such as: “Where we are; where we want to go; how are we going to get there.”

Strategic planning “is management by plans”, through “an analytical process”, considering “business, economic and technological variables”, with a focus on “strategic decision-making” (Ansoff, 1990, p. 243). It is a systematized thinking that will help in decisions that guide and guide the organization (Bryson, Edwards and Slyke, 2018).

According to Oliveira (2013), strategic planning provides methodological support to define the best path to be followed, seeking "optimized degree of interaction with external

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factors - not controllable - and acting in an innovative and differentiated manner", presenting itself as a tool that helps the manager in the future planning process, aiming at achieving the company's mission (Oliveira, 2013, p. 17).

Corroborating these concepts, Lacombe and Heiborn (2003) conceptualize strategic planning as a systemic activity to plan long-term goals and how to achieve them, considering the internal and external environment in which the institution is inserted.

Still, considering the diagnosis of the internal and external environment in which the institution is inserted, Braga and Monteiro (2005) clarify that this allows a global vision, including considering social, economic, political aspects, among others, related to the institution. When pointing out who is responsible for the management tool in strategic planning, Lacombe and Heiborn (2003) clarify that strategic planning must be carried out by the Organization's Managers, due to the company's holistic vision and the external environment. Thus, strategic planning is the responsibility of the top management.

Rasmussen (1990, p. 33-34) treats strategic planning as a fundamental tool for management, as it makes it possible to identify opportunities and generate competitive advantage. It helps management to "identify threats, and enable them to maximize benefits and minimize surprises in the turbulent and unpredictable macro environment (...)."

In strategic planning, the objectives, and actions to be followed are defined, considering factors such as the analysis of the external and internal environment, in addition, of course, to the principles and organizational culture (Oliveira, 2013). It is also applied "so that the organization can guarantee the achievement of organizational objectives and serves as a basis for the preparation of the Tactical and Operational Planning, so that, later, there is execution and control." (Oliveira, Nogueira, Dias & Oliveira, 2020, p. 55).

Commonly, strategic planning comprises the mission, vision, values, analysis of the internal and external environment, formulating strategies to propose solutions and improve the organization's results (George, 2020; Oliveira et al., 2020). However, it is opportune to highlight the people, the process, and the product, since, in order to develop the strategic planning, it is crucial to identify who are the people involved in the process, define and present which process and how it will occur, finally, how the result is the product, which is strategic planning (George, 2020).

Bryson et al. (2018) clarify that strategic planning is not a single thing, but a union of concepts, methodologies, tools, and practices that result in strategic approaches.

Strategic planning, as already mentioned, is a management tool commonly used in the private sector, but one that has been growing in the public sector; however, caution is needed in this use, since difficulties before and during the process may manifest themselves. The team needs to be trained and know the tool, know how to develop it, forecast resources (financial and human), can gather, and analyze data, as well as proposed solutions (Bryson et al., 2018).

Management alignment, continuity, performance, and the achievement of goals are some factors for adopting strategic planning in the public sector (Bryson et al., 2018). The continuity of management is also cited by Silveira and Lunkes (2018) as a motivation for using strategic planning.

Possible resistance should be observed when strategic planning takes place in the public sector, mainly because of bureaucracy, which is characterized by "impersonality in relationships, division of responsibilities, formal hierarchy, difficulty in dismissal, resistance to change, etc." (Silveira & Lunkes, 2018, p. 34-35).

Since this research took place in a Public Institution, it is relevant to refer to the Constitution of the Federative Republic of Brazil of 88, which brings, in its article 37, the

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principles that guide people who work in direct and indirect public administration. Better known with the acronym CLEAN, it represents the principles of legality, impersonality, morality, publicity, and efficiency.

In this research, the Efficiency Principle, included by Constitutional Amendment nº 19/1998, which Lacombe and Heiborn (2003, p.165) define as: “doing well what is being done” deserves to be highlighted. The authors add that efficiency seeks “the best use of the resources available by the organization to obtain its products or services.” Still, on efficiency, Braga and

Monteiro (2005, p.19) add that “the success of strategic planning does not depend only on the quality of the plan but on the decision-making ability of the implementation team.”

It is worth noting that, in the process of implementing strategic planning, the knowledge of possible causes of failures, or even of possible obstacles, can help in the creation of strategies to mitigate barriers.

Regarding possible flaws, Oliveira (2013) identifies them in three stages: before, during, and during implementing the tool. The author comments that, before starting the development of strategic planning, the failures presented are: failure to choose the team to lead the process; lack of knowledge of the definition of strategic planning; lack of understanding about the importance of the tool; not consider cultural aspects.

The organizational culture, when choosing the strategic planning model, must be observed (Sampaio, 2001).

Mintzberg, Ahlstrand, and Lampel (2010, p. 75) warn about the “lack of managerial support for planning and the absence of an appropriate organizational climate for the process.”

Regarding the development stage, failures happen due to a “lack of basic knowledge about strategic planning; lack of involvement from all levels of the company; failure in the strategic planning proposal; credibility of the process and tool.” (Oliveira, 2013, p. 291).

And, at the stage of strategic planning implementation, failures are: “failure to define control and evaluation; lack of knowledge, commitment and participation of the actors.” (Oliveira, 2013, p. 291). Still on implementing strategic planning, authors Braga and Monteiro (2005, p.169) point to other obstacles, including:

Lack of leadership and monitoring of the institution's chief executive. Lack of planning culture by employees and lack of strategic culture on the part of managers. Lack of an information system that enables the collection and systematization of information. Lack of training of the implementation team. Misunderstanding of the importance of the influence of culture and organizational climate in maintaining the status quo. Competition for power, which ends up affecting the performance of work teams. Teaching corporatism. Lack of communication and understanding between administrative and academic sectors. The complexity of the university structure. Lack of follow-up and control of the execution of planned actions (Braga & Monteiro, 2005, p.169).

A pertinent point, observed and highlighted by Sampaio (2001), is that, from the implementation of strategic planning, a learning process takes place, due to the constant feedbacks needed at each stage, guiding the achievement of results, guided by the strengths, weaknesses, opportunities, and threats.

Controlling strategic planning is vital, examining the need to “evaluate and measure performance in order to provide feedback to decision-makers.” These are decisions about

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continuity or correction of actions to achieve the objectives and goals, besides the possibility of providing feedback to the Managers on the results obtained (Oliveira et al., 2020, p.62).

Besides the above, another pertinent aspect is institutional alignment. Kaplan and Norton (2006, p.4) emphasize the importance of understanding that the challenge of

institutional alignment is “capable of generating significant returns for all types of companies.” The authors further clarify that alignment is fundamental to the management process because “the execution of the strategy requires the highest level of integration and teamwork between organizational units and their processes.” (Kaplan & Norton, 2006, p.291). Therefore, strategies must be drawn up before starting the strategic planning process, aiming to mitigate risks and the correct use of the tool.

In the next subsection, the topic will be addressed: Federal Institutes, a research organization. It is important to say that there is little use of strategic planning in Higher Education Institutions, with few institutions that have the tool formalized or even institutionalized (Meireles, 2019).

Strategic planning in Higher Education Institutions can reveal benefits in the decision-making process, in the participation and involvement of everyone (Barcellos & Cassengo, 2018, p. 8).

### 2.3 Federal Institutes

Analyzing historical periods of education in Brazil, the Federal Network of Professional, Scientific and Technological Education had the mark of Professional Education in Brazil, in 1909, when the then President of the Republic Nilo Peçanha, through Decree n°. 7.566, created the Apprentices and Craftsmen schools, aiming to serve the “deprived classes”. With the enactment of Law n°. 378 of 1937, the Schools of Apprentices and Craftsmen were transformed into Industrial Lyceums, with a focus on professional education of all branches and grades. (Federal Network, n.d.).

By Decree n°. 4.127, of 1942, the Industrial Schools were transformed into Industrial and Technical Schools, maintaining the focus on professional training, offering them at a level equivalent to that of secondary school. By Law n°. 4.024, from 1961, professional education was equated with academic education. After several changes, in 1997, with Decree n°. 2.208, professional education was regulated, and, in 2004, Decree n°. 5.154 integrated high school technical education into high school. The expansion of the offer of professional education was established with Law n°. November 11.195, 2005. (Federal Network, n.d.).

During the second term of the Luiz Inácio Lula da Silva government, Law n°. 11.892, of December 29, 2008, created the Federal Institutes of Professional Education, Science and Technology. Art. 6, of the aforementioned Law, presents its purposes and characteristics.

Federal Institutes “are institutions of higher, basic and professional education, multi-curricular and multicampi, specialized in offering professional and technological education in different types of teaching” (Law n°. 11.892, 2008).

The Federal Network for Professional, Scientific and Technological Education is composed of : a) 38 Federal Institutes, present in all states in Brazil; b) 2 CEFETS; c) 23 schools linked to Universities; d) Colégio Pedro II; e) Federal Technological University of Paraná. (Federal Network, n.d.).

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Law n°. 11.892, of December 29, 2008, regulates, among other points, the mandates of the Rector and Directors of Federal Institutes. These mandates last for 4 years (Law n°. 11.892, 2008).

The Instituto Federal Catarinense - IFC, the focus of the research, was created by Federal Law n°. 11.892 of 2008, and its rectory is in the city of Blumenau. It has 15 campuses located

in the cities of Abelardo Luz, Araquari, Blumenau, Brusque, Camboriú, Concordia, Fraiburgo, Ibirama, Luzerna, Rio do Sul, Santa Rosa do Sul, São Bento do Sul, São Francisco do Sul, Sombrio and Videira (IFC, n.d).

At IFC, democratic management occurs through the “practice of integrated institutional management, materialized through representative participation with the Higher Council, Research and Extension Teaching Council, collegiate bodies, nuclei, committees and commissions” (IFC, n.d.).

The following section deals with the methodology used in the research.

### **3 METHODOLOGY**

This research was exploratory, as it had "the purpose of providing greater familiarity with the problem, with a view to making it more explicit or building hypotheses." (Gil, 2010, p. 27). As for the research procedures, it is a case study, as it is a “deep and exhaustive study of one or a few objects, in a way that allows for their broad and detailed knowledge.” (Gil, 2010, p. 37).

Data collection took place through a structured questionnaire, applied between October 6th and 25th, 2019, to the Managers of the Federal Institute of Santa Catarina, about the development and implementation of the Strategic Planning (2018-2021), which had its discussions initiated in May 2017. The questionnaire aimed to survey two subjects: the strategic planning tool, and its development and implementation at the Instituto Federal Catarinense.

The total population of the research consisted of 21 Managers of the Federal Institute of Santa Catarina, as follows: The Dean, the Pro-rectors, the General Directors of the 15 Campi. The sample reached 19 responding Managers, totaling 90% of the population.

Data were collected through a structured questionnaire and, using the google forms tool, were tabulated, and grouped, and their results presented in their respective categories. In the following section, we present these results, in graph form, with a view to facilitating the possible identification of patterns, in addition to data analysis.

### **4 RESULTS AND DISCUSSIONS**

This research analyzes the strategic planning tool, and the development and implementation of the strategic planning of the Instituto Federal Catarinense, effective from 2018 to 2021, aiming at the dissemination of good practices of this tool for future application sure applications.



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#### **4.1 Situating the Process - IFC Strategic Planning (2018-2021)**

Strategic Planning, recognized as an efficient management tool, was one of the challenges proposed by the Management of the Federal Institute of Santa Catarina, to seek institutional alignment, transparency, and monitoring of activities and actions, developed in the Rectory and Campi.

The development of strategic planning began in May 2017, with the analysis of the Institutions guiding documents (PDI, Management Report, Strategic Planning, CPA Report, among others), followed by the analysis and review of the Mission, Vision, and Values institutional. Afterward, the SWOT analysis (strengths, weaknesses, opportunities, and threats) was developed with the definition of institutional strategies.

This analysis was initially carried out among the Managers (Dean, Dean, Dean, and General Directors of the Campi), was later shared with the Institution's employees through sectorial or general meetings.

It should be clarified that the suggestions and contributions were considered by the major areas, accepting, or justifying the reason for not considering the suggestion.

Considering that management continuity, performance and everyone's commitment are crucial to the process, indicators and targets were developed for each strategic objective. To be able to accomplish this stage, it was necessary to structure a survey of previous data (years 2016 and 2017), thus creating a history for the Managers of each Campi and Rectory.

Ansoff and McDonnell (1993, p.75) comment that it is common for organizations to lack “information about themselves and their environment, which is necessary for an effective strategic planning;”. Thus, meetings were organized to outline the goals for the period of validity of the Institution's Strategic Planning (2018-2021). This effort was fundamental for the control and monitoring of the challenges outlined for everyone involved. Then, the Campi could align and develop the operational plans to their reality.

The Instituto Federal Catarinense's strategic, tactical, and operational plans are published on its website, and the status of the results is disclosed annually. It is worth mentioning that, in 2017, Silveira and Lunkes (2018) conducted a survey on strategic planning in the Federal Institutes of Education in the southern region of Brazil, by consulting documents on the websites of these institutes.

The research used as a basis the methodology for preparing the strategic planning, consisting of 4 phases: Strategic Diagnosis; Company mission; Prescriptive and Quantitative Instruments; and Control and Evaluation.

Among the conclusions, the authors comment that in the Federal Institutes, strategic planning was in a “maturity stage and not all the “best practices” are being carried out by these institutions” (Silveira & Lunkes, 2018, p. 44).

From the version of IFC's strategic planning (2013-2017) analyzed by the research by Silveira and Lunkes (2018), to the version of IFC's strategic planning (2018-2021), it is possible to see in the published documents, the construction of goals and indicators performance, as well as the control and monitoring of results.

The control and evaluation of IFC's strategic planning was carried out through Management meetings, with the status of the goals being published annually on the Institution's

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website. Through its control and evaluation, it seeks to guarantee the achievement of defined standards. With the control and evaluation of strategic planning, it is possible to compare what

was outlined, with what was executed, and, if necessary, make the necessary corrections so that the objectives and goals are achieved (Oliveira, 2013).

In the following subsection, the potential and difficulties of the strategic planning tool, and its development and implementation, were analyzed.

### 4.2 Dialogue between data: analyzing the results

The graphs, presented in this subsection, reflect the opinion of the Managers of the Federal Institute of Santa Catarina (Rector, Pro-Rectors and General Directors of the Campi), at the time of the research, on the strategic planning tool and on the development and implementation of strategic planning at the Institute Federal Santa Catarina, in order to propose best practices for future implementations.

Regarding the strategic planning tool, the choice of 3 potentials and 3 difficulties was requested. Graph 1 shows the result of respondents about the potential of the strategic planning tool, and graph 2, the results of the difficulties in using the strategic planning tool.

**Graphic 1 – Potential for the strategic planning tool**



**Source:** Elaborated by the authors (2021)

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Regarding the tool's potential, the principle of continuity of Management presents itself with 63.2%, demonstrating the importance perceived by the Managers in creating history and

commitment to the established goals. Bryson et al. (2018), as well as Silveira and Lunkes (2018), the comment that continuity is one of the factors for adopting strategic planning in the public sector.

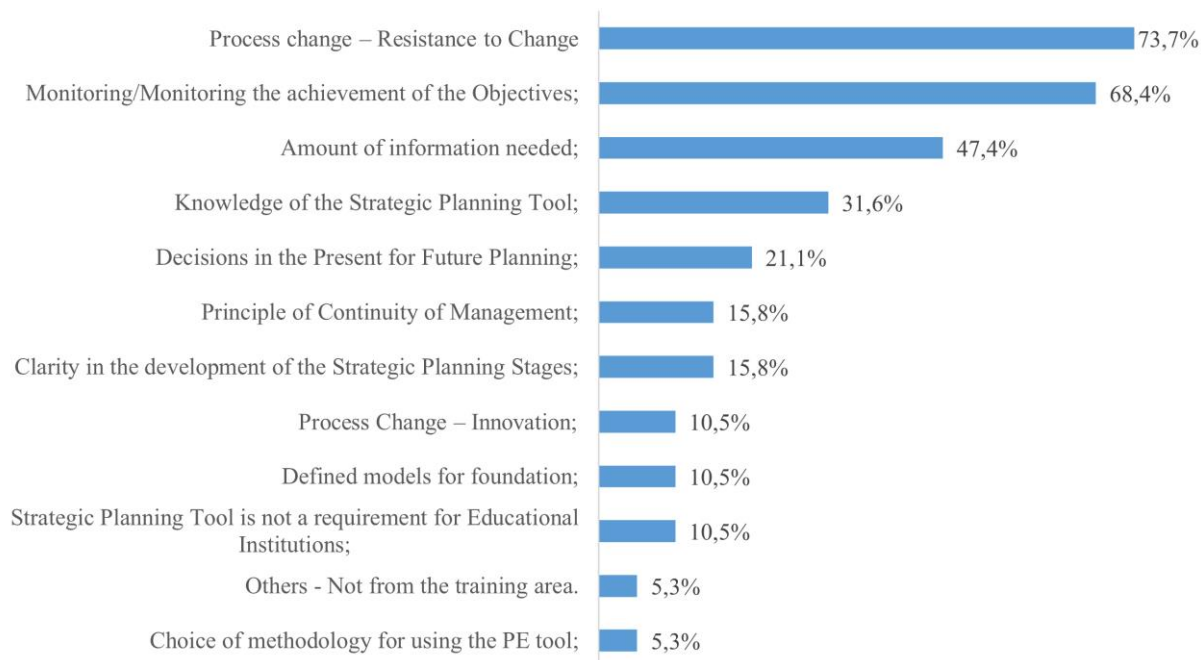
The second most highlighted option was the change of innovation processes, with 57.9%. As indicators and targets were created in line with the objectives, changes were made to the focus of institutional alignment. Kaplan and Norton (2006) emphasize the importance of institutional alignment in the management process, and Silveira and Lunkes (2018) add that alignment is one of the reasons for adopting strategic planning in the public sector.

The third option highlighted, with 47.4%, was clarity in the development of the stages of strategic planning, a result of the efforts invested in discussions and meetings on the use of the tool. Bryson et al. (2018) warn about the need for training and knowledge of the team about the tool, how to develop it, forecast resources (financial and human), can gather, and analyze data, as well as proposed solutions.

Oliveira (2013) warns about the care with the involvement and commitment of everyone in the process. With the results got through Graph 1, it is possible to see which strategies were designed to work on these points.

'In Graph 2, we present the answers about the difficulties in using the strategic planning tool.

**Graph 2 – Difficulties in using the strategic planning tool**



**Source:** Elaborated by the authors (2021)

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Regarding the difficulties in using the tool, the first choice of answers was the option of process change – resistance to change, with 73.7%. The authors Braga and Monteiro (2005) warn that in change processes, the breaking of paradigms and the need to rethink processes can

generate resistance, with the lack of a culture of strategic planning by employees and managers being one of the obstacles to implementation of strategic planning. Bureaucracy in the public sector is also referenced by Silveira and Lunkes (2018) when they address resistance.

Meetings clarifying the usefulness of the tool were crucial to overcoming resistance and generating everyone's involvement and commitment.

The second choice, with 68.4%, was the follow-up/monitoring in achieving the goals and the third choice, with 47.4%, was the amount of information needed. These two choices complement each other because, to monitor and monitor the achievement of objectives, it is necessary to gather information on the indicators and targets outlined, and the strategic planning in force at IFC (2018-2021) has 10 objectives and 34 indicators, and the information is collected manually, until the moment of the research.

Braga and Monteiro (2005) already commented that the lack of information systems to assist in this collection and systematization of information is one of the obstacles to implementing strategic planning.

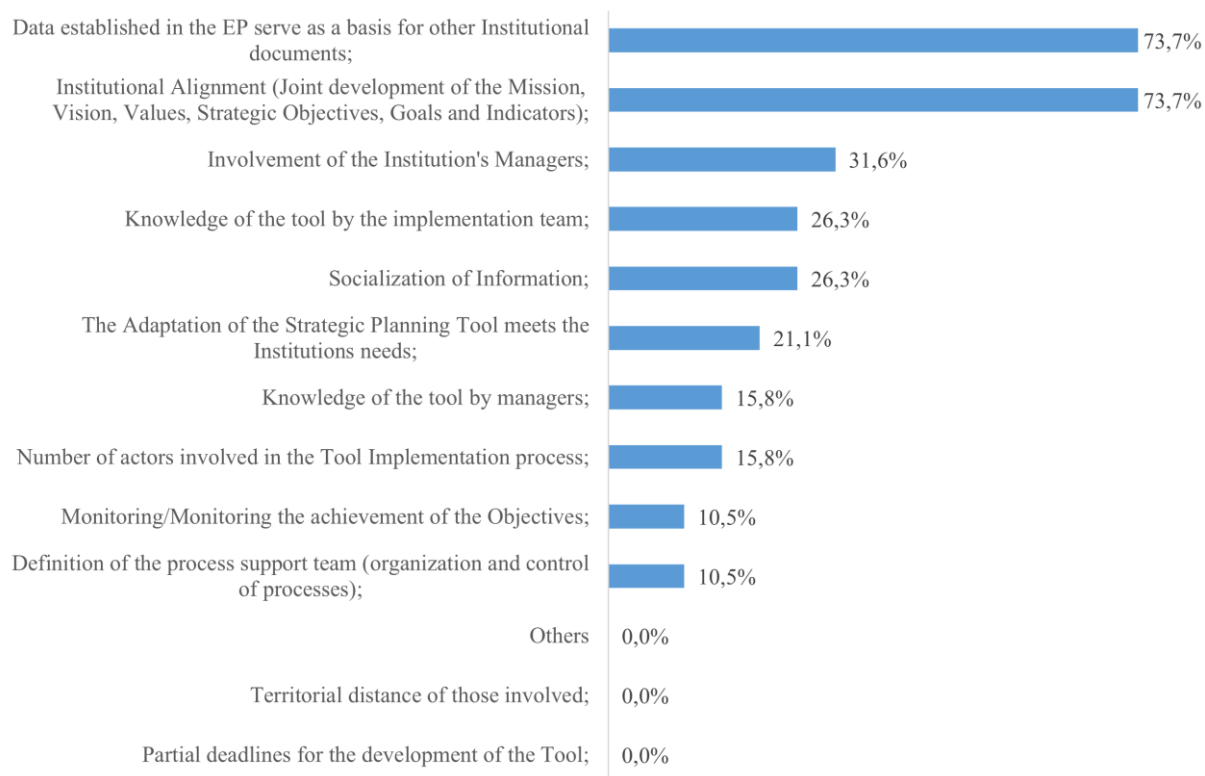
Monitoring and achieving objectives are part of strategic planning control. Control is vital for "evaluating and measuring performance, in order to provide feedback to decision makers", a time for corrections or continuity of actions, in addition to the possibility of presenting feedback to Managers on the results obtained (Oliveira et al., 2020, p 62).

These points were also addressed in meetings, with discussions and clarifications about the tool.

In the second part of the questionnaire, the development and implementation of strategic planning was discussed, and the choice of 3 potentials and 3 difficulties was asked. In Graph 3, we present the answers about the potential, and, in Graph 4, the difficulties identified by managers in the development and implementation of strategic planning.

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**Graphic 3** - Potentials in the development and implementation of strategic planning



**Source:** Elaborated by the authors (2021)

Regarding the potential, two options had the greatest number of choices, both with 73.7%: a) data established in the strategic planning serves as a basis for other institutional documents and, b) institutional alignment (joint development of the mission, vision, values, strategic objectives, targets, and indicators). Thus, it was demonstrated that the strategic planning tool, chosen to assist management in institutional alignment, was perceived as important and accepted by managers.

Strategic planning data help in mandatory documents such as PDI, PDTI, Management Reports, among others.

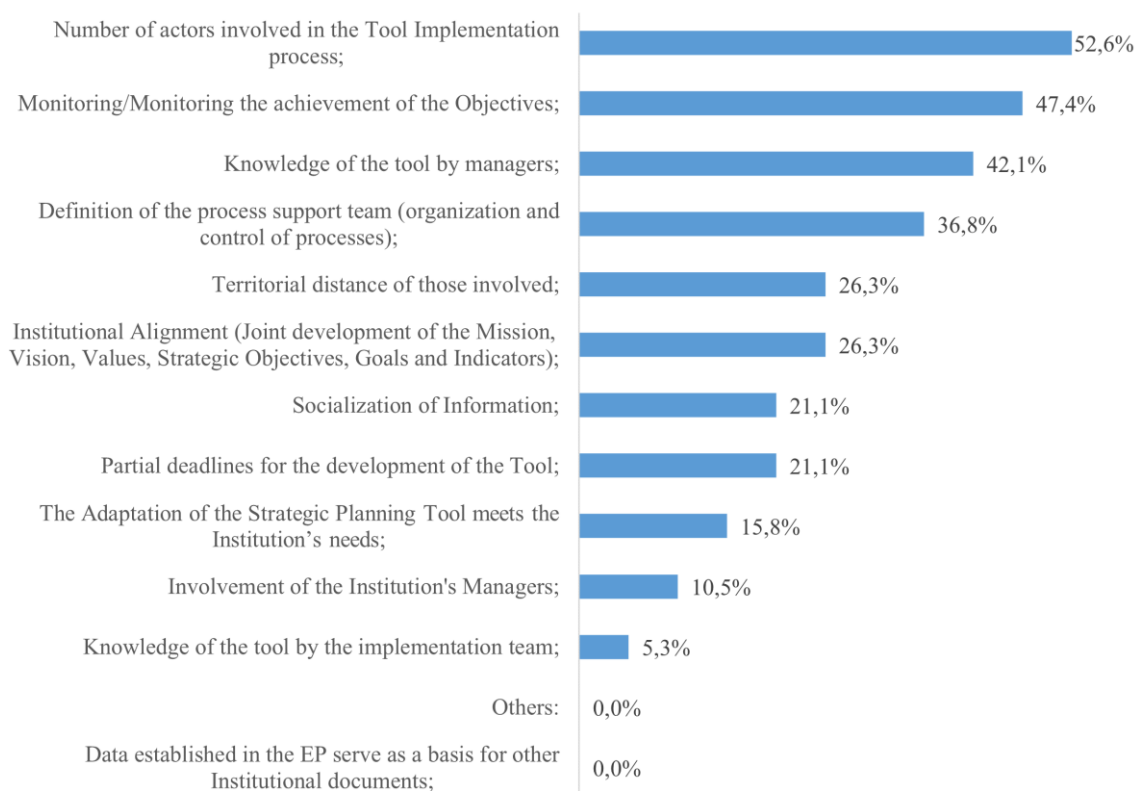
In Graph 1, it was commented that one of the potentials of the strategic planning tool is institutional alignment, which is crucial for the organization's management process. (Kaplan & Norton, 2006). And yet, in the public sector, alignment is one of the reasons for adopting strategic planning. (Silveira & Lunkes, 2018).

The third option chosen by the respondents, with 31.6%, was the involvement of the Institution's Managers. This involvement was fundamental for the development of the tool (Oliveira, 2013). Involvement only exists when the importance of the process is perceived, which is why knowledge of the strategic planning tool is indisputable.

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Corroborating the results in Graph 3, it is worth mentioning the research carried out by Meireles (2019) with managers of Brazilian public universities on strategic planning, since one of the results was the managers' understanding of the importance of strategic planning.

**Graphic 4 – Difficulties in developing and implementing strategic planning**



**Source:** Elaborated by the authores (2021)

The first difficulty, highlighted with 52.6% of the responses, was the number of actors involved in implementing the tool, a known and considered finding. Oliveira (2013, p.291), addressing possible causes of failures in strategic planning, highlights the “lack of involvement at all levels of the company” and the “lack of commitment and participation of the actors in the process”.

At IFC, both in the Rectory and in the Campi, planning was initially discussed and aligned among the members of the management and, later, with the other sectors, seeking to give everyone a voice. However, the complexity of a multi-campus educational institution is notorious, requiring continuous efforts for the involvement of everyone, avoiding the creation of an obstacle to implementing the Strategic Planning (Braga & Monteiro, 2005).

The second difficulty, voted with 47.4%, was the follow-up/monitoring of the achievement of objectives. This result is evidenced by the process change (resistance) and the amount of information (34 indicators). This was also the choice of the Managers, in Graph 2, which deals with the difficulties of the strategic planning tool. And, as already discussed in the analysis of Graph 2, control is essential for strategic planning, and the improvement of data

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collection can be achieved with the implementation of information systems to systematize them (Braga & Monteiro, 2005; Oliveria et al., 2020).

The third option, voted with 42.1%, was knowledge of the tool by managers. The stages of this management tool were discussed at Management meetings. According to Bryson et al. (2018), the team needs to be trained and know the tool, know how to develop it.

Regarding the strategic planning tool, Graphs 1 and 2 reveal the choices made by IFC Managers regarding the tool's potential and difficulties. As potential, it was identified: principle of continuity of processes; change in innovation processes; clarity in the development of the stages of strategic planning. As difficulties, the choices were: resistance to process change; follow-up/monitoring of the achievement of objectives; and amount of information needed to use and monitor the tool.

Graphs 3 and 4 dealt with the development and implementation of strategic planning. The potentialities highlighted were: use of strategic planning data as a basis or aid for the development of other documents and/or actions; institutional alignment; and the involvement of the institution's managers. The difficulties were: the number of actors involved in the implementation process; follow-up/monitoring of the achievement of objectives; and knowledge of the tool by managers.

After analyzing the four graphs, it is highlighted that strategic planning is presented as a tool that can help management in institutional alignment, in the principle of continuity, in the performance and involvement of all, as well as being the basis for the preparation of other guiding documents of the Institution. For this, it is essential to know, train, and know how to use the strategic planning tool.

In strategic planning, process control is necessary to decide on the continuity or adequacy of the actions developed to achieve the established goals, and it presents feedback to the Managers comparing what was executed with what was planned.

Reflecting on the responses of IFC Managers to the items of the strategic planning tool and the development and implementation of strategic planning at IFC, and subsection 3.1 - Situating the process, in final considerations, contributions to best practices for future planning implementations will be presented strategic in Federal Institutes.

### **5 FINAL CONSIDERATIONS**

From the context of production of this article, it was possible to infer that, among other variables, alignment, continuity, effectiveness, and transparency in public services provided emphasize the continuous search for ever more efficient management. The use of the strategic planning tool, based on the principles of Public Administration, proves to be a great ally in this process.

It was found that, when strategies are created for the use of the strategic planning tool, difficulties known or studied by different authors can become potential.

In carrying out the planning, it is necessary to consider the involvement of different areas and different actors, and the participation and understanding of the importance of each actor, all with specific importance, are essential to make institutional alignment and the achievement of results possible expected.

Through clarifications, understanding the importance of the principle of management continuity, the constant need for innovation in processes, the tool to level knowledge, the clarity

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of the steps, the alignment meetings, are fundamental actions to mitigate the resistance to the process and to enhance the involvement of managers, as well as the successful use of the tool.

Contributions to best practices for future implementations of strategic planning in Federal Institutes were revealed, in addition to the steps common to the development of the tool: the need for prior verification of data and information about the Institution; the development of the diagnosis regarding the knowledge of the Managers concerning the strategic planning tool, followed by training adequate to the Institution's reality; the presentation to the Managers of the proposal for the implementation of the strategic planning, with clarifications on each stage, in addition to the identification of the actors who will participate and contribute to the process; the use of technology as an ally in the control process, optimizing the systematization of data and information; and last but not least, everyone's engagement.

These contributions will reflect on the improvement and assistance of Management, on the efficient use of resources (human and financial), and the improvement of the perception of the effectiveness of the services provided.

Strategic planning, researched here, proved to be a management tool that helps in institutional alignment, continuity, performance, which is fundamental to the achievement of the institutional mission, in Educational Institutions, both from an empirical point of view and as an object. Future research in the areas of administration and education.

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