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# Application of Strategic Planning Methodology in Seven Brazilian Preincubated Enterprises in a Technological Innovation Center (TIC)

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## Abstract

*The general objective of this study was the application of the Strategic Planning Methodology in seven preincubated enterprises in the Technological Innovation Center (TIC) of Unoesc Chapecó, SC. The specific aims were: to prepare the strategic planning for the seven enterprises linked to Pre-incubator of the TIC from Unoesc Chapecó; to adjust the methodology to the characteristics and needs of young enterprises; to apply the methodology as a learning process and complement it with consultancies that enable to figure strategies and endow the enterprises with conditions to take advantage of them; to evaluate critically the adequacy of the methodology applied to the characteristics of the preincubated enterprises; and to propose improvements in the methodology, aiming to further broaden its applicability in small and medium-sized businesses. The methodological procedures followed qualitative approach with the multiple case study design and with the research-action method, which makes the collection processes and data analysis simultaneous. The results indicate that the methodology was appropriate to be applied to young enterprises simultaneously and collectively, for encouraging the participation, integration, high learning and the formation of collaborative network, and for attaching the process of strategies formulation to the consulting one, which focuses on the strategic management. This way, it is possible to assert that the outlined objectives were fully achieved.*

**Key words:** *Strategic planning. Strategic management. Micro and small businesses. Startups.*

## 1. INTRODUCTION

The strategic planning had its peak in the 80s, as a true fad among the businesses that wanted to be up to date with the business management trends. Since then, many arguments were demystified and put to the test in relation to the businesses' capacity in formulating strategies, in advance, in a more and more turbulent environment. Mintzberg (1998, 2004) and Mintzberg, Ahlstrand & Lampel (2010) showed the multiple aspects of the strategies organizing the existing theories in 10 schools, among them, the strategic planning one. These authors also showed the importance of the

strategy formation from the interaction with the environment, called emergent strategies.

In this context, the strategy planning follows as a present management model, specially, in large national and international businesses. However, for the small and medium-sized business, the strategic planning was an expensive process that required time and financial resources, questionable to deal with the dynamic and turbulent environment and that does not meet the weaknesses and precariousness of a business profile that struggle for survival in the short term. This context lead this researcher to invest years of research and consulting in the systematization of a Strategic Planning

Methodology applied to the small and medium-sized businesses.

The methodology consolidated and improved in the five previous studies (Machado, 2012) enriched with the building step of an imaginary competitor (Fahey, 2003), was applied in businesses that already had a life trajectory that enabled to learn with the previous experiences and with the relations with the environment.

In this research, this methodology was applied to seven enterprises members of the Pre-incubator of the Technologic Innovation Center (TIC) from Unoesc Chapecó, SC, between the months of April and October 2015. From what was exposed, the following research problem was formulated: does the strategic planning methodology to small and medium-sized businesses developed by Machado (2012) have coverage and adequacy to support the elaboration of the strategic planning of the seven enterprises members of the TIC/Unoesc Chapecó? The subject and the problem are justified by the possibility to evaluate the adequacy and the effects of the strategic planning methodology in young enterprises, also known as startups. Thus, the general aim is the following: to apply the Strategic Planning Methodology in seven enterprises members of the Technologic Innovation Center (TIC) from Unoesc Chapecó.

Besides this introduction, it is featured hereinafter the theoretical background that presents topics about the strategic planning and the businesses' incubators. Next, the methodology section is presented. Right after, the results are described and, finally, the section referring to the final considerations is performed.

## 2. THEORETICAL BACKGROUND

To support this study, the theoretical background was organized in the subjects strategy, strategic planning, strategic planning in small businesses and businesses' incubators.

### 2.1 Strategy

In the business environment, it was after the Second World War when the strategy gained strength, due to the need of figuring the organizations with the future perspective, to know and develop possibilities of development improvement and to create conditions to the expansion. In the 60s, the strategy concepts were popularized, always associated to the planning function. However, the study about strategy evolved a lot, considering several aspects present in the organization's environment and historical moment. Therefore, it is possible to understand the strategy through different and complementary definitions (Quinn, 1992).

Mintzberg (1998, p. 421, our translation) enunciates that "[...] the strategy, actually, is one of these words that people define in one way and use it differently, without noticing the difference." According to this author, a key dilemma in the formulation of a strategy is the need to reconcile the stability force and the change one. He believes that the only definition to strategy does not seem to be reliable. Therefore, he presents

five definitions, named the five "Ps", which may help in the comprehension of some strategies' components. Subsequently, Mintzberg et al. (2010) organized the strategic thought in 10 schools, further broadening the possibilities of the strategy definition.

According to Kluyver & Pearce II (2007), much of what is classified as strategy is little related to it. The term's complexity and subtleties hinder a definition in only one phrase, however there is a consensus on its main dimensions. In turn, Whittington (2002) jokes that if the strategy secrets could be learned merely in Business Strategy books, the enterprises would not need to pay high salaries to their main businesspersons.

The strategy challenge is to be able to predict the way how the competition will happen in one sector, even before the uncertainty of knowing if the enterprise is adopting the right strategy and if it will be able to create competitive advantages. Therefore, the strategy may be understood as a theory, or the best bet of how a competition will happen in a certain sector and how this evolution will be explored by the company (Barney & Hesterly, 2007).

According to Quinn (1992), a strategy is a model or plan that integrates the main goals, policies and the sequence of actions of an organization into a coherent whole. In this sense, Andrews (1992) conceptualized strategy as the set of the organization's greatest objectives and targets, as well as the set of the essential policies and of the plans to achieve them, established somehow that they define enterprise's actions, between what it is and what it would like to be. According to Porter (2004, p. 68, our translation), "[...] strategy is the creation a unique and valuable position, involving a different set of activities. If there was only one ideal position, strategy would not be necessary [...] the essence of the strategic position is to choose different activities from the rivals'." The strategy aims to adjust the organization to the environment in which it is inserted, aiming the future and the intended objectives. Thus, strategy in a randomized environment (total absence of placidity and tranquility) is the ability to visualize the organization in the future and the present needs to achieve these objectives (Silveira Junior & Vivacqua, 1999).

Ansoff (1984) used to defend the Strategic Administration model, understood as the systematic process of the strategic changes management, as well as the responsibility of the general management in relation to the positioning and relationship of the organization with its environment. According to Wright, Kroll & Parnell (2001), it is getting more and more necessary for the enterprises to become aware of the implantation of the strategic administration process in their management.

### 2.2 Strategic Planning

The strategic planning arises with rational effort of building the strategy through a process, a set of steps that seek self-knowledge, the environment reading, the strategic choices and the detailing of the action plan, with the definition of the monitoring and control mechanisms. The strategy planning, as every process,

is circular and represents continuous cycles. Therefore, there is no unanimity among the authors about the sequence in which the steps are presented, and this does not change anything, since in the comings and goings of the process, as in a system, generates constant and continuous necessity of feedback. In order to describe the basic steps of the strategic planning process (Table 1), adaptation from the set of steps proposed by Pereira (2010) and Kich & Pereira (2011) was proceeded, which does not differ a lot from the traditional models claimed by other authors. Actually, it is the result of a compilation of the broadly adopted models. The strategic planning steps are disposed in three moments:

**Table 1.** Three moments of the Strategic Planning

<i>Moments</i>	<i>Description</i>
Strategic diagnosis	It is when it is evaluated if the enterprise is really at an appropriate moment to develop its strategic plan, and it involves the awareness of the dominant coalition, as well as the choice of the participants and of the methodology to be used.
Formulation of the strategic planning process	It involves steps as definition of the organizational identity, analysis of the internal and external environments, definition of the strategic objectives, elaboration of the action plan and definition of the monitoring and control mechanisms.
Implementation and control of the strategic planning process	At this moment, the organization has to put what it has planned in practice, and monitor and control the results to feed back into the process.

Source: adapted from Kich & Pereira (2011).

The elaboration moment of the Strategic Planning is summarized in Table 2.

**Table 2.** Steps of the Strategic Planning elaboration process

<i>Steps</i>	<i>Description</i>
Definition of the organizational identity	It involves evaluation of the enterprise's trajectory, establishment of mission and vision, declaration of the values, and definition of the critical factors success.
External environment	It may be evaluated by several techniques, including: <ul style="list-style-type: none"> <li>• Analysis of External Variables;</li> <li>• Analysis of Competitiveness (Porter, 1999, 2004);</li> <li>• Analysis of Stakeholders (Freemann, 1984; Perrott, 1996).</li> </ul>
Internal environment	It may be evaluated by several techniques, including: <ul style="list-style-type: none"> <li>• Functional analysis;</li> <li>• Analysis of the Supply Chain (Porter, 1989).</li> </ul>
Analysis of SWOT matrix (in Brazil, FOFA)	It involves the intersection of strengths and weaknesses, opportunities and threats.
Definition of the strategic objectives	Definition of the strategic questions and actions.
Elaboration of	Elaboration of the Action Plan, which

the action plan	clearly defines what to do, how, when, who the responsible is and how much it will cost, among other questions.
Definition of monitoring and control mechanisms	The strategic plan is the result of all this process and must have, at the end, the definition of the monitoring and control mechanisms.

Source: the authors.

Additionally, it is understood that strategic planning is also a powerful Marketing instrument, since the results of this process (mission, objectives, etc.) could be communicated internally or externally to strengthen the organization's image.

**2.3 Strategic Planning Methodology to Small and Medium-Sized Businesses**

Machado (2012) proposes a methodology to the strategic planning process in small and medium-sized businesses, with the adoption of the research-action that guarantees the participative nature and the involvement of key people in the organization, by influence of Soto-Maior (2012). This author and researcher, when proposing the Participative Strategic Planning method (PSP), focused predominantly on the public administration, defends the full participation of the individuals within the organization as subjects in the process. In this sense, the PSP seeks to facilitate the communicative interaction, and not to conduct people towards predetermined objectives.

The participative strategic planning process proposed by Machado (2012) is composed of nine steps, according to what is shown in Table 3.

**Table 3.** Strategic Planning Methodology to small and medium-sized businesses

<i>Step</i>	<i>Description</i>
1 <sup>st</sup> Step: Awareness, negotiation and preliminary diagnosis	Fundamental step to evaluate the intentions and the possible commitment of the organization's summit with the effective application of the strategic planning formulation methodology. It enables the definition of the participants, the set of steps, the workshop schedule, and other initial decisions.
2 <sup>nd</sup> Step: Workshop to create an imaginary competitor	It is an imagination collective exercise to create a competitor whose characteristics and attributes enable to create advantages or, at least, a competitive differential. Intuitively, people will figure an organization without the immediate vices and difficulties from the business where they work.
3 <sup>rd</sup> Step: Workshop to analyze the external environment	The competitiveness analysis (Porter, 1999, 2004) proved to adequate to the analysis of the operational environment, focusing on the evaluation of customers' and suppliers' power and on the rivalry level between the competitors. The analysis of environmental variables or of stakeholders is efficient to the study of the macroenvironment.
4 <sup>th</sup> Step: Workshop to analyze the	What does the imaginary competitor have that the company does not? It requires accurate sense of self-criticism

<p>internal environment</p> <p>5<sup>th</sup> Step: Workshop to characterize the organization and to define the mission</p> <p>6<sup>th</sup> Step: Workshop to define the strategic objectives</p> <p>7<sup>th</sup> Step: Workshop to systematize the action Plan</p> <p>8<sup>th</sup> Step: Final review and definition of the evaluation and control system</p> <p>9<sup>th</sup> Step: Socialization of the strategic plan</p>	<p>and a technique to analyze the internal environment. In this step, instead of the traditional strengths and weaknesses, two questions were adopted: (a) what does the company do well? (b) what does the company have to improve?</p> <p>From a previously written text with the business' history, it is asked to the small groups: (a) what are the historical facts that marked the business' trajectory? (b) what is the nature of the company's business? and (c) what are the activities in which the company must focus in the future? The answers to these three questions provide subsidies to the mission preliminary writing, which is improved along the SP process. It is also possible to define the enterprise's values and future vision.</p> <p>In this step, there is a set of questions that the groups must answer to define the global and functional strategic objectives which may conduct the organization to reduce the gaps between what it is and what it would like to be, with the imaginary competitor as a parameter.</p> <p>Using forms, each strategic objective should be detailed in goals, actions, term (short, medium or long) and responsibilities. It is one of the most difficult steps and, normally, requires a preparation time of the participants before the workshop realization.</p> <p>The document with the results from the steps must be consequence of careful review and must be approved by the group of participants. This is also the moment to define the evaluation and control system, instituting a managing committee and the methodology to be adopted in the implementation monitoring.</p> <p>The socialization of the Strategic Plan step, for a bigger group than the workshops participants, proved to be a powerful marketing tool so that the organization is effectively committed to its content, process and context.</p>
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Source: adapted from Machado (2012).

In relation to the SP focused on micro and small enterprises, it is highlighted that they play a key role in the global economy. However, due to the difficulties inherent in the activities in the more and more competitive and globalized market, many enterprises from this category end up closing the doors precociously. In 2000, there were 4.2 million Micro and Small Enterprises (MSEs), getting to a total of 6.1 million of active MSEs in 2010. Recent data showed that 73% of the MSEs survive the first two years of activity (Sebrae, 2011). One of the management tools that may help these enterprises in the search for sustainability is the strategic planning.

There are several examples of obstacles encountered by small enterprises, and these difficulties may be associated, among other sources, to the inexistency of

planning and future vision from the company. Based on that, what arises is the managers' necessity to know and elaborate an efficient planning, defining strategic objectives, action plans and goals that are able to guide daily and future activities and to cooperate to the increase of the company's competitiveness patterns (Moura et al., 2014; Alves et al., 2013).

According to Oliveira, Terence & Escrivão Filho (2010), there is a lack of studies concerning effectively about the small enterprises' management. Yet, the models built to manage large enterprises are considered, with the expectancy that the today's small enterprise will become the tomorrow's large one. This managerial gap is extended to the strategic management horizon. In this line of thinking, Box (2011) understands that the literature about strategy has a debt with the small enterprises, for emphasizing the great corporations' context.

In the same line, Alves et al. (2013) observe that besides the small managers' lack of knowledge, there is the lack of prepared personnel in the human resources and a lack of the enterprises' structure to implement the strategic planning. According to Greer et al. (2015), the human resources management in small companies is not always efficient, affecting directly the competitive capability.

#### 2.4 Enterprises' Incubators

The creation and consolidation of incubators and scientific and technological parks is an initiative very stimulated by public policies to strengthen the enterprises' innovative capability. In these environments, the aim is to foment the innovation through the offer of resources and shared actions, helping small enterprises to implement the innovation offer to the market (Schmidt & Balestrin, 2015).

Besides fomenting the innovation through the development of incubated enterprises, the incubators can also work as diversification instruments of the economy, for example, the initiative BADIR, from Saudi Arabia, which aims to encourage enterprises out of the axis of the economy based on petrol to produce and market their technological innovations (Khorsheed et al., 2014).

The implantation process of incubators in Brazil began to grow stronger by the mid-1980 and it has been growing over the course of time. The focus of activity is wide, and it is possible to find technological, mixed, cultural, social, agribusiness and service incubators (Lahorgue, 2008). However, Biagio (2006) explains that the incubation process of enterprises in Brazil had its first experience in 1976. The incubators start to be seen as opportune spaces to give substance to their entrepreneurial ideas.

According to a study accomplished by National Association of Innovative Enterprises Promoters (Anprotec), in partnership with the Ministry of Science, Technology and Innovation (MCTI), Brazil has 384 operating incubators, which shelter 2,640 enterprises, generating 16,394 jobs. These incubators have already graduated 2,509 enterprises, which, currently, invoice R\$ 4.1 bi and employ 29,205 people. The same study

revealed another important data: 98% of the incubated enterprises innovate, 28% focusing on the local scope, 55% on the national scope, and 15% on the global one (Associação Nacional de Entidades Promotoras de Empreendimentos Inovadores, 2015).

Inside the segment of small enterprises, there is a modality of specific enterprises: the startups, which can be defined as high-tech startup businesses (Turri & Wagner, 2015). According to Stonopoli, Binder & Maccari (2012), there are indications that an incubator essentially supports its incubated enterprises in the formulation and consolidation of resources and capabilities to the business establishment.

The steps of the incubation process, according to Hannon (2003), are the following: post-entry development; entry and posting; planning and preparations; recognition of opportunities; and formulation of the idea.

Pursuant to Ortigara et al. (2011), an incubator must offer:

- a) Individualized physical space to the incubated enterprises;
- b) Physical space for shared use;
- c) Human resources and specialized services in the management, legal and technological areas;
- d) Entrepreneurs' qualification, education and training;
- e) Access to labs and libraries of universities and institutions that develop technological activities.

Currently, micro and small enterprises expanded their fields and represent the major part of the productive activity in the global scope. However, these enterprises have limitations in several aspects, highlighting financial difficulties, weakness in the long-term management and inefficacy in the product development process. In this context of difficulties, the enterprise's incubators arise as interesting alternatives for providing a favorable environment to these enterprises' development (Raupp & Beuren, 2010).

Aiming to develop a structure that serves to the identification of measures to the incubators' strengthen, as well as considering infrastructure, management, people and marketing characteristics, Ortigara et al. (2011) established determinant factors to the incubators' maintenance, starting with the identification of effort made by organizations that work with the subject, added to the ones described in the researched literature.

In the same line, Turri & Wagner (2015) concluded that there are some crucial factors for the startup companies' great success. Among them, the authors mention, for example: an acceleration process (with focus on consulting); higher speed in product development; roles defined contextually in the company; great success in investment achievement; professional entrepreneurship; and creation of innovative products.

According to Stonopoli et al. (2012), the strategy has a lot to contribute to the entrepreneurial process, in particular, to the incubators' environment. In this context, the authors highlight the role of the vision

based on resources, which can provide a better understanding about the relation of an incubator with its incubated, stressing the role of the necessary capacities to the enterprise's good development.

The results found in Schmidt & Balestrin (2015) indicate that there are limited effects of the services and infrastructure made available by the incubators and technological parks in the research and collaborative development process. The authors emphasize that other factors, besides the services and infrastructure, may be responsible for the formation of a collaborative research and development network.

However, the ways of knowledge sharing considered the most important in the incubators are the speeches, the meetings, the gatherings and the discussions. The very way how the incubators are physically structured, with specific and previously defined modules, reserved for the incubated enterprises, provides the adoption of knowledge sharing ways (Raupp & Beuren, 2010).

### 3. METHOD

In this research, it is adopted a predominantly qualitative approach, which does not completely discard quantitative aspects when to complete or explain the qualitative data. The research will have the multiple case study design (Yin, 2005; Merriam, 1998), since it will involve, simultaneously, seven pre-incubated enterprises on TIC, to empirical application of the planning methodology conceived by the small and medium-sized enterprises, with the necessary adjusts to meet the characteristics of the young enterprises, also called startups.

According to Zainal (2007), the multiple case study can be used in real life events that enable to show several evidence aspects through comparison and replication. The author highlights that, despite some critics related to the lack of strength as a research tool, the case study is a very relevant method and, depending on the studied theme, it is possible to use the single case study or the multiple case one. Three categories are related to the case study: the exploratory, the descriptive and the explanatory.

Despite the critics about the strength of the case study, Zainal (2007) comments that some techniques, such as triangulation, help to increase the confidence of the results.

Radišić and Nedeljković (2012), in turn, understand that the case study method can be applied aiming to fortify the formation of future professionals in the management area. The authors present a model of case study that can bring to researchers and students a better understanding about the problems and events of the real world. The authors present the model "5C" (creation, cooperation, context, creativity and communication), which consists of a case study method applied to the problem solving of real-world organizations.

The case study method to the problem solving of real organizations may be constituted of one of the most important education tools for future managers (Radišić, & Nedeljković, 2012).

The enterprises participating of the application of the strategic planning methodology in question were: Bionova, DivCad, Gardênia, NeoSaga, Olivenbaum, StarAPP and Tecno Service. From the seven startups, four were resident in Unoesc's Technological Innovation Center (TIC), and three were not. Furthermore, five have already been in the market, and two were on the elaboration phase of business plan.

Associated to the option of multiple-case study, the research-action procedures were adopted (Thiollent, 1997) in data collection and interpretation. In this sense, the data collection and analysis were simultaneous, organized as workshops, each one seeking to complete one of the strategic planning steps. Among the workshops, when necessary, there were individualized meetings with the enterprises, in the form of consulting or counselling, to support both the development of strategic planning and the solution to the management problems experienced by the startups in the implantation of their operations.

In general, the workshops were held based on the following methodological procedures: positioning of the previous and subsequent steps to situate the participants; presentation of the theoretical background enabling to understand each step's aim, as well as the method to be employed; creation of small groups in order to address each step's aims, delimiting the time to the development of the proposed activity; and plenary to socialization of the discussed matters by each group seeking consensus about the step's results.

After each workshop, the representatives of the involved enterprises organized the results in texts, boards and other representation ways. These productions in the companies' scope were systematically reviewed by the researchers to give shape and form to the Strategic Planning under construction. These procedures allowed the participants to analyze the results of each gathering, as well as the request for adjustments, when necessary.

In the last workshop, the strategic plan of the seven startups was approved, as well as the definition of the monitoring and assessment system, which consists of collective meetings every two months in an agenda previously scheduled until December 2016, with the participation of leaders and researchers. In these meetings, the advances and difficulties in the implementation of the action plans will be assessed, as well as the consulting needs and the referrals until the next assessment meeting. Thus, the continuous learning is guaranteed, by the experience curve between planning, implementing, assessing and adjusting the objectives and planned actions.

#### 4. PRESENTATION OF THE RESULTS

Initially, a brief characterization of the enterprises and one equally brief profile of the participating managers will be presented. Subsequently, the adopted strategic planning methodology will be described and analyzed. Finally, an evaluation of all the process will be done, in the startups' managers' and researchers' view.

#### 4.1 Startups' Characterization and their Managers' Profile

The startups participating of this study present the following characteristics:

Bionova: the enterprise was created at the beginning of 2015 to offer technical advice and support in the development of sustainable projects;

DivCad: the enterprise was created from an academic project of the Course of Information System, with the challenge of creating a software to the generation of projects to the construction of easily changeable environments, especially with the use of partitions in laminate or plaster and PVC or plaster ceiling;

Gardênia: the focus is on a sustainable environmental project: to develop a recharge electronics module for fractionation of cleaning products, enabling the reuse of currently disposable packages;

Neo/Saga: the enterprise arose from the fusion of ideas that allowed the sharing of experiences of professionals working in the publicity and advertisement area. The enterprise's proposal aims to offer different and integrated solutions of digital strategies and branding in a creative and collaborative work dynamic, which promote well-being;

Olivenbaum: the idea arose from a hobby of the enterprise's founding couple. The basis of the project aim the achievement of excellence in the production and distribution of artisanal beer;

StarAPP: the enterprise was founded in 2013 to the creation of tools to mobile devices, seeking solutions to certain market areas, such as beauty saloon;

Tecno Service: the content of the preincubated project is the creation of a new business segment to Tecno Service in the offer of advice and technology to the micro generation of energy in residences and companies, contributing to principles of environmental and economic sustainability and to principles of innovation.

Regarding the profile of 18 entrepreneurs, it may be highlighted that:

- a) 33.33% are female, and 66.67% are male.
- b) 88.89% have higher education, 55.55% with complete specialization, 5.55% attending specialization, and 11.11 taking a Masters course.
- c) 27,78% are 25 years old or less, other 27.78%, between 26 and 30 years old, 38.89%, between 31 and 25 years old, and the other 5.55%, are over 35 years old.

Thus, the group's profile is predominantly composed of men, young, with complete higher education and a considerable number with complete post-graduation, markedly in the specialization scope.

#### 4.2 Description and Analysis of the Applied Strategic Planning Methodology

Considering the learning and the refinement of this methodology application in five enterprises between the

years of 2005 and 2010 (Machado, 2012), the workshops were offered adopting a set of steps described next to the elaboration of the seven startups' strategic planning. These steps were held between the months of April and October 2015, with meetings on Thursdays nights and in other moments by previous scheduling.

First step: meeting with the seven enterprises' managers to awareness, negotiation and preliminary diagnosis. Professors from the Professional Masters in Administration and from the graduation, specialists in the areas of Sales and Marketing, Process Management, Finances, Strategy and Project Development also participated of this step and of other moments of this project. Besides these professors, the Coordination of the Technological Innovation Center (TIC) and of the Management and Entrepreneurship Center (MEC) also participated, which are sectors that, with the researchers' support and coordination, monitor the activities.

Second step: workshop for the creation of the imaginary competitor, adapted from Fahey (2003). This step took place in April 2015 in two dates, mediated by the researchers and with the seven enterprises' managers' active participation. In this step, the participants received theoretical contribution from the SP complete process, aiming to level the involved ones' knowledge, with special attention to the method and objectives of the creation of the imaginary competitor. One of the moments of this step was accomplished using cardboard paint and brushes, as a way of liberating the participants from the daily conditionings. The participants, in groups, had to draw something that playfully represented a characteristic, or to complement the others' drawings, without verbal communication. After, they would interact in the group to create a comprehension of the set of drawings that translated attributes of the imaginary competitor. Later, the drawings were socialized with the participants.

Third step: workshop to analysis of the external environment, held in May 14th 2015. In this step, the workshop began with the theoretical contribution and the explanations about the analysis method to be applied in the group activities. The participants were divided by enterprises, each one to answer two forms, one to each technique employed. The analysis of the external environment happened based on two techniques widely adopted: a) analysis of competitiveness (Porter, 2014) to the operational environment (on the marked surroundings), emphasizing the analysis of the relation with clients, suppliers and competitors; b) analysis of the stakeholders, adapted from Freeman (1984) and Perrot (1996). At the end, the presentation of the results was held.

Fourth step: workshop to analysis of the internal environment in May 28th 2015. The presentation of the concepts and techniques to be employed took place in the workshop opening. Subsequently, again, the participants composed groups by enterprises to the development of the proposed activity. The internal analysis was done through a form with two columns,

one to indicate what the startup does well and other to show what it needs to improve. To illustrate the intensity of the listed aspects, beside these two main columns there was another one to be filled with numbers from +1 to +5 for what the startup does well, and from -1 to -5 to indicate what needs to be improved. The analysis was held based on the approach of the analysis of Porter's (1989) value chain, with some adaptations. At the end, the groups socialized the results and collected contributions.

Fifth step: workshop to characterization of the mission and values held in June 11th 2015. The theoretical contribution starts by the concepts of mission and values, seen as elements that are constituted from the enterprises' historical trajectory. As all the startups are very young, the forms were adapted to (a) evidence the brief history and the motivations that originated the enterprise; (b) evidence the enterprise's *raison d'être*, especially, in what it seeks to offer to the society; (c) establish the values taken as essential to underpin the company's relation internally and externally; (d) identify the success key factors; (e) define the activities on which the enterprise must focus in the future. The last item of the form requests the mission preliminary writing, taking as a basis all the reflections resulting of this step, knowing that the final writing would occur only at the end of this process. At the end, the enterprises socialized the mains results and collected subsidies to the possible improving.

Sixth step: workshop to the definition of the strategic objectives held in June 25th 2015. This step was relatively easy, because, after the conceptual initial part, the groups were organized by enterprises took as a basis everything they had produced till then, they defined their strategic or macro objectives. These objectives were classified in general/global or functional. The participants were aware that every strategic objective traced would be outspread in the following step in the action plan or in specific strategic projects so that it was possible to glimpse in time the actions that go against its accomplishment. At the end, the groups presented their traced goals and listened to the other participants' suggestions and comments.

Seventh step: workshop to systematization of the action plan held in the months of July and August and concluded in the gathering in September 3rd 2015. As the action plan is the result of all the SP process, this step began with individual meetings by enterprise, aiming to: (a) the review and comprehension of the writing resulting from the previous steps; (b) the deployment of each strategic objective in a form which detailed the actions (what?), the process to execute them (how?), the time limit (when?), the responsibilities (who?) and the need for investment (how much?). In these meetings with the researchers and each enterprise's managers, all the process was fed back into, since the previous steps were restored to refining and adequacy, aiming to match them with what was intended to execute in the action plan.

Eighth step: meeting held in October 8th 2015 to final review of the SP and definition of the evaluation and control system. In this meeting, each enterprise

presented in slides their strategic plans as final process of the seven participating startups' socialization and integration. At the end, the evaluation and control mechanisms were discussed. The deliberation was due to the researchers, with TIC's support, organize bimonthly meetings in which each startup presents its progresses and difficulties that enable to review the plan, promoting the proper adjustments. It was also defined that in the time between these meetings, the researchers will render customized consultancy to the startups, making it possible to attract to this project other professors and consultants to meet the specific demands.

In conclusion of the eight steps, each enterprise received its strategic plan reviewed and approved, written in a Word file containing between 14 and 18 pages, in order to facilitate the continuous improving of this plan along its execution and the moments of evaluation and control.

### 4.3 Evaluation of the Process in the Involved Researchers' and Managers' View

Considering that science advances from studies that complement previous studies, next, Machado's (2012) publishing findings are highlighted, which keep valid and are ratified in this research:

- a) Participation: the participative character, stimulated by the use of the research-action, pervades the participants with shared ideas, generating the mass effect by which the deliberations are spread and legitimated in other organizational spheres.
- b) Integration: all the process cumulated about 70 activity hours both in the gatherings to hold the workshops and in individual advising moments to the preincubated enterprises.
- c) Learning: it was evidenced, with the course of time, that the participants incorporated concepts and techniques from the capacitation and advising processes, what can be considered transforming.
- d) Creating the imaginary competitor.
- e) Specificities of the small and medium-sized enterprises: the methodology showed to be wide enough to be incorporated to the seven startups' reality and expectancies.

About the sequence of the steps and their content, it is important to highlight and justify two choices, that result from the five previous applications, in an evolution process, which were:

- Most of the strategic planning methodologies begin by the definition of the mission and after pass to the internal and external environment diagnosis. In the applied methodology, it was chosen to begin with the creation of the imaginary competitor, to stimulate the creativity in this step and in the other ones. In the sequence, the steps of analysis of the external and internal environments were chosen, in this order, since understanding who we are and who we want to be is necessary to understand the context in which we are inserted. And only at this moment there are elements to

define or review the mission and values determinant to define the organization's *raison d'être*.

- In the step of definition of the mission, it is usual to describe the vision as well. However, in this methodology, the writing of the vision was discarded by the researchers due to stablishing confusion with the mission, and also as simplification element of what the enterprise needs to focus on. Our experience in SP reveals that the vision normally indicates what the enterprise wants to be recognized in the future, what does not aggregate a lot when the mission is complete and clear.

At this moment, it is important to highlight textual clippings of the evaluations expressed by the startups' managers during the last workshop:

The SP activity was very useful and worked to bring new perspectives, rethink, plan and take it easy. The planning was fundamental to the opening of new horizons and more knowledge in the management area, since we are very technical. In the consulting area, it was well explored. (Garnênia's manager, 2015).

The SP activity helped in the work environment, in on-time delivery performance, fulfillment of steps, organization and financial management, working hours, and others. Besides teaching us to work and plan, SP certainly aggrandized us with a wide experience and future vision. (Neo/Saga's manager, 2015).

The SP activity helped us on how to enter the labour market, in the definition of the operation areas and of the strategic planning itself. (Bionova's manager, 2015).

All the process helped us to create entrepreneurial ideas and we concluded that we need to seek more knowledge. The SP activity was advantageous, for it helped in the enterprise's implementation and organization process. (StarAPP's manager, 2015).

The SP activity helped in the management plan and in the enterprise's and services' definition, because till then, the partners had no knowledge on management, since they work in a more technical/operational field. (TecnoService's manager, 2015).

The SP activity has brought us to assess the enterprise to solve our problems, and showed us that we cannot stop planning, even without clients, and that we need to analyze the fittings and selling models to the products. (Div/Cad's manager, 2015).

The SP activity made it possible to write down what we wish for, providing a task division, avoiding the overload of activities so that we can start in the right way. And this differs us from many enterprises which start without having clear objectives to the businesses. (Oliverbaum's manager, 2015) (verbal information, our translation).

The Coordinator of the Technological Innovation Center highlights that "When an enterprise is open, there is little experience, and the SP provides a view and a differential to the beginners. As they are the first preincubated, it is hoped that they have long lifetime and that the SP contributes to that." (our translation).



It is important to stress that the ratification of previous findings is in line with the startups' managers' positions and also enables to highlight findings that are specific from this research due to the specificities experienced, which are:

- a) It was evidenced that one of the great challenges of this participative methodology was to conduct a set of workshops involving seven enterprises simultaneously, what represented an incomparable experience to the researchers. As a result of this process, it is possible to state with certainty that all this diversity and integration opportunities generated a synergy in proportion above the initial expectations;
- b) The SP methodology application in startups seemed, at first, risky, considering that at the beginning of the enterprise, one of the recommended methods is the business plan. However, the methodology proved to be adequate precisely due to its application;
- c) An extremely positive aspect highlighted by all the enterprises was the creation of a collaborative network among the startups, due to the inter-knowledge of what each one does and what intends to do. From this network, there are results like the indication of potential clients, exchange of services among the preincubated enterprises, sharing of experiences, and others.
- d) Other innovative characteristic was the alignment of the process of the strategic planning development with the consulting activities and monitoring of the seven startups' activities, what is not usual in the pre-incubation processes.

The partnership between the Professional Masters in Administration (PMA), Technological Innovation Center (TIC), Management and Entrepreneurship Center (MEC) and the seven pre-incubated startups does not stop with the conclusion of the strategic planning development. The professors involved keep providing consultancies and trainings to the entrepreneurs and monitoring systematically the execution of the plan, with the necessary adjustments during the aimed period, since the reality is more complex and multifaceted than it is possible to predict and articulate in a formal text.

## 5. CONCLUSIONS

The planned objectives to this study were fully achieved based on the arguments presented next. First, it was evidenced that at the end of the research the seven young enterprises counted on the strategic plan elaborated, reviewed and approved. To this end, the methodology was reviewed, the theoretical framework was updated and the forms adopted to the data collection and systematization were adapted.

In parallel, and integrated to the strategic planning, the monitoring of the startups' operations was performed through advising and consultancies performed collectively or individualized, according to the necessities and demands. All this process became a real learning source. And this learning was getting evident in the way how the enterprises' managers incorporated concepts and processes to their daily lives and to their speeches. It was possible to hear

expressions like differential or competitive advantage, opportunities, process management, cash flow and financial statements much deeper than in the moments anticipating this research. These consultancies focused in the functions of sales and marketing, process management, finances, information technology and project development, and happened as the workshops evidenced deficiencies and demands. It is possible to say that this was the great differential in relation to the five previous studies.

In the section 4.3 there is the ratification of previous studies findings (Machado, 2012), which are: participation, integration, learning, innovative character of the imaginary competitor and adequacy of the strategic planning methodology to the application in small and medium-sized enterprises, for their simplicity and efficiency.

New findings were also observed, as the application of the methodology collectively and simultaneously, as synergistic element, with exchange of ideas and sharing of experiences. When an enterprise's manager dealt with other enterprise's problem different from his in many ways, cross-apprenticeships are built, solution of other problems by analogy among other opportunities.

At no stage it was noticed any trace of competition or conflicts, indicating one more important finding: startups that live together and overcome initial stages of entering the market compose a real collaborative network, with exchange of services, indication of potential clients, among other integrative actions.

Generally speaking, the improvements indicated to the future application of this SP methodology are concentrated on the process, since the sequence of steps proved to be sufficiently adequate. In special, it was noticed that the step of the action plan development must be outspread in several moments until the enterprises reunite the evidences to the accomplishment of a workshop of mounting and review of this plan.

Finally, in response to the research problem and to the specific objective, it is possible to assert that the methodology proved to be adequate to the aimed ends and may coexist with the business plan or viability projects built to the capturing of public revenues.

And the main recommendation is already under implementation by the own researchers, who will keep monitoring the implantation of these seven SP, through bimonthly evaluative meetings and consultancies between these meetings to overcome obstacles or to seize opportunities. So far, three evaluation meetings have been held, and another seven are already scheduled until December 2016.

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# Primena metodologije za strateško planiranje u sedam brazilskih predinkubacionih preduzeća u tehnološki inovacioni centar (TIC)

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## Apstrakt

*Opšti cilj ovog istraživanja je primena metodologije za strateško planiranje u sedam predinkubacionih preduzeća u tehnološki i inovacioni centar (TIC) u Unoesc Chapeco, SC. Specifični ciljevi su: priprema strateškog plana za sedam preduzeća povezan ih sa Pre-inkubatorom u TIC Unoesc Chapeco; prilagoditi metodologiju karakteristika i potreba mladih preduzeća ; primeniti metodologiju kao proces učenja uz dopunske konsultacije koje omogućavaju bolje razumevanje strategije i obezbediti preduzećima sa uslovima u cilju njihovog korišćenja; kritička procena adekvatnosti primenjene metodologije prema karakteristikama predinkubacionih preduzeća; predložiti poboljšanja same metodologije, sa ciljem dodatnog proširenja njene primene u malim i srednjim preduzećima .*

*Metodološki postupci slede kvalitativni pristup sa višestrukim dizajnom studije slučaja i sa metodom istraživanja-akcijom, što čini procese sakupljanja i analizu podataka simultano. Rezultati pokazuju da je metodologija prikladna da se primenjuje na mladim preduzeć ima istovremeno i kolektivno , za podsticanje učešća integracije, učenje i formiranje zajedničke mreže, kao i za priključivanje procesa formulisanja strategija za konsalting koji se fokusira na strateški menadžment . Na ovaj način , moguće je tvrditi da su navedeni ciljevi u potpunosti postignuti.*

**Ključne reči:** *Strateško planiranje, Strategijski menadžment, mikro i mala preduzeća, Start-up*