ABSTRACT

The aim of this study is to analyze the challenges and motivations that permeate the intrapreneurial initiatives in the Brazilian public sector. The conceptual contribution is the alignment of intrapreneurship and motivation for public service and a focus on the practices of this sector. The study uses a qualitative approach, and the method is a case study conducted at a Brazilian public university that offers a postgraduate program in Bioinformatics. The working relationships between the public university and the teaching staff show a propensity towards civic virtues, given that there are no extraneous rewards or increased remuneration for those involved in intrapreneurship initiatives. Finally, in the case in question, the actors showed strong internal motivation, characterized by an intrapreneurial initiative that sought to provide better services and generate value for society.

Keywords: Intrapreneurship, Public Service Motivation, Innovation in Public Service, Public University.
Este estudo tem como objetivo analisar os desafios e motivações que permeiam a iniciativa intraempreendedora no setor público brasileiro. A contribuição conceitual se refere ao alinhamento do intraempreendedorismo e de motivação do serviço público e, focando nas práticas desse setor. A pesquisa tem uma abordagem qualitativa, sob o método do estudo de caso realizado em uma universidade pública brasileira que oferece um curso do Programa de Pós-Graduação em Bioinformática. As relações de trabalho entre a universidade pública e os docentes indica uma propensão às virtudes cívicas, visto que não há recompensas extrínsecas nem aumento de remuneração para aqueles envolvidos na iniciativa intraempreendedora. Finalmente, no caso estudado, os atores apresentaram uma motivação interna caracterizada por uma iniciativa intraempreendedora que buscou entregar melhores serviços e geração de valor para a sociedade.

Palavras-chave: Intraempreendedorismo, Motivação no Serviço Público, Inovação no Serviço Público, Universidade Pública.

1 INTRODUCTION

Competitiveness as a contemporary phenomenon shows that organizations are concerned about achieving parameters that enable them to remain operational. In public agencies, facing this reality is made more difficult by their conservative practices, the bureaucracy of their processes, lack of initiative and inherent aversion to risk (PITTAWAY, 2001; BERNIR; HAFASSI, 2007). Therefore, the challenge is to find mechanisms that provide incentives for opposite behaviors.

In recent decades, public services in Brazil have undergone transformations in an attempt to make them more streamlined and effective, reducing costs and increasing the quality of the services provided (MAGALHÃES et al., 2006). In some respects, the managerial style has become more similar to that of the private sector. In this scenario of change, it is necessary for public sector workers to feel motivated to seek beyond their regular activities, to innovate and achieve the quality of service that is desired by society.

Intrapreneurship is embedded in this context. It presents a perspective for change and innovation that is capable of minimizing practices that hinder organizational development. In the public sector, intrapreneurship is also considered a means of achieving better organizational performance (KEARNEY, HISRICH, ROCHE, 2007; 2008; CORBETT et al., 2013). In the academic field of entrepreneurship, the dilemma remains on whether the focus should be on the process or the profile of the entrepreneur and intrapreneur (GARTNER, 1989; HISRICH, 1990). However, in Brazil, studies on intrapreneurship have not outgrown the recommendation of placing emphasis on analyzing and identifying the profile of the intrapreneur (PINHEIRO NETO et al., 2008; SCHENATTO; LEZANA, 2001; MIRANDA; SILVEIRA, 2010). Therefore, this study adopts a view of intrapreneurship as a process.

A distinct perspective is to base discussions on the public scenario on more adequate bases for reflection that comprise objectives regarding efficiency and accountability, basing every question on the assumption that the work of public administrators is not only to understand the behavior of public agencies, but also to improve the performance of these agencies (BENH, 1995). Thus, Camilleri (2007) claims that understanding the motivations of public sector workers is essential when it comes to structuring organizational environments and systems of incentives in a drive to increase efficiency in the provision of services to society. Riccucci (2011), when studying current and future challenges in the field of Human Resource Management, highlights some important topics that have not been addressed in the literature, including motivation in the public sector.
In this sense, the present study was conducted to analyze the challenges and motivations involved in the development of intrapreneurship in a public organization. To achieve this goal, the case of a Brazilian higher learning institution, denominated Alpha, which began to offer a Master’s Degree course through a *stricto sensu* post-graduation program was analyzed. It should be highlighted that the creation of the program in question stemmed from the initiative of some of the teaching staff. The staff were under no environmental pressure. The implementation of the Alpha course occurred in a sector of the university that had no post-graduation program. Therefore, this was a pioneer initiative in this sector that resulted in an innovation process.

To address the research problem in question, this study adopted a qualitative research approach to understand how people interpret their experiences, construct their world and give meaning to their experiences (MERRIAM, 2009).

Therefore, the conceptual contribution of the study is to articulate intrapreneurship within a perspective of processes and address motivation in the public sector through an empirical study, an unprecedented relationship in the field of management.

The article is structured as follows. This introduction is followed by a theoretical framework concerning intrapreneurship and motivation from the perspective of public organizations. This is followed by the methodology and a data analysis in light of the conceptual research elements and the findings. The article is brought to a close with the final considerations and recommendations for future studies.

2 INTRAPRENEURSHIP IN PUBLIC ORGANIZATIONS

Intrapreneurship is considered entrepreneurship within existing organizations (ANTONCIC; HISRICH, 2001; 2003). It refers to the process that takes place within an existing organization, which leads not only to new undertakings but also to other innovative activities and orientations, such as the development of new products, services, technologies, management techniques, strategies and competitive postures (ANTONCIC, 2007; CORBETT et al., 2013).

The emergence of intrapreneurship in the public sphere reflects concern over the development of an attitude of active administrative responsibility that includes the generation of new sources of income, the provision of better services and improvements in education for citizens and social development (BELLONE; GOERL, 1992). However, public entrepreneurship establishes a paradox, as it is a sector associated with bureaucracy, conservatism, routine behavior, risk aversion and lack of initiative (PITTAWAY, 2001; BERNIR; HAFSI, 2007).

Public intrapreneurship can be defined as “the generation of a novel or innovative idea and the design and implementation of innovative ideas in public sector practice” (ROBERTS, 1992, p. 56). Broadening the focus beyond innovation, Morris and Jones (1999, p. 74) define intrapreneurship as “a process of creating value for citizens by bringing together unique combinations of public and/or private resources to exploit social opportunities”. Like entrepreneurship, it is directed at the market but with a focus on social capital, values, and innovation in providing service, substituting profit for motivation (EDWARD et al., 2002).

Sadler (2000) states that entrepreneurship in private organizations is usually associated with small organizations with clear goals and consistent control over resources and an organic and flexible structure. In comparison with public organizations, these features bear little relation to intrapreneurship. Public organizations are characterized by their large size, hierarchy and rigidity, making it hard to form shared goals and have less control over the resources used in the entrepreneurial process.
Entrepreneurship in this context can be understood as a process in which an agent or entrepreneur is engaged in an entrepreneurial event. An entrepreneurial event, in turn, refers to the conception and accomplishment of an idea, concept, service, product or innovative activity. The agent is the individual or group responsible for initiating the event. The process deals with behavioral and attitudinal components (MORRIS; JONES, 1999). The main challenge for intrapreneurship is the identification of the processes that lead to many forms of corporate entrepreneurship, and how this may produce results for the organization (KEARNEY et al., 2007, 2008).

To Kearney et al. (2007; 2008), rewards increase motivation to engage in intrapreneurial activities. It is worth mentioning that they can go beyond financial returns in the form of recognition, feedback and increased meaning of work. Just as important is the risk tolerance of the organization to provide greater employee engagement. Thus, structures that are organic, adaptable, open to communication, consensus and flexible organizational culture, facilitate intrapreneurship and innovation (SADLER, 2000).

According to Sadler (2000, p. 29), “intrapreneurship and its facilitating factors are not absolute”. Morris and Jones (1999) emphasize that the public sector has structures, rules, regulations and procedures that may become barriers to the development of intrapreneurship, such as ambiguous goals, political interference, limited political autonomy, lack of incentives to take risks and strict personnel practices, bureaucracy and maintenance of the status quo.

Despite the obstacles, intrapreneurship can be seen as an incentive for a public organization to build on its ability to provide services and generate value (BERNIER; HAFSI, 2007). Thus, there is a clear relationship between intrapreneurship in the public sector and innovation as a proactive role to increase the quality of life in society (MORRIS; JONES, 1999).

Regarding the university environment, Miranda and Silveira (2010) state that it presents numerous possibilities for intrapreneurship, a point in question being external financing from governments and associations for the execution of projects and partnerships. Moreover, Schenatto and Lezzana (2001) found that university professors (intrapreneurs) can be agents of change in their institutions, seeking power and status.

In a study on the intrapreneurial behavior of collaborators at higher learning institutions, Lizote et al. (2013) found that intrapreneurship in this context is influenced by organizational factors such as support from the board of directors, freedom in the workplace, rewards, available time and uncertainty regarding tasks. These factors lead to the conclusion that intrapreneurship is linked to characteristics such as autonomy, innovation, proactivity, aggressiveness and risk taking (MILLER, 1983; LUMPKIN; DESS, 1996; DESS; LUMPKIN, 2002).

The implementation of modernization programs in the university environment requires more than institutional support, appropriate organizational structure and reorganization of work. The organizational change needs to be rooted in changes in the beliefs, attitudes and perceptions of the parties involved in the process, and these may have a positive or negative influence on the acceptance of changes (SAMPAIO; LANIA DO, 2009).

According to Sampaio and Laniado (2009), difficulties of an institutional order refer to factors associated with internal and external aspects of the organization, such as legal, financial, internal communication and organizational structure. The political dimension, in turn, has to do with relational factors, such as conflict, power struggles and tension between individuals, groups and sectors of the university organization. The socio-cultural dimension addresses habits, values and beliefs reflected in the managerial practices of the university.

Continuing the debate on intrapreneurship in the university environment, the professors, who are considered highly qualified knowledge workers, desire greater autonomy and can
Challenges and motivations for the development of an intrapreneurship initiative in a public university

be self-motivated and self-directed by their expertise (TEECE, 2009; DOUGLAS; FITZSIMMONS, 2013). This author presents the case of the university as an environment that demands the fulfillment of professors’ obligations in teaching, research and providing services, but at the same time allows flexibility and freedom to practice other activities to identify appropriate opportunities for the development of intrapreneurial initiatives.

Finally, Kearney et al. (2007; 2008) claim that intrapreneurship is a possible reality in the public sector, requiring support and managerial commitment, organic organizational structure, less formalization, more decentralization and flexibility in decision-making, less strict control systems, positive and appropriate rewards, and a culture that facilitates and stimulates moderate risk-taking and proactivity. Another important aspect is capacity to adapt and receptivity to internal and external changes in the sector.

3 PUBLIC SERVICE MOTIVATION

Motivational theories can be classified into two schools: theories of needs and cognitive theories (ROBBINS; JUDGE; SOBRAL, 2008). It should be highlighted that motivation for public service is not a motivational theory, but it is part of the New Public Management (NPM) approach that discusses the function of human resources in the promotion of innovation in the public sector (PERRY; HONDEGHEM; WISE, 2010). Therefore, this section addresses the motivations for public sector workers to innovate.

In recent decades, public services in Brazil have undergone transformations, seeking to become more agile and efficient, reducing costs and raising the quality standards of the services provided (MAGALHÃES et al., 2006). In some respects, their management has become more similar to that of the private sector. In this scenario of change, it is necessary for public sector workers to feel motivated to accomplish their activities, thus achieving the quality desired and needed in services provided to society. Camilleri (2007), quoting Wittmer (1991), affirms that understanding the values and preferences of rewarded public servants is essential for the structuring of organizational environments and incentive systems that attend to these preferences.

In Brazil, public sector workers are usually seen as lazy (WILSON, 1989), and are referred to by many names, such as public employee, public administrator, government employee and bureaucrat. Houston (2005) highlights that the term “public servant” is the one that comes closer to the reality of the role that these workers play.

The academic literature on public management affirms that public employees are different from private sector employees. The public sector has been portrayed as a calling, a sense of duty, rather than a job opportunity, and is characterized by an ethic regarding providing services to the public (PERRY, 1996; HOUSTON, 2000; 2005).

Efforts to develop the literature on motivation focusing on the peculiarities of the public service are still recent (PERRY; WISE, 1990; PERRY, 1996). Concern has grown in recent years over the need to improve performance in public services (HINNA; RUSSO; SCAROZZA, 2012). Moreover, in 2012 in the European Academy of Management Annual Conference, a specific section on Public Service Motivation was proposed. This section had 12 papers, the most important being the studies by Eldor, Schohat and Vigoda-Gadot (2012); Hinna, Russo and Scarozza (2012); Souza, Takahashi and Bronze (2012) and Tabvuma, Bui and Homberg (2012).

Motivation in the public service is formed as a combination of attraction to the civil service, commitment to public values, compassion and self-sacrifice (PERRY; WISE, 1990; PERRY, 1996). It is assumed that public sector organizations are more likely to employ people whose values and
needs are consistent with the mission of this kind of work (CREWSON, 1997; PERRY; WISE, 1990). According to Perry and Wise (1990), motives for entering public service fall into three categories: rational motives, norm-based motives and affective motives, as shown in Table 1.

Table 1 – Motives for entering public service

<table>
<thead>
<tr>
<th>Motive</th>
<th>Characteristic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rational</td>
<td>Participation in the process of policy formulation.</td>
</tr>
<tr>
<td></td>
<td>Commitment to a public program because of personal identification.</td>
</tr>
<tr>
<td></td>
<td>Advocacy for a special or private interest.</td>
</tr>
<tr>
<td>Norm-based</td>
<td>A desire to serve the public interest.</td>
</tr>
<tr>
<td></td>
<td>Loyalty to duty and to the government as a whole.</td>
</tr>
<tr>
<td></td>
<td>Social equity.</td>
</tr>
<tr>
<td>Affective</td>
<td>Commitment to a program from a genuine conviction about its social importance.</td>
</tr>
<tr>
<td></td>
<td>Patriotism of benevolence.</td>
</tr>
</tbody>
</table>


According to Perry (1996), the rational motives have to do with actions to maximize individual work. The norm-based motives refer to actions based on norms. Finally, the affective motives are based on emotional responses to the social context of the public servant.

The notion of management in the public sector is no different from that of the private sector, especially regarding the understanding of theories on the theme (PERRY; WISE, 1990). The very perception of individuals regarding the nature of the relationship affects their motivation, resulting in work relationships where services are offered as “presents”, highlighting the civic virtues, in contrast with services being provided through contracts, where civic virtues are not preferred (FRANÇOIS, 2000).

There is a common understanding that the motives of public employees are different from the motives of private sector employees (PERRY; HONDEGHEM; WISE, 2010). However, motivation for public service is not always based on altruistic motives or identification with this sector’s values, as debated by Perry and Wise (1990). This motivation behind entering public service in the Brazilian reality is stability and a better salary. However, intrinsic rewards, such as a feeling of accomplishment and satisfaction in providing services, despite the extrinsic rewards, serve to motivate these workers (CREWSON, 1997; FRANÇOIS, 2000; HOUSTON, 2000; DELFGAAUW; DUR, 2008; PERRY; HONDEGHEM; WISE, 2010; GEORGELLIS; IOSSA; TABVUMA, 2010).

Therefore, to be successful, the reward structures of the public sector must be conceived around more than just monetary rewards. They should also provide an opportunity to satisfy the intrinsic motivation of their employees (HOUSTON, 2000; CHRISTENSEN; WRIGHT, 2011).

The perspective in which the public sector is responsible for providing high quality services (HSIEH; YANG; FU, 2012) is based on mechanisms such as: a) increasing the autonomy of public managers to reward individuals who meet goals; b) availability of technological resources that guarantee the achievement of these goals; c) appreciation of the virtues of competition (EH-SAN; NAZ, 2003); and d) performance assessment in achieving these goals (BEHN, 1995).

These concepts fall into what is known today as New Public Management. This doctrine aims to drag the antiquated bureaucracies into a new era characterized by orientation towards the market and high levels of effectiveness, flexibility and responsibility to citizens (VIGODA-GAD-OT; MEIRI, 2008). The theory of motivation in the public sector has significant implications for public management, suggesting that the common motivational tools in private management are
not so effective in public organizations, since the reward systems in the private sector are constructed on the primacy of extrinsic rewards (HOUSTON, 2005). Despite the differences between private and public organizations, New Public Management broaches concepts of entrepreneurship, empowerment and commitment (BUELENS; VAN DENBROECK, 2007) that favor improved performance in public organizations.

The attention paid to changes in market orientation and improvement in public organizational practices depends on constant efforts concerning innovation, such as intrapreneurship in the public sector. This requires initiative and motivation. To this end, the following section addresses the process of intrapreneurship in public organizations.

4 METHODS

The present work adopts an approach that addresses processes, in which the world is viewed as a set of stable, lasting entities with characteristics that change over time (LANGLEY et al. 2013). Thus, it is based on an ontology in which the world is composed of processes rather than things. Therefore, the entities, as organizations and structures, are no longer temporary instances of an ongoing process in a continuous state of becoming (LANGLEY et al., 2013; TSOUKAS; CHIA, 2002).

The study is based on the premise that the environment is enacted, with environment and organization enacted jointly in a social construction process of reality by the key actors of the organization and outside of it (SMIRCICH; STUBBART, 1986). Thus, as defined by Morgan and Smircich (1980, p. 494), “the social world is a continuous process, created afresh in each encounter of everyday life as individuals impose themselves on their world to establish a realm of meaningful definitions”. Therefore, a predominantly interpretive approach is adopted, through which the world is understood from the perspective of the production of meanings (HATCH; YANOW, 2005).

The design of the study is descriptive and exploratory, following a qualitative approach (MERRIAM, 2009; DENZIN; LINCOLN, 2006;) and the method is the case study (YIN, 2006), with a transversal temporal perspective with longitudinal approximation (NEUMAN, 2009).

Qualitative research is concerned with understanding how people interpret their experiences, how they construct their world and give meaning to their experiences (MERRIAM, 2009). Another important point of qualitative research is that it seeks to understand the phenomenon from the perspective of the participants, with the researcher as a “primary instrument of data collection and analysis” (MERRIAM, 2009, p. 15). Qualitative research is an inductive process. Researchers collect data to form constructs and hypotheses (MERRIAM, 2009): “the abstractions are constructed from the data in a bottom-up process” (GODOY, 1995a, p. 63).

The research method applied was a case study, bearing in mind that the proposed research problem begins by asking ‘how’, as recommended by Yin (2006, p. 19): “Case studies represent the preferred strategy when dealing with questions like ‘how’ and ‘why’, when the researcher has little control over the events and when the focus is on contemporary phenomena inserted in some real life context”. The case study focuses on the understanding of the organizational dynamics present in a single configuration (EISENHARDT, 1989). A case study permits an understanding of a significant phenomenon under extreme circumstances (EISENHARDT; GRAEBNER, 2007), providing an in-depth description (SIGGELKOW, 2007). The case study seeks to understand the uniqueness, the particularity. Thus “the researcher at least temporarily subordinates other curiosities so that the stories of those ‘living the case’ will be teased out” (STAKE, 2005, p. 437).

The selected organization is a Higher Education Institution (HEI) in Brazil, a Brazilian public university. A decision was made to analyze the process of creating and implementing the
stricto sensu post-graduate program in Bioinformatics (Master’s Degree). The choice of this case is justified by the importance of the sector and accessibility to the organization in question.

Riccucci (2011, p. 137) claims that “schools and departments of public administration across the country are not producing scholars who are studying this vital area of human resources management”. In this case, the exploration of the link between motivation and intrapreneurship in a public organization can help to improve knowledge of one of the various areas of human resources.

For this, all those involved in the creation of the post-graduate program were interviewed. The data were collected from different sources, allowing the researcher to capture a greater range of historical and behavioral aspects in the case studies (YIN, 2006).

The primary data were collected in August and September 2011 in one of the sectors of the university where the Program was implemented and at the Department of Biological Sciences of the university through semi-structured in-depth interviews. Six members of the post-graduate program who were involved in its conception and implementation were interviewed. Each interview lasted an average of 50 minutes, and they were all recorded and transcribed. A script with open questions was used, based on the categories of the study. This script was evaluated in an early interview to confirm the definitive version. The interviewees were coded (I1, I2, I3, I4, I5, I6) to preserve their identities. Secondary data were collected through documental research, consulting the database that contains information on the program under study.

The method that was employed was narrative analysis, which Alves and Blikstein (2006) define as important elements in making sense of symbolic content in organizations and their environment.

Organizational narratives are created, but also altered, by human actions over time. They serve as scripts and instructions for future performances (CZARNIAWSKA, 1998). According to Alves and Blikstein (2006), narrative analysis is a method for recovering a past experience by combining a verbal sequence of causes and a sequence of events that actually happened (inference of the researcher). Thus, to the author, the narrative is the discourse of actions that happened in the past.

When it comes to conducting this research process and narrative development, Sá and Mello (2009, p. 179-180) emphasize that:

In qualitative interviews most of the speech is typically not narrative but rather successive exchanges of questions and answers, arguments and other types of discourse. Therefore, the interviewee is generally interpolated while rationalizing and constructing the story by the next question that interrupts the narrative. It is almost inevitable that, between one question and another, “tales” will arise, uncompromised, emotional and comic narratives. In other words, stories that make us lean, as long as we do not allow ourselves to hear them as such

This analysis method provides important insights for understanding organizational processes (PENTLAND, 1999), as it is through their retrospective nature that it is possible to understand how the participants in the narrative make sense of their world. Each individual in the narrative has different ways of making sense of events. Thus, Pentland (1999, p. 713) defines the narrative as “a purse sequence of events which basis is used to make tradeoffs and comparisons”. In the following table, the narrative properties that guided the data analysis are presented:

<table>
<thead>
<tr>
<th>Narrative property</th>
<th>Indicator</th>
<th>Operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sequence</td>
<td>Event patterns</td>
<td>From the transcribed interviews, narrative were selected that described the facts and events regarding the historical development of the case.</td>
</tr>
</tbody>
</table>
Challenges and motivations for the development of an intrapreneurship initiative in a public university

<table>
<thead>
<tr>
<th>Focal actor</th>
<th>Function, social network and demographics</th>
<th>The roles of individuals were identified and how they interacted in the context of the case under study.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voice</td>
<td>Viewpoint, social relationships and power</td>
<td>The perspectives that guide the narratives were identified. As the case in question is a multidisciplinary post-graduate program, the interviewees developed their narratives from their perspectives of academic qualifications.</td>
</tr>
<tr>
<td>Moral context</td>
<td>Cultural values and assumptions</td>
<td>Cultural aspects were raised that influenced the narrative of the interviewees.</td>
</tr>
<tr>
<td>Other indicators</td>
<td>Other aspects of the context</td>
<td>Other important elements of the narrative construction were identified.</td>
</tr>
</tbody>
</table>

Source: Adapted from PENTLAND (1999, p. 713).

The narratives for each interview were constructed using the narrative properties of Pentland (1999). In this context, the narrative analysis method was coherent with the retrospective analysis of the intrapreneurial process and motivation in the public sector.

5 SUMMARY OF FINDINGS

5.1 Challenges for the Development of the Intrapreneurial Initiative

A deeper understanding of the challenges facing the development of intrapreneurial initiatives can be gained by identifying the facilities and difficulties faced during the process in which the public servants (professors) developed an intrapreneurial initiative.

As for the challenges they faced, it is worth mentioning the management’s support of new ideas. Despite the freedom to develop new projects, one of the biggest difficulties is the lack of resources that aid this development. This does not only refer to financial investments, but also to an adequate physical structure and equipment that aids innovation.

In relation to the organizational structure, unlike in a private organization, university organizations have more autonomy in developing their projects. The professors reported more freedom, as noted in this excerpt:

The researcher has ample freedom to define his projects, that is, within the lines of the program, the researcher has complete freedom. That is crucial in the research environment, if you want to encourage innovation and stimulate novelty and new things, you have to grant freedom ((I3).

According to Kearney, Hisrich and Roche (2007; 2008), rewards are a great stimulator of intrapreneurship, and can go beyond financial remuneration in recognizing and expanding the meaning of work. In public organizations, the employees receive few financial rewards, therefore the motivation to develop new projects comes from the need for recognition and a drive for success at work. There are internal motivations that push extrinsic rewards into the background (GEORGEILIS et al., 2010).

In the narratives of the interviewees, it was clear that the rewards to be gained lie in the success of the program, as it involves an innovative field, the union of the fields of biochemistry and informatics, works that will be published as a result of the Alpha course and the professional and academic development of the students. Thus, the main motivation that impels intrapreneurship in the post-graduation context in the public university is the recognition of the work resulting in publications and results for society.
Sampaio and Laniado (2009) classified the difficulties of implementing new projects in HEI into three categories: institutional, political and socio-cultural. To these authors, the implementation of new projects and changes in the university environment require institutional support, appropriate organizational structure and work reorganization, in addition to being based on modifications in the beliefs, attitudes and perceptions of those involved in the process.

**Table 3 – Facilities and difficulties in the development of intrapreneurial initiatives.**

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Facilities</th>
<th>Difficulties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Political</td>
<td>Collaboration between groups. Previous experience of groups involved in the process.</td>
<td>Process of adapting language between groups.</td>
</tr>
<tr>
<td>Socio-cultural</td>
<td>Participative decision-making process.</td>
<td>Lack of recognition and comprehension from other participants in the sector.</td>
</tr>
</tbody>
</table>

 SOURCE: Prepared by the authors based on Sampaio and Laniado (2009) and field research data.

In the case studied, regarding the institutional dimension, the Program did not suffer any resistance from the institution, “what makes it difficult is the bureaucratic part that is necessary for any course to be created” (I1). Despite the institutional support, the greatest difficulty is the limited physical structure and the lack of resources for the acquisition of new technologies.

The political dimension refers to the scope of relationships between individuals, groups and sectors belonging to the university organization. In this sense, although the Post Graduation Program is composed of two groups of professional fields and different sectors, there were no conflicts. The cooperation between the two groups from the conception of the intrapreneurial initiative was the result of the involvement of one of the professors of the sector with the Nucleus of Nitrogen Fixation of the Biological Science Sector.

One of the factors that facilitated the whole process of conception and development of the post-graduate program was the previous experience of some of the teaching staff in another post-graduate program:

Therefore, our group has many experienced and qualified people, so we didn’t start from scratch to create this program here, but with a great example to follow. We adopted the criteria that the biochemistry program uses, as far as possible (I5).

In Brazil, the post-graduate programs are graded on a scale of one to seven, with seven being the highest score according to the criteria of the regulatory agencies, at the national and international level.

Other excerpts from the interviews confirm the facility on the part of the institutional dimension:

There was no resistance of any kind to the creation of the program from the biochemistry group, who already had a well consolidated post-graduation program of their own” (I1).
Challenges and motivations for the development of an intrapreneurship initiative in a public university

“We always learn and help each other, thus there are no [...] conflicts, so we often need to talk a little more or discuss a little more, not that it creates any problems but we learn a lot. We learn a lot from them and I think they learn a lot from us” (I6).

As for the difficulties, one interviewee stated: “One of the major difficulties was to coordinate the language of the informatics professors with the biochemistry professors. This is a characteristic inherent to all multidisciplinary programs” (I3).

The socio-cultural dimension portrays the beliefs, values and habits reflected in management practices of the university organization (Sampaio; Laniado, 2009). In the post-graduation program in question, there were no resistance to the adoption of a participative risk-taking process by the faculty. However, as expressed in the following narrative, the fact that this program is the first of its kind in a sector that is not familiar with stricto sensu post-graduate courses and research creates a gap between and even some misunderstanding from other participants in the sector regarding the requirements for post-graduate programs:

There is a cultural issue in this sector because people are not used to working with research or teaching in post-graduation programs. So, it was strange [...] On the one hand, it is nice to have a Master’s Course in the sector, but, on the other hand, people do not understand the context of post-graduation programs. A post-graduation program is complicated, if you do not achieve the goal, you will be unsuccessful. The difficulty in running a post-graduation course is much bigger than an undergraduate course, and when you are not experienced, sometimes you fail to realize the needs of the group that you are working with. So, people do not always realize our reality. We work 24 hours a day and we think about the project constantly.” (I5).

The main facilities found in the conception and development of the post-graduation program are the organizational support from the university top management and previous experience of the faculty with post-graduation programs. Another important aspect that facilitated this process is that the program was proposed in conjunction with the REUNI, which helped to provide resources and the initial infrastructure. The REUNI is a federal government program that supports plans for the restructuring and expansion of federal universities, with a view to increasing access and ensuring the permanence of students in higher education.

In addition to the difficulty of adapting the language of groups from different professional fields, one of the main difficulties identified in the narratives was the lack of appropriate physical space for a post-graduation program and the lack of financial resources to invest in the equipment required for conducting research:

And the result of us not having these resources is that we fell behind the rest of the world. They analyze quickly and they publish quickly. We have the data but not the conditions to do better due to lack of materials. These are the two main difficulties (I3).

Finally, as shown by Sampaio and Laniado (2009), the human role is fundamental to the development of initiatives to modernize and create projects in the context of the university organization. Thus, the intrapreneurial profile of those involved in the process is highlighted by the effort of developing something innovative and by facing the challenges involved so as not to miss the opportunity that has been created.
5.2 Motivations for the Development of an Intrapreneurial Initiative

The creation of the post-graduation program in Bioinformatics as an intrapreneurial initiative became a reality due to the autonomy of those involved in this process, leading to the effective creation by the informatics department with the biochemistry sector in the Nucleus of Nitrogen Fixation.

In addition to partnerships with other sectors, the creation of the post-graduation program originated from an analysis of the opportunities in the field of bioinformatics, as it has great potential for development at the national and international levels. In the view of the interviewees, this initiative is characterized as an innovative area: “We have the opportunity, a novel opportunity; bioinformatics can fill a gap of opportunities. That sums up what I have to say” (I5). This statement is demonstrative of the motivation for entrepreneurship within the public organization that may enable an improvement of the performance of this kind of organization (BUELENS; VAN DENBROECK, 2007; TEECE, 2009).

It is notable that the creation of the program did not meet with institutional support, and was developed exclusively from the initiative of the professors from the sectors of Biological Sciences and the sector under study, both within the same university.

The context that motivated the creation of the post-graduation program can be identified in the following narrative: “We were the first bioinformatics program in Brazil that no one asked for. It started from scratch, we looked at the example, we had already worked with bioinformatics and then had the courage or a crazy idea to put a program together” (I5).

The narratives show the attention paid in analyzing the field of bioinformatics, which was seen as an opportunity because there were only two post-graduation programs in Bioinformatics in Brazil, which were created through decrees rather than the initiative of those involved. Another notable aspect is the concern given to offering a course in a field with few professionals, and the concern over contributing a new course option to the university. This focus of analysis and utilization of market opportunities is one of the characteristics of intrapreneurship in the public sector (EDWARDS et al., 2002; TEECE, 2009).

To be aware of the needs of this area, it is important to remain up to date. This is an inherent function of the professor (researcher) in stricto sensu post-graduation programs:

This is achieved by studying a lot, knowing what is going on in science and in society right now. So we are always checking what is happening in the world, and if there is something happening we go after it, because that is it, you have to be updated all the time, and the way to do it is to study all the time, the researcher has to study all the time (I4).

The narrative above expresses the role of the university professor’s specialist knowledge, which means greater freedom and autonomy (TEECE, 2009).

When analyzing motivation in the public sector, it is assumed that the stability of the public sector would be a source of demotivation and low productivity, which might impede the development of new projects and innovation. However, in this case, the development of the intrapreneurial initiative occurred from the need and desire of those involved to contribute to society without institutional pressures.

The sources of motivation (rational, norm-based, affective) were numerous, and as Perry and Wise (1990) point out, a variety of categories are associated with public service. This does not mean that all public employees are driven by these needs. Among the rational motives, although a logic of individual utility maximization was not identified, some other rational aspects
Challenges and motivations for the development of an intrapreneurship initiative in a public university were identified, such as participation, commitment to a public program because of personal identification with it, and special interest. Particular normative orientations were perceived through the desire to serve the public interest and social equity. The affective aspects of public service motivation were identified because there is a genuine conviction about the social importance of the post-graduation program. Perry and Wise (1990) highlight that the latter category has been neglected, but it is an important component of the concept of motivation as a whole.

Regarding the nature of the work relation in the case in question, there is more propensity for civic virtues (FRANCOIS, 2000; HOUSTON, 2000; PERRY; HONDEGHEM; WISE, 2009), since there are no extrinsic rewards or increase in remuneration for those involved in the intrapreneurial initiative. There is motivation for the development of a new area and greater involvement of the participants in academic research, in addition to greater involvement with activities that go beyond teaching. This results in a feeling of greater participation in the many possibilities that the public university can offer.

As for the rewards that can guarantee greater motivation on the part of the public servants who were interviewed, they emphasize that unlike the findings of Delfgaauw and Dur (2008), the matter of remuneration was neither a cause for motivation or demotivation. In this case, these individuals have an internal motivation (GEORGELLIS et al., 2010), enabling an improvement in public service performance and a contribution of the intrapreneurial initiative in the delivery of better services, creating value for society (MORRIS; JONES, 1999; BERNIER; HAFSI, 2007; HSIEH; YANG; FU, 2012). Likewise, another reward identified in the narratives is the benefit of academic research to society.

Regarding the results of the work on the post-graduation program, the narratives demonstrate motivation that transcends a possible dissatisfaction in terms of the workload. “What we got was a lot of work, double work, because now we participate in two post-graduation programs instead of one” (I4). Another interviewee stated that, “We keep on working, but we enjoy it. If we did not we would not have gotten involved. Those who do not enjoy the work should not get involved, because you actually have more work than facilities” (I3). A third interviewee stated that, “During the creation process we would do everything, typing, checking the material; we didn’t have a public servant or administrative technician, so we had to go after everything on our own. The professor did everything in the entire project to bring it to a successful conclusion” (I6).

Following the definition of entrepreneurship in the public sector proposed by Morris and Jones (1999), that in this paper intrapreneurship is considered as entrepreneurial efforts within an established public organization, the intrapreneurial event is the conception and accomplishment of the post-graduation program. The intrapreneurial agents are those involved in the process of creating the program, i.e., the actual members of the faculty involved in the post-graduation program in Bioinformatics. Finally, the intrapreneurial process refers to the attributes of the entrepreneurial orientation, which helps to understand the process through which the program was designed and implemented.

In short, the data analysis revealed that the organizational actors had internal motivations, as the intrapreneurial initiative demonstrated concern over offering better educational services that generate value for the academic community and society (MORRIS; JONES, 1999; BERNIER; HAFSI, 2007).
6 CONCLUSIONS

The present study sought to analyze the challenges and motivations for the development of an intrapreneurial initiative to implement a post-graduation program. The analysis served as a model for identifying potential areas for meaningful theoretical and empirical contributions in public organizations, more specifically regarding the process of intrapreneurship and motivation in public education organizations, as well as a source of information for practitioners interested in these challenges, particularly in educational systems.

As for the challenges in the development of the intrapreneurial initiative, we identified factors that facilitated and hindered the process: individual (intrapreneurial initiative and motivation), organizational (structure, management, culture and politics) and institutional (federal program of incentives to expand courses, such as the REUNI). These factors certainly had an impact on work motivation, sometimes challenging the professors, sometimes stimulating them.

Regarding the difficulties, these were analyzed in the three dimensions in accordance with Sampaio and Laniado (2009): institutional, political and socio-cultural. In the institutional dimension, the difficulties were the bureaucratic procedures, limited physical structure and lack of resources for the acquisition of new technologies. In the political dimension, there was difficulty in standardizing communication between the professors from the two sectors involved in the course, as some professors are from the field of informatics and other professors are from the field of biochemistry. This occurred because the course is multidisciplinary. In the socio-cultural dimension, there was some difficulty in implementing the course, as it was a novelty in the sector, which was not used to post-graduation courses and research. Another difficulty was that some professors lacked experience.

Several motives for creating the program were identified in the three categories of Perry and Wise (1990). These motives were rational, norm-based and affective. The three dimensions were shown to be present in specific aspects, but none of them can be ignored in studies on motivation in the public sector. Therefore, according to the authors, it seems clear that there is a certain difference between government management and private business regarding the theory of public service motivation.

There was a propensity to civic virtues, since there are no extrinsic rewards or increases in remuneration for those involved in the intrapreneurial initiative (FRANCOIS, 2000; HOUSTON, 2000; PERRY; HONDEGHEM; WISE, 2010; GEORGELLIS; IOSSA; TABVUMA, 2010). These results show that the accomplishment of this paper is in itself rewarding, although individual interests have also influenced the decision. The rewards other than the financial ones, such as recognition, achievement of professional aspirations and lending more weight to the meaning of work were great stimulators of the initiative (KEARNEY; HISRICH; ROCHE, 2007; 2008; GEORGELLIS et al., 2010).

On the other hand, facilities were also mentioned. These include autonomy in the development of projects, as it is a public organization, support from the management for the development of new ideas and institutional support from the top management of the university. Other factors were the good relationship between professors of the sector, cooperation between the two sectors involved, the experience of some of the professors in other post-graduation programs, no resistance to the creation of the program, participative decision-making and inclusion in the program REUNI.

Therefore, the human role is fundamental for the development of initiatives of change and creation of new projects, in accordance with Sampaio and Laniado (2009). The motivations were strong enough for the professors to accept the challenge and seize the opportunity, remaining motivated regarding the project.
In short, from the results obtained, we believe that exploring the link between work motivation and intrapreneurship in the public sector can lead to advances in knowledge in one of the many areas of the organizational behavior field. These areas of research have received little attention, and studies like this are important to the field.

We also have some suggestions for future research, such as new studies on motivation in public educational organizations involving other motivational constructs and studies on motivation and intrapreneurship in public organizations in other sectors such as health and security. There are promising new categories for studies that integrate the topic of motivation in the public sector such as organizational climate, organizational culture, organizational learning and the development of organizational competences.

Intrapreneurship is still in its infancy in terms of its development as a field of research (ANTONCIC; HISRICH, 2003; CHRISTENSEN, 2004). This study contributes to the development of the field in terms of understanding the intrapreneurial process in public organizations, specifically public higher learning institutions. The scarcity of studies on HLI limit the identification of the intrapreneurial profile, as shown by Schenatto and Lezana (2001), Miranda and Silveira (2010) and Lizote et al. (2013).

One of the methodological contributions of the study is its use of narrative analysis, which, according to Montenegro (2013), is not used very much in articles, theses and dissertations in the field of Strategy and Organization. The systematization presented in the narrative structure of Pentland (1999) can aid the replication of this method.

The practical justification of the study lies in its contribution to the study of public and private organizations in general in the development of an entrepreneurial attitude to promote innovation in their services, products and processes to ensure better performance.

Finally, a limitation of the study lies in the longitudinal and processual nature of the research question, in which the phenomenon should be studied over time. To mitigate this limitation, a longitudinal approximation was made through document analysis and in-depth interviews to capture the phenomenon as a whole.

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