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ANALYSIS OF THE FACTORS THAT FACILITATE THE CREATION OF KNOWLEDGE AND INNOVATION IN PUBLIC ORGANIZATIONS

ANÁLISE DOS FATORES QUE FACILITAM A CRIAÇÃO DO CONHECIMENTO E INOVAÇÃO EM ORGANIZAÇÕES PÚBLICAS

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Abstract

The age of knowledge has brought new values, new ways of relating, doing business, learning. Public organizations need to adapt to this new reality and review their processes. Thus, this article aims to analyze the factors that influence the creation of organizational knowledge and innovation in the public sector. For that, it was adopted the methodology of a case study in a federal teaching institution. As a research tool, it was used a semi-structured interview script. The results of this study showed that the factors of commitment and teamwork are evaluated positively. In addition, there are flaws in factors such as communication and interorganizational network. Because it is a case study, this research presents as a limitation the impossibility of the results generalization, nevertheless it can serve as an input for other institutions whose focus is the progress of knowledge, creation and innovation. This article aims to contribute to scientific knowledge in the field of innovation in public administration, highlighting the importance of continuous improvement.

Keywords: Innovation; Knowledge Management; Public Sector.

Resumo

A era do conhecimento trouxe novos valores, novas formas de se relacionar, fazer negócios, aprender. As organizações públicas precisam se adaptar a essa nova realidade e revisar seus processos. Assim, este artigo tem como objetivo analisar os fatores que influenciam a criação de conhecimento organizacional e inovação no setor público. Para tanto, foi adotada a metodologia de estudo de caso em uma instituição federal de ensino. Como instrumento de pesquisa, foi utilizado um roteiro de entrevista semiestruturada. Os resultados deste estudo mostraram que os fatores de comprometimento e trabalho em equipe são avaliados positivamente. Além disso, existem falhas em fatores como comunicação e rede interorganizacional. Por se tratar de um estudo de caso, esta pesquisa apresenta como limitação a impossibilidade de generalização dos resultados, porém pode servir de insumo para outras instituições cujo foco é o avanço do conhecimento, criação e inovação. Este artigo tem como objetivo contribuir para o conhecimento científico no campo da inovação na administração pública, destacando a importância da melhoria contínua.

Palavras-chave: Inovação; Gestão do conhecimento; Setor público.

1 INTRODUCTION

In the last few decades, the increasingly rapid emergence of new technologies has increased instability and competitiveness among economic agents. Affordable and low-cost communication technologies have formed a networked society, where it is possible to exchange information with the other side of the world in real time. These transformations represented a revolution in access to knowledge (Lastres, Albagli, Lemos, & Legey, 2002).

In this fast-changing environment, it is necessary to learn and relearn every moment, so knowledge has an absolutely central role, ceasing to be a competitive advantage for organizations to become a fundamental need. This new positioning brings with it the management challenge of dealing with intangible values. It is necessary to learn to adapt to changes and new technologies; more than that, it is necessary to create new knowledge and apply it, as it is necessary to innovate.

To this end, public and private organizations are looking for more effective ways to adapt to the demands of this new reality. Learning capacity and flexibility are essential values for business success.

The objective of this article is to analyze the factors capable of composing a facilitating context for the creation of knowledge and innovation in public organizations. To this end, a case study was conducted at a public educational institution.

The choice of a federal educational institution was made considering the great expansion of the federal higher education network that occurred in Brazil in the last fifteen years. According to data from the Ministry of Education (Brasil. Ministério da Educação,

2015), the number of Brazilian municipalities with public institutions of higher education increased from 119 in 2003 to 511 in 2014.

Federal higher education institutions (IFES) started to assume a strategic role for the country's development.

IFES are centers of innovation and knowledge in the interior of the country and through teaching, research and extension activities promote local development.

This article is divided into five sections. The first is the introduction; the second presents a literature review that addresses relevant aspects for the foundation of this study, such as: Knowledge Management in public administration, factors that facilitate organizational innovation, innovation in public administration and challenges for innovation in the public sector; the third section refers to the research methodology; the fourth presents a detailed analysis of the results and the fifth section presents the final considerations, summarizing the findings of the work and indicating its limitations, contributions and suggestions for future research.

2 THEORETICAL REFERENCE

2.1 Knowledge Management in Public Administration

Regarding Knowledge Management (KM), the Public Administration Excellence Model highlights that the public management of excellence must contemplate the implementation of management processes that enable the identification, development, creation, protection and sharing of the knowledge (Brasil. Ministério do Planejamento, Orçamento e Gestão, 2014).

In the Brazilian reality, as is the case on the world stage, there is no universal concept of Knowledge Management capable of covering all the diversity of experiences carried out, from training activities, through the registration of best practices, to the mapping of knowledge, among others. This multiplicity of perspectives is not characterized as an obstacle, but as a potential for adaptation to different contexts (Carbone, Brandão, Leite, & Vilhena, 2009).

According to Braun and Mueller (2014), knowledge management must permeate all environments of the organization, acting as a facilitator and promoter of processes and systems that allow the participation of its employees and their network of relationships, educational institutions, companies outsourced, public and private entities.

A large part of the organizational principles that support learning depends on the active involvement of employees in the planning, execution and control of daily work (Rasmussen & Nielsen, 2011).

Carlos (2014) highlights the need for structural change in public organizations, so that they can be adapted to face the challenges of this new reality. Major organizational adjustments will be necessary, with the development of specific training programs, methods and tools.

This adaptation process takes time, as it involves the transformation of mental models, paradigms and attitudes which requires the organization to make a long-term commitment to knowledge and continuous improvement.

On the other hand, Corfield and Paton (2016) state that Knowledge Management programs can easily achieve changes in the short term, but they can only be considered as a

change in organizational culture if they are in fact incorporated as new forms of work. Some Knowledge Management initiatives that intend to effect a change in organizational culture fail because they are based on an incoherent view of the real situation. But the power of persistent leadership, using a variety of methods that promote appropriate behaviors along with an understanding of the values and premises that underpin them, can achieve results.

According to the authors, the use of well-implemented technologies that satisfy the daily needs of users together with the encouragement of people, also promote new standards of work practices throughout the organization. Knowledge Management interventions must be effectively linked to individual and collective work routines. In this way they can be classified as a change in organizational culture, since they are based on the incorporation of new ways of working.

In the following section, some factors that promote the organizational innovation process will be listed.

Knowledge Management and Innovation Management seem to be initially in different spheres with little or no influence on each other. However, in practice, Knowledge Management promotes a continuous innovation strategy, making the efficient use of knowledge create, facilitate and enhance innovation processes (Madeira, Vick, & Nagano, 2013).

2.2 Facilitating Factors for Organizational Innovation

Innovation has been the goal of different organizations. In order to achieve it, the aspects that may foster it or the barriers that may hinder it must be observed in each different

reality. The concept of innovation involves a complex theoretical construct, with different conceptions, dimensions and application contexts (Faria & Fonseca, 2014).

For Moreno, Bello, Mata and Lopez (2015), the development of methods that promote knowledge and training is responsible for the emergence of other capacities that create and recombine new resources and new processes that result in organizational innovation.

Knowledge in the organizational environment has become a source of value and differential, as it provides innovation, through the management of intellectual capital, which is incorporated into products, services and organizational processes, providing a process of continuous improvement (Brito, Oliveira, & Castro, 2012).

Thus, the innovative organization has more than an efficient structure, it is an integrated set of components that work together to create and strengthen the type of environment that facilitates and allows innovation to thrive continuously (Tidd, Bessant, & Pavitt, 2008).

The successful implementation of a continuous improvement program is strongly related to the level of employee involvement, being a complex process, determined not only by efficient leadership, but mainly influenced by contextual and behavioral factors (Yen-Tsang, Csillag, & Siegler, 2012).

Radnor and O´Mahoney (2013) highlight an important aspect of this process by emphasizing that the benefits presented by the concept of change are not restricted to the practice itself, in terms of its content, but also mainly encompass engagement and the beginning of a major change in the organizational context.

Therefore, all the activities of an organization and all its employees, at different levels, contribute to the fulfillment of the organizational strategy aimed at obtaining innovation results and not only the people allocated to R&D (Research and Development). Therefore, it is not enough to stop at R&D to consider a company innovative, since it is necessary to link the innovative activities to obtain results with innovation (Parolin, 2013).

Table 1, below, shows the components of an innovative organization, that is, the set of managerial, environmental and behavioral factors that differentiate innovative organizations from the others, according to Tidd et al. (2008).

Table 1: Characteristics of innovative organizations

Characteristics of Innovative Organization	Description
Shared vision, leadership and desire to innovate	Sense of clear, shared and articulate purpose. Top management commitment.
Adequate structure	Organization project that allows creativity, learning and interaction, according to specific contingencies.
Key individuals	Promoters, defenders and facilitators of innovation.
Effective team work	Use of local, cross-functional and intra-organizational teams to solve problems.
Continuous and broad individual development	Long-term commitment to education and training, ensuring high levels of skills to learn effectively.
Extensive communication	Within the organization, horizontally, vertically and outside it.
High involvement innovation	Participation of the entire organization in activities of continuous improvement.
External focus	Orientation to external and internal customer. Extensive networking.
Creative environment	Positive approach to creative ideas, supported by a motivation system.
Learning organizations	High levels of proactive involvement to find and solve problems, share experiences and knowledge.

Source: adapted from Tidd et al. (2008, p. 478)

For Tidd et al. (2008), an innovative organizational context is one in which the underlying structure and culture - the organization's values and beliefs - support innovation.

In the next section, some aspects of the innovation process in public organizations will be analyzed.

2.3 Innovation in Public Administration

The importance of the public sector has expanded significantly over the years. Even considering the interventionist styles of governmental action, the role of the State is strategic, being able to offer various public goods and services to meet the needs of the citizen and regulate economic relations. In this sense, the generation of innovations in the public sector has a strategic role in the actions of the State, by allowing greater efficiency in its activities and, consequently, increasing gains for society (Oliveira, 2014).

According to Cunha, Ribeiro and Pereira (2013), the main resource of productivity today is the ability of organizations to transform knowledge into socioeconomic assets, innovation and competitive advantage.

In this sense, Murray, Roux, Nel, Driver and Freimund (2011) state that public organizations also need to be innovative, especially in developing countries where qualified human resources and financial resources are relatively scarce. Therefore, it is necessary to learn the best way to explore new technologies aiming at organizational effectiveness and the public good.

Likewise, Arundel, Casali and Hollander (2015) state that there is a clear need to encourage innovation in the public sector in order to increase its productivity, efficiency in services provided and quality in public service in general.

Also, according to the authors, many incremental innovations such as increasing efficiency in the delivery of public services or in administrative processes, can be easily developed and implemented at the organizational level.

According to Bolliger (2014), for the process of knowledge creation and innovation to happen, the organizational culture must reflect the values of cooperation and continuous improvement. The road to a truly collaborative culture is a long one. However, it is possible to insert simple collaborative events into the organizational routine. These would alleviate the effects of the hierarchical excesses of public administration.

It is important to emphasize that culture can positively or negatively influence the different ways in which organizations deal with knowledge and stimulate learning (Cavazotte, Moreno Jr., & Turano, 2015).

According to the Model of Excellence in Public Management (Brasil. Ministério do Planejamento, Orçamento e Gestão, 2014), for the culture of innovation it is necessary to promote an environment that favors creativity, experimentation and the implementation of new ideas that can generate improvements in the performance of the organization.

Thus, it seems essential that managers are concerned with the development of an environment that facilitates behaviors related to the promotion of knowledge and learning in organizations. By fostering such a culture, they will certainly be investing in the organization's human capital and, as a result, in differentiating themselves as an efficient

organization that adds value to their areas of expertise. This tends to be a considerable challenge, especially for the Brazilian public sector, where the culture of continuous learning would be less present, according to the authors. However, greater attention to this issue could stimulate the capacity for innovation and quality in any company and notably to promote more positive attitudes and a more effective performance of its employees (Cavazotte et al., 2015).

In this sense, Bolliger (2014) reaffirms that it is necessary to move the public manager from the center of the innovation process to the place of facilitator, which reinforces the emerging need for new organizational formats, capable of supporting this new position.

Organizations that seek innovation in their products and processes must invest in communicating their values and objectives. These must reflect the intention to innovate. In addition, it is necessary to promote debates involving different areas, including interacting with agents outside the organization and delimiting a field of action for employees, providing focus, so that the planned actions are really developed (Cruz, Frezatti, & Bido, 2015).

Gressgard, Amundsen, Aasen and Hansen (2014) also highlight the importance of communication; According to the authors, an important factor for the success of innovations driven by employees is to keep them informed about what is happening in the organization. Relevant knowledge about the organization, performance statistics, for example, are considered vital for promoting commitment and pride among employees, strengthening a sense of significance. In this way, employees become aware of their contribution to the organization's results and for the organization to reach its goals.

Another point emphasized by the authors is the importance of autonomy in the innovation process. For them, autonomy, as a flexible structure of work conduct in the organization, is an important factor in realizing the creative potential of employees. Therefore, this is an item that needs to be considered when developing innovative organizations.

2.4 Challenges for Innovation in the Public Sector

Public administration has followed dynamic paths, driven by new challenges and quickly adapting and assuming concepts that, until recently, were used only by companies in the private sector (Braun & Mueller, 2014).

According to Bolliger (2014), the manager of government institutions is responsible for facilitating the incorporation of non-government knowledge into government processes. But, many times, what is perceived is an attitude of opposition to change. In addition, the author emphasizes that the fact that knowledge is restricted to a few administrative units is recurrent. In this way, the ability to see the whole is lost, a labyrinth of departments and bureaucratic procedures is formed that end up dehumanizing the public service.

Another problem faced by public organizations is the loss of knowledge, since much information, important knowledge and details of work processes are kept only in people's minds (Brito et al., 2012).

It also happens that in public organizations, most people contribute only part of their intellectual potential at work, due to a lack of autonomy, involvement, commitment and power. In the hierarchical structures of organizations that adopt traditional command and control administration, the capacity of human capital is only partially used (Stoeckicht, 2005).

Tidd et al. (2008) highlight that it is not surprising that individuals and organizations develop different cognitive, behavioral and structural ways to reinforce and maintain the *status quo*, since innovation has to do with learning and change, and also involves risk and therefore, dedication finds resistance.

Ferguson, Burford and Kennedy (2013) highlight that the risk associated with knowledge based on practice cannot be tolerated in highly regulated environments, the risk is generally avoided for political reasons. In these environments, knowledge is produced and validated at the highest levels of the hierarchy and the notion that the knowledge that emerges from work can have an impact on the activities, processes and results of the organization becomes problematic.

According to Lima and Vargas (2012), based on the analysis of the international literature on innovation in the public sector, a vision of innovation still prevails as a change imposed from the top down and not as an interactive process intrinsic to public administration. In addition, the author highlights the limiting character of a technicism concept of innovation that does not consider intangible aspects, for example, in the case of service innovations.

For Hickey, Forest, Sandall, Lalor and Keenan (2013), the government's ability to function collaboratively is a topic that requires more attention for research in the area of public administration, due to its relevance.

Ferguson et al. (2013) explain that the literature review on Knowledge Management revealed that a managerial perspective of knowledge in the public sector predominates, reinforced by few studies with contemporary perspectives based on practice. This delay has

implications for effectiveness and innovation in the public sector. The approach should be like that of the urban planner, who observes the paths traced on the grass and, from them, paves the paths that are already commonly used by the interested parties.

There are great challenges for the creation of innovative public organizations, points out Agune (2014), pointing out that public administration is still limited by a bureaucratic, hierarchical and segmented view that, in this way, will not be able to resolve issues of greater complexity.

3 METHODOLOGY

This case study was carried out on the campus of a federal educational institution. The research instrument developed for this study was a semi-structured interview script, with a view to deepening the information collected in each interview.

The sample was selected for convenience out of a universe of twenty-six technical-administrative employees, according to their availability, since the interviews were conducted at the workplace.

The script questions were prepared based on the literature review and aimed to collect the interviewees' perceptions about the factors responsible for promoting innovation and knowledge creation in organizations. These factors selected based on the literature review are shown in Table 2 below:

Table 2: Theoretical basis of the questions of the research instrument

Questions	Researched Factor	Authors
1	Intention and desire to innovate	Cruz et al. (2015), Nonaka & Takeuchi (2008); Tidd et al. (2008).
2	Autonomy and flexibility	Gressgard et al. (2014), Bolliger (2014), Nonaka & Takeuchi (2008).
3	Shared vision	Cruz et al. (2015), Tidd et al. (2008).
4	Individual potential	Carlos (2014).
5	Reflection and questioning	Nonaka & Takeuchi (2008).
6	Commitment	Yen-tsang et al. (2012), Tidd et al. (2008).
7	Training and capacity building	Moreno et al. (2015), Carlos (2014), Tidd et al. (2008).
8	Team work	Braun & Mueller (2014), Nonaka & Takeuchi (2008).
9	Customer relations	Stoeckicht (2005), Tidd et al. (2008).
10	Networks	Ahmdjean (2008), Stoeckicht (2005), Braun & Mueller (2014).
11	Communication and access to information	Nonaka & Takeuchi (2008), Tidd et al. (2008).
12	Encouraging creativity and new ideas	Almeida et al. (2013), Carlos (2014), Nonaka & Takeuchi (2008).

Source: Prepared by the authors themselves (2017)

The interviews were recorded in audio files and later transcribed in full, according to what Bardin (2011) suggests. For the analysis of the data collected in the interviews, the content analysis method was used.

According to Bardin (2011), in content analysis in interviews, the analyst's goal is to be able to infer something about a reality representative of a set of individuals, through the words said in the interviews. In this complex process, the researcher deals with relatively spontaneous speech, a person's spoken speech, free expression of what that person lived, felt and thought about something.

4 ANALYSIS OF RESULTS

The interviews were carried out with the objective of obtaining an overview of the perceptions of the technical-administrative employees of a federal educational institution about the factors that promote innovation and the creation of knowledge in the organization.

Altogether, nine employees were interviewed, from different sectors and functional levels, in addition to different service times.

We sought to carry out a selection of the most relevant and significant sections for the exposure of the results. The sections were identified with codes corresponding to each interviewee (E1, E2, E3 ... E9).

Subsequently, the responses were classified and displayed in tables in order to facilitate an overview of the results.

In the responses to factor 1, Intention to Innovate, it was observed the existence of divergent opinions between the government employees. However, it can be noted that there is a lack of an institutional policy to publicize efforts to improve and improve the organization's administrative area, as shown in the excerpt: “There may be an intention, but I think that producing knowledge, I don't I see this very clearly” (E4).

About factor 2, Autonomy and Flexibility, again, there were differences between the interviewees. With regard to autonomy and flexibility within the administrative area of the institution, the responses presented some barriers that interfere with the autonomous performance of the employees, such as, for example, bureaucracy, centralization and the lack of standardized procedures, as indicated by answer “the actions are very bureaucratic and

centralized, often depending on the management's authorization. The employee has no autonomy to decide anything" (E8).

Regarding factor 3, Shared Vision with a focus on the organization's objectives, despite some divergent responses, it is clear that, in the perception of the interviewed employees, the institution's goals and objectives are not actively disclosed, and it is up to the employees who are interested, to seek these information. This fact can be considered, from a strategic point of view, as a problem for the organization. Furthermore, it should be considered as an aspect related to communication, as mentioned by one of the interviewees: "The goals and objectives of the institution are not known by all employees, but only by those who are interested and keep researching the Institutional Development Plan" (E1).

The responses referring to factor 4, Individual Potential, most indicate that in the interviewees' perception, their knowledge potential is not well used by the organization for different reasons. This fact points to a relevant issue in the public service, the fact that there are highly qualified government employees in positions with basic and middle level duties. As a result of mechanical work and not intellectually demanding, there is a demotivation of the worker in face of the lack of qualification, as shown by the answer: "If you consider the position for which I took the contest, I believe that my potential is well used. If you consider the knowledge I have, no ..." (E4).

The results of the question on factor 5 Reflection and Questioning of work processes, point to a centralization of decisions regarding administrative procedures in the institution. Another recurring quote in the responses is exemplified in the following excerpt: "I think

there is no concern to reflect on the work. Sometimes people do it and don't even know why they are doing that task" (E7), which refers to the lack of knowledge about the structure of work processes.

Regarding factor 6 Commitment, most respondents declared themselves committed to the work, as in the following excerpt: "I do my best as much as possible. In general, most are committed to their work" (E5). This positive result shows an important resource to be developed by the institution.

With the analysis of the responses of the factor 7 Training and Qualification, it is noted that many employees reported the lack of training to perform their activities: "I received no training. I think it would make a difference in my work" (E3). It should be noted that, in most cases, the organization's incentive to train its employees is positively cited. Thus, it can be concluded that there is a lack of alignment between the training themes offered by the institution and the daily work of the employees.

The lack of application of the knowledge acquired for the institution minimizes the beneficial effects of training civil servants for institutional development, failing to take advantage of investments in the public interest.

Most of the responses on factor 8 Teamwork confirm the existence of teamwork within the sectors of the institution: "Teamwork works. There is an initiative by the institution to bring together workers from all campuses" (E1). This result is quite positive, reflecting on the personal interaction between the government employees.

Regarding factor 9 Relationship with the client, most of the responses were satisfactory, such as: “Here we do our best to listen to the problems and adapt to the needs of the clients' demands” (E4). However, further deepening the analysis of the responses, there is a need for improvements in this topic in the sense of a more efficient student service structure, despite the institution's good relationship with its customers.

As for factor 10 Interorganizational Networks, the responses showed that there is still a lot of work to be done to create a network of relationships with other organizations that can bring benefits. On the other hand, some interviewees claimed to be unaware of the current situation, which points to a need to disclose the institution's actions to employees. The following excerpt exemplifies the problem: “I haven't seen anything in that direction. Not that I'm aware of” (E9).

About the factor 11 Internal Communication, most respondents criticized the institution's internal communication. In this factor, both access to information and the dissemination of organizational actions and events were negatively evaluated, as shown by the answer: “Often, we need information and it takes a long time to get it” (E2).

Regarding factor 12 Creativity and New Ideas, the answers show that the individual suggestions initiatives are well accepted, however, the institution does not have an incentive for these initiatives to take place. The following excerpt exemplifies the question: "No, unfortunately, we do not actively participate in the changes, our suggestion is not requested ..." (E3).

The active participation of the public organizations top management is essential to build a favorable environment for innovation, especially with regard to encouraging innovative initiatives.

For an overview of the results, Table 3 presents the responses per interviewee. Each answer was classified as positive (P), regular (R) or negative (N).

Table 3: Results per interviewee

Questions	E01	E02	E03	E04	E05	E06	E07	E08	E09
1	N	N	P	R	N	P	R	P	N
2	N	P	N	P	R	R	P	N	N
3	N	N	N	N	N	P	R	P	P
4	P	N	N	R	R	P	N	N	N
5	P	N	R	N	N	P	N	N	N
6	P	P	P	P	P	P	P	P	R
7	R	R	N	N	R	N	N	N	R
8	P	R	R	R	R	R	R	R	R
9	P	N	P	P	N	P	R	R	P
10	R	P	N	P	N	R	N	N	N
11	N	N	R	N	N	P	N	N	N
12	R	P	N	P	R	P	N	R	N
Total P	**5**	**4**	**3**	**6**	**2**	**9**	**3**	**4**	**2**
Total R	**3**	**2**	**3**	**3**	**5**	**3**	**4**	**3**	**4**
Total N	**4**	**6**	**6**	**4**	**6**	**1**	**6**	**6**	**7**

Source: elaborated by the authors (2017).

In the table above, the results ordered by respondent point to a variety of responses in all cases, that is, none of the respondents presented only positive or negative responses.

In Table 4, the answers ordered by the researched factor are listed below, according to the classification presented in the previous chart.

Table 4: Results by factor searched

Questions	Factors	Positive	Regular	Negative
1	Intention and desire to innovate	3	2	4
2	Autonomy and flexibility	3	2	4
3	Shared vision	3	1	5
4	Individual potential	2	2	5
5	Reflection and questioning	2	1	6
6	Commitment	8	1	-
7	Training and capacity building	-	4	5
8	Team work	1	8	-
9	Customer relations	5	2	2
10	Interorganizational networks	2	2	5
11	Communication	1	1	7
12	Encouraging creativity and new ideas	3	3	3
Total		**40**	**29**	**46**

Search: elaborated by the authors (2017).

The results in Chart 4 show that the factor that obtained the highest number of negative evaluations was communication. This factor covers both internal and external aspects of communication and impacts on various areas of the organization.

Other factors also negatively analyzed by most respondents were: shared vision, individual potential, reflection and questioning, training and capacity building and interorganizational networks. These factors represent half of the factors surveyed.

The factors that showed positive performance were commitment and relationship with the customer. In addition, it is worth highlighting the factors that had no negative evaluation: teamwork and commitment. These results point to a potential to be developed with the servers. Many of the responses showed an openness to change and an interest in improving the services provided to the population.

In addition, it should be noted that, on several occasions, the role of managers was mentioned as an important factor, mainly as incentives and facilitators of the process. The commitment of top management is linked to factor 1, intention and desire to innovate.

During the interviews with the government employees, while it was proposed to reflect on the research topics, it was observed that several suggestions were raised to solve or mitigate the impacts of the identified problems.

As a contribution, these improvement proposals for the problems identified with the interviewed civil workers were brought together, and it is observed that they converge to five major themes: internal communication, clarity of procedures, incentive to the training of employees (administrative technicians), decentralization actions and promotion of institution's involvement with the local community and other institutions in the region.

It is worth noting that, during the interviews, there was an expressive repetition of terms such as “encourage”, “value”, “support” and “integrate”, which raise a question about the need to transform abstract and intangible intentions and values into concrete actions and results, challenge that defines a continuous improvement process and consequent innovation.

5 CONCLUSIONS

The main objective of this study was to analyze the behavioral and environmental factors that promote the creation of organizational knowledge and innovation in public organizations, taking as an object of study the campus of a federal educational institution. This research was carried out through the selection of twelve influential elements in promoting the creation of knowledge and innovation found in the scientific literature.

Regarding the results, there are several factors that can be directly related to the creation of organizational knowledge and innovation, many of which are common to public and private organizations. Nevertheless, it is evident that the public administration has its own characteristics to be considered, such as legal and political limits, among others, which provide some of the difficulties presented.

As points to be developed, among the factors considered in the research, internal and external communication and the local network stood out as relevant points to be worked on in order to bring innovation results to the institution. To this end, it is necessary to develop administrative support and innovation support structures, considering the suggestions of government employees, evaluating and implementing administrative actions and procedures in favor.

In addition to the factors selected, the important role of managers is added, not as holders of innovation, but as incentives and supporters of the process. This point shows how essential management support is in terms of change, so that initiatives for proposals for improvements and new ideas can become part of the work.

Among the factors positively evaluated, the commitment and qualification of technical-administrative employees, in addition to effective teamwork within sectors, stands out. Thus, there is a potential to be worked on in order to improve the available intangible resources. In this sense, Knowledge Management offers tools and methods that can greatly contribute to this development.

This article's main contribution is to collaborate with scientific knowledge in the scope of innovation in public administration, highlighting the importance of continuous improvement.

This research presents as a limitation the unfeasibility of generalizing the results, as it is a case study in a single institution.

As a suggestion for future research, this work can serve as an input for other institutions whose focus is the progress of knowledge creation and innovation.

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