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Experiências Premiadas de Inovação em Organizações Públicas Brasileiras: práticas organizacionais e relações com competências coletivas

*Award-Winning Innovation Experiences in Brazilian Public Organizations:
organizational practices and relations with collective competencies*

*Experiencias de innovación premiadas en las organizaciones públicas brasileñas:
prácticas organizacionales y relaciones con competencias colectivas.*

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Resumo: Esta pesquisa foi realizada com o objetivo de analisar as práticas organizacionais relacionadas às competências coletivas que receberam prêmios de inovação em organizações públicas brasileiras. Para tal foi utilizada uma abordagem qualitativa com triangulação de dados obtidos em 14 entrevistas e 19 relatórios referentes às equipes premiadas na categoria 1 do Concurso Inovação no Setor Público entre 2018 e 2022, os quais foram submetidos à análise de conteúdo. Como principais resultados foram identificadas cinco práticas organizacionais relacionadas às competências coletivas enumeradas no modelo validado por Montezano (2021): incentivo à inovação, suporte organizacional, estabelecimento de parcerias, de redes formais e informais e realização de treinamentos e capacitações. Como contribuições teóricas podem ser citadas a identificação de práticas organizacionais associadas às competências coletivas voltadas à inovação e aprofundamento da compreensão quanto ao nível das

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equipes, pouco contemplado em pesquisas científicas conforme verificado em revisão de literatura. Os resultados desta pesquisa podem subsidiar a adoção de práticas organizacionais associadas ao perfil inovativo, estimular equipes de trabalho a desenvolverem competências inovativas e possibilitar melhor compreensão do desempenho e das competências coletivas nas organizações públicas.

Abstract: This research was carried out with the objective of analyzing organizational practices related to collective competences that received innovation awards in Brazilian public organizations. For this, a qualitative approach was used with triangulation of data obtained from 14 interviews and 19 reports referring to the teams awarded in category 1 of the Public Sector Innovation Contest between 2018 and 2022, which were submitted to content analysis. As main results, five organizational practices related to the collective competences listed in the model validated by Montezano (2021) were identified: encouraging innovation, organizational support, establishing partnerships, formal and informal networks, and carrying out training and qualifications. As theoretical contributions, the identification of organizational practices associated with collective competences aimed at innovation and deepening of understanding regarding the level of teams, little contemplated in scientific research, as verified in a literature review, can be cited. The results of this research can support the adoption of organizational practices associated with the innovative profile, encourage work teams to develop innovative skills and enable a better understanding of performance and collective skills in public organizations.

Resumen: Esta investigación fue realizada con el objetivo de analizar las prácticas organizacionales relacionadas a las competencias colectivas que recibieron premios a la innovación en las organizaciones públicas brasileñas. Para ello, se utilizó un enfoque cualitativo con triangulación de datos obtenidos en 14 entrevistas y 19 informes referidos a los equipos premiados en la categoría 1 del Concurso de Innovación en el Sector Público entre 2018 y 2022, que fueron sometidos a análisis de contenido. Como principales resultados, se identificaron cinco prácticas organizacionales relacionadas con las competencias colectivas enumeradas en el modelo validado por Montezano (2021): incentivo a la innovación, apoyo organizacional, establecimiento de asociaciones, redes formales e informales, y capacitación y calificaciones. Como aportes teóricos, se puede citar la identificación de prácticas organizacionales asociadas a competencias colectivas orientadas a la innovación y profundización de la comprensión sobre el nivel de los equipos, poco contempladas en la investigación científica, como se verifica en una revisión de la literatura. Los resultados de esta investigación pueden apoyar la adopción de prácticas organizacionales asociadas al perfil innovador, alentar a los equipos de trabajo a desarrollar habilidades innovadoras y posibilitar una mejor comprensión del desempeño y las habilidades colectivas en las organizaciones públicas.

Introduction

Organizations need to undertake transformations in the way they provide services and develop their products and processes. The central element for good administration is innovation and it contributes to achieving satisfactory organizational performance.

In the public sector, innovation has been the subject of attention by researchers and professionals who aspire for better results in terms of efficiency, effectiveness and user satisfaction, which are consequences of innovative activities (Organization for Economic Co-operation and Development, 2005). Furthermore, research recommends that we seek to identify the variables that influence, positively or negatively, innovation in public organizations. This is because the challenges to be overcome in Public Administration are multifaceted and dynamic (Bergue, 2019), making it necessary to understand the complexities and limitations involved, and analyze them from different perspectives and contributions.

The innovative public management model for Brazil - GESPUBLIN, developed by Isidro (2018) is a reference, which advocates the observance of four dimensions for effective implementation of innovation in the public sector – environment, capacity, activities and results. This model was developed specifically for the Brazilian public sector and the author presents competencies as backgrounds for innovation in public organizations.

This relationship between skills and innovation is inserted in the context of facilitators and barriers of innovation in the public sector, in which several studies (Cinar, Trott & Simms, 2019; Isidro-Filho, 2017; Castro, Isidro-Filho, Menelau, & Fernandes, 2017; Santos, Sano & Souza, 2019) point to the development of skills and teamwork as

variables that facilitate the successful implementation of innovations.

Thus, in order to meet the demands of society and the changes necessary to achieve greater effectiveness of government action in the provision of services, the development of a management by competences becomes a key tool for the public administration to achieve such objectives (Silva, Bispo & Pereira, 2021).

Decree No. 9,991/2019, which provides for the National People Development Policy of the direct federal public administration, autonomous and foundational federal public administration, explains the objective of “promoting the development of public servants in the competences necessary to achieve excellence in the performance of the organs and entities of the administration” (Brazil, 2019, p. 1).

It is noteworthy that the Normative Instruction SGP-ENAP/SEDGG/ME nº 21/2021 defines the leadership competencies for public servants, among which the innovation competency is included, as well as the cross-sector competences of the public sector, in which teamwork is listed (Brazil, 2021).

Therefore, this article seeks to fill the gap verified in a literature review and analyze organizational practices related to collective competencies for innovation in Brazilian public organizations. To do this, it will start from the skills model proposed by Montezano (2021), which grouped 18 skills related to innovation at the team level.

The aim is therefore to verify the links between practices and collective competences and thus to contribute to actions for the development and strengthening of competences that are essential for innovative actions that enable improvements in working processes and in the provision of more efficient and effective public services to society.

Theoretical Elements of Research

In public administration, the implementation of innovations means the desire for greater efficiency and quality in the provision of services and, therefore, it becomes necessary to promote inflections regarding the development of organizational processes, moving forward in relation to traditional administration models to introduce a new management culture (Guimarães, 2000).

In this sense, based on a literature review in which various definitions on the subject have been analyzed, it is apparent that innovation in the public sector implies a functional novelty that brings about transformative and durable change, providing relevant results for the management of the public sector and for the quality of public services offered to citizens, directly impacting on public value (Lacerda, 2020).

It is noteworthy that innovations are a fundamental mechanism for public administration to face difficulties and crises, as well as contribute to increasing the satisfaction and confidence of citizens in the face of their demands, improving performance, aiming for success and organizational sustainability in the context of change and scarcity of resources (Hijal-moghrabi, Sabharwal & Ramanatha, 2020; Khalid & Sarker, 2019).

Given the above, it is possible to see that innovation in the public sector is consolidated when governments develop organizational strategies and practices that promote the actions described above and generate ideas that impact the demands of society. Therefore, it is considered essential that public servants have innovative behaviors that lead to greater efficiency and organizational effectiveness (Demircioglu & Audretsch, 2018). Furthermore, public managers also have a relevant role in innovation, as they are

responsible for solving problems and creating public value (Crosby, Hart & Torfing, 2016).

It can be said that in the Brazilian public sector there are countless innovative experiences that seek to solve different issues and problems. Isidro (2018) researched public innovation models in several countries and proposed the Integrated Model of Innovative Public Management for Brazil (GESPUBLIN) involving the dimensions: environment, capacity, activities and results.

This model was a reflection of the researcher's perception that Brazil lacked a template that would support innovative practices and the conclusion regarding the convergent point between the models studied: to innovate, teams and people with skills for innovation are needed (Montezano, 2021). Thus, GESPUBLIN establishes the aforementioned dimensions (see Figure 1).

Figure 1
GESPUBLIN dimensions

Dimension	Definition	Constituent Elements	Examples of practices
Innovation Environment	Individual, organizational and/or contextual variables that enable or inhibit innovation efforts.	Innovation objectives, innovation drivers, innovation facilitators and barriers.	Identify the availability of resources (budget, deadlines, people, information, technologies) that can favor the intention to innovate; provide training and qualification programs for people who can promote the intention to innovate.

Innovation Capacity	Organizational skills that mobilize different resources and support innovation efforts.	Leadership for innovation, strategic intention for innovation, people for innovation, innovation projects, technologies for innovation, co-creation of innovation and organizational flexibility	Speech encouraging innovation by the organization's leaders and managers; the organization creates an environment receptive to the contributions of its partners (public and private) to innovation initiatives and projects.
Innovation Activities	Innovation cycle in which ideas are generated, selected, implemented and disseminated.	Generation, selection, implementation and dissemination of ideas.	The organization uses collaboration and engagement tools to generate ideas; the organization prototypes and tests ideas for innovation with the engagement of its partners (public and private).
Innovation Results	Direct and indirect effects of innovation.	Organizational aspects (performance, organizational climate and image) and public services (quality of delivery, satisfaction, quality of life in society).	Innovation initiatives and projects generate new (or significantly improved) procedures for providing public services; the organization monitors the impacts of innovation on organizational performance over time.

Source: Adapted from Isidro (2018).

The same author also explains the management practices for each of the dimensions of innovation, which can support the definition of skills for innovation and suggests that the development of people and

skills for innovation underpins the innovation ecosystem in the public sector.

Amid different definitions, competence can be conceptualized as knowing how to act responsibly and recognized, which implies mobilizing, integrating, transferring knowledge, resources and skills, which add economic value to the organization and social value to the individual (Fleury & Fleury, 2001). Moreover, Silva and Honório (2021) point out that competence is understood as the mobilization, integration and transfer of knowledge, skills and attitudes expressed in the server's professional performance in the context of a given organizational environment.

In this context, the processes and performance of organizations are established based on actions carried out by people collectively and are constituted through collaboration and interaction relationships (Silva & Ruas, 2016). Thus, competence occurs interdependently at the organizational, team and individual levels, being considered a multilevel structure (Carbone, Tonet, Bruno & Silva, 2016; Loufrani-Fedida & Aldebert, 2021).

Collective competencies (3) develop a sense of interdependence, allow events at the workplace to have collective meaning and make use of a knowledge base also collective (Boreham, 2004, 2011). These skills exceed the sum of individual skills (Boterf, 2003). Thus, collective competencies have individual competencies as support, but are not limited to them. Configuration at a collective level transcends individual ones, as they are the result of interactive processes in teams and organizations. Especially when these elements are associated with innovation, as a typical collective process of work.

Likewise, innovation skills constitute a multilevel phenomenon in which the interrelationship of levels aimed at generating results is verified (Montezano & Isidro, 2020).

In this sense, Lima and Silva (2015) clarify that the deployment of organizational competencies at the intermediate level results in the knowledge of collective competencies, which constitute an intermediate class between the individual and organizational levels. In other words, “individuals need to have skills to innovate, and these are being aggregated at the levels of teams, the organization as a whole and the public sector itself, allowing, as a result, to generate innovation for society through public value ” (Montezano, 2021, p. 96).

In other words, there is a simultaneous articulation between skills and innovation, as stated by Ribeiro, Soares, Jurza and Ziviani (2018). In this way, skills enable the development of innovations, while innovation demands the expansion of skills. In this sense, this article will use the team-level competencies identified by Montezano (2021) and will seek to analyze organizational practices related to collective competencies for innovation in Brazilian public organizations.

Based on the assumption that innovation processes are complex and linked to competencies and, furthermore, that human actions are organized through practices (Schatzki, 2005), it is necessary to know the organizational practices related to them.

Organizational practices can be understood as particular ways of conducting organizational functions that evolve over time, influenced by the history of the organization, by the people, interests and actions that have become institutionalized in the organization (Kostova, 1996).

Regarding organizational practices that contribute to the mobilization of collective skills, the study by Lira (2021) is highlighted, which, in light of the conclusion that the team needs to have unity, points out factors in the social context that must be improved in public institutions.

Initially, the author clarifies that the flow of activities and the way they are distributed can promote communication between employees and, thus, enable the development of collective skills. Therefore, assigning specific tasks to each team member makes interaction and information sharing among the group difficult (Lira, 2021).

Furthermore, the qualification of the people who make up the organizations' staff and the interest in sharing experiences and knowledge with colleagues were identified as determining factors for the development of collective skills, given that individual skills enhance collective skills. Therefore, it is important for organizations to consider the profiles and capabilities of employees when distributing sectors and corresponding functions (Lira, 2021) and promote practices that encourage the collective construction of knowledge.

Another fundamental aspect consists of the physical structure of the rooms and the arrangement of furniture and equipment, considering that depending on how they are done, communication between servers, the holding of meetings, debates and decision-making can be facilitated. collaborative mode (Lira, 2021).

Research Methodological Elements

In order to the objectives proposed in this research and answer the question “what are the organizational practices that are related to collective competences aimed at innovation in Brazilian public organizations?”, this study used the qualitative approach, from which one can capture the experiences of the subject investigated, as well as to understand and interpret the diversity of perceptions of the participants in the research in order to understand their relationship with the social phenomena under analysis (Creswell, 2010).

In addition, the research is theoretical-empirical, since it used a proposed model of collective competences, validated by Montezano (2021), and sought to empirically relate the organizational practices with the collective skills aimed at innovation in Brazilian public organizations.

Furthermore, it has a descriptive nature, considering that it aimed to identify organizational practices related to collective competencies for innovation in Brazilian public organizations. It is also configured as applied research, since, according to Gil (2019) and Vergara (2016), there is a practical purpose and interest in the application, use and practical consequences of the knowledge explored.

As for the means of investigation, multiple case studies were used, as we sought to understand how practices and related social processes influence the context of innovation in the public sector, based on the investigation of teams that make up different organizations, with visions, distinct cultures and values, (Merriam, 2009; Yin, 2015). In this sense, the data collected was studied case by case and a cross-analysis was carried out.

Regarding the research subjects, the award-winning teams from Category 1 – Innovation in organizational processes in the federal, state and Federal District Executive Branch in the last five editions (2018-2022) of the Innovation Competition in the Public Sector, promoted by Escola Nacional, were considered. of Public Administration.

The choice of the basis of innovative experiences recognized by ENAP is justified in view of the following factors: (i) the competition is promoted by a recognized federal government educational institution that also promotes the largest event on innovation in Latin America; (ii) the competition has existed for more than 25 years; (iii) there is a rigorous selection of evaluators; (iv) the

innovative proposals that compete for the award are thoroughly analyzed, as can be seen in the information contained in the case description reports published by the General Coordination of Innovation (2020a, 2020b, 2022a, 2022b) of ENAP.

The awards involve organizations from different sectors, converging with the guidance of Marconi and Lakatos (2022) that the selection of research subjects should seek to achieve the greatest possible representation, favoring the achievement of legitimacy of the results.

To carry out the case studies, document analysis (reports, standards and complementary documents) and semi-structured interviews were used as data collection techniques (Marconi, Lakatos, 2022). Furthermore, it is noted that the interviews took place using a semi-structured script including open questions related to the research objectives with the aim of obtaining perceptions and opinions from the participants (Creswell, 2010).

To carry out the interviews, a semi-structured interview guide was prepared and validated by specialists in skills and innovation in the Brazilian public sector to verify the content, semantics and identify whether the questions were aligned with the objective, adhering to the construct investigated.

Therefore, emails were sent inviting those responsible for the award-winning projects to contribute to the research and asking them to kindly send data to contact other team members. Furthermore, in order to facilitate the response, a form was sent, prepared through the Google Forms, in which the research was presented and questions were asked about acceptance to collaborate, the profile of the respondent and the best day and time to schedule the interviews, which took place via videoconference.

It is noteworthy that in total the 19 teams

were analyzed and 14 interviews were carried out. Of these, 12 award-winning teams were investigated through reports and interviews with one or two members, while seven were studied only through relevant documents.

After data collection, they were organized in order to enable their analysis and interpretation to achieve the proposed objectives and provide answers to the central research question. Therefore, it was necessary to carry out a literal transcription of the interviews carried out, which had been recorded with the permission of the respondents, to generate protocols. It is noted that such protocols were also developed during the analysis of reports on the projects awarded in the ENAP Public Sector Innovation Competition.

In this context, the data collected were analyzed using the analysis method proposed by Silva (2005), which covers six integrated stages, within a cyclical system, initiated by the careful reading of the interview protocol transcribed literally, in order to obtain an overview general perception of the interviewed in relation to the research objectives.

In this way, after reading and re-reading the interviews already transcribed and the other documents used, it was possible to deepen the understanding and perceptions of the researchers regarding the material collected. This stage resulted in a coded protocol for each instrument, where the codes were defined and, as an example, “E1 R1” identifies the first interviewed from team 1, “E1 R2”, the second interviewed from team one and “REL 1” identifies team 1 project report.

Next, the coded protocols were read and re-read to enable the identification of themes followed by grouping the interviewees' reports by themes using the NVivo software, version R1 (release 1.7.1). Then, the results were

structured in a text about each theme and, finally, a comprehensive and interpretative analysis was carried out on the identified results.

In this sense, the planning and execution of the steps necessary for data analysis were essential to enable an organized content analysis that achieved the intended purposes of the research.

Presentation and Discussion of Results

Competences refer to a set of practices developed by people, which constitute a key element for the development of innovation, as they identify problems, analyze challenges, propose ideas and implement innovative solutions. Thus, based on the previous analysis of the model of collective competences validated by Montezano (2021), it was possible to identify the following organizational practices of human resources for innovation:

1) Encouraging innovation

A public organization with a climate of innovation is characterized by encouraging and being more open to new ideas and innovations, manifesting itself through a broad spectrum of management and organizational practices (Demircioglu, Audretsch, 2018).

As Hijal-Moghrabi, Sabharwal and Ramanatha (2020) assert, the lack of incentive makes innovation difficult, since the context, whether environmental or organizational, significantly influences the development and implementation of innovations in public organizations. Therefore, it is necessary to encourage innovative projects through the speech of managers and the recognition and appreciation of the teams involved.

Top management is, therefore, an important predictor of innovation due to its

ability to nurture an organizational culture favorable to change, considering that promoting innovation implies supporting and motivating the people who make up organizations to try new approaches through a system that values it (Hijal-Moghrabi; Sabharwal & Ramanatha, 2020).

Thus, it appears that the discourse encouraging innovation on the part of managers, associated with the modification of some practices and procedures, enables changes in organizational culture (Moussa, McMurray & Muenjohn, 2018). And the latter, according to Wipulanusat, Panuwatwanich and Stewart (2017), plays a fundamental role in the successful management of innovation in the public sector.

The authors highlight that developing team creativity and innovation requires strong support from managers, which can occur in several ways, including through the provision of incentives and rewards (Santos, Sano & Souza, 2019; Wipulanusat, Panuwatwanich & Stewart, 2017).

Carvalho, Reis and Cavalcante (2011) emphasize that creating a formal incentive and reward program for ideas that generate innovation is an excellent practice aimed at developing innovative projects. Therefore, some considerations from the interviewees are transcribed below:

I believe that when the organization supports and encourages an idea and gives recognition to teams and employees, they tend to engage and develop skills and competencies that can generate countless benefits that will be felt not only by the organization itself, but by the entire community (E9 R1).

Encouraging the search for innovation is an essential point for projects to occur. Without engaged managers, encouraging and sponsoring projects, it will certainly end in the first meetings and never get off the ground (E12 R1)

Therefore, it is essential that organizations develop an incentive system that can motivate employees and teams to develop innovations, either by defining working hours specifically focused on these innovative activities, or by granting bonuses. Regarding this aspect, Pam (2015) emphasizes that remuneration related to the performance of innovation projects can be an extrinsic motivation and promote a focus on innovation for immediate personal reward.

It is noteworthy, then, that team innovation develops new ideas, which, when put into practice, generate benefits for organizations (Wipulanusat, Panuwatwanich & Stewart, 2017), including saving resources, making it viable to grant benefits to those involved in the innovation projects.

In this way, it becomes possible to relate the practice of encouraging innovation with the following collective competencies: a) diagnosis and prognosis - as the culture of innovation develops the ability of teams to identify problems and opportunities for improvements in the provision of services to society; b) collaborative decision making; c) collaboration; d) co-creation; e) mobilization of the innovation ecosystem - since managers' discourse encouraging innovations can promote integration between members so that they develop and deliberate together and with the support of other collaborators on the demands related to the innovative project.

Furthermore, the encouragement of innovation by the administration influences the competence of communication strategies as the organization adopts different means, previously unused, and is also related to the management of conflicts, results and knowledge, as a reflection of the appreciation and recognition of the culture of innovation.

2) Organizational support

Research shows that there is a directly

proportional relationship between the commitment of senior management and the support, resources and freedom to innovate on the part of those responsible for innovation projects (Silva & Honório, 2021). These authors consider that organizational support contributes to overcoming obstacles and establishing partnerships, internal or external, that are important for project development.

In this sense, the studies developed by Moussa, McMurray and Muenjohn (2018) and by Hijal-Moghrabi, Sabharwal and Ramanatha (2020) indicate that organizational support drives innovations. Therefore, institutional support and the organization's availability to assist teams whenever required, whether by providing information, paying attention to projects and indicators, or by acting on other variables, should be encouraged. One of the reports from those interviewed in this research reinforces this result:

I think that when we have support from the organization and also an active manager, who effectively participates in a project, the team feels motivated and engaged and, consequently, seeks to perform its functions in the best way so that the project develops well and achieves its objectives. proposed. (E2 R2)

Furthermore, Wipulanusat, Panuwatwanich and Stewart (2017) highlight the importance of organizations providing sufficient budgets for the design and execution of innovations, granting freedom to teams to develop innovative projects, in addition to protecting them from bureaucratic obstacles. In this sense, the statement of an interviewee who pointed out the following converges: "Among the success factors, I highlight autonomy and freedom to try something new, [...] because the initiative was always highly respected and its successes were always valued" (E3 R1). In the same line of understanding, Santos, Sano and Souza (2019)

point out the allocation of financial and human resources to promote innovation and its implementation as mechanisms to support innovation.

In this way, it is considered fundamental for the development of innovative ideas and projects that organizational support occurs through the provision of resources, including structural, budgetary, personnel, technological, data and information.

Thus, Moussa, McMurray and Muenjohn (2018) listed studies that mention low budget, poor facilities and lack of systems as barriers to innovation, for example. In this sense, the unavailability of some resource can become a factor that hinders the emergence of innovation, but does not make the development of innovation impossible when the team is mobilized and engaged, as was seen in some teams analyzed, in which the members themselves made materials available and sought to adapt projects in order to achieve the desired innovation.

Isidro (2018) points out as a facilitator of innovation, the organization's practice of providing resources (budget, deadlines, people, information, technologies) that may favour its intention to innovate. Thus, in order to encourage and better develop innovative projects, it is important that organizations have appropriate structures, with appropriate equipment and systems, as well as budgets and people compatible with the innovations.

In this way, it is possible to establish links between this practice and the competence of the research, because the support of the organization is crucial for the conduct of surveys, construction of the innovation projects and research of the results before the availability of data, systems and information necessary for the activities involving the relevant competence.

To enable the development of innovations, organizational support must be

present in defining the roles of each team member (work planning), in the selection of ideas, in problem solving, in experimentation, in decision making and in so many moments of implementation of innovation.

Furthermore, it is possible to relate this practice to the following skills: a) project management - as it involves mobilizing resources to achieve improvements in the public service; b) multi-professionality - since the organization having people with varied backgrounds and profiles interferes with the successful development of innovation projects; c) communication strategies, as communication tools and channels must be available for use and, thus, disseminate information.

Furthermore, to solve problems and manage projects, results and knowledge, it is essential that the necessary information, data and other resources are available for analysis. In this way, it appears that this relationship of support and willingness to collaborate on the part of organizations towards teams has the potential to enable the success of innovation projects.

3) Establishment of partnerships

In a study on the characteristics of innovation teams and laboratories in Brazil, Cavalcante, Goellner and Magalhães (2019) pointed out the importance of building networks and establishing partnerships internal and external to organizations. In the same sense, Koch and Hauknes (2005) elucidate that the greater the development of networks and partnerships, the greater the chances of success of innovation processes.

In the same way, Santos, Sano and Souza (2019) assert that the establishment of partnerships with public and private organizations and the valorization of civil society participation are fundamental elements

to enable changes and innovations in organizational products and processes.

The establishment of partnerships makes it possible to resolve a certain shortcoming in the organization in which the project aimed at innovation is initially developed and the better development of innovation projects, as observed in some teams analyzed and can be seen from the excerpts transcribed below:

The experience partners, helped a lot in formulating the project in order to achieve the intended objectives (E12 R1).

Furthermore, it was necessary to establish partnerships, set up the program's structures and formalize the appointment of representatives from the various bodies and make adaptations to the documents in order to take into account the specificity and diversity of the bodies involved, whether due to the legal regime or specific legislation (E10 R1).

Strong partners, especially Fapes, which makes it possible to make resources available via project support, which allows agile and uncomplicated use of resources. Incredible volunteer mentors, who added all their expertise to this new and challenging process of accelerating public initiatives, lending their credibility, generating great learning for the team, great motivation for those accelerated and great results for the process (REL11).

In this way, the understanding that innovating alone is difficult is highlighted (Carvalho, Reis & Cavalcante, 2011) and that networking, with the practice of establishing partnerships, facilitates the development of innovations and the achievement of greater quality and effectiveness in services provision.

In this sense, the contribution of partners to the successful development of innovation projects was verified in most of the teams analyzed. This practice is associated with the competence: a) co-creation; and b) mobilization of the innovation ecosystem, as, by establishing partnerships, new specialized skills (multi-professionality) and experiences

lived in a diverse environment can be added to the project, making it possible to build possibilities for solving the demands experienced by the teams.

Furthermore, partners must seek collaborative construction and act effectively in solving problems, making decisions, as well as managing projects and results, in order to develop innovation projects that lead to better and more efficient public services.

4) Carrying out training and qualifications

The practice of carrying out training and qualifications can be cited, as studies have shown that they play a significant role in the development of innovation and that organizations that provide training benefit from improved knowledge and skills (Pam, 2015).

In the same sense, Bispo and Mendes (2021), in a study on strategic planning in human resources, state that among the guiding strategies for improving public services provided to citizens, highlighted by the National Personnel Development Plan (PNDP), there is encouraging training promoted by the institutions themselves.

Wipulanusat, Panuwatwanich and Stewart (2017), in turn, highlight that for innovation to be successful, it is important for organizations to train teams, through various sources, to develop and use their skills and creativity in innovative projects that provide public services with greater quality and efficiency.

In view of the analysis of the teams investigated, it was found that the vast majority of them highlighted the importance of team training and professionalization, according to the following excerpts:

I believe that training and encouraging the organization to seek to provide quality service are very important for the team to understand the importance of the project for improving

work” (E6 R1).

“Another thing that I consider relevant is the technical training of the team that worked night and day to ensure that all deliveries were of higher quality than expected and seeing these results end up stimulating and engaging the team (E4 R1).

I believe that having an active and continuously updated Training Program in order to enable the development of servers’ skills is a critical success factor for institutional projects. As the technical body develops, new ways of looking at institutional challenges are developed and, with this, possible solutions (E8 R1).

Furthermore, in addition to offering training and training programs to employees and other employees involved in the innovation project, it is important for organizations to encourage continuous learning and the search for knowledge (Carvalho, Reis & Cavalcante, 2011). The importance of practicing training to solve problems of shortage of human resources was also verified, as one interviewee pointed out:

One of the problems we had was the scarcity of labor, which ended up generating a backlog of processes. What have we done? Strategy for qualifying employees in the use of technological tools through training and knowledge management processes (E1 R1).

In this sense, this practice can be related to the skills: a) selection of ideas/projects; b) research. Since teams with improved training skills can better select ideas and projects, in addition to carrying out more robust and assertive research during the innovation process.

Moreover, it is possible to establish links with the following skills: c) ideation; d) problem solving. With refined knowledge, it is possible for team members to develop and perfect ideas for implementing innovation and solve problems with greater speed, quality and

effectiveness.

Furthermore, this practice can be associated with the skills: e) knowledge management.- given the possibility of disseminating knowledge strengthened with the training carried out. f) project management. g) management of results and impacts - as training improves skills regarding appropriate methodologies for different situations and qualitative and quantitative indicators to monitor the results of innovations.

5) Establishment of formal and informal networks

Regarding formalization, that is, the degree to which members and organizational units strictly adhere to rules and procedures, Hijal-Moghrabi, Sabharwal and Ramanathan (2020) point out several studies that negatively relate it to innovation. In this sense, the authors state that formal complexity promotes a culture of conformity and organizational inertia that would limit the server's ability to adopt new behaviors and, thus, develop innovative projects.

However, in the case of public organizations, formal rigor is essential in several aspects, mainly regarding compliance with the principle of legality. In this sense, for greater legal security and strengthening of innovation projects, some teams investigated in this study pointed out the importance of laws or decrees that dealt with the initiatives developed, as can be seen in the excerpts transcribed below:

In this sense, the project was regulated by through an ordinance published by the executive branch, creating legal precedents for the activity [...] (E4 R1).

In October/2019, a new Service Instruction was published establishing the procedures for monitoring and supervision [...] A new IN

came and, in August/2022, the implementation of its more modern, more precise and more intelligent version (E7 R1).

The project included the participation of members from each related State Secretariat who carried out studies and analyzes that culminated in the publication of Decree No. 53,307, [...], official creator of the Program. This has a series of integrated activities [...] (E10 R1).

It can be inferred, therefore, that the definition of projects through formal standards allows the structuring and definition of the responsibilities of each team, therefore relating to the competencies of work planning and project management.

Normative guidelines are important when analyzed from the perspective of valuing and recognizing those who develop innovation. This is because, according to reports from those interviewed, the development of innovative projects was carried out simultaneously with the performance of other functions, generating work overload. Thus, to avoid discouraging team members who work with innovation, legislative guidance regarding working hours, for example, would be important.

On the other hand, it is stated that informal networks are important to enable better sharing of information and faster communication, which result in greater involvement between employees and, thus, generate positive effects in promoting creativity and innovation (Pam, 2015) . This is because “the habits, routines and collective customs that allow the development of new collective skills are constructed and negotiated in the context of informal everyday interactions” (Retour & Krohmer, 2011, p. 51).

In the same sense, the formation of an informal relationship network, in addition to enabling problem solving and information exchange, enables improved performance and

professional satisfaction (Costa & Melo, 2021) and, thus, the successful development of innovation projects.

The teams reported holding regular and sometimes informal meetings, which enable the exchange of information and contributions to collaborative decision-making, essential for more effective results regarding the innovation processes developed.

In this way, the practice of establishing informal networks is related to the skills of communication strategies, project and results management, collaborative decision-making and collaboration, as it enables the exchange of experiences and faster resolution of demands.

However, although informality allows for a faster flow of information, there is a risk of disseminating incorrect information (De Lima, Villardi & Rodrigues, 2021) and, in this context, organizations must approve formal tools for disseminating information, as seen in the report:

We adopted the strategy of virtual meetings, using [...] the approved tool for communication at the Secretariat. Furthermore, we have a website, which is a knowledge base where we present all the processes, technologies, modernization and also risk management. And through there we are communicating everything that was decided, everything that was defined, the latest technologies that are being used, the internal training that we do, so we do it all there (E1 R1).

It is also possible to relate this practice to the competence: a) knowledge management - in view of the structuring and dissemination of knowledge constituted by the team in the innovation development process, and with the mobilization of the innovation ecosystem, in which employees share their experiences and learnings are important for the success and solution of demands that need to be resolved during the innovative project.

Furthermore, in order to summarize the information covered throughout this subsection, the Figure 2 below is presented with a summary of the organizational practices verified and pertinent considerations.

Figure 2
Summary of organizational practices

Organizational Practices	Considerations
Encouraging innovation	Through managers' speeches, which can transform organizational culture, or through recognition and appreciation of the teams involved.
Providing organizational support	Through the provision of resources and data necessary for the development of the innovative project and the support of managers.
Establishment of partnerships	Partnerships can occur within the organization itself, between sectors/areas, or with other public or private organizations in order to enhance innovation.
Carrying out training and qualifications	For teams to improve their skills and knowledge, aiming to create new ideas and solve problems more quickly and efficiently.
Establishment of formal and informal networks	Considering that formal aspects proved to be important in some situations, such as security for the innovative project to be developed, and in other contexts the need to make relationships more dynamic was perceived, such as the use of informal means of communication.

Source: Own preparation (2023).

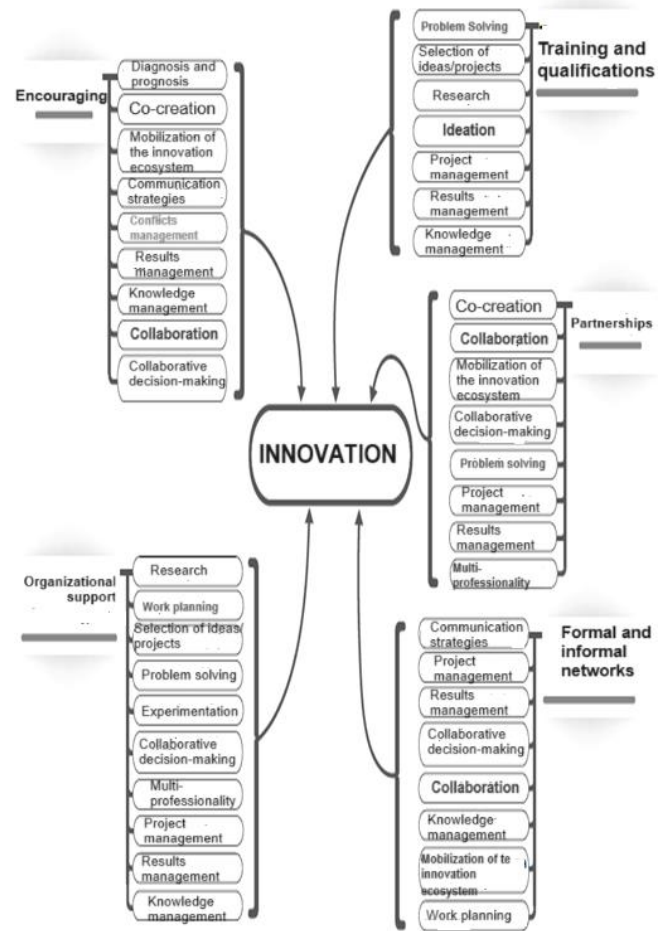
With the aim of better visualizing the relationships identified from the data collected in this research between organizational practices and collective competencies aimed at innovation in Brazilian public organizations, figure 3 is presented below.

Final considerations

Based on the results analysed, the following practices have been achieved: (i) encouraging innovation through the discourses of managers and the recognition and appreciation of the teams involved; (ii) providing organizational support, through the provision of resources and support from managers; (iii) establishing partnerships, intra-organizational or with other public or private organizations; (iv) conducting training and training and (v) establishment of formal and informal networks.

It can be seen that in the public sector, there are factors that boost or hinder innovations and, therefore, practices and skills aimed at developing innovative projects need to be developed. And, as stated by Rodrigues (2021), these projects will only happen on a larger scale and impact if there is a general cultural change with relevant force, at different levels and types of organizations.

Figure 3
Organizational practices related to collective competencies that contribute to innovation



Source: Own preparation (2023).

Based on the results found, it is clear that competencies, which are subjective components that are not directly identifiable, become noticeable through the behavior of people and teams. And that these are capable of mobilization and promotion through organizational practices. In other words, organizational practices can stimulate or discourage skills – new, developing or already consolidated – by configuring themselves as an element that causes a dual influence on the relationship between skills and innovation.

Based on the discussions and analyzes developed, it is considered that the research has advanced by deepening the studies relevant to collective competencies related to innovation, reinforcing the model proposed by

Montezano (2021). Furthermore, the relevance of the relationships developed between the investigated constructs, not seen in previous research, is highlighted, and the possibility of contributing to other academic studies involving collective competencies that enable the success of innovative projects, as well as the deepening of practices organizations related to them.

Furthermore, in terms of practical contribution, the identification of organizational practices associated with collective competencies focused on innovation enables transformation and application by public organizations in the context of professional activities in order to develop improvements in procedures, processes and public services, meeting the demands of society with greater speed, efficiency and quality.

To this end, it is recommended that public sector organizations undertake practices aimed at developing collective skills for innovation in the public sector, such as:

a) Distribution of activities between employees in the sectors, avoiding assigning specific tasks to each team member so that communication between employees is promoted and the development of collective skills is possible;

b) Carrying out training and qualification programs in order to qualify the organizations' staff, bearing in mind that individual skills enhance collective skills;

c) Distribution of employees in functions and sectors, taking into account the profiles and capabilities of employees, which enables stimulation of the collective construction of knowledge;

d) Attention to the physical structure of the rooms and arrangement of furniture and equipment to encourage communication between servers and collaborative decision-making;

e) Speech aligned with practices that encourage innovation on the part of managers and development of an incentive system that can motivate employees and teams to develop innovative projects, defining working hours for these or granting bonuses;

f) Institutional support, with the provision of resources (budget, deadlines, people, information, technologies), and the organization's availability to assist teams whenever required;

g) Establishment of partnerships with public and private organizations and valuing the participation of civil society in order to enable changes and innovations in organizational products and processes;

h) Holding regular meetings and adopting informal networks that enable better sharing of information and greater involvement among employees.

In this sense, from a social perspective, research can contribute to encouraging work teams to develop innovative skills and to enable better performance of public organizations, through the adoption of practices aimed at innovation, contributing to improvements in terms of effectiveness and quality in the provision of services. services and the development of organizational processes and procedures.

Regarding the limitations of the research, it is highlighted that it was not possible to collect data through a greater number of interviews, due to possible factors: (i) difficulty in contacting team members due to the organizations not providing data and personal information or the withdrawal of the awarded team due to a new professional career; and (ii) unavailability of time for those who work with innovation and, cumulatively, occupy positions with different duties and responsibilities.

As a recommendation for future research, we suggest: a) deepening the study of

organizational practices that enable collective competencies; b) qualitatively and quantitatively validate organizational practices that enable collective competencies, in order to establish a list of validated practices that promote innovations and consequent improvements in organizations from different spheres of power, with different areas of activity and that develop characteristic innovation projects ; c) identify behaviors derived from collective competencies in an innovation context and d) identify variables that influence collective practices and competencies (type of organization, type of innovation, length of experience of the team working together).

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