

Innovation in Public Services: A descriptive analysis of award-winning innovative experiences in Brazil

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This paper provides a descriptive analysis of innovative initiatives performed by Brazilian public organizations and awarded in the Innovation Contest in Public Federal Administration over the last 15 years (1999-2014). The analysis performed provides a set of characteristics of the public sector in Brazil, which includes a focus on back office initiatives and on incremental and improvement innovations. Complementary elements, such as barriers, facilitators and inductors to the innovations are also described. We also provide a discussion of possible pathways for incentivising relevant innovations in the Brazilian public sector, as well as suggestions for future studies in this theme.

1. Introduction

The Innovation Contest in Public Federal Administration is an action of the National School of Public Administration (ENAP – Escola Nacional de Administração Pública), together with the Ministry of Planning, Budget and Management, targeting entities of the Federal Executive Power, in any location on the national territory (Petrucci; Rua, 1998). The first contest was executed in 1996 and it was named National Contest of Innovative Experiences of the Federal Public Administration, and it was promoted in order to identify, reward and publish successful innovation initiatives performed by Federal Executive Power organizations, as well as value public employees by recognizing their initiative and performance (Petrucci; Rua, 1998). From 1999 forward, the contest went into a new phase, where its main goal was to recognize best practices. On this edition, and every edition after, the initiatives were judged by the success, quantitative and qualitative, measured by performance indicators specified correctly.

The ENAP prize has an evaluation process for the initiatives that consists of five steps. In the first stage, application go through an internal screening, in which the constant basic requirements of the regulation are verified, such as minimum implementation time, not having an award in another edition of the contest, belong to the federal executive branch, among others. The second step is an initial assessment of the reports by the Judging Committee, which grades each criterion in order to select the 20 initiatives that will receive the visit of the Technical Committee. In the third stage, teams of two members from the Technical Committee visit the 20 selected initiatives. During the site visit, the technical evaluators aim to investigate and deepen the information contained in the report, as well as answer any questions from the members of the Judging Committee, who receive and evaluate the technical visits reports in the fourth stage. The fifth step is a meeting of the Judging Committee, with

the participation of the technical evaluators in order to increase the knowledge on the initiatives and to support the choice and classification of the ten award-winning innovations (Pereira, 2013).

The Innovation Contest in Public Federal Administration is not an idea contest, but of practices that are already working (Moraes, 2004). Using the knowledge of this contest, and having as an assumption that an innovation happened in all awarded experiences, this study aims to provide a description of this experiences. With this description, we expect to identify the administrative structure and general characteristics of the public organizations with awarded innovation, as well as highlight the main types, barriers, facilitators, inductors and benefits of the innovations from the selected experiences. This paper attempts to provide an overall understanding of the past and present characteristics of innovation with a high degree of relevance in the Brazilian public sector, which can potentially serve as a basis to the definition of future trends for the innovations in this context.

To this end, this paper is structured as follows. After this introductory section, we present a brief overview of the innovation in public services field, followed by a description of the methods employed in this study. We present, in the methods section, a detailed description, using keywords, of the categories used for coding the experiences. All the descriptive analysis are presented after. Finally, in the last session, we present our conclusions, highlighting potential future trends for innovation in the Brazilian public sector, as well as suggestions for future studies in this area.

2. The present state of innovation in public services

Innovation in the public sector has been defined as the creation and implementation of new processes, products, services and service delivery methods that result in a significant improvement on efficiency, effectivity and efficacy of results (Mulgan; Albury, 2003). Innovation is a tool to achieve the purposes of the public service, and, for innovation to occur effectively, a synergic relationship between leadership, management, human resources and technology must exist (Anggadwita; Dhewanto, 2013). In this sense, the implementation of innovations in the public sector provides considerable opportunities for economic growth and attract investors (Avlonitis *et al.*, 2001). To Koch and Hauknes (2005), innovation is the implementation or performance of a new way of social action, which is implemented by an entity in the context of its objectives and activity functionalities. Different from the private sector, the public sector involves a complex and multifaceted process of decision making and performance assessment about the innovation implementation, besides being characterized as work intensive and decentralized, which implies directly on management difficulties (Nelson; Yates, 1978).

Gallouj and Zanfei (2013), in investigating the gaps in the innovation in public sector literature, suggest that there is a need of more studies about public services in order to answer issues related to theoretical, empirical, methodological and political gaps. Other authors, such as Djellal *et al.* (2013), also raise a few arguments to the growth of the field. Firstly, is paradoxical to believe that public administrations are ambivalent in the sense of wanting to support innovation, but ignore innovation to its own benefits. A hypothesis raised in this point is if an administration that innovates for itself can

better support innovation in other economic agents, in a perspective that approximates to the inversion approach proposed by Gallouj (2010). Second, there are some specific sectors in public services in which innovations are indisputable and well documented, but not necessarily on innovation studies, such as public universities and health services (Rosenberg; Nelson, 1994; Djellal; Gallouj, 2007). The third argument refer to the blurring of limits between public and private services, being observable, in some cases, competition between public and private services. This could limit, for example, the lack of competition in the public sector as an innovation barrier. Lastly, economic and demographic crisis can be seen as important factors to the innovation in public services, seen that they lead to society pressure.

Due to the lack of specific studies in this area, some concepts derived from other streams of the innovation theory can be useful to the understanding of innovation in the public sector (Koch; Hauknes, 2005). The integration or synthesis approach, initially proposed by Gallouj and Weinstein (1997), provides an analytical framework that allows the study of any kind of innovation, goods or services. This perspective can be easily amplified to public services, especially when the borders between public and private services become more blurred. The integration approach has been improved in the last years, in some cases with the explicit goal to better reflect the public services, and it has been applied to many public services (Djellal *et al.*, 2013).

3. Method

To achieve the proposed objective for this study, we collected data about the award-winning experiences on the ENAP prize from 1999-2014, totalizing 206 selected cases. The first three editions of the prize were discarded because they presented only a brief account of the experiences and did not fit the standard of description adopted from the fourth edition forward. On the editions from the last 15 years, each step of the case is described in distinct topics, namely: introduction, characterization of the previous situation, description of the experience, proposed objectives and desired results, actions taken, implementation steps, resources used, characterization of the current situation and lessons learned. According to Flick (2009), this is one of the limitations of the document analysis, as available resources may force researchers to be selective, instead of using all available documents.

The information obtained on these selected cases were categorized by a content analysis, using the three steps described by Bardin (2006). First, we executed a pre-analysis, consisted of the selection of documents described previously, and the organization of the material in order to make it operational. Next, we proceeded to the exploration of the material, in which we defined categories, or coding systems, and identified registry units, which are the units of meaning to be encoded in correspondence to the content segment aimed at categorization. The Innovation Type category was established after a literature review, from which the Gallouj and Weinstein (1997) typology was chosen for the coding procedures. The other categories presented on Table 1 were built from the content analysis, and only after were compared to the literature to validate the variables chosen to the present study. Besides the variables presented on Table 1, data about Levels of Government, Administrative Structures and Thematic Areas were collected directly from the experiences' reports and did not have to be treated through the coding procedure. The final step was data

treatment, inference and interpretation, being these phase destined to the condensation and the highlight of information for analysis, leading to the descriptive interpretations presented on the next section.

In order to obtain the highest level of reliability to the data collection process, a researcher triangulation was executed. According to Denzin (1989), to perform such triangulation, different scholars are employed to detect or minimize biases from the researcher as a person. In our case, twelve members from a research group of the University of Brasilia, which specializes, among other themes, on innovation studies, performed the coding procedures independently from each other. Any difference in categorization was discussed in the group meetings in order to achieve consensus on the categories, avoiding biases by any singular researcher.

After the coding procedure, the data collected was inserted in a database. Each category is presented in a binary format, in which 1 means the presence of that category in the correspondent experience, and 0 means its absence. The choice for the binary format was based on the variables which do not have mutual exclusive categories, such as Barriers, Facilitators, Inductors and Benefits. For these variables, it was possible to find none, one, or more than one categories at the same case. For the Innovation Type variable, a singular category had to be selected per experience. The remaining variables, Level of Government, Administrative Structure and Thematic Area were part of the experiences' report submitted, and didn't have to be coded by the researchers.

3.1. Categories' description

A standard description and defined keywords, borrowed from the academic and legal literature, for each category within each variable was provided to all coders in order to guarantee a levelled knowledge between all participant researches. This description aimed at solving any doubts pertaining the definition of the categories, as well as ensure a better and standard coding procedure for all researchers. The keywords of the categories coded is provided on Table 1.

INNOVATION TYPE	
Category	Keywords
Incremental	Implementation; addition; exchange or substitution of elements
Improvement	Improvement; optimization
Radical	New; novelty; unprecedented; different
Formalization	Standardization: unification; clarification; ordering of characteristics
Recombinative	Reutilization; junction; combination of characteristics
Ad Hoc	Problem solution; consultancy; particular problem; error correction
BARRIERS	
Category	Keywords
Resistance	Resistance; distrust; insecurity; fear; lack of commitment; breaking paradigms; culture change; functional instability; refusal; discredited; fear; unbelief
Human resources limitation	Lack of skilled labor; lack of qualifications; lack of specific technical training; workload; lack of resources for hiring; high turnover; ignorance of the process; unpreparedness; human error; team work challenge; inexperience
Infrastructure, material and technological resources limitation	Lack of material resources; lack of material resources; lack of technological resources; lack of structure; lack of information structure; need of constant improvement of technology; lack of resources; lack of infrastructure; insufficient equipment; limited use of tools
Conflict of interests	Conflict of interest; lack of support; public management model; difference of opinion; assignment conflicts; tampering; negotiation among multiple actors;
Data and systems fragmentation	lack of standardization systems; lack of standardization of information; unregistered information; inconsistency of data and information; computer problems; diverse data sources; scattered information; data collection difficulty; absence of concrete information; bank of unreliable data; database absence
Routine and processes fragmentation	Bureaucracy; bureaucratic process; non-standardized processes; difficulty in data transfer; difficulty in processing information; different methods; consolidated culture of absence
Financial and budgetary limitation	Lack of financial resources; lack of budget provision; commercial difficulties; lack of resources; credit contingency; funding challenge
Deadline limitation	Delay in response to demands; failure to comply with time; short-term; very short space of time; narrow term
FACILITATORS	
Category	Keywords
Resource availability	Internet; public funding; budget provision; use of free technologies; available technology; use of the tool
Teamwork	Dialogue; partnerships; interdepartmental work; shared management; decentralization; involvement and participation of all stakeholders; work group; teamwork; participatory development; trading space
Legitimacy and commitment	Motivation; awareness; responsiveness; stimulus; participation; commitment; technical support; government support; political will; membership; cooperation; engagement; dedication; personal commitment; interest

People and competences development	Training; learning; technical capacity; competence; organizational learning; continuous training; leadership
Institutional communication	Communication; providing information; transparency; effective communication; data dissemination; disclosure
Data and processes standardization	Methodology dissemination; immediate application; structured routine; process control; detection and correction of problems
INDUCTORS	
Category	Keywords
Non-problem oriented	Process improvement; routines improvement; improvement of objective achieving
Problem oriented	External environment pressures; internal pressures; adaptations; adjustments
Legal imposition	Regulation; control programs; inflexibility; regulatory strategy; law creations
Political impulse	Political change; political exigence; norm compliance
Technological factors	Technology substitution; technology implementation; routines and processes improvement
BENEFITS	
Category	Keywords
Service delivery and/or quality improvement	Improvement of services offered; efficiency and effectiveness in the management of services; higher productivity; cost-effectiveness; commitment of actors; increased knowledge, adaptability and capacity to deliver
Organizational management improvement	Workforce motivation; effective coordination and collaboration; greater management control; decision making effectiveness; communication management effectiveness
Institutional relations and image improvement	Growth of prestige; accountability; increased ethics and transparency in the management of services; respect and growth capacity; professionalism and expertise
Organizational climate improvement	Creation of reward systems; creativity encouragement; increased autonomy; sufficient resources to perform the tasks; low pressure on employees; research support to perform new tasks

Table 1. Variables, categories and keywords for information coding

4. Analysis

Our analysis consists of descriptive observations based on the count of frequencies for the categories on each variable. These descriptions provides us an initial understanding of the structure of the award-winning public sector innovations in Brazil, and based on this first level of analysis we can infer some characteristics and future trends for these public services.

The first variable analysed is the level of government. This variable consists of two categories: central government, which is composed of organizations located in the Federal District, and local government, composed of organizations located outside the Federal District. The results of this variable shows that central government organizations represent the majority of those awarded in the ENAP prize. This can be due to some reasons. First, ENAP, the institution responsible for the prize, is located in the Federal District, and the divulgation of the prize can have a bigger diffusion through organizations near it, meaning that more central government organizations would have knowledge of the prize and submit their experiences. Second, central government organizations tend to be bigger in size than the local government organizations, and, due to their size, it is possible that the same institutions are submitting many experiences, and the smaller local government organizations are focused on fewer strategic innovation initiatives. Third, many of the actions taken by the government to give incentives to innovation on the public sector, as is the case of the prize, start at the central level, and these organizations will have easier access to knowledge, systems and practices to help establish their own strategic initiatives. In a general sense, we observe the need to work on the diffusion of innovative structures and practices to local government organizations, especially in a continental country as Brazil, where a high percentage of the population is not directly affected by organizations located in the Federal District. Table 2 shows the distribution of cases on the variable levels of government.

Level of Government	No. of cases	%
Central Government	123	59.7
Local Government	83	40.3
Total	206	100.0

Table 2. Levels of Government

Our second analysis consists on observing the administrative structure of the organizations awarded. This variable is composed of two categories. Direct structure refers to services integrated in the administrative structure of the Presidency and the Ministries. Indirect structure is composed of entities with their own juridical person, such as autarchies, public companies, mixed economy societies and public foundations. The percentages of this variable are close to those observed in the level of government. Since most of central government organizations have direct structure, this result was expected. The difference in the number of cases is due to indirect structure organizations located in the Federal District. The results for administrative structure are presented in Table 3.

Administrative Structure	No. of cases	%
Direct	111	53.9
Indirect	95	46.1
Total	206	100.0

Table 3. Administrative Structures

On thematic area, there are five categories. These areas are defined by the prize, and each organization must point the theme closest to its experience at the moment of the case submission. The most incident category was processes optimization and improvement, which refers to the establishment of quality parameters, analysis and implementation of continuous improvement, and simplification and streamlining of procedures. The second most used category was a close one, organizational planning and management, related to initiatives focused on strategic planning, strategic management, budgetary and financial management, cost management, knowledge management, construction and application of management indicators, and performance assessment and institutional results control. The finalistic categories, service delivery and public policy, which refer, respectively, to processes aiming at directly answering the citizens and experiences on creation and implementation of monitoring or evaluations systems to public policies, came in third and fourth place. The least incident category was information management, pointed in experiences about management computerization and use of technologies to redesign processes and to open communication channel with citizens. Although there is a small percentage difference among the categories, they are roughly evenly distributed. Nevertheless, we can observe a preference for initiatives focused on back office improvements, which can, arguably, have an indirect effect on the finalistic areas, such as service delivery and public policy. Table 4 provides the distribution of cases among the thematic areas.

Thematic Area	No. of cases	%
Processes optimization and improvement	49	23.8
Organizational planning and management	46	22.3
Service delivery	43	20.9
Public policy	37	18.0
Information management	31	15.0
Total	206	100.0

Table 4. Thematic Areas

On innovation type, we evaluated the cases based on the six categories proposed by Gallouj and Weinstein (1997). The majority of cases (76.7%) were concentrated on two types. The first one, incremental innovations, refer to marginal changes in the system by the addition or substitution of elements. The second, improvement innovation, consists of cases which focus on improvement of certain characteristics without alteration of the system. These results show a trend of Brazilian public organizations to employ initiatives focused on improvement or incremental addition of elements to already existing services. This can be due to the limitation, budgetary, legal, and otherwise, to the creation of new services, and the need for development of services already offered, be it from the addition or substitution of elements such as IT systems, or from the overall improvement of the service. Radical innovations, referring to the creation of a totally new service, computed 9.7% of total cases, and formalization innovations, which compiles cases which implementation gives visibility and optimizes

the degree of standardization of the system's characteristics, represented 8.7% of the experiences. The types with least occurrences were recombinative, the systematic reutilization of certain elements of the service, and ad hoc, which is an interactive construction of a particular problem of a determined client. These two categories represented 2.4% of the cases each. Table 5 compiles the results for innovation types.

Innovation Type	No. of cases	%
Incremental	81	39.3
Improvement	77	37.4
Radical	20	9.7
Formalization	18	8.7
Recombinative	5	2.4
Ad Hoc	5	2.4
Total	206	100.0

Table 5. Innovation Types

One of the aspects that allows us to dive deeper on the structure of innovative cases in Brazilian public organizations is the barriers identified by these organizations during their experiences. Since the same case can have none, one, or more than one barriers at the same time, the total number of barriers computed exceed the number of selected cases, totaling 322 barriers. Close to half the initiatives (42.2%) listed resistance as a barrier, referring to lack of trust, of openness to new ideas and even reluctance to adopt new systems. When added to conflict of interests, which appeared in 19.9% of the cases, we can start to observe a hypothetical need for a cultural change on Brazilian public organizations in order to make it more acceptable and desirable to have changes in the systems currently in place on this institutions. Limitation of resources, be them human, infrastructure, material and/or technological resources, is also an issue pointed by 33.7% of the cases. If we accept the hypothesis of cultural resistance, this could mean that, due to resistance and conflict of interests, the ecosystem of public organizations offer few resources to these institutions to allocate in innovative initiatives, which can then generate the lack of resources observed. One point of notice is that deadline limitation appeared in only 4.4% of the cases. A possible explanation for this low frequency is that most of the innovation initiatives still happen, or at least start, in non planned contexts, and deadlines are not clearly, or at all, established. Therefore, there is low pressure to meet these deadlines during execution of the experiences. The results for barriers are shown in Table 6.

Barrier	No. of cases	% (of 206)	% (of 322)
Resistance	87	42.2	27.0
Human resources limitation	46	22.3	14.3
Infrastructure, material and technological resources limitation	44	21.4	13.7
Conflict of interests	41	19.9	12.7
Data and systems fragmentation	36	17.5	11.2
Routine and processes limitation	34	16.5	10.6
Financial and budgetary limitation	25	12.1	7.8
Deadline limitation	9	4.4	2.8
Total	322	156.3	100.0

Table 6. Barriers

A complementary analysis to identifying barriers is describing the facilitators to innovation initiatives. Seen that the same case can have none, one, or more than one facilitators at the same time, the total number of facilitators computed exceed the number of selected cases, totaling 449 facilitators. On more than half the cases (55.8%), resources availability was listed as a facilitator to the experience. This can be a reflection of the the resources barrier, which wasn't a major category in the barrier variable. Next, teamwork appears in 46.6% of the cases, followed by legitimacy and commitment, in 39.3% of the experiences. The results of legitimacy and commitment helps describe the resources availability, seen that projects that are legitimated by the leadership of the organization may have access to more resources. This also presents more opportunities to the people involved in the project, which can also help with teamwork. The facilitator least listed was data and processes standardization. This, in addition to the most used thematic area, and the types of innovation most incident, suggests that redesign and standardization of processes is an issue of great importance to Brazilian public organizations. Table 7 shows the frequencies for the facilitator variable.

Facilitator	No. of cases	% (of 206)	% (of 449)
Resources availability	115	55.8	25.6
Teamwork	96	46.6	21.4
Legitimacy and commitment	81	39.3	18.0
People and competences development	71	34.5	15.8
Institutional communication	49	23.8	10.9
Data and processes standardization	37	18.0	8.2
Total	449	218.0	100.0

Table 7. Facilitators

To this point, many of the analysis performed identify characteristics of the innovation process. The inductors give a sense of what happens before the initiative begins. The most incident inductors, with similar frequencies, are non-problem oriented and problem oriented. These represent opposite inductors. A non-problem oriented refers to an initiative that begins not to solve a specific problem, but works on the opportunity to generate improvements. On the other side, a problem oriented is an initiative aimed at solving a specific problem, usually responding to an external pressure. The similar frequencies on these categories represent that both scenarios generate innovation experiences in the public sector. A few complementary categories that appeared with less frequency were legal imposition and political impulse, which are a kind of external pressure, but specific on the political and legal contexts that force an innovation to happen. The low counts on these categories suggest a still low interest of the political representatives to induce, in a direct way or indirectly through laws, for example, innovation projects in the public sector. The counts for each inductor are presented on Table 8.

Inductor	No. of cases	% (of 206)	% (of 221)
Non-problem oriented	88	42.7	39.8
Problem oriented	84	40.8	38.0
Legal imposition	24	11.7	10.9
Political impulse	14	6.8	6.3

Technological factors	11	5.3	5.0
Total	221	107.3	100.0

Table 8. Inductors

Our last analysis focused on the end of the innovation process, describing the benefits generated by the initiatives. Most of the experiences listed service delivery and/or quality and organizational management improvement as benefits from their projects. Although the service delivery thematic area was computed in only 20.9% of the experiences, being the most listed benefit gives strength to the hypothesis that the innovation projects, even though are focused in other areas of the organization, generate effects on the front office of the institutions. The other side of this description falls on the organization management improvement benefit, and demonstrates that these two objectives can be tackled at the same time when executing an innovation project. Institutional relations and image improvement was listed in 40.8% of the cases. Although the majority of initiatives were not focused on the image of relations of the organization, and this is not even a thematic area listed by the prize, this is a side benefit generated in many of the initiatives. Only 16.5% of the cases were listed as creating an organizational climate improvement. This also reflects the nature of the projects analysed, which focus on creating better processes and using them to impact the service delivery, but not necessarily focusing on the workforce of the organization. At the same time, teamwork was the second most frequent facilitator, which suggests that initiatives focusing on this benefit can improve an important facilitator to leverage another innovation experiences. Table 9 shows the results for benefits.

Benefit	No. of cases	% (of 206)	% (of 403)
Service delivery and/or quality improvement	144	69.9	35.7
Organizational management improvement	141	68.4	35.0
Institutional relations and image improvement	84	40.8	20.8
Organizational climate improvement	34	16.5	8.4
Total	403	195.6	100.0

Table 9. Benefits

5. Conclusions

This paper's objective was to provide an overall understanding of the characteristics of innovation initiatives in the Brazilian public sector. To this end, we performed a series of descriptive analysis based on the results of the Innovation Contest in Public Federal Administration from the National School of Public Administration over the last 15 years (1999-2014). A few main observations on these data can be made.

First, we see a slightly higher number of innovations performed on the Central Government and, consequently, of organizations with a Direct Structure. This was expected due to the proximity of Central Organizations with the prize, which is promoted by a public organization located on the Federal District, and the proximity with other relevant public organizations that incentivize innovations in the public sector, such as the Ministry of Science, Technology and Innovation and the Ministry of Plan-

ning, Budget and Management. These two, among many others, are Central Government organizations that not only are responsible for many of the innovative initiatives in the Brazilian public sector, but also support many other experiences in different organizations. Even though this result was expected, a more structure diffusion of the prize and initiatives from supporting organizations could make it more feasible for Local Government organizations to perform more relevant innovation initiatives and produce award-winning cases.

We also observed a focus on back office initiatives, characterized mainly by incremental and improvement innovations. These results may suggest a smaller degree of novelty of the innovations performed, as well as less potential for scalability and diffusion of these innovations. We can also hypothesize that Brazilian public organizations have an internal focus on their initiatives, and attempt to achieve better services indirectly through processes and systems improvements. In this sense, a gap of initiatives focused on direct services to the citizens and radical innovations, through the creation of new services or the complete redesign of current services, can be pointed out. On this topic, it is suggested that future studies assess the impact of coproduction and other citizen-focused practices may have on innovative experiences on the public sector, in order to determine if a closer relationship with citizens can provide a better context for radical and front office innovations.

The barriers and facilitators analysis also highlight some interesting characteristics of the experiences selected. Resistance and conflict of interest appear as the main two types of barriers pointed out on the cases. Our hypothesis is that these two barriers can generate the third most cited, lack of resources. A reflection of these barriers are the two most incident facilitators. First, resources availability have the higher count, followed by legitimacy and commitment. If we consider that resistance and conflict of interest are opposites of legitimacy and commitment as lack of resources is to resources availability, a seemingly paradox of similar variables being listed as both barriers and facilitators is presented. In reality, this shows us that the same variables, if available, are important elements to the execution of innovative initiatives, but their lacking cause difficulties to these initiatives. In this sense, a focus on creating a context of political and top management interest and, therefore, legitimacy that can generate a higher availability of resources is necessary to incentivise relevant innovations in the Brazilian public sector.

This paper's limitations include the sample of organizations considered on the analysis, seen that it was limited to experiences awarded in the ENAP prize, and do not represent the totality of Brazilian public organizations. In addition, the analysis performed on this study is descriptive, and the gaps and suggestions made represent only assumptions that need to be tested with other explanatory analyses in order to support or deny the hypotheses listed on this study. To this end, we suggest that future studies complement the descriptions provided in this paper with initiatives from different organizations, using different databases to collect data. We also recommend the analysis of other constructs related to innovation, such as coproduction, as well as more variables related to innovation or different typologies than the ones considered in this study. Lastly, we suggest that future studies perform explanatory analyses to achieve a higher degree of understanding of the characteristics studied.

6. References

- Anggadwita, G.; Dhewanto, W. (2013). Service Innovation in Public Sector: A case study on PT. Kereta Api Indonesia. *Journal of Social and Development Sciences* 4, pp. 308-315.
- Avlonitis, G. J.; Papastathopoulou, P. G.; Gounaris, S. P. (2001). An empirically-based typology of product inovativeness for new financial services: success and failure scenarios. *Journal of Product Innovation Management* 18, pp. 324-342.
- Bardin, L. (2006). *Análise de conteúdo*. Lisboa: Edições 70.
- Denzin, N. K. (1989). *The Research Act*. Englewood Cliffs: Prentice Hall.
- Djellal, F.; Gallouj, F. (2007). Innovation in hospitals: a survey of the literature. *European Journal of Health Economics* 8, pp. 415-430.
- Djellal, F.; Gallouj, J.; Miles, I. (2013). Two decades of research on innovation in services: Which place for public services? *Structural Change and Economic Dynamics* 27, 98-117.
- Flick, U. (2009). *An introduction to Qualitative Research*. London: Sage.
- Gallouj, F. (2010). Services innovation: assimilation, differentiation, inversion and integration. In: Bidgoli, H. (Ed.), *The Handbook of Technology Management*. Hoboken: John Wiley and Sons, pp. 989-1000.
- Gallouj, F.; Weinstein, O. (1997). Innovation in services. *Research Policy* 26, pp. 537-556.
- Gallouj, F.; Zanfei, A. (2013). Innovation in public services: Filling a gap in the literature. *Structural Change and Economic Dynamics* 27, pp. 89-97.
- Koch, P.; Hauknes, J. (2005). *Innovation in the public sector*. Oslo: NIFU STEP.
- Moraes, J. G. (2004). *Ações Premiadas no 9º Concurso de Inovação na Gestão Pública Federal 2004*. Brasília: ENAP.
- Mulgan, G.; Albury, D. (2003). *Innovation in the public sector*. Strategy unit, Cabinet Office.
- Nelson, R. R.; Yates D. (1978) *Innovation and implementation in public organizations*. New York: Lexington Books.
- Pereira, F. S. (2013). *Ações premiadas no 18º Concurso Inovação na Gestão Pública Federal 2013*. Brasília: ENAP.
- Petrucchi, V. L.; Rua, M. (1998). *Ações premiadas no 1º Concurso de Experiências Inovadoras de Gestão na Administração Pública Federal*. Brasília: ENAP.
- Rosenberg, N.; Nelson, R. (1994). American Universities and technical advance in industry. *Research Policy* 23, pp. 323-348.

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