Professional Performance Assessment in Civil Service: A Bibliometric Study from 2008 to 2017

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Abstract

This study aims to map the development of academic publications related to the subject of professional performance assessment in public administration and its interactions from 2008 to 2017. To that end, a bibliometric survey was conducted in the Scopus database on the subject. As a result, we identified: the countries that published the most during the period; the annual output; the journals with the greatest number of publications; the most frequent keywords; the most cited articles; and the most used references.

Keywords: Professional performance assessment; Civil service; Public administration; Bibliometrics.

1. Introduction

There is a growing debate today in Human Resources about professional performance evaluation, which, according to Lotta (2002), is a tool for assessing employees’ results and comparing them with expected results.
According to Pontes (2014), performance assessment plays a fundamental role for organization leaders as it aims to establish a contract between employees, in the light of results desired by the company. This tool allows the manager to track activities, align the results that individuals should pursue and provide constant feedback between the leader and his/her subordinates.

In the civil service, Paula (2005) explains that managerialism was an adaptation of private sector concepts adopted in civil service in order to improve the efficiency of services provided. Performance assessment is part of the scope of these changes.

Thus, this study is guided by the following research question: How the subject of professional performance assessment in civil service has been presented in the scientific literature from 2008 to 2017? Given this research question, the aim of the article is to map the development of publications related to the subject of professional performance assessment in public administration and its interactions from 2008 to 2017.

One way to identify the main articles in this area is through a bibliometric study, which is a set of research methods in the area of Information Science that quantitatively analyzes data and maps the structure of a given subject. It is also a tool that analyzes the behavior of researchers and their decisions in knowledge building (Vanti, 2002). In light of this definition, we began an analysis in the Scopus database, which, according to Simioni, Dallacorte and Jacoski (2016) is the largest scientific database in the world and provides access to academic journals in various fields of knowledge, as well as tools designed to analyze and view conducted research.

This study is relevant due to the increased interest by researchers and other professionals in the subject of “professional performance assessment”, especially with regard to public administration. Thus, the study aims to analyze the development of the subject in the academic literature, and it may provide a source for further studies.

2. Theoretical Framework
It is important to highlight some aspects of concepts that pervade studies in the field of performance assessment. Firstly, it is worth noting that today, most companies operate in hypercompetitive markets and in complex and dynamic environments (Sánchez, Marí, & Morales, 2015). Therefore, performance assessment and management are fundamental for the effective and efficient management of any organization (Melnyk, Bititci, Platts, Tobias, & Andersen, 2014).

Interest in performance measurement has increased since the 1990’s (Sellitto, Borchardt, & Pereira, 2006; Taticchi, Asfalti, & Sole, 2010; Modell, 2018). According to Van Camp and Braet (2016), researchers in various fields have been studying the question of performance assessment, which has brought studies into a multidisciplinary domain and generated a variety of performance assessment and management systems for assessing different operational aspects of an organization’s management. Thus, Smith and Bititci (2017) argue that theories involving organizational control, management control and performance assessment have evolved from related, yet parallel fields. To Hourneaux, Carneiro-da-Cunha and Corrêa (2017), the performance assessment field is the central point in studies of a combination of indicators used to measure the efficiency of organizational activity (Hourneaux Jr, Carneiro-da-Cunha, & Corrêa, 2017).

According to Anthony and Govindarajan (2002), the role of performance evaluation systems is to control compliance with the organization’s strategy. According to Hourneaux, Carneiro-da-Cunha and Corrêa (2017), a performance assessment and management system is a management indicator system that covers all relevant aspects of the organization and monitors and drives organizational strategy at the operational level in order to communicate that strategy to the entire organization and its stakeholders.
Organizations often set some goals in their plans, managers set some targets for a given period, and a performance assessment based on these targets is conducted as part of a control process (Ruiz & Sirvent, 2018). Thus, one of the key challenges in the field of performance measurement and management is how to use and manage performance measurements effectively in order to integrate them into the organizational management system (Sole & Schiuma, 2010). Melnyk, Bititci, Platts, Tobias, & Andersen (2014) define performance measurement as the instrument used to quantify the efficiency and/or effectiveness of an action, and it should be quantifiable and verifiable. According to Souza, Ensslin and Gasparetto (2016), performance assessment measurements are one way of getting everyone in the organization to pursue the same goals. Callado, Callado and Mendes (2015) point out, however, that it is not easy to define which activities of an organization should be measured and assessed.

The performance management system can therefore be defined as the process of quantifying and improving the efficiency and effectiveness of an organization, and it has a central role in the management of modern organizations (Laitinen & Kadak, 2019); it also ensures a “Culture based on meritocracy and continuous improvement” (Marques & Rodrigues, 2018, p. 2123).

2.1. Professional Performance Management

Among the key attributes expected from a strategic manager are the rationalization of spending and the improvement of employee performance (Gonçalves, Santos, Tickim, & Costa 2017). In organizations, people are responsible for managing, controlling and executing tasks and processes (Vieira, 2014). Thus, performance assessment can be an extremely relevant mechanism to guide employee behavior (Kianto, Sáenz, & Aramburu, 2017), as not only does it provide information on how they are performing their tasks, but it also signals how they are recognized and treated at their workplaces (Chun, Brockner, & De Cremer, 2018). Likewise, for Marques and Rodrigues (2018, p. 2123) “performance management is the basis for individual development and the guarantee that employees actually have the support and guidance necessary to develop and improve their performance”.

As an aid to decision making, performance assessment is used for data collection, which allows “describing the conditions that hinder or prevent the complete and adequate use of the organization’s workers” (Vieira, Pierantoni, Magnago, France, & Miranda, 2017, p. 118).

Lenten, Crosby and McKenzie (2019) point out that sentimental issues are often cited by economists as a human emotional factor that can affect employee performance assessments, and it is a major challenge for organizations to ensure fully fair and impartial evaluation for all employees. In a study on professional performance assessment, Chun, Brockner and De Cremer (2018) found that when individuals in organizations think their performance is discussed in relation to what they have done in the past, they tend to think that the evaluators considered detailed information about their performance in order to individualize the assessments, but those who are compared to others in their assessments tend to believe that they are being treated as one of the masses whose specific details have not been fully incorporated.

2.2. Performance Assessment in the Public Sector

Public sector performance, management and future development are issues of major concern for all of society (Vallentin & Thygesen, 2017), and performance assessment is an important factor for the public administration to fulfill its role (Akim & Grebe, 2015). For Carmo, Assis, Martins, Saldanha and Gomes (2018, p. 169), “In relation to people management practices, there is a concentration around performance management in the public sector”.

In recent years, the public sector has been under increasing pressure to increase its efficiency through innovative strategies, and it is necessary to use reliable and operational methods that can be used for performance analysis (Suzuki & Nijkamp, 2017). According to Zhang, de Walle and Zhuo (2016), the use of performance information by public managers depends on their confidence in the
source of that information. These authors argue that performance information is a public good and has a diverse set of potential consumers with different interests, both inside and outside the public system.

In Brazil, according to Stassun and Wippel (2013, p. 120), “public institutions have made performance assessment a mere necessary bureaucracy, without conferring on it its fundamental character of controlling the quality and efficiency of civil servants’ work”; nor is it used, according to Santos (2008), as a tool for improving civil service. For Vieira et al. (2017), although performance assessment is being more discussed in the public sector, it is still controversial, mainly because workers relate the idea of assessment with the idea of admonishing and/or punishing.

3. Methodology

According to Valmorbida, Ensslin and Ensslin (2013), bibliometric studies are useful to identify the characteristics of the researched knowledge area so that the researcher can gain further insights into the subject and later share them with the scientific community. In addition, Zupic and Čater (2015) say that synthesizing past findings is one of the most important tasks in advancing knowledge on a particular subject.

It is worth highlighting that the scope of this research is professional performance assessment, i.e., any area that evaluates the performance of employees in the corporate environment. Therefore, it does not include any type of performance assessment for organizations, processes, projects, machinery and technologies.

The first step was to retrieve only articles, including reviews, published in journals from 2008 to 2018 that had in their title, abstract or keywords the term “performance evaluation” or “performance appraisal”. After that, two more filters were used, both of which with the purpose of further delimiting the search. Both filters refer to a total search of the article’s fields. The first was in relation to the terms “human resource” and “personnel management”, and one of these terms had to appear in some field. The second filter followed the same process, but in relation to the terms “public management” or “public administration”. In the second stage, in addition to the above criteria, the following knowledge areas were delimited: “Business, Management and Accounting”, “Social Science” and “Psychology”. In this last stage, we realized that many results were still linked to other knowledge areas such as health, computer science and biology, which are not within the scope of this study. Therefore, a third stage was conducted to exclude any articles not exclusively related to “Business, Management and Accounting”, “Social Science” and “Psychology”.

This filter was initially conducted in articles by authors from all over the world, and later in files with Brazilian authors. After the last filter, data were extracted to a database with the “.csv” format, on which we used the VozViewer program. This program allows generating graphs, heat maps, and quantitative analysis that helped develop the results of this article.

4. Results and Analyses

The chart below shows, in quantitative terms, the results of each stage. One can see that the number of publications decreases at each stage as the filter becomes more specific, as shown earlier. Two columns were generated, one for articles from around the world and one for articles from Brazil only (Chart 1).

<table>
<thead>
<tr>
<th>Stages</th>
<th>World</th>
<th>Brazil</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>537</td>
<td>19</td>
</tr>
<tr>
<td>2</td>
<td>474</td>
<td>16</td>
</tr>
<tr>
<td>3</td>
<td>363</td>
<td>8</td>
</tr>
</tbody>
</table>

Source: Prepared by the authors (2019).

Chart 1:  Total of Publications
Based on these results, we focused on the 363 articles in step 3, which were generated by using the most specific filters throughout the Scopus database. Of these 363, only 8 (2.2%) refer to articles with at least one author linked to a Brazilian institution.

4.1. Historical Index

With regard to the history of publications, according to the criteria above, it is not possible to establish any general rule, since the number of publications in the area has varied significantly over the years. It is noteworthy that publications peaked in 2013, with 51 publications that year, while 2009 was the year with the lowest frequency of publications, i.e., 26.

The 2013 peak of publications on the subject, which had not been surpassed by 2017, is striking, as is the significant drop in articles published the following year. It should be interesting to conduct a qualitative study in order to clarify the motives that led the 2013 peak (Graph 1).

**Graph 1: Quantitative evolution of articles published from 2008 to 2017**

![Quantitative evolution of articles published from 2008 to 2017](chart)

Source: Prepared by the authors (2019).

4.2. Analysis by Author Nationality

From the analysis of collected data, we found a predominance of articles published by American authors. Of a total of 60 countries, we highlighted the 15 countries with the greatest output. Brazil was ranked 15th. We found a contrast between the United States, with 92 articles (25.2%), and the other countries. It is worth noting that this difference is not as significant as in other knowledge areas. It is also noteworthy that peripheral countries such as Pakistan, Malaysia and Australia have a number of publications equal to or greater than those of Germany and China (Graph 2).
4.3. Interactions between Authors According to Country

The figure below shows this dynamic, Brazil is on the right, and interacts only with Spain, only one "link", i.e., Brazilian authors only published together with Spanish. In another direction, American authors published with nine other countries, i.e., nine links. The scale was made according to the number of publications previously presented (Figure 1).

**Figure 1:** Authorship interaction by country

![Authorship interaction by country](image)

Source: Prepared by the authors (2019).
4.4. Journals

With regard to journals related to the subject, we retrieved from the Scopus database the ones with the greatest number of publications in the area. Of these, we selected the top 10 journals in number of publications. The International Journal Of Human Resource Management stands out with 18 publications. We then retrieved from the Scopus database the CiteScore for each individual journal. According to Plume e Colledge (2016), this index is an average of the number of citations of documents published by the journal. It uses the collection of over 22,000 documents in the database and calculates the number of citations a journal receives in one year and divides that by the number of indexed documents in this journal over the past three years. Subsequently, we consulted the Sucupira Platform for the Qualis rating in Administration for each journal (Chart 2).

<table>
<thead>
<tr>
<th>Journal Name</th>
<th>Quantity</th>
<th>Qualis (Adm)</th>
<th>CiteScore</th>
</tr>
</thead>
<tbody>
<tr>
<td>Review Of Public Personnel Administration</td>
<td>14</td>
<td>A2</td>
<td>2.11</td>
</tr>
<tr>
<td>Journal Of Applied Psychology</td>
<td>13</td>
<td>-</td>
<td>5.51</td>
</tr>
<tr>
<td>Public Administration</td>
<td>11</td>
<td>A1</td>
<td>3.06</td>
</tr>
<tr>
<td>International Journal Of Project Management</td>
<td>9</td>
<td>A1</td>
<td>5.06</td>
</tr>
<tr>
<td>International Journal Of Public Administration</td>
<td>9</td>
<td>A2</td>
<td>0.82</td>
</tr>
<tr>
<td>Public Personnel Management</td>
<td>9</td>
<td>-</td>
<td>1.50</td>
</tr>
<tr>
<td>International Review Of Administrative Sciences</td>
<td>7</td>
<td>A1</td>
<td>1.94</td>
</tr>
<tr>
<td>Service Industries Journal</td>
<td>7</td>
<td>A1</td>
<td>1.44</td>
</tr>
<tr>
<td>International Business Management</td>
<td>6</td>
<td>-</td>
<td>0.17</td>
</tr>
</tbody>
</table>

Source: Prepared by the authors (2019).

When comparing the three columns, we can see that the journals that publish most on the subject of professional performance assessment in the Administration, Psychology and Social Sciences have good Qualis ratings, i.e., five were rated A1 and two A2 in Administration. It is worth stressing that because Qualis and CiteScore have different methodologies, they have different scores for each journal.

As can be seen in Chart 2, all journals in it are American, which is in line with what is shown in Chart 1. It is important to relate these two charts; one can infer that the fact that the main journals are American causes the number of authors of that nationality to be the highest. Obviously, a more specific study is necessary to see to extent to which there is a correlation between these data.

4.5. Keywords

We performed an analysis of the keywords that appeared most frequently in the articles selected in this study. Of the 1,458 keywords in the articles, the 10 most frequently used were selected. A heat map was prepared with the interaction of these keywords. The most common terms were performance assessment (87) and performance appraisal (67). The terms male and female also stood out, which indicates that performance assessment and gender may have a significant relationship (Figure 2).
Figure 2: Heat map with the most used keywords

4.6. The Most Cited Articles

Of the 363 selected articles, this section shows the ones that received most citations in the Scopus database; the Journal of Applied Psychology, was found to predominate, having published the 5 most cited articles. This shows that guidelines of psychology journals are related to performance assessment in public organizations. In a brief overview of the articles, we found that many were related to human factors in organizations (Chart 3).

Chart 3: The 5 most cited articles

<table>
<thead>
<tr>
<th>Year</th>
<th>Title</th>
<th>Authors</th>
<th>Journal</th>
<th>Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>Mission Possible? The Performance of Prosocially Motivated Employees Depends on Manager Trustworthiness</td>
<td>Grant A.M., Sumanth J.J.</td>
<td>Journal of Applied Psychology</td>
<td>94</td>
</tr>
</tbody>
</table>

Source: prepared by the authors (2019).
4.7. References most used by the Articles

This section shows the references that were most used by the 363 selected articles, which totals 17,646 citations. The chart below (Chart 4) shows the 5 most cited documents in the total above.

**Chart 4: The 5 most used references**

<table>
<thead>
<tr>
<th>Authors</th>
<th>Document Name</th>
<th>Year</th>
<th>Type of Source</th>
<th>Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yin, R. K.</td>
<td>Case Study Research: Design and Methods</td>
<td>1994</td>
<td>Book</td>
<td>52988</td>
</tr>
<tr>
<td>Nunnally, J. C.</td>
<td>Psychometric Theory</td>
<td>1978</td>
<td>Book</td>
<td>50167</td>
</tr>
<tr>
<td>Zadeh, L.A.</td>
<td>Fuzzy sets</td>
<td>1965</td>
<td>Article</td>
<td>41258</td>
</tr>
</tbody>
</table>

Source: Prepared by the authors (2019).

It is clear from the table above that there is a predominance of books, i.e., 4 of the 5 documents. The column for the number of citations refers to the document’s total status considering the entire Scopus database. With regard to the subject, according to the title, they concern the research methodology, such as fuzzy approach, case study and quantitative and qualitative research techniques. This result reveals the methodologies that are most used by researchers in this area.

5. Conclusion

The goal of this article was to map the development of the publication of articles related to professional performance assessment in public administration and its interactions from 2008 to 2017. This result was obtained by identifying the journals that publish most in this area, the authors most cited and the most relevant articles. Another key feature of this article was to identify the interactions between countries and the terms most frequently chosen for titles and keywords. Further studies should be conducted in order to understand a few observations such as: the reason why publications peaked in 2013 and the justifications for some countries, particularly those without a traditionally large output in general, to present a significant number of publications. Finally, a more detailed analysis of articles by Brazilian authors should be conducted so as to help contextualize this field in the Brazilian scenario.

Based on this bibliometric analysis, further in-depth studies on terms and theoretical framework will be conducted in order to assist in the preparation of theses and dissertations in the area of professional performance evaluation in public administration.

References


