

Strategic Planning and Modernization of the State: Evaluation of Efficiency in Public Administration through Performance Indicators

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ABSTRACT

This bibliometric review analyzes the scientific production related to the Public Administration and Performance Indicators variables recorded in the Scopus database during the period 2018-2023. The main objective of the study was to identify and characterize the volume of publications, achieving a total of 291 documents. The information collected was organized by graphs, categorizing it by Year of Publication, Country of Origin, Area of Knowledge and Type of Publication. The results reveal that the United States is the country with the highest number of publications, reaching a total of 37 scientific papers. The area of Medicine stood out as the most prolific in terms of bibliographic contribution, with 72 documents. Likewise, Journal Articles represented 50% of total publications. This analysis also includes a qualitative study on the positions of various authors in relation to the topics addressed, providing a comprehensive view of the current state of research in this field. Among the main conclusions, it is determined that strategic planning allows for a clear vision and defined objectives, and to promote innovation within the public sector, encouraging the search for new solutions and approaches to achieve the established goals.

KEYWORDS: Public Administration, Performance Indicators, Strategic Planning.

1. Introduction

State modernization and strategic planning, evaluated through performance indicators, are powerful mechanisms for improving public administration management. These approaches not only increase efficiency and effectiveness, but also promote transparency and accountability. However, for them to be successful, it is necessary to address the challenges associated with their implementation, such as resistance to change and the need for adequate resources. For this reason, the implementation of mechanisms supported by new technologies for the management of data and large amounts of information has become the right hand when evaluating the performance of public policies imposed in different sectors. The foregoing, supported by a series of significant advantages such as those listed below: (Guerrero, Guerrero, Carrasco, & Gonzáles, 2022)

1. Operational efficiency: State modernization involves the adoption of new technologies and administrative practices that can significantly improve operational

efficiency. For example, the digitization of public services reduces costs and response times.

2. Transparency and accountability: The implementation of modern systems facilitates transparency in public management. Tools such as open data portals allow citizens to access information on resource use and the execution of public policies.

3. Adaptability to change: A modernized state is better prepared to adapt to emerging changes and challenges, such as globalization and rapid technological evolution. This allows it to respond more effectively to the needs of society.

This implies the starting point for an open and transparent government which can systematically nurture an entire information system capable of admitting a more effective surveillance in the use of public resources and reduce, if required, outbreaks of corruption that are detrimental to the social good, so that the benefits for a more just and equitable society range from guidance and direction, which implies that all activities and resources are aligned with the mission and vision of public institutions. The efficient use of resources, and continuous improvement. This confirms the importance of the modernization of the state through strategic planning as a spearhead for the construction of performance indicators as a great benefit for society. This article seeks to analyze the bibliometric characteristics of scientific production around these variables, so it is proposed as an objective to (Ramírez & Pérez, 2022) From a bibliometric and bibliographic perspective, the preparation and publication of research papers in high-impact journals indexed in the Scopus database on the variables Public Administration and Performance Indicators during the period 2018-2023. For this purpose, the characteristics in terms of the scientific production recorded in scopus are analyzed, such as, co-occurrence of keywords, annual distribution of scientific production, country of origin of the publication, area of knowledge with greater influence on the execution of research projects and type of publication.

2. Methodology

This bibliometric review was carried out with the aim of analyzing the scientific production related to the Public Administration and Performance Indicators variables, using the Scopus database during the period 2018-2023. The steps followed for this review are detailed below:

2.1 Definition of the Objective and Scope:

The main objective was to analyze, from a bibliometric and bibliographic perspective, the preparation and publication of research papers in high-impact journals indexed in the Scopus database on the Public Administration and Performance Indicators variables during the period 2018-2023.

2.2 Literature Search:

An exhaustive search was carried out in the Scopus database using the following keywords: "Public Administration", "Performance Indicators". Boolean operators were used to refine the results (AND):

TITLE-ABS-KEY (public AND administration, AND performance AND indicators) AND PUBYEAR > 2017 AND PUBYEAR < 2024

The initial search yielded a total of 291 articles.

2.3 Selection of Studies:

The following inclusion criteria were applied:

✓ Relevance of the topic:

The studies chosen for analysis are in accordance with the objective set out in this document, ensuring that the results obtained are concise, clear, objective and coherent with the purpose proposed.

✓ Publication date:

Studies published within the period between 2018-2023 are included.

✓ Type of study:

The documents reported in Scopus are analyzed, without distinction of their type. Journal Articles, Conference Articles, Books, Book Chapters, Reviews, among others.

✓ Language:

The search is carried out in Scopus with the variables in English, ensuring that the results are reported in that language, and thus ensuring the universality of the documents consulted.

✓ Post Source:

Studies published in peer-reviewed scientific journals are preferred, guaranteeing a minimum standard of quality and academic rigor.

2.4 Data Analysis:

Various bibliometric analyses were carried out, including:

Analysis of co-occurrence networks: to visualize the relationships between studies cited together. The data was analyzed and visualized using VOSviewer software, allowing the creation of network maps and distribution graphs.

Publication count: To determine the number of studies published per year.

Publications by country of origin: In order to know the distribution of scientific production according to its country of origin.

Influence of the areas of knowledge: to identify the interference of the different areas of knowledge in the execution of research work related to the variables studied.

Publication Type: To determine the number of publications corresponding to each type of format accepted in Scopus.

2.5 Data Visualization:

Graphs were prepared to represent the distribution of publications by year, country,

area of knowledge and type of publication.

In addition, heat maps were generated to visualize the density of publications by country and network diagrams to show the co-occurrence of keywords.

2.6 Interpretation and Discussion of Results:

The patterns and trends observed in the bibliometric data were interpreted, comparing them with previous studies and discussing their implications for the field of research.

Emerging areas of research and gaps in the current literature were identified.

3. Results

3.1 Word co-occurrence

In the following figure, it is possible to identify a cattle diagram to show the co-occurrence between the keywords identified in the data search for the proposed bibliometric analysis.

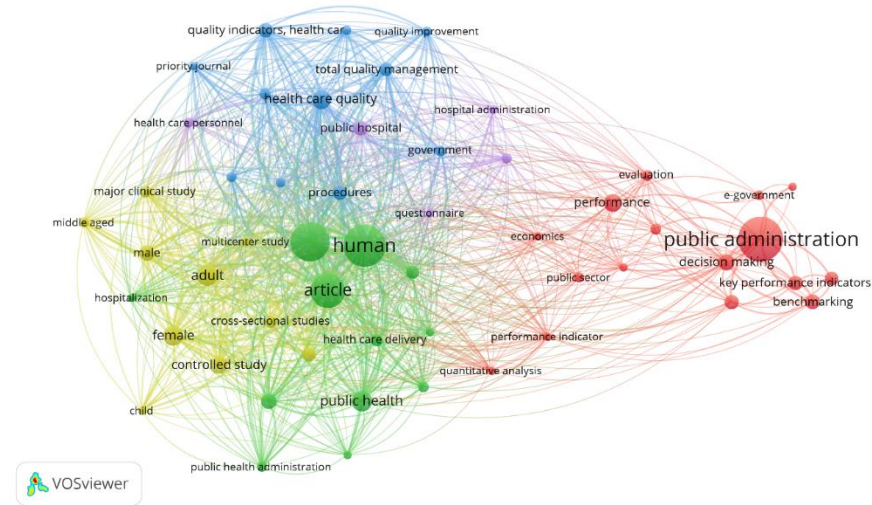


Figure 1. Word co-occurrence

Source: Own elaboration (2024); based on data exported from Scopus.

As evidenced in Figure 1, the main cluster identified with the color red, has as its main keyword the variable Public Administration, strongly related to research works around variables such as Decision Making, Online Government, Key Performance Indicators, Evaluation, Public Sector, among others, which allow us to infer that these works frame everything related to the modernization of government through tools that allow a clear, transparent and reliable monitoring of the performance of public policies, which in theory confirms the usefulness of management indicators to measure the effects caused by each of the resource allocations on the different issues

of the government agenda. On the other hand, the cluster identified with the green color, accounts for the variables that are impacted by those mentioned above, this is how works related to Public Health, Health Care, and Human Components, Public Hospitals are recorded, which demonstrate how perhaps for the authors, the health sector is one of the most benefited with the implementation of this type of performance indicators, by highlighting the importance of the correct allocation of state resources in policies aimed at preserving the health of the population. In the same way, Economy, Early Childhood, Education, are words that are highly consulted within the analyzed research.

3.2 Post Count

Figure 2 shows how scientific production is distributed according to the year of publication.

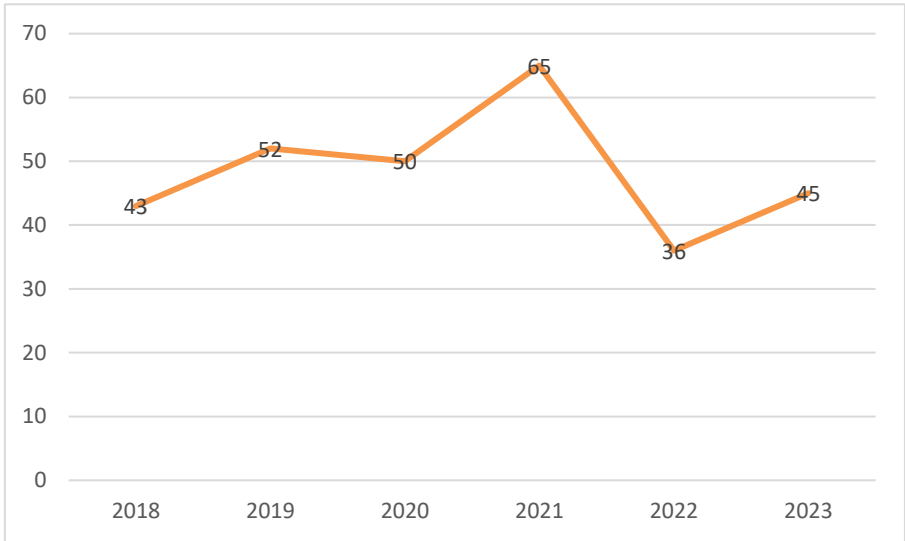


Figure 2. Annual distribution of scientific production

Source: Own elaboration (2024); based on data exported from Scopus

Figure 2 shows that, in 2021, it was the period during which the highest number of registrations in Scopus was carried out with a total of 65 publications in high-impact journals, followed by 2019 with a total of 52. It is important to note that after reaching the maximum number of publications in 2021, a significant drop in the number of papers registered in Scopus is recorded in the immediately following year, with a total of 36, 2022 was the year with the lowest scientific production indexed in said database. However, by 2023 this figure is beginning to recover, reaching 45 publications, among which the article entitled "The effectiveness of machine learning to estimate the risk of failure in Brazilian public contracts" stands out, whose purpose was to propose MLRP models (Machine Learning Risk Prediction Models) at the municipal level with the aim of addressing and overcoming these challenges. The authors explore the space of opportunities in the application of MLRP in the context of public procurement in Brazil. Through this study, they

manage to record as a main result that the application of these predictive models can be of great help when identifying and predicting risks in the assignment of contracts aimed at social issues, so it would be ensured that public resources can have greater control and surveillance in their use. which would improve the performance of public entities that contract with private individuals for the exercise of their functions, as in the case of education, health, food security, among others. It is important to note that the allocation of state resources has been significantly high in the Latin American community, which has historically been the object of historically documented acts of corruption, so the support of these entities in technological tools to exercise better control is very useful if what is sought is the reduction of this scourge. (De Menezes & De Andrade, 2023)

3.3 Publications by country of origin.

Figure 4 shows how scientific production is distributed geographically.

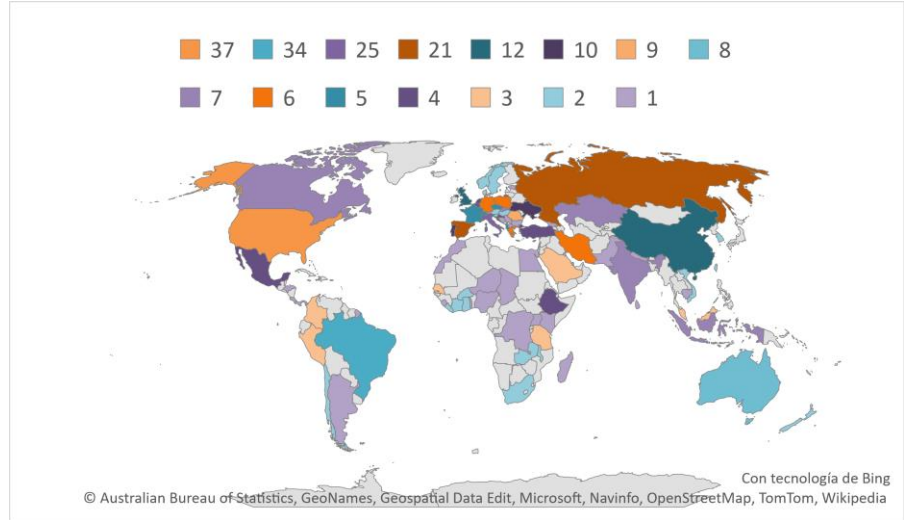


Figure 3. Geographical distribution of scientific production.

Source: Authors' elaboration (2024); based on data provided by Scopus.

Figure 3 shows the geographical distribution of scientific production represented by a color code. Each country is colored according to the amount of scientific production it has, according to a scale of colors and numbers found at the top of the map. It is evident that the United States registers a total of 37 publications, making it the country with the highest number of research papers registered. Other countries with high production include Canada (7), Brazil (34) and several European countries, as well as countries in Africa and some regions of Asia and Latin America have lower scientific production, represented by colors such as light blue, gray and yellow. Colombia, for example, manages to register a total of 3 publications, among which the article entitled "Demographic structure and municipal financial performance in the department of Boyacá, Colombia" stands out, through which demographic measurement instruments are used to determine if there is a

relationship between population density and the effectiveness of government financial entities. therefore, a series of performance indicators are used to establish the correlation between both variables. Among the results, the authors find that the smaller the number of population, the greater the possibility that the performance of the allocation of financial resources is more efficient, so it can be established with facts that the use of performance indicators are useful when measuring productivity and efficiency in decision-making by municipal bodies in relation to the allocation of public resources, which can be replicated at the national level in order to measure the general performance of governments in the financial area. (Fajardo Pineda, 2019)

3.4 Distribution of scientific production by area of knowledge

Figure 4 shows the distribution of scientific production, according to the prevalence of theories in different areas of knowledge.

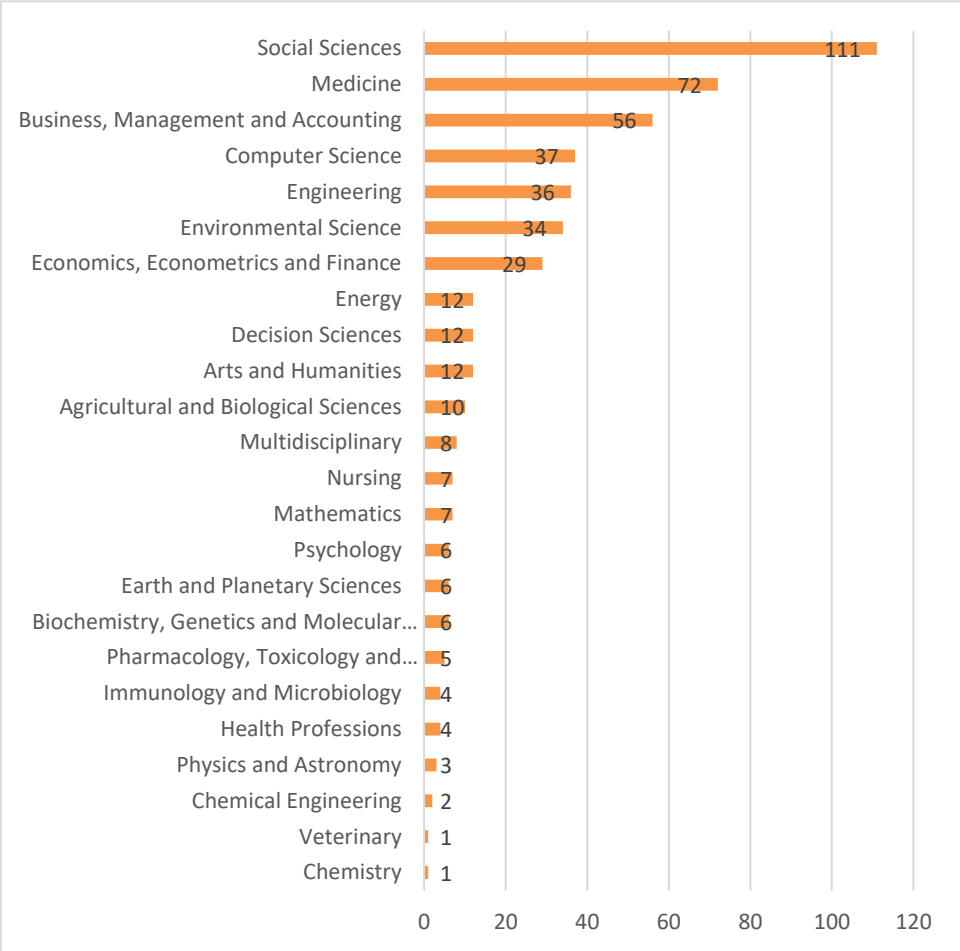


Figure 4. Distribution of scientific production by area of knowledge.

Source: Authors' elaboration (2024); based on data provided by Scopus.

Figure 4 shows that the Social Sciences have the highest amount of scientific production with 111 publications, followed by Medicine with 72 and Business, Administration and Accounting with 56. The areas with the lowest scientific production include Veterinary and Chemistry, each with 1 publication. It is important to highlight that this is due to the very nature of the study and its social implications, which confirms the relevance of the publications analyzed with the objective of the study presented in this document. One of the articles with the greatest impact among those presented within the area of Social Sciences was entitled "The governance of self-organization: What governance strategy do political officials and citizens prefer?" The objective of which was to compare the perspectives of political officials and members of community collectives about the ideal role of government in the processes of community self-organization. Perceptions vary as to how the government should respond to the trend of community self-organization, especially with regard to the primacy of the relationship. While some public servants and collectives prefer non-interventionist participation by policymakers, others advocate a more direct and interactive relationship between government and community collectives. In general, both groups show little appreciation for policy instruments based on performance indicators, associated with New Public Management, or for a strong participation of politicians, linked to traditional public administration. It should be noted that citizen participation mechanisms currently contemplate the use of tools that can be measured, which yields interesting data for decision-making processes and even reengineering in some processes, since through these perceptions it is sought to analyze what has been the impact of the policies applied on different issues of the government agenda. therefore, it is taken into account as a valid and efficient performance indicator to evaluate the functionality of public entities. (Nederhand, Klijn, van der Steen, & van Twist, 2019)

4.5 Type of publication

In the following graph, you will see the distribution of the bibliographic find according to the type of publication made by each of the authors found in Scopus.

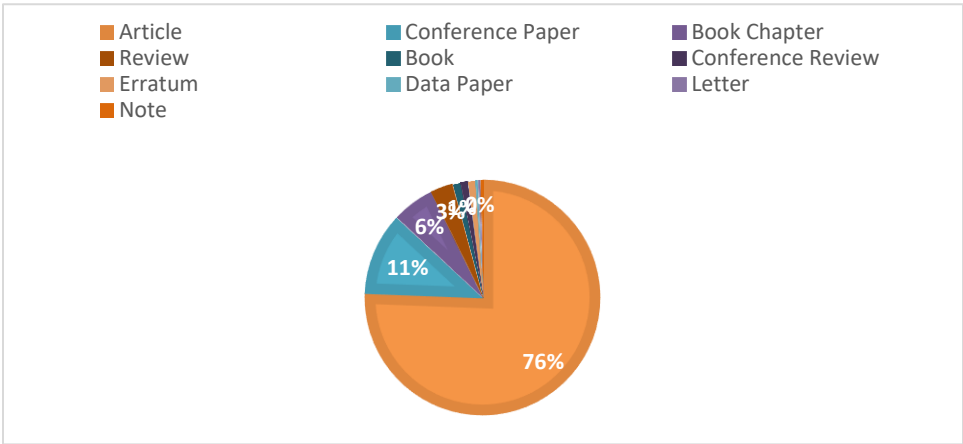


Figure 5. Type of publication.

Fountain: Own elaboration (2024); based on data provided by Scopus.

The pie chart shows the distribution of different types of posts. Each segment is tagged with the corresponding percentage of each post type. Most of the publications are articles, representing 76% of the total. It is followed by conference articles with 11%, and books with 6%. Letters and reviews each have 3%, while book chapters, lecture reviews, errata, data papers, and notes are so underrepresented that their percentages are close to zero and not shown on the graph.

4. Conclusions

Through the bibliometric review carried out in this document, it is possible to conclude that strategic planning provides a long-term vision, helping decision-makers to align resources and actions with the future objectives of the state. This is essential for sustainable development and continued progress in any decision that the government must make within its management. It also facilitates coordination between different departments and levels of government, ensuring that all actions and policies are aligned and coherent with the overall strategic objectives. It is important to note that, based on strategic planning, the analysis of the environment and risk assessment can be carried out, which is crucial to identify opportunities and threats. This allows decision-makers to prepare for and respond proactively to changes in the environment, which also drives them to prioritize and allocate resources more efficiently, focusing on areas that maximize impact and contribute significantly to the achievement of strategic objectives. All of the above, in addition to the fact that strategic planning allows establishing a framework for the measurement and evaluation of performance, allowing leaders to monitor progress, identify areas for improvement and make necessary adjustments in the implementation of policies and programs, which leads to continuous improvement that brings innovation in processes and increased efficiency when making a decision in government terms. Finally, modernizing the state through the implementation of performance indicators and strategic planning is essential to improve the efficiency and effectiveness of government. Performance indicators provide an objective basis for assessing progress and ensuring accountability, while strategic planning offers clear guidance for decision-making, helping leaders align their actions with a long-term vision. Together, these approaches create a robust framework for continuous improvement and sustainable development of the public sector.

References

- De Menezes, T. L., & De Andrade, N. F. (2023). The Effectiveness of Machine Learning to Estimate the Risk of Failure in Brazilian Public Contracts. *Proceedings - 22nd IEEE International Conference on Machine Learning and Applications, ICMLA 2023*, (pp. 2071 - 2078). Jacksonville.
- Fajardo Pineda, L. F. (2019). Demographic Structure and Municipal Financial Performance in Boyacá, Colombia. *Apuntes del Cenes*, 247 - 272.
- Guerrero, R. E., Guerrero, B. E., Carrasco, J. C., & Gonzáles, K. E. (2022). The new public management: the answer for an efficient and effective state. *Ciencia Latina Revista Científica Multidisciplinar*, 6(5), 5648-5658.
- Nederhand, J., Klijn, E.-H., van der Steen, M., & van Twist, M. (2019). The governance of

- self-organization: Which governance strategy do policy officials and citizens prefer? *Policy Sciences*, 233 - 253.
- Ramírez, R. P., & Pérez, I. R. (2022). The performance of public administration in the Fourth Transformation through governance indicators. . *Religación: Revista de Ciencias Sociales y Humanidade*.
- Klein, H. E., Pufal, N. A., Mattos, G., & Zawislak, P. A. (2020). The nature of entrepreneurial activities in less innovative economies. Paper presented at the 26th International Association for Management of Technology Conference, IAMOT 2017, 1196-1215. Retrieved from www.scopus.com
- Lopes, J., Oliveira, M., Silveira, P., Farinha, L., & Oliveira, J. (2021). Business dynamism and innovation capacity, an entrepreneurship worldwide perspective. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(1) doi:10.3390/JOITMC7010094
- Lopes, J. M., Gomes, S., Oliveira, J., & Oliveira, M. (2021). The role of open innovation, and the performance of european union regions. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(2) doi:10.3390/joitmc7020120
- Lopes, N. V. (2017). Smart governance: A key factor for smart cities implementation. Paper presented at the 2017 IEEE International Conference on Smart Grid and Smart Cities, ICSGSC 2017, 277-282. doi:10.1109/ICSGSC.2017.8038591 Retrieved from www.scopus.com
- Maestre, G., Astudillo, H., Nieto, W., & Concha, G. (2018). Empirical evidence of colombian national e-government programs' impact on local smart city-adoption. Paper presented at the ACM International Conference Proceeding Series, 517-525. doi:10.1145/3209415.3209439 Retrieved from www.scopus.com
- Magalhaes, G., & Roseira, C. (2020). Open government data and the private sector: An empirical view on business models and value creation. *Government Information Quarterly*, 37(3) doi:10.1016/j.giq.2017.08.004
- Mergel, I., Kleibrink, A., & Sörvik, J. (2018). Open data outcomes: U.S. cities between product and process innovation. *Government Information Quarterly*, 35(4), 622-632. doi:10.1016/j.giq.2018.09.004
- Morelli, N., Mulder, I., Concilio, G., Pedersen, J. S., Jaskiewicz, T., de Götzen, A., & Arguillar, M. (2017). Open data as a new commons. empowering citizens to make meaningful use of a new resource doi:10.1007/978-3-319-70284-1_17 Retrieved from www.scopus.com
- Musiello-Neto, F., Rua, O. L., Arias-Oliva, M., & Silva, A. F. (2021). Open innovation and competitive advantage on the hospitality sector: The role of organizational strategy. *Sustainability (Switzerland)*, 13(24) doi:10.3390/su132413650
- Natário, M. M. S., & Oliveira, P. M. (2018). Portuguese SME innovation sources: Trends of the last decade. Paper presented at the atas da Conferencia da Associação Portuguesa de Sistemas de Informação, , 2018-October retrieved from www.scopus.com
- Osorio-Sanabria, M. A., Amaya-Fernández, F., & González-Zabala, M. (2020). Exploring the components of open data ecosystems: A systematic mapping study. Paper presented at the ACM International Conference Proceeding Series, , Part F166737 doi:10.1145/3401895.3401928 Retrieved from www.scopus.com