An Overview of Public Sector Performance in Europe

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Abstract

The pandemic effects are still being perceived on the worldwide economy and economic growth is projected to slow in 2022 and 2023 compared to 2021. In this "bad" environment, the war in Ukraine severely affected European countries' economies and all world economies as a domino effect. This paper investigates public sector performance in European countries in recent literature by analyzing 2018-2022 published scientific papers. We perform science mapping by using the VOSviewer software to identify networks between keywords and authors. Our results reveal that strong links exist between keywords occurrence, authors' networks, but also between countries and institutions.

Key words: performance, public sector, bibliometric analysis
J.E.L. classification: C38, H11, O50

1. Introduction

Worldwide, countries are struggling to prevent another significant economic and financial crisis considering the tensions generated from the war in Ukraine. The government plays a vital role in periods of economic and social distress to stabilize the economy and sustain its growth. The COVID-19 pandemic has generated a whole series of changes that have taken place in key areas of the economy: hospitality (Aivaz et Căpățână, 2021; Aivaz et Micu, 2021), information technology (Aivaz1, 2021), support services (Aivaz2, 2021), a whole series of studies capturing the specific challenges that each of these areas must face, identifying possible public policies that can be applied in the immediate and future perspective to improve the situation of these economic sectors, in particular, and of the economy as a whole. Unfortunately, the last years have been characterized by pandemics, war, and economic instability, and the role of decision-maker in one country's economy has rase. In this context, public sector performance has become a topic more and more investigated in recent literature. Thus, another essential research topic should be the quality of this research and the main actors that perform this research. Considering this, we aim to explore the recent literature that assesses public sector performance, focusing on Europe.

Our research is based on science mapping by performing a bibliometric analysis on research papers published and indexed in Clarivate - Web of Science database during 2018 – 2022, investigating public sector performance in European countries. Our results identified 3 clusters of 28 keywords with at minimum 3 co-occurrences and 21 authors if we consider a minimum of 9 citations grouped in 5 clusters. Additionally, 22 countries in 4 clusters generated at least 5 documents, and 14 institutions in 3 clusters fulfilled the requirement of a minimum of 2 documents.

The rest of the paper is structured as follows: Section 2 exposes a brief Literature review, Section 3 describes the research methodology, Section 4 reveals the main findings, and Section 5 concludes.

2. Literature review

The literature focusing on public sector performance gathers a large number of studies, especially around periods of "bad times", when governments need to be more active to stimulate and revive the country's economy and, of course, improve the wellbeing of its people. Although there still exists a qualitative problem concerning the computation of public sector performance indicators, special

attention must be paid to the conceptual part. To be more precise, to have a clear definition and understanding of the public sector concept and the measurement of its performance, namely "to determine where government ends and society begins" (Van de Walle, 2008, p. 336). Moreover, Mihiț et al. (2019, p. 11) mentioned that among the problems of measuring public sector performance is the variety of the social and economic environment, but also the fact that unqualified personnel are appointed to measure the public sector performance, while the political influence in government decisions also plays an important role.

Focusing on the bibliometric analysis, we can easily state that this technique has become more and more used in assessing the state of research on different topics. More precisely, its use started to increase during the '90s, when the Web of Science database became accessible online (Szomszor et al., 2021, p. 2). Jappe (2020, p. 10), focusing on papers published from 21 European countries, revealed that bibliometric research assessment is fervently used in Nordic countries, followed by Italy and Nederlands. Moreover, Langfeldt et al. (2020, p. 116) highlight that if once research quality assessment was reserved for professionals, nowadays, it is broadly available.

3. Research methodology

We reveal a visual presentation of the recent academic literature on the public sector performance in Europe drawing upon science mapping, namely bibliometric research. To be more precise, we employ the VOSviewer software to identify clusters and networks between authors, considering: keywords, co-citation, and co-authorship. We perform our research on studies accessible on the most recognized database of scientific studies, namely the Clarivate -Web of Science Core Collection database. In order to collect our studies database, we use the following keywords: "public sector", "performance," and "Europe". Furthermore, we restricted the time period to 2018-2022 and obtained a sample of 196 documents. Bibliometrics is a tool through which the global production of scientific literature can measure the level of science and technology. It is a method by which we can establish hierarchies, finding out how one country compares to others, the main keywords, and even researchers and scientists with their scientific communities. Networks generated by maps highlight scientists or publications and key terms and can be built based on co-citation (two articles receiving a citation in the same document), bibliographic links, or co-authorship (number of documents as and co-authors). Maps created, viewed, and explored using VOSviewer include items. To be more precise, items are the objects of interest and can be, for example, publications, researchers, or keywords. A map typically includes only one item type, and there can be a link between any pair of items. A link is a connection or relationship between two elements, and each link has strength. The larger the words and the links, the larger the strength between them. Items and links form a network and are grouped into clusters.

4. Findings

In the following, we reveal the results considering: (i) keywords analysis, (ii) authors co-citation analysis, (iii) countries co-authorship analysis, and (iv) institutions co-authorship analysis.

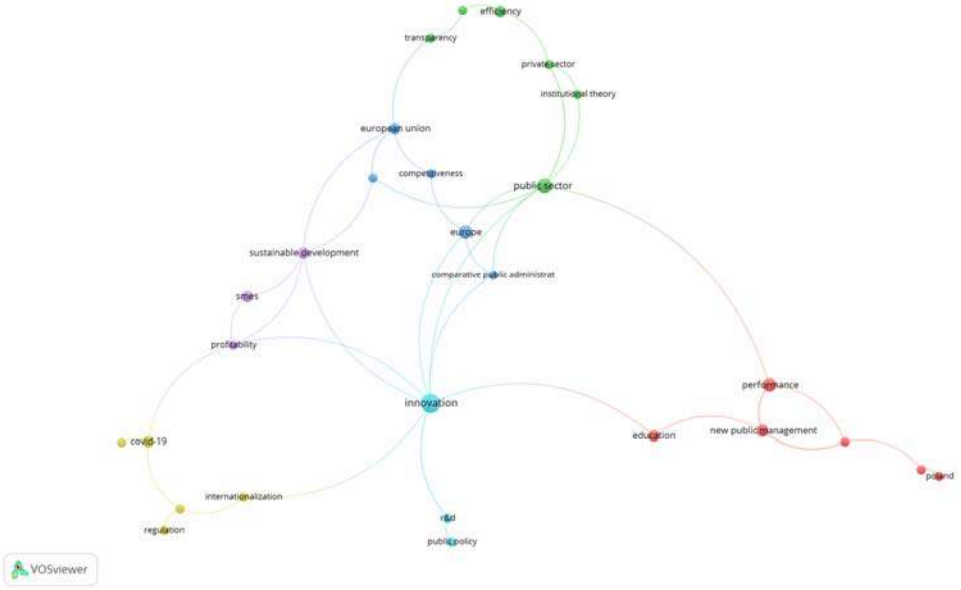
4.1. Keywords Analysis

Figure 1 depicts the keywords co-occurrence after we specify that only the keywords mentioned by the authors should be considered and used a threshold of 3 co-occurrences. The software first identified 847 keywords and reduced the number to 28 keywords grouped in 6 clusters after applying the threshold.

The "performance" (6 occurrences, 4 link strength) keyword leads the first cluster (red) that also contains the following five items: education (4 occurrences, 2 link strength), new public management (5 occurrences, 5 link strength), Poland (3 occurrences, 1 link strength), public administration (3 occurrences, 2 link strength), and public sector reform (3 occurrences, 4 link strength). The second cluster (green) is led by the "public sector" (7 occurrences, 8 link strength), and contains efficiency (4 occurrences, 2 link strength), institutional theory (3 occurrences, 2 link strength), local government (3 occurrences, 2 link strength), private sector (3 occurrences, 4 link strength), and transparency (3

occurrences, 2 link strength). The third cluster (blue) is led by the "Europe" (6 occurrences, 4 link strength) keyword and is also formed from comparative public administration (3 occurrences, 3 link strength), competitiveness (3 occurrences, 2 link strength), economic growth (3 occurrences, 3 link strength), and the European Union (4 occurrences, 4 link strength). Furthermore, the fourth cluster (olive) is led by "covid-19" (4 occurrences, 3 link strength), and is composed of internationalization (3 occurrences, 2 link strength), privatization (3 occurrences, 3 link strength), regulation (3 occurrences, 1 link strength), and Spain (3 occurrences, 1 link strength). The fifth cluster (purple) is led by the "sustainable development" (4 occurrences, 5 link strength) keyword together with SMEs (4 occurrences, 2 link strength) and profitability (3 occurrences, 4 link strength), while the sixth cluster (light blue) is led by "innovation" (12 occurrences, 9 link strength), and is also composed of public policy (3 occurrences, 1 link strength), and R&D (3 occurrences, 3link strength).

Figure no. 1. Keywords network

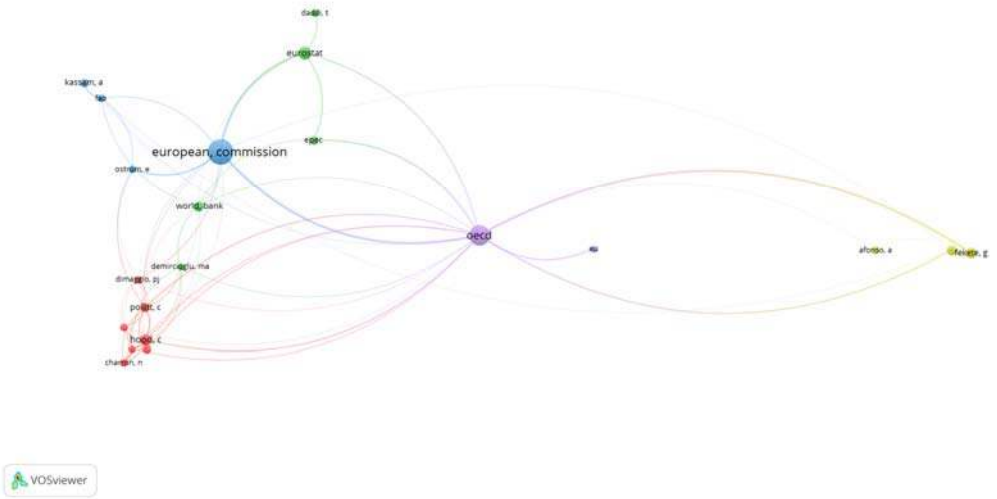


Source: author compilation in VOSviewer

4.2. Authors Co-citation Analysis

This section reveals the research network considering the authors of the sample publications, and the software revealed 8756 authors. For a better map visualization, the threshold was set for 9 citations, and the software selected 21 authors grouped in 5 clusters.

Figure no. 2. Authors network



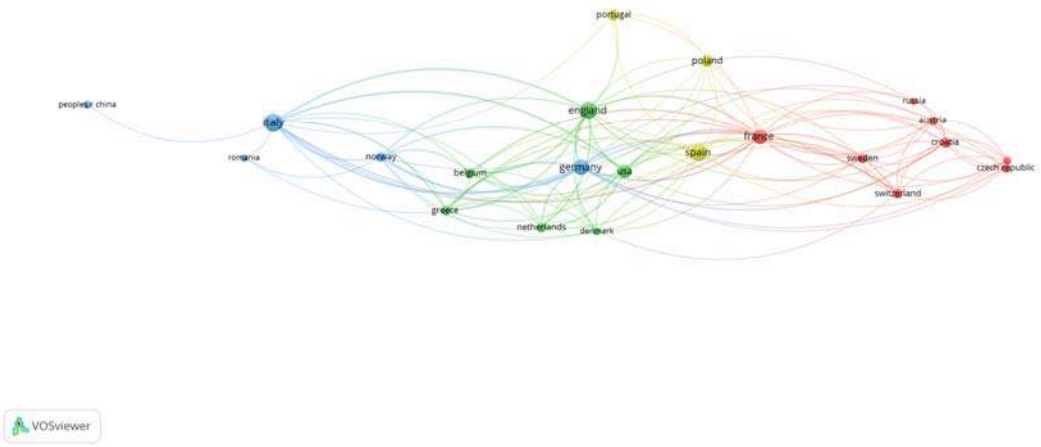
Source: author compilation in VOSviewer

Figure 2. illustrates the five clusters and the link strengths between them. As can easily be observed, the European Commission (103 citations, 168 link strength) is the most cited one on our topic of interest and forms the blue cluster together with Fao (10 citations, 42 link strength), Kassam A. (12 citations, 24 link strength) and Ostrom E. (10 citations, 40 link strength). The purple cluster is led by OECD (65 citations, 266 link strength) together with EU (9 citations, 21 link strength). Furthermore, the red cluster is formed by Charron N. (10 citations, 56 link strength), Christensen T. (13 citations, 61 link strength), Dimaggio PJ. (9 citations, 16 link strength), Hood C. (20 citations, 99 link strength), Perry JL. (10 citations, 25 link strength), Pollitt C. (14 citations, 83 link strength) and Van de Walle S. (9 citations, 62 link strength). Finally, the green cluster is composed of: Daddi T. (11 citations, 9 link strength), Demircioglu MA. (9 citations, 24 link strength), Epec (13 citations, 35 link strength), Eurostat (26 citations, 86 link strength), and World Bank (17 citations, 26 link strength), while the olive cluster is formed of Afonso A. (10 citations, 2 link strength), EC (16 citations, 161 link strength) and Fekete G. (19 citations, 190 link strength).

4.3. Countries Co-authorship Analysis

This section reveals the geographical area in which our literature of interest is concentrated. The software identified a number of 55 countries but set a threshold of a minimum of 5 documents per country, and our sample was reduced to 22 countries grouped in 4 clusters. Considering the number of published documents, Italy ranks first (31 documents, 361 citations, 31 link strength) and forms the blue cluster together with Germany (21 documents, 263 citations, 45 link strength), Norway (8 documents, 80 citations, 18 link strength), Peoples Republic China (6 documents, 22 citations, 1 link strength) and Romania (5 documents, 15 citations, 3 link strength).

Figure no. 3. Countries network



Source: author compilation in VOSviewer

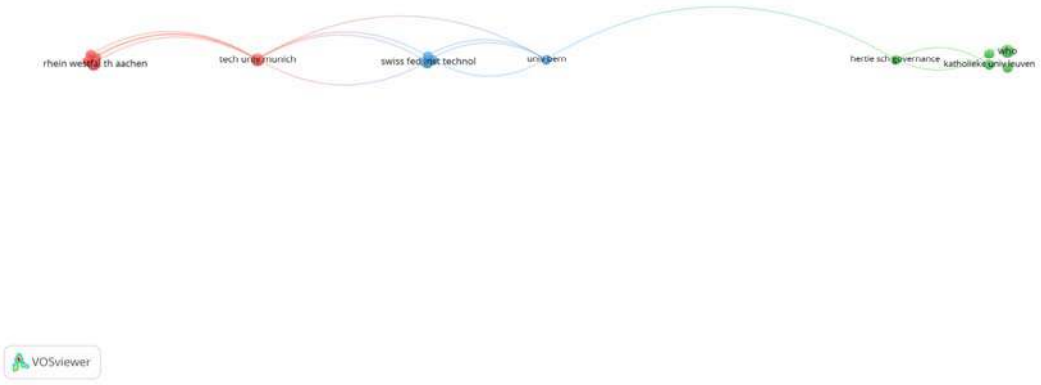
Furthermore, the red cluster is led by France (19 documents, 68 citations, 34 link strength) together with Austria (7 documents, 118 citations, 11 link strength), Croatia (10 documents, 23 citations, 12 link strength), Czech Republic (7 documents, 21 citations, 10 link strength), Russia (5 documents, 19 citations, 5 link strength), Slovakia (6 documents, 9 citations, 10 link strength), Sweden (8 documents, 47 citations, 13 link strength) and Switzerland (8 documents, 64 citations, 15 link strength).

4.4. Institutions Co-authorship Analysis

This section depicts the top institutions researching our topic of interest and publishing a paper from our sample of 109 papers. The software identified 418 organizations, but when selecting a threshold of a minimum of two papers per institution, the sample was reduced to 57 institutions. Moreover, Figure 4 depicts the first 14 institutions grouped in three clusters for better visualization.

The red cluster is composed of the European Commission (2 documents, 66 citations, 4 link strength), Norwegian University of Science and Technology (2 documents, 57 citations, 4 link strength), Polytechnic University of Milan (2 documents, 56 citations, 4 link strength), RWTH Aachen University or Rheinisch-Westfälische Technische Hochschule Aachen (3 documents, 62 citations, 4 link strength) and its led by The Technical University of Munich (3 documents, 58 citations, 8 link strength). Furthermore, the green cluster is composed of Cardiff University (2 documents, 28 citations, 3 link strength), The Hertie School (2 documents, 77 citations, 3 link strength), The KU Leuven (2 documents, 28 citations, 3 link strength), The University of Oslo (2 documents, 8 citations, 1 link strength), The World Health Organization (3 documents, 4 citations, 1 link strength). Finally, the blue cluster is composed of the Croatian Forest Research Institute (2 documents, 9 citations, 4 link strength), The Institut National de la Recherche Agronomique (2 documents, 3 citations, 4 link strength), The Swiss Federal Institute of Technology (3 documents, 8 citations, 4 link strength) and The University of Bern (2 documents, 53 citations, 5 link strength).

Figure no. 4. Institutions network



Source: author compilation in VOSviewer

5. Conclusions

We performed a bibliometric analysis in order to identify in recent literature (2018-2022) that focuses on Europe the importance of "public sector performance" as a research topic. As a result, we revealed the existence of solid links and identified, among others, the most used keywords on this research topic.

Our sample includes 109 published research papers analyzing public sector performance in Europe. Firstly, when investigating "keywords", we obtained 28 (with a threshold of 3 co-occurrences) grouped in 3 clusters. It can easily be observed from the chart that keywords like "performance", "innovation", and "public sector" are the most common in the analyzed literature. Secondly, when analyzing the author's network, the software identified 21 authors (out of 8756 authors) that fulfilled the requirement of minimum 9 citations, grouped in 5 clusters. Thirdly, when observing the countries that generated research papers on our interest topic, we observed that 22 countries met the threshold of minimum 5 documents per country and were grouped in 4 clusters. Finally, when considering institutions that generated minimum 2 documents, the software identified 14 institutions grouped in 3 clusters.

Considering our above analysis, we can easily conclude that public sector performance is a research topic of interest for academia and major international institutions, thus for the decision-makers.

6. Acknowledgement

This work was supported by a grant of the Ministry of Research, Innovation and Digitization, CNCS/CCCDI – UEFISCDI, project number PN-III-P1-1.1-PD-2019-0219, within PNCDI III".

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