

Bibliometric Analysis of Publications on Decentralization and Social Policy

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Abstract

This article presents a bibliometric analysis of articles in Scopus on “decentralization” and “social policy”, using the tools Vosviewer and Bibliometrix. The introduction highlights the growing importance of these areas in academic research and the need for rigorous methods to assess their evolution. The aim of the study is to quantify and validate categories related to these topics in order to obtain an objective and detailed perspective of current trends in the literature. The methodology employed includes the collection and analysis of bibliographic data from Scopus using specialized tools to map collaboration networks and emerging areas of research. The results indicate that bibliometric methods are effective in measuring and validating research categories that could be subjective in traditional reviews. In addition, they facilitate the exploration of new areas and allow the identification of emerging categories in the study of decentralization and social policy.

Keywords: *Decentralization, Social Policy, Bibliometrics.*

Introduction

Blanco Alvarado (2019) postulates that the Nation-State has undergone various transformations, manifesting itself in various ways. One of them is the process of globalization, within which territorial decentralization is conceived as an administrative system in which the central power delegates responsibilities to subnational or territorial entities, allowing them to manage said powers with autonomy and independence.

Baylon and Quispe (2022) mention that, at a global level, various political reforms were carried out with the aim of addressing the growing inequality and the vulnerability of many families. Poverty continues to be a global challenge. Decentralization emerges as a solution to counteract centralism, by decentralizing functions and bringing administrative management closer to the most distant areas of cities through local administration. Thus, it becomes the axis for regional and local progress.

Velásquez (2021) says that there are two main approaches to decentralization: the post-Marxist and the Neoliberal, the post-Marxist current considers decentralization as a means to achieve greater democracy and better governance, focusing on strengthening regions to foster more equitable relations with the national level, improve communication between institutions and the community, and generate public policies adapted to local realities. In contrast, the neoliberal perspective sees decentralization as a strategy to promote development, seeking greater regional autonomy to reduce the intervention of the Central State and improve the provision of services. This vision also advocates the privatization of certain services and the promotion of local development, understanding decentralization as a set of reforms to optimize development. Other authors mention that decentralization can be approached from a political angle (redistribution of power) or economic (improvement in efficiency by reducing centralism) (Willis et al, 1999; Finot, 2001b, Boisier, 2003).

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Bello-Gómez and Sanabria-Pulido (2021) The duality of the decentralized unitary model in Colombia, which balances the authority of the central government with an extensive process of decentralization towards subnational and local governments, has impacted the way the country has managed the COVID-19 pandemic. There have been significant tensions between the national and subnational governments in managing the crisis. Despite some unclear jurisdictional boundaries that make coordination between different levels of government difficult, intergovernmental relations and multi-level governance appear to have worked to some extent.

On the other hand, the arrival of the Internet and the proliferation of personal computers caused a significant change in daily life, affecting almost all social and economic aspects of countries.

The first documents on network interaction appeared in the late 1950s. The Internet, as we know it today, was consolidated in the 1980s. In the 1990s, the World Wide Web or www was introduced, which began with Web 1.0: a static version, with tools that are now obsolete and without interactive capabilities. (Suárez, 2019).

Later, Web 2.0 emerged, which Dale Dougherty called the "social network" at a conference in 2004 (2019). This version was characterized by being a dynamic web, with collective intelligence and remarkable social interactivity (Suárez, 2019). To date, this evolution has had a significant impact on both society and global production.

Technological advances in Web 2.0 gave rise to social media, which today is the main channel through which people inform themselves and share information at micro, meso and macro levels. Every day, an increasing number of individuals search for or share information about research, discussion forums, educational products or services, thus transforming the way we interact to find what we need (Arora, et al, 2019). Social platforms not only serve as communication channels, but have also become crucial tools for accessing academic and research information. Social media has proven to be highly effective for promoting academic products online (Sokolova and Kefi, 2019, Guarda et al, 2018).

This research work justifies its interest and importance in educational areas in general and specific, such as decentralization and social policy.

Scope of the Study

This study focuses exclusively on the Scopus database, known for its wide coverage and the quality of the publications it indexes, thus ensuring a solid and representative collection of relevant information on decentralization and social policy.

Additionally, the advanced computer tools Vosviewer and bibliometrix will be used to perform the analysis and visualization of bibliometric networks. This will allow the creation of a detailed map of publications, authors, institutions and thematic trends within the field of decentralization and social policy.

Finally, a comprehensive report will be generated presenting the results of the bibliometric analysis, providing both a general and specific overview of scientific production in decentralization. This will facilitate the identification of trends, collaboration networks and emerging areas of research in this field.

Literature Review

Bibliometric analysis uses quantitative methods to investigate and evaluate textual information (Merigó, et al., 2015; Abdi, et al., 2018). These techniques provide additional data to literature reviews, facilitating the profiling of publications on a particular topic, the identification of trends in a scientific discipline and the evaluation of scientific activities to understand the state of research. (Keathley-Herring et al., 2016; Zupic, et al., 2015; Rey Martí, et al., 2016; Carrión-Mero, et al., 2020).

Common techniques include co-citations, keyword co-occurrence, and co-authorship analysis (Van Eck, 2014; Montalván, et al, 2020). In this study, co-citation analysis was employed, which shows the relationships between publications by examining when a third publication cites two previous studies that are also linked to each other (Van Eck, 2014; Small, 1973). This approach can provide both a theoretical and empirical basis for a variety of research (Hsiao and Yang, 2011).

To enrich the understanding gained through co-citations, scientific mapping techniques were used, which show the intellectual structure of a field of study and its dynamic evolution (Van Eck, 2010, Herrera-Franco, et al., 2020). Thus, the analysis of the academic field requires a systematic literature review process that encompasses several steps.

Methodology

Bibliometrics and Scientific Mapping

Bibliometric analysis encompasses a series of tools that use quantitative approaches to examine and measure texts and information. These analyses provide additional data that enrich literature reviews, turning the information obtained into a valuable complement to research (Keathley-Herring, et al, 2016, Zupic and Cater, 2015). To carry out a successful bibliometric analysis, it is essential to outline publication profiles in a specific topic, identify trends within a scientific discipline, and evaluate scientific activities to understand the current state of research (Rey- Martí, et al, 2016). Common bibliometric techniques include co-citations, co-occurrence of words, co-occurrence of key terms, and co-authorship analysis (Van Eck and Waltman, 2010; Montalván-Burbano, et al, 2020). In this study, co-citation analysis was used.

To deepen the understanding of co-citations, the bibliometric analysis was enriched with scientific mappings, which facilitate the revelation of the intellectual structure and dynamics of the field of study (Van Eck and Waltman, 2010; Herrera-Franco, et al, 202). Thus, the examination of the academic field requires a detailed analysis of the literature, a process that takes place in four stages.

The research approach is quantitative, since we aim to reflect the data obtained from the database of journals indexed in Scopus and through the Vosviewer and Bibliometrix (RStudio) tools, which allow a quantitative analysis of the publications or co-citations related to Decentralization as a central theme and social policy.

Description of Sources and Selection Criteria

The first step is to conduct an exhaustive search in the Scopus database of research journals, which is one of the most widely used for research purposes and an extensive source of scientific publications (Bartol, 2016). The information search was carried out in 2024, using the descriptors “decentralization” and “social policy”. This allowed us to obtain all the articles we worked with.

Vosviewer 1.6.10, developed by the Centre for Science and Technology Studies (CWTS) at Leiden University in the Netherlands, is a tool that facilitates the extraction and visual representation of key terms. This allows the creation of two-dimensional maps for bibliographic map analysis.

Bibliometrics (and scientific cartography) plays a fundamental role in scientific analysis. The R software and its development environment RStudio include a package called Bibliometrix, created by Massimo Aria and Corrado Cuccurullo (2017), which facilitates the performance of bibliometric research.

This paper focuses on demonstrating how to use Bibliometrix and highlighting the capabilities of this software to carry out studies in this field.

Exclusion

The second step was to establish the criteria for excluding certain documents; only journal articles were selected, excluding books, book chapters and papers presented at academic conferences to minimize variability.

Only scientific articles were chosen because they undergo a peer review process and are recognized as certified sources of information (Ramos-Rodríguez and Ruíz-Navarro, 2004). As a result, 591 articles were initially identified.

Preparation of Bibliographic Information

The next step was to clean the collected data, which included several variables such as authors, countries and institutions (Small, 1973). To ensure accuracy, the files were preprocessed, converting them to formats compatible with bibliometric analysis programs (such as RIS, CSV or plain text).

Analysis of Results

The topic of decentralization has attracted growing interest from researchers, institutions and governments. Factors such as the diversity of populations in countries, as well as internal and external migration, are some of the reasons why decentralization has gained relevance as an area of research in recent decades.

In the Scopus database we filtered publications through word searches “decentralization” AND “social policy”, obtaining 591 articles (after filtering areas of interest and excluding other types of Scopus publications other than articles), grouped into 342 sources, with 914 authors, written from 1990 to 2023, where 339 of the articles have a single author and the average number of authors of the 591 articles is 1.63 and an average number of citations per document of 20.53.



Image 1. General Bibliometric Information Period 1990-2023 (Source Scopus, 2024. Prepared With Bibliometrix)

The topic of decentralization and social policy shows a significant increase in interest within the academic field. 591 articles have been identified as having been published since 1990, with a sustained increase, with 2022 being the year in which the most articles were published in the Scopus database.

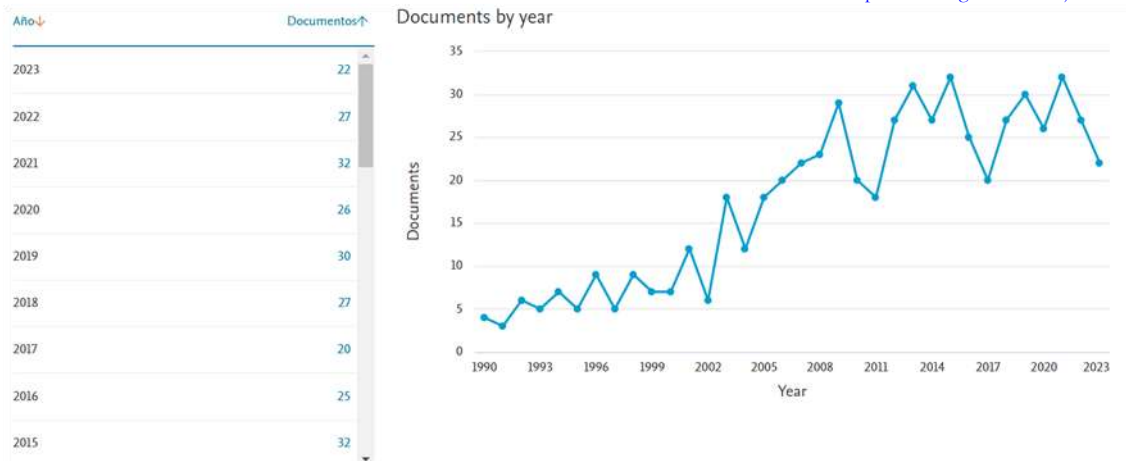


Imagen 2. Publicación De Artículos Por Año Periodo 1900-2023 (Fuente Scopus, 2024)

Contributions by Country

As for the countries that contribute the most articles on decentralization and social policy, we have the United States with 123, the United Kingdom with 76, Brazil with 29 articles, and countries such as Spain, France, Germany, Australia, Canada, Indonesia, among others, also appear.

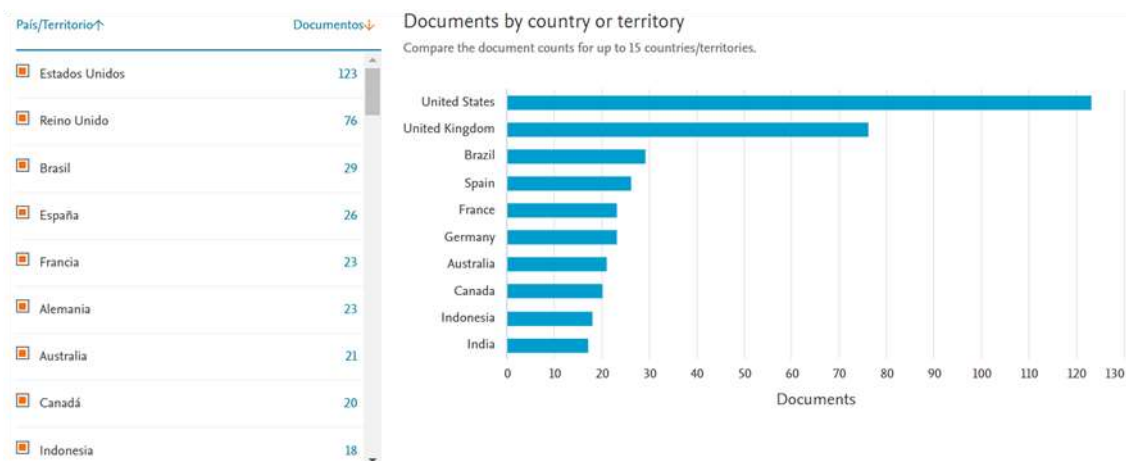


Image 3. Publication of Articles by Country Period 1900-2023 (Source Scopus, 2024)

Affiliation of Contributions

Among the institutions that contribute the most articles in our area of interest, we have the London School of Economics and Political Science with 13 articles, CNRS National Scientific Centre with 6 each, Harvard University, Sussex University, World Bank, with 5 articles each, the University of Birmingham, Cardiff University, Oxford University.



Image 4. Publication Of Articles by Affiliation Period 1900-2023

Source Scopus, 2024

Publication Areas

As for the thematic areas where the most is published, they are social sciences 88% (572 articles) and economics with 12% (78 articles).

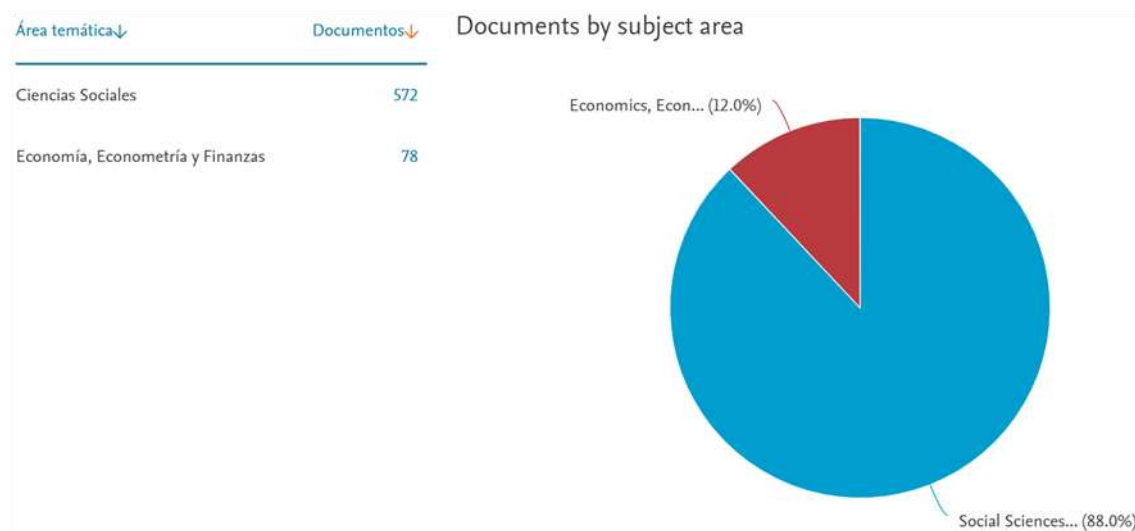


Image 5. Publication of Articles by Area Period 1900-2023

Source Scopus, 2024

In the results obtained through the Vosviewer program we have that from the file downloaded to the database Scopus of scientific journals, where “decentralization” is transversal in our analysis, gives us a figure of 8 clusters where:

Cluster 1 contains 33 items

Cluster 2 contains 29 items

Cluster 3 contains 23 items

Cluster 4 contains 22 items

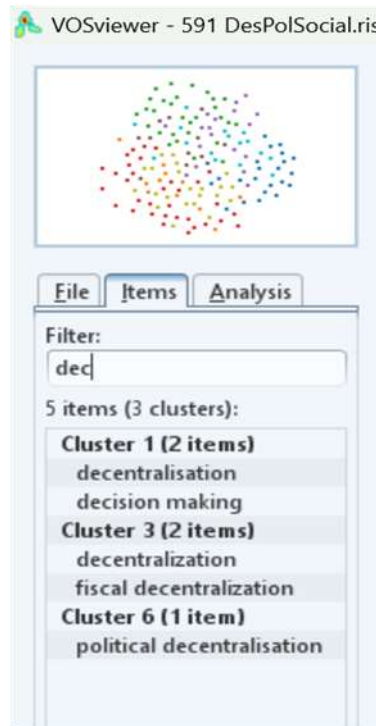


Figure 7. “Decentralization” Items in Cluster

Prepared with Vosviewer, 2024

Co-citation of Authors

The analysis of author co-citation facilitates the study of the connections between authors and the organization of this intellectual structure. The results revealed a total of 914 authors, and the criterion for creating the bibliometric map was that the reference authors had to be cited at least 10 times, thus obtaining 14 authors. This selection was made to simplify the visualization of the data in relation to the citation network within the set of articles examined (Galvagno, 2011; Kraus, et al, 2012; Leung and Bai, 2017).

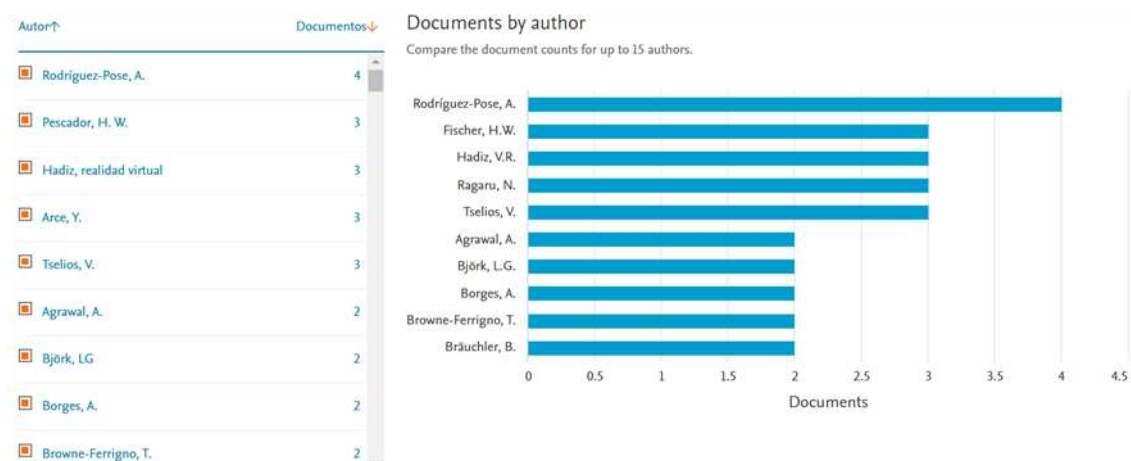


Figure 8. Citations By Author

Source Scopus, 2024

Seven groups were formed in the analysis. This number may be due to the fact that the articles come from different countries and continents, they are also written in several languages and because they may have been the subject of study in a specific time period where it was necessary to address the issue of decentralized social policies.

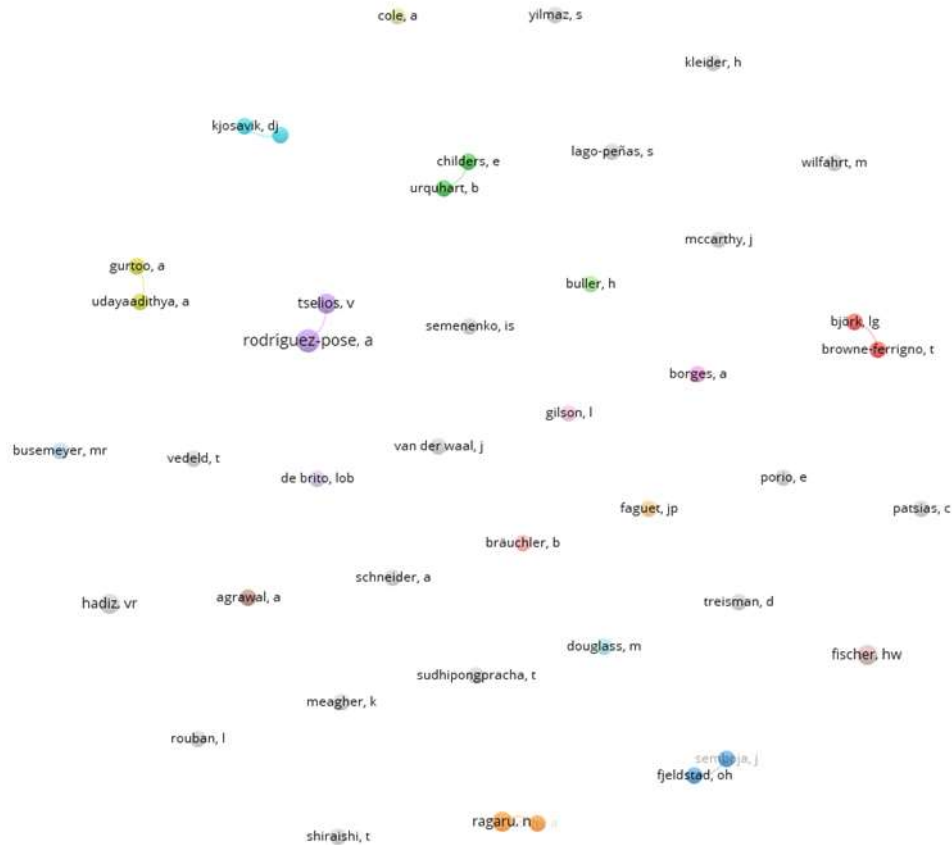


Figure 9. Co-Citations

Developed with Vosviewer, 2024

Reference to Journals

As for the most cited journals in the bibliometric analysis, we have the Journal of Public Administration and Development with 17 publications, the International Journal of Urban and Regional Research and the Journal of World Development with 12 publications each, the Journal of Development and Change with 11 publications, among others.

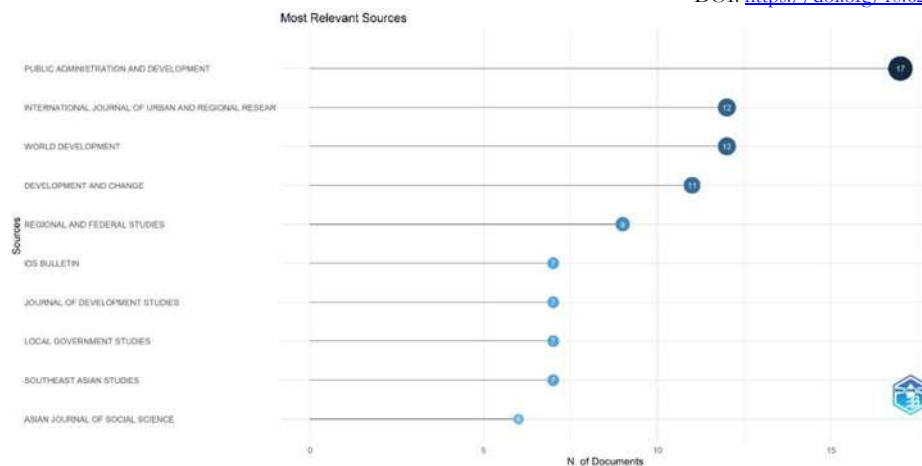


Figure 10. Reference To Journals

Prepared with Bibliometrix, 2024

Matrix of degree of development and relevance of topics

The Bibliometrix program provides a matrix that identifies the degree of relevance of published topics, which is very useful for guiding our research according to the trends detected in bibliometric analyses.

The matrix is presented in a coordinate graph divided into four quadrants. At the top are the "Niche Topics" and the "Driving Topics", while at the bottom are the "Emerging or Declining Topics" and the "Core Topics". Figure 11 shows the topics that bibliometrix analyses as most relevant.

"Niche Topics" group specialized and specific areas of research within a broader field. Although these topics may have a limited publication base, they may be gaining interest among researchers in that specific niche. For our analysis, niche topics include quality government, self-government, constitutional idealism, community localism, higher education, among others.

Driving themes groups together areas of research that are at the forefront of the study of political and social decentralization, with a high volume of publications and a sustained and growing interest in the scientific community. These topics are of great relevance to researchers, as they can serve as a basis for developing new research. In our analysis, the main topics that appear are democratic decentralization, identity politics, human rights, local authority, integration, community participation, etc.

Emerging themes represent recent fields of study that are attracting growing interest and experiencing a rapid increase in both the number of publications and research activity, topics that, if they continue to develop, could become driving themes in the future. In this analysis, emerging themes are internal colonialism, political participation.

Declining topics group together research areas that have seen a decrease in the number of publications. This decrease may be due to various factors, such as changes in research interest, technological advances, or changes in social, economic or political priorities.

As declining topics such as regional elections, political education.

Core topics refer to fundamental and consolidated areas of research within the field, which have been the subject of study for an extended period and continue to be relevant. Although these topics may have a more conservative approach and not be as aligned with recent advances or innovations in the field, they are essential to understand the general context of the research. These topics include federalism, educational

reform, fiscal decentralization, state category, grassroots democracy, social spending, ideology, partisan politics, among others.

The following figure presents the development and relevance matrix of the published topics according to our bibliometric analysis.

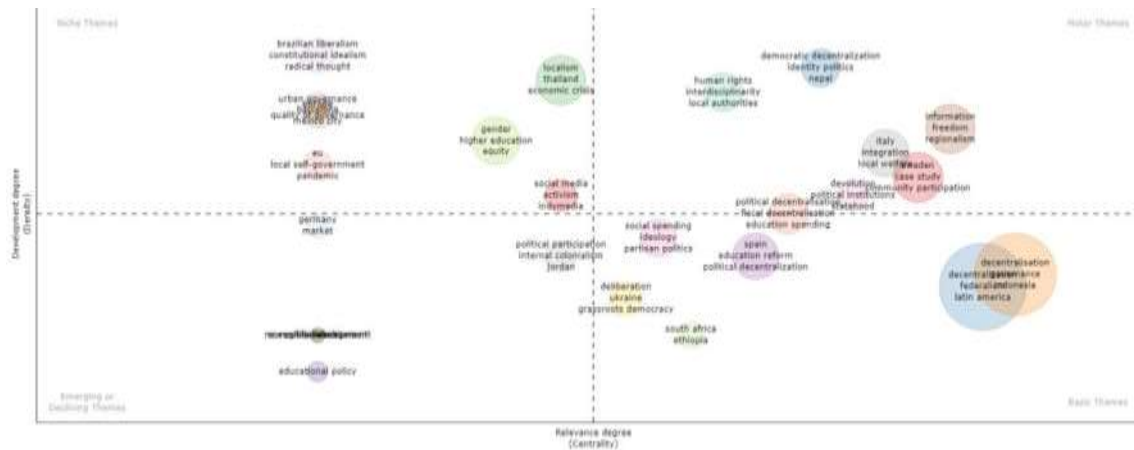


Figure 11. Key Topics of Bibliometric Analysis

Developed with Bibliometrix, 2024

Conclusion

Bibliometric methods are highly effective in quantifying and validating categories that might otherwise be subjectively determined in published reviews. This demonstrates their usefulness in the objective evaluation of research areas related to decentralization and social policy.

Bibliometric analysis facilitates the exploration of new areas of research and allows the identification of emerging categories in the study of decentralization and social policy, providing a clearer view of current trends.

The results of the bibliometric analysis offer researchers an insight into the evolution of academic publications related to decentralization and social policy, helping to understand how the focus and amount of research on these topics has changed over time.

The analysis allows us to identify the main academic authors and the countries that have shown the greatest interest in decentralization and social policy. This is crucial to recognize the thought leaders and the most active regions in this field of study.

According to the results of the bibliometric analysis, the representativeness of Latin American countries is less, and they are not found in the main producers of publications on decentralization and social policy, this indicates a low quantitative representativeness of Latin American countries in the works found in the Scopus database.

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