

# A bibliometric analysis of the direction of research on transparency, control, and equity in public administration in the 21st century

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## EDITORIAL DETAILS

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[Versão em português](#)

## ABSTRACT

This study aims to analyze productivity and develop the scientific mapping of articles in the Scopus database in the last 22 years. After the first search in the Scopus database, before downloading the file for investigation, 1,755 documents were found. After inclusion, exclusion, and selection criteria were applied to study 417 articles in English, resulting only from the subjects of social sciences, business, management and accounting, economics, econometrics and finance, computer science, decision sciences, and psychology. Results indicate that the countries, journals, and universities respectively, that publish the most in the area are the USA, *Public Administration Review*, and *Carnegie Mellon University*. The most frequent keyword is *accountability*. The most representative keyword co-occurrence cluster is *transparency*. Additional research suggested that they could consider using other databases such as *Web of Science* and/or *Google Scholar*. The practical implications suggest that research on transparency, control, and equity in Public Administration is mainly "oriented to public agencies", few "citizen-oriented" studies focus on the perception of the intelligibility and comprehensibility of the communication of program results for decision-making by those who demand public services. The social implications for public accountants, auditors, and regulators arise from the possibility of analyzing, through the transparency of public agencies, the performance regarding the quality of public spending. The article contributes to increasing public managers' awareness of the need for cost information systems in the public sector, reflecting a global trend.

Keywords: public administration, transparency, control, equity, bibliometric analysis

## 1 INTRODUCTION

The current geopolitical situation, marked by the war between Russia and Ukraine and tensions between the United States and China, has significant repercussions on the global economy. These conflicts destabilize the world's post-COVID-19 economic recovery, affecting supply chains, food security, energy, and other vital sectors. OECD reports (2023) highlight these impacts, emphasizing how international crises can reverberate in the Brazilian economy, especially with regard to fertilizer and oil costs.



In Brazil, these global challenges interact with internal governance problems. Armed conflicts in large urban centers and issues of corruption and political polarization threaten democratic stability and negatively impact socioeconomic development. Public Administration, both at federal, regional and local levels, faces significant challenges related to transparency, control and equity, which are essential to sustain effective and responsive governance.

This study focuses specifically on the analysis of transparency, control and equity in Public Administration, a topic of increasing importance in the current context. According to Alcaraz-Quiles *et al.* (2014) and Silva *et al.* (2009), transparency is not only an ethical imperative, but also a critical factor in preventing unsustainable government deficits and indebtedness. In Brazil, Complementary Law No. 101/2000 (LRF) is an example of legislative effort in this direction, but there is still a long way to go.

The National Treasury Secretariat (STN, 2022) says that states of Goiás, Rio de Janeiro, Rio Grande do Sul, and Minas Gerais show how complicated and important it is to make changes in Public Administration. A global economic crisis aggravated by global political and economic instabilities may intensify the financial difficulties of these states, highlighting the need for more efficient and transparent management.

In this context, the problem of the research is: After the year 2000, was there an increase in research on transparency, control and equity within the public sector?

The general objective of this study is to analyze productivity and develop the scientific mapping of articles on transparency, control and equity in the Brazilian Public Administration, based on Scopus data from the last 22 years in the field of applied social sciences. Specifically, we seek to investigate the evolution of scientific production, identify the main contributions of countries, universities and journals, and explore research networks and key concepts related to the theme.

Studying a large volume of 21st-century articles in the Scopus database in a bibliometric study is justified by a number of fundamental reasons. This approach offers a comprehensive understanding of the social, political, economic, and technological changes characteristic of this century, helping to identify patterns, trends, and gaps in accumulated knowledge. Analyzing a wide range of literature is crucial to detect emerging trends and emerging themes, reflecting the rapid evolution of new fields of study. In addition, this analysis allows mapping the networks of collaboration and influence between authors, institutions and countries, revealing patterns in the dissemination of knowledge. Interdisciplinary comparison, facilitated by the study of a broad set of data, is vital to understanding how different disciplines interconnect and influence each other in the contemporary context. In addition, evaluating Scopus publications provides valuable information about the quality and impact of research, guiding new research in the area and development strategies. Finally, such a study allows us to understand how recent historical events and current developments are shaping research and knowledge, placing studies in a relevant temporal context.

In this sense, the bibliometric research carried out from 2001 to 2023 in the field of accounting sciences, focusing on transparency, control, and equity in the public sector, is essential to understand the significant changes that occurred in this period. This temporal choice is particularly relevant due to the implementation of the Fiscal Responsibility Law (LRF) in Brazil in 2000, a milestone in fiscal management and the public sector. The LRF aimed to increase transparency and control in public finances, establishing stricter limits and rules. Therefore, analyzing documents since 2001 allows us to evaluate the effects and adaptations resulting from this legislation over time.

Moreover, the beginning of the 21st century was a period of global transformation in public governance practices. With a growing demand for transparency and accountability, several countries, including Brazil, have reformed their fiscal and administrative policies. Bibliometric research in this context reveals how these changes have been reflected in accounting practices, offering insights into trends, challenges, and innovations in the industry.

Another crucial aspect of this period is technological advancement and greater accessibility to information. The digital revolution has had a profound impact on transparency and accountability practices, especially in public sector accounting. The analysis of documents from this period can show how technological innovations have transformed the access and processing of fiscal and government data, contributing to more efficient and transparent practices.

In addition, the historical and comparative analysis provided by the research is fundamental. It allows for a deeper understanding of accounting and public management practices before and after the implementation of the LRF and other relevant legislation. This perspective is essential to assess the effectiveness of these policies in promoting more transparent and equitable management.

Finally, it is important to consider the context of economic and fiscal crises, such as the global financial crisis of 2008, which marked the beginning of the 21st century. Bibliometric research in this period offers valuable insight into how these crises impacted Public Administration and accounting practices, as well as how policies were adapted in response to these challenges. In summary, the bibliometric study from 2001 to 2023 plays a crucial role in understanding the developments in the field of accounting sciences, particularly with regard to transparency, control, and equity in Public Administration.

This study is structured as follows: Section 2 provides the theoretical framework, Section 3 describes the methodology adopted, Section 4 discusses the results and interpretations, and Section 5 concludes with final thoughts and suggestions for future research.

## 2 THEORETICAL FRAMEWORK

This section explores theories and legislation on transparency, control, and equity in the public sector. Addressing the Brazilian context, Cardoso *et al.* (2010, p.880) question the effectiveness of the "Management Shock", a program aimed at optimizing the use of public resources, but which apparently does not provide sufficient information on the performance of its programs. The Agency Theory, by Jensen and Meckling (1976), serves as a theoretical basis to examine the relationships between society (the principal) and the Public Administration (the agent), highlighting the importance of a robust governance system to reduce conflicts of interest and information asymmetry.

### 2.1 Tax incentives, public finances, and fiscal decentralization

Brazil has been striving to adopt the Managerial Model of Public Administration, driven by the transformations of the New Public Management (NPM) of the 1990s, according to Pina V. *et al.* (2007, p. 450) point out. This approach emphasizes transparency and citizen engagement to strengthen trust in government. Transparency, intertwined with the concept of accountability, requires public agencies to be accountable to society, using information technology to promote sustainable public policies and hold public managers accountable. Santos *et al.* (2016, p. 94) point to the existence of two cost information systems in Brazil: one for the Union (SIC) and the other for states and municipalities (SICGESP). The adoption of international accounting practices, such as the *accrual basis*, has been promoted, but, as Bonollo (2022, p.10) argues, there are challenges, including resistance to change among public officials. Grimmelhuijsen *et al.* (2013, p. 575) highlighted transparency as a key value for disseminating government information in a reliable manner.

Control in the Brazilian Public Administration involves internal aspects, carried out by each body, and external aspects, exercised by the legislative powers with the help of Courts or Audit Councils. The Federal Constitution of 1988 establishes the legal framework for this inspection. In addition, social control plays a vital role, where society interacts and monitors the effectiveness of public policies. Kim and Lee (2012, p. 1) analyzed "E-participation", highlighting the growing involvement of citizens in public sector affairs. However, systems such as E-Sic and Fala.br show that the interaction between society and government still needs to be developed. Hamamurad *et al.* (2022, p. 99) discuss the role of *smart cities* in promoting transparency, control, and equity.

Equity in Public Administration is analyzed from the perspective of the Conceptual Framework for General Purpose Financial Reporting of Public Sector Entities (IPSASB, 2022), which highlights the role of public entities in providing services to the public and the need for financial reporting for efficiency, effectiveness, and sustainability assessments. NBCTSP 34, which came into force in 2024, aims to improve the process of generating cost information in the public sector, promoting cost-benefit analyses. The IPSASB (2023) also emphasizes the importance of environmental information in sustainability reports, reflecting the growing discussion about equity in the use of common resources and the responsibility of polluters.

## 2.2 Results of previous studies

The analysis of previous studies on transparency, control and equity in public administration reveals a diversity of theoretical and empirical approaches that contribute to the understanding of the challenges and advances in contemporary public management. Bonollo (2022) highlights some weaknesses in the adoption of accrual accounting in the public sector, while Padrones *et al.* (2017) emphasize the technical and standardization obstacles in the implementation of the Cost Information System. Other authors, such as Alcaraz-Quiles *et al.* (2014) and Grimmelikhuijsen *et al.* (2013), explore organizational and cultural factors that influence transparency and public trust. The relationship between e-participation and trust in local government is also evidenced by Kim and Lee (2012). In the Brazilian context, Borges *et al.* (2010) and Cruz *et al.* (2009) address the importance of accounting understanding and the variation in the quality of municipal fiscal transparency. In addition, studies such as the one by Pina *et al.* (2007) highlight the positive impact of ICTs on governance, and Jensen and Meckling (1976) provide a theoretical basis on managerial behavior and ownership structure in the agent-principal relationship. The following table summarizes the previous studies on the subject under study:

**Table 1**

*Previous studies on transparency, control and equity in the public sector*

Authors	Research Problem and Objectives	Results and Conclusions
Bonollo, E. (2022)	How does the adoption of accruals accounting negatively influence the public sector?	It identified that, despite the perceived advantages, there are significant challenges and adverse effects, such as complexity and implementation costs.
Gomes de Souza Almeida Padrones, K., Ladeira dos Santos W. J., y Vasconcelos Colares, A. C. (2017)	What are the challenges and progress in the implementation of the Cost Information System in the Brazilian public sector?	They found that, although progress has been made, challenges such as lack of standardization and technical difficulties persist.
Alcaraz-Quiles, F. J., Navarro-Galera, A., & Ortiz-Rodríguez, D. (2014)	What is the impact of organizational and environmental factors on the transparency of sustainability information in regional governments?	They concluded that specific organizational and environmental aspects are significant determinants for the transparency of information.
Grimmelikhuijsen, S., Porumbescu, G., Hong, B., & Im, T. (2013)	What is the effect of transparency in government on public trust, and how does it vary by cultural context?	They demonstrated that government transparency can effectively increase public trust, although they vary by cultural context.
Kim, S., & Lee, J. (2012)	What is the relationship between e-participation, transparency and trust in local government?	They concluded that e-participation and transparency are key to building trust in local government.

**Table 1** (continued)

Authors	Research Problem and Objectives	Results and Conclusions
Borges, T. B., Mario, P. D. C., Cardoso, R. L., & Aquino, A. C. B. D. (2010)	How can an adequate understanding of the accrual basis of accounting influence its implementation in public entities?	They showed that an adequate understanding of the accrual basis of accounting can lead to a more effective implementation in public entities.
Cruz, C. F., Silva, L. M., & Santos, R. (2009)	How does the quality of fiscal transparency vary in municipalities in Rio de Janeiro and what are the implications?	They revealed a significant variation in the quality of tax transparency, suggesting the need for standardization and best practices.
Pina, V., Torres, L., & Royo, S. (2007)	What impact do ICTs have on transparency and accountability in EU regional and local governments?	They noted that ICTs have a positive role to play in improving transparency and accountability, but warned of the need for appropriate policies to ensure effectiveness.
Jensen, M. C., & Meckling, W. H. (1976)	How do managerial behavior and ownership structure influence firm theory?	They developed an influential theoretical model linking managerial behavior, agency costs, and ownership structure.

Note. Prepared by the authors (2023).

Thus, this bibliometric study considers the premise that with the enactment of the Fiscal Responsibility Law (LRF) in the year 2000, there was a significant increase in academic and scientific publications related to transparency, control and equity in Public Administration from that date on.

Section 3 presents the methodological procedures.

### 3 METHODOLOGY

This is a quantitative and descriptive research, through statistical measurement from the bibliometric data of the scientific production published in the Scopus database, using the *R* Studio and Biblioshiny Software to analyze the evolution of the annual scientific production, the performance of the countries, the Universities, the journals that most exert influence on the research in question and the *Software* VOSviewer and Biblioshiny to perform the analysis of co-authorship and co-occurrence of keywords.

#### 3.1 Definition of the search

Data were searched in the Scopus database, and the search was limited to the 21st century, that is, from 01/01/2001 to 2023 and the metric used for the search through the keywords was, "Public Administration" AND "Transpare\*" AND "Control\*" AND "Equity". It is suggested for future research to use other databases such as *Web of Science* or *Google Scholar*. In addition, this study delimits the analysis of the impact of the Fiscal Responsibility Law (LRF), enacted in 2000, on the volume and relevance of academic publications in the field of transparency, control and equity in Public Administration. Focusing on the period between 2001 and 2023, the study is based on data extracted from Scopus that includes 417 documents, demonstrating an annual growth rate of 12.56% and significant averages of citations per document. The post-2000 time limit is crucial, as it allows for a direct assessment of the consequences of the LRF, a key legislation in Brazil, on public governance practices and studies. The study does not include data prior to 2001, thus limiting itself to the analysis of post-LRF trends. The objective is to understand whether the enactment of the LRF was a catalyzing factor for an increase in interest and academic production related to these essential topics in the public sector. The analysis focuses on the available quantitative data, such as the number of

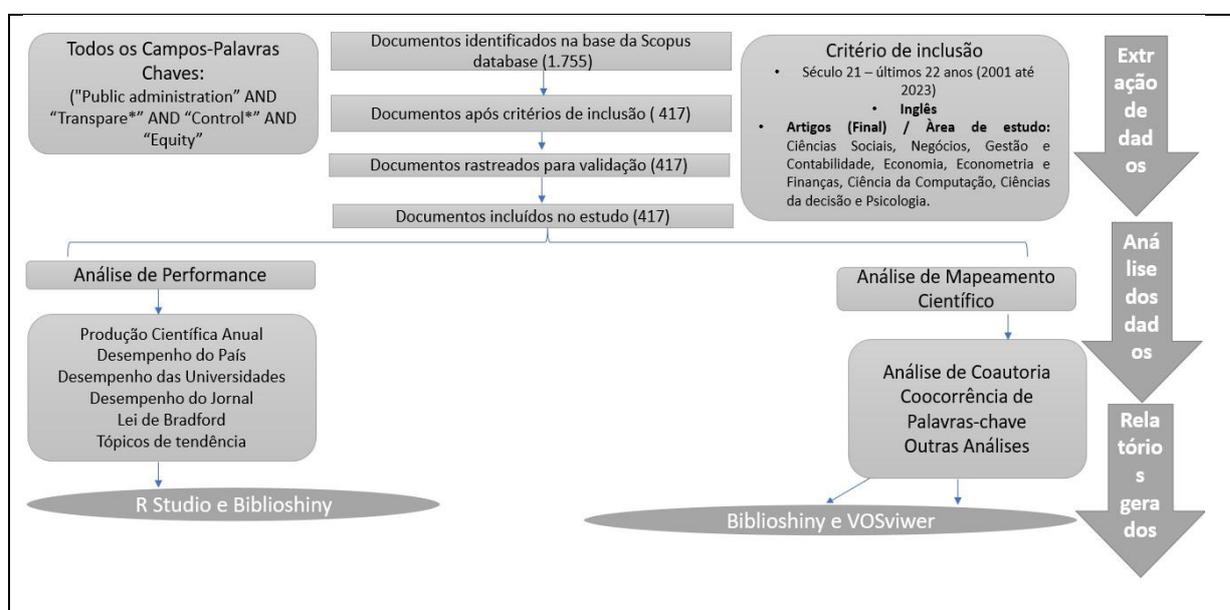
publications and citation rates, to infer about the impact of the LRF, although it recognizes the need for a more detailed analysis for definitive conclusions.

### 3.2 Method, Collection and Processing of Data

The selection of data in the Scopus database was based on the PRISMA model by Page, Matthew J. et al, (2021, p. 1054), adapted by the author as shown in Figure 1. And the following procedure was adopted. After the first search in the Scopus database, 1,755 documents were found, before downloading the file in .csv format for analysis. After applying the inclusion, exclusion and selection criteria to study articles in English resulting only from the subjects Social Sciences, Business, Management and Accounting, Economics, Econometrics and Finance, Computer Science, Decision Sciences, Psychology, 417 documents remained, justified by the fact that they were pertinent to the study. To perform the bibliometric analysis, the R Studio and Biblioshiny software were used to perform the performance analysis, and the VOSviewer and Biblioshiny software to perform the scientific mapping analysis.

**Figure 1**

*PRISMA methodology, adapted by the author, 2023*



Note. Prepared by the authors (2023).

Section 4 interprets the results obtained.

## 4 ANALYSIS AND DISCUSSION OF RESULTS

The results of this research were instrumentalized by *Software* R, VOSviewer and Biblioshiny. VOSviewer is a program that allows you to create and visualize bibliometric networks (Van Eck & Waltman, 2017, p. 1054). According to Aria *et al.*, (2017, p. 963) "The bibliometrix R package (<http://www.bibliometrix.org>) provides a set of tools for quantitative research in bibliometrics [...]".

Table 2 shows the analysis of the data on its main aspects:

**Table 2***Main information about the data*

<b>Description</b>	<b>Results</b>
Time Range	2001: 2023
Sources (newspapers, books, etc.)	258
Documents	417
Annual growth rate %	12,56
Average Document Age	4,86
Average citations per document	18,07
Average citations per year and per document	2,802
References	37.549
<b>TYPES OF DOCUMENTS</b>	-
<b>Description</b>	<b>Results</b>
Article	417
<b>CONTENT OF THE DOCUMENT</b>	-
Keywords Plus	287
Authors' Keywords (DE)	1.356
<b>AUTHORS</b>	-
Authors	1.033
Appearances of the author	1.086
<b>Description</b>	<b>Results</b>
Authors of single-serve documents	93
<b>COLLABORATION OF THE AUTHORS</b>	-
Documents of sole authorship	93
Documents by author	0,404
Co-authored by Doc	2,6
International co-authorships %	23,26

Note. R Studio (2023).

Table 2 provides a comprehensive analysis of data collected between 2001 and 2023, sourced from 258 different sources, including newspapers and books, resulting in a total of 417 documents. During this period, a significant annual growth rate of 12.56% was observed, which indicates a steady increase in the volume of publications over time. Interesting to note is the average age of the documents, which is approximately 4.86 years, suggesting that the material analyzed is relatively recent.

As far as citation is concerned, the average per document is 18.07, and the average citations per year per document is 2,802. This reflects a good level of recognition and influence of these documents in the academic or scientific field. The total number of references cited reaches 37,549, highlighting the extensive research and theoretical basis behind the documents.

Regarding the type of document, all 417 are articles, which suggests a concentration in this specific format of publication. As for content, 287 "Plus" keywords and 1,356 keywords from the authors were identified, indicating a wide range of topics covered.

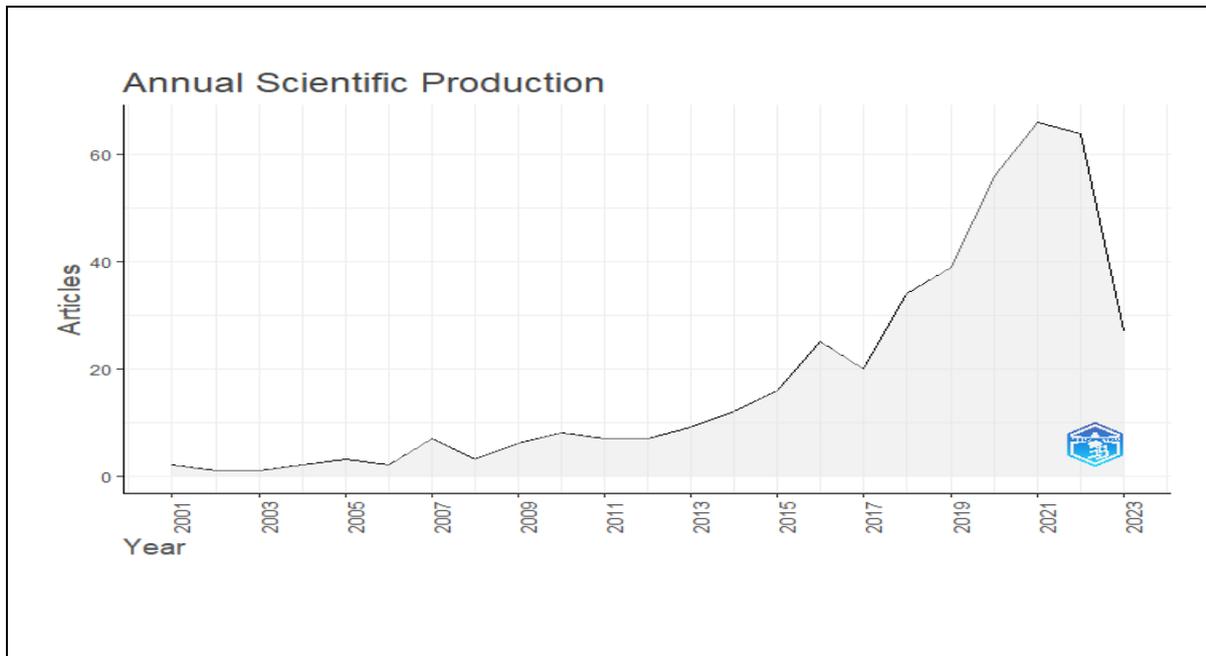
In the context of authors, there are 1,033 different authors, but only 93 of them have written single-authored documents. This results in an average of 0.404 papers per author and evidences a high degree of collaboration, as shown by the average of 2.6 co-authors per paper.

In addition, 23.26% of co-authorships are international, underscoring the global nature of research and collaboration in these fields.

Figure 2 assesses the annual scientific production on transparency, control, and equity in Public Administration in the period studied and shows the increase in its relevance in the period of the Covid-19 Pandemic, between 2020 and 2022:

**Figure 2**

*Annual Scientific Production*



Note. R Studio (2023).

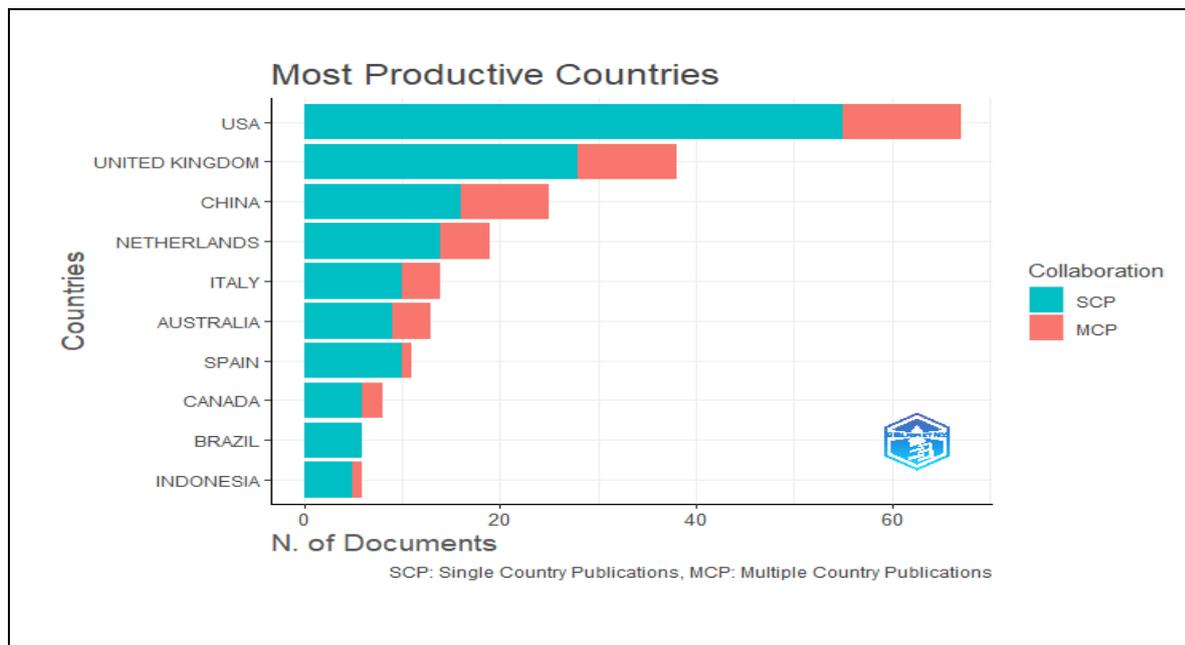
The analysis of data from the period from 2001 to 2023 suggests an increase in the volume and relevance of academic publications on transparency, control, and equity in Public Administration, coinciding with the implementation of the Fiscal Responsibility Law (LRF) in 2000. The annual growth rate of 12.56% and the total of 417 documents, with high averages of citations, indicate a growing interest in these topics. These findings support the premise that the LRF has positively influenced academic research in this field. However, for a more conclusive interpretation, a more detailed comparative analysis would be necessary, including the dynamics of publications before the LRF and a direct assessment of the correlation between the legislation and the content of the documents.

Next, the productivity analysis is presented.

Figure 3 identifies the countries that most exert the influence on the research in question:

**Figure 3**

*Most productive countries in the last 22 years*



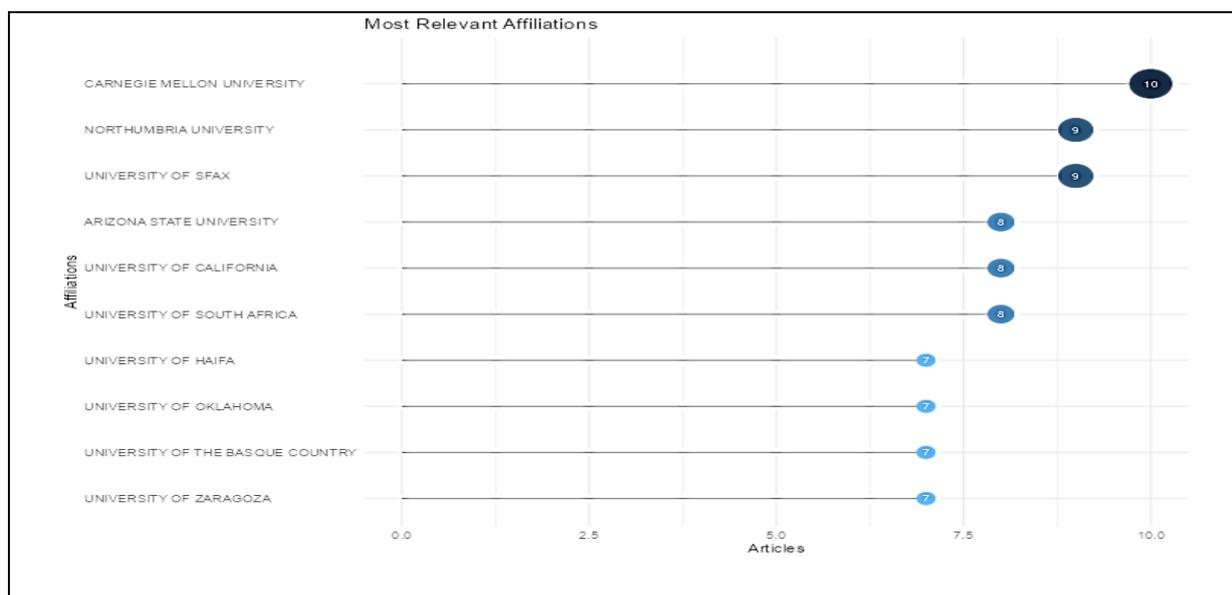
Note. R Studio, 2023

It can be seen that the countries that produce the most scientific articles on transparency, control and equity in Public Administration and collaborate are the United States, followed by the countries of Scotland, England, Northern Ireland and Wales, which are part of the United Kingdom, China, the Netherlands and Australia. Brazil occupies the 9th place, and curiously has published little in collaboration with other countries, in view of the theme in question, the relevance of the theme and the period analyzed.

Figure 4 shows the 10 Universities that had the greatest contribution on the theme in question:

**Figure 4**

*Universities with the highest contribution*



Note. Biblioshiny, 2023

Table 3 identifies the top 10 best-performing journals:

**Table 3**

*Newspapers/magazines that obtained the best performance*

Most relevant journals	Newspapers	Articles	Relative Frequency
1	Public Administration Review	17	21%
2	Virtual Economics	11	13%
3	Accounting Auditing and Accountability Journal	10	12%
4	Administration and Society	7	9%
5	Government Information Quarterly	7	9%
6	Public Management Review	7	9%
7	Frontiers in Psychology	6	7%
8	International Journal of Public Administration	6	7%
9	Journal of Public Administration Research and Theory	6	7%
10	International Public Management Journal	5	6%
Total	-	82	100%

Note. R Studio, 2023

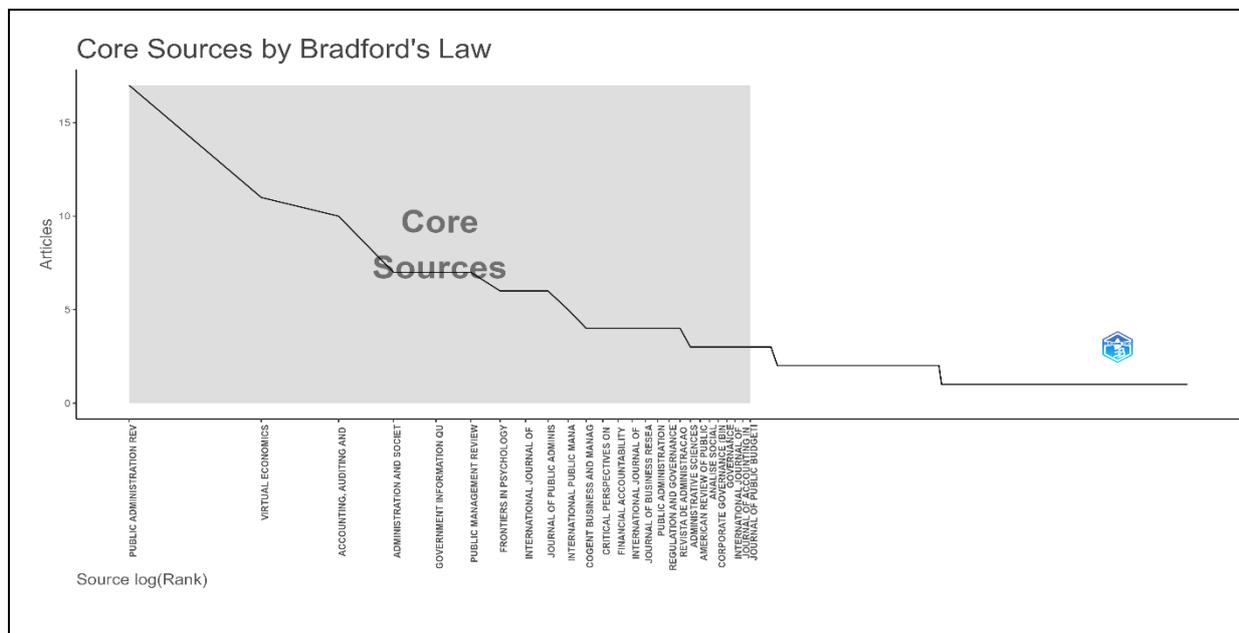
Table 3 shows the journals that are most likely to publish on the topic of transparency, control and equity in Public Administration.

The main laws of bibliometrics are Bradford which measures journal productivity, Zipf's Law which measures aspects of word frequency, and Lotka's Law which deals with author productivity.

Figure 5 presents Bradford's Law, one of the main Laws of Bibliometrics.

**Figure 5**

*Bradford's Law*



Note. Biblioshiny, 2023

Figure 5 illustrates Bradford's Law, one of the fundamental principles of bibliometrics, which describes the unequal distribution of scientific articles among journals. According to Samuel C. Bradford (1934), he states that when ordering journals in a specific field by the number of articles published on a given topic, it is possible to observe that a small group of

journals concentrates most of the relevant publications, while most of the other titles contribute with few articles — this distribution follows an approximate ratio of 1: n:n<sup>2</sup>, forming zones or nuclei of productivity.

In the graph, this pattern can be seen: the initial core of journals (highlighted in the shaded area) contains the most productive sources on the topic of interest — the so-called "core sources" zone. Titles such as *Public Administration Review*, *Virtual Economics*, and *Accounting Auditing and Accountability Journal* appear more frequently, indicating that they are the central and most influential journals in the dissemination of knowledge related to the object of study. This mapping is essential for researchers who want to identify where to publish or look for the most relevant references in the field of Public Administration, transparency and accountability.

Bradford's Law is explained by its creator Samuel C. Bradford, (1934, p. 85 and 86), who defines it as follows:

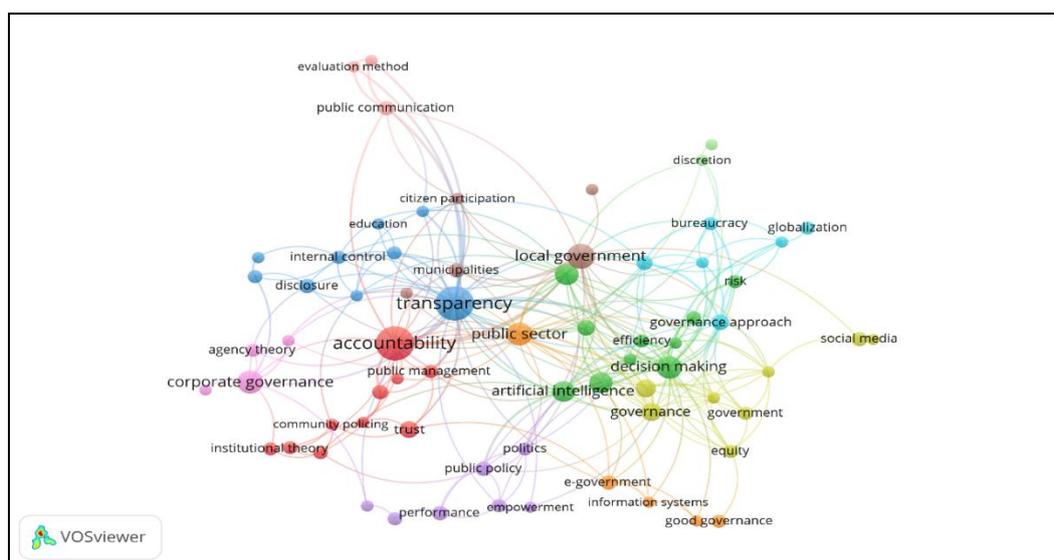
[...] It is a pattern first described because it estimates the exponentially decreasing returns of searching for references in scientific journals. One formulation is that if journals in a field are ranked by the number of articles into three groups, each with about one-third of all articles, the number of journals in each group is proportional to 1:n:n<sup>2</sup>.

After analyzing the last item referring to the productivity analysis, the scientific mapping analysis is presented, which covers the key concepts of the authors involved in the research on transparency, control and equity in Public Administration and the collaboration network of authors around the world.

Figure 6 shows the formation of more representative word networks on the theme, according to the authors' network, and their connection with other word networks. These words are derived from keywords, abstract, title or most used words. In this way, it is possible to identify that the most representative word networks on the subject are: *Accountability*, *Transparency*, *Local Government*, *Public Sector*, *Corporate Governance*, *Governance and Decision Making* in descending order of frequency.

## Figure 6

### Clusters of the most representative words



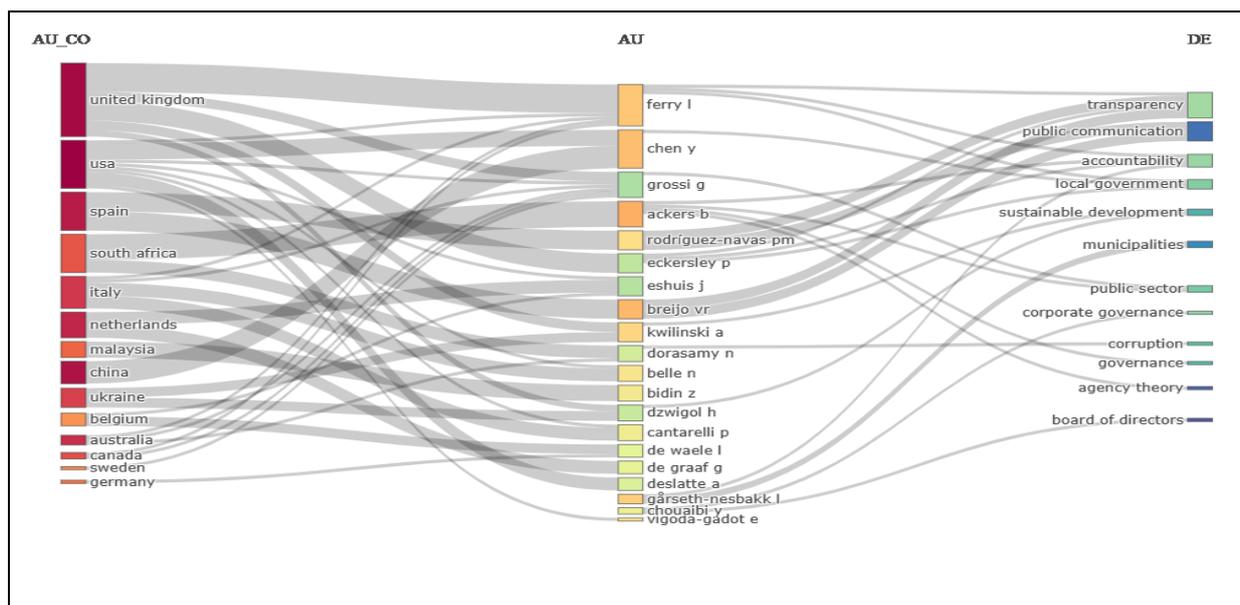
Note. VOSviewer, 2023

One of the advantages of promoting analysis through *clusters* is to simplify the data, that is, to compress it. Thus, it is possible to describe a volume of data in a compact and reasonable way through the typical elements or prototypes of the *clusters* (median mean).

Figure 7 presents and crosses the nationalities of the co-authors, the authors and the corresponding keywords, allowing us to visualize which of the keywords are most used to address the theme, so it can be seen that the five most frequent are *transparency*, *public communication*, *accountability*, *local government*, *sustainable development*. The countries of Scotland, England, Northern Ireland and Wales, which are part of the United Kingdom, the United States, Spain and South Africa, are the ones with the largest co-authorship relationship on the subject of transparency, control and equity in Public Administration.

**Figure 7**

*Nationalities of the co-authors, authors and the corresponding keywords*



Note. Biblioshiny,2023

Figure 7 illustrates, by means of a Sankey diagram, the relationship between three interconnected elements: the countries of origin of the co-authors (AU\_CO), the individual authors (AU) and the respective keywords (DE) associated with publications on transparency, control and equity in Public Administration.

Visual analysis allows you to identify flows of international collaboration and the main most recurrent research themes. It is observed that the countries with the highest concentration of co-authors are Scotland, England, Northern Ireland and Wales, which are part of the United Kingdom, the United States, Spain and South Africa, which exert a strong influence on the scientific production networks in the field, with robust connections for several authors.

Among the most productive and connected authors on the subject are Ferry I, Chen Y, Grossi G, Ackers B and Rodriguez-Navas PM, who establish relevant bridges with multiple keywords.

The five most frequent keywords that concentrate the highest number of connections are:

1. *Transparency* ;
2. *Public communication* (comunicação p blica);
3. *Accountability* ;
4. *Local government* (governo local); e
5. *Sustainable development*.

These terms reflect the central concerns of the international academic literature in the area of Public Administration, indicating that scientific production focuses on topics that involve good governance, institutional legitimacy, and effective communication with society.

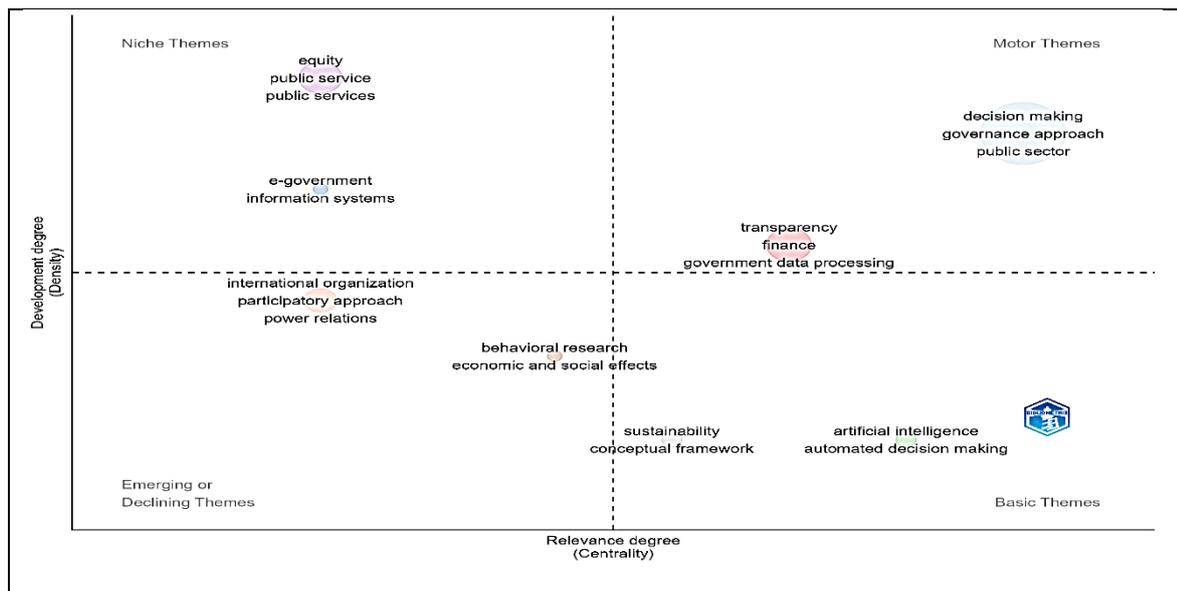
In summary, the graph shows strong thematic and geographical links in research on public governance, highlighting authors and strategic countries, in addition to allowing us to

infer that transparency and accountability, combined with the local context and sustainable development, are the predominant conceptual pillars in international scientific collaborations in this field.

Figure 8 presents, in the form of a map and/or network, the terms most used by the selected publications, making it possible to verify the degree of approximation (by dependence or relationship) or connection between the networks, showing the *Keyword Clusters* by degree of development and relevance. Another advantage of working with *clusters* is identifying the relationship between objects.

**Figure 8**

*Thematic Map - Keyword clusters by degree of development and relevance*



Note. Biblioshiny, 2023.

It can be inferred from the formation of word networks that (*equity – public services*) and (*e-government – information systems*) are niche themes, and clusters (*transparency - finance - government data processing*) and (*decision making - governance approach - public sector*) are presented as driving themes. As themes in development or in decline, it is observed (*international organization – participatory approach – power relations*) and (*behavioral research – economic and social effects*), finally it is identified that the basic themes are (*sustainability – conceptual framework*) and (*artificial intelligence – automated decision making*).

Section 5 presents the final considerations.

## FINAL CONSIDERATIONS

The annual scientific production on transparency, control, and equity in Public Administration in the last 22 years gains relevance in the period of the Covid-19 Pandemic, between 2020 and 2022. Demonstrating that in periods of crisis (financial, health, environmental) there is a growing demand for transparency, control and equity in the public sector. Regarding the current external and internal context of the Government of the State of Rio de Janeiro, it is of paramount importance that the cost information system be implemented, in order to promote equity in access to public policies, support decision-making based on a better analysis of public costs, reducing the power of public managers regarding inefficient spending in relation to discretionary expenditures, in an information technology environment integrated into society, allowing to influence public managers in government decision-making and consequently promote the quality of public spending, budgetary and patrimonial control and reduce informational asymmetry, seeking to follow global trends.

In summary, the United States leads, followed by Scotland, England, Northern Ireland and Wales, which are part of the United Kingdom and China, indicating a strong Western and Asian presence in the survey. *Carnegie Mellon University*, known for its excellence in technology and innovation, is the most influential university globally. In the Brazilian context, the State University of Rio Grande do Norte occupies a significant position, although distant from world leaders, reflecting challenges and opportunities for academic research in Brazil.

As for the journals that present the best performance on the studied aspects led by the "*Public Administration Review*", they are crucial in the dissemination of knowledge and advances in the studied area, reflecting the trends and current directions of the research. They serve as important platforms for academics and practitioners interested in the subject.

The most representative word networks on the theme in which we observed clusters of keywords organized by color, indicating their relevance and interdependence in the theme. Words like "*Accountability*" and "*Transparency*" are central, suggesting a focus on governance and accountability in the public sector. The variety of terms and the way they are grouped provide an insight into the complexity and multiple facets of the subject studied.

The frequency of the keywords in co-authorship revealed "*Transparency*" and "*Public Communication*" as the most common terms. The presence of these words suggests an emphasis on clarity and communication in the context of public governance. The co-authorship between countries such as Scotland, England, Northern Ireland and Wales that make up the United Kingdom, the United States, Spain and South Africa indicates a significant international collaboration in the study of these topics.

The Thematic Map provides an overview of the research areas in terms of their development and relevance. It identifies "Niche Themes", such as "*equity – public services*", and "Motor Themes", such as "*transparency - finance - government data processing*", highlighting emerging and fundamental research areas. This map is a valuable tool for understanding how different concepts are intertwined and which areas are seen as promising or fundamental in current research.

In this way, each of these tables offers a unique perspective on the research and literature existing on the topic addressed, illustrating the dynamics of the field, the main actors involved and the current trends in academic research.

From the theoretical framework analyzed, it is suggested for future research to study how Governments at different levels interact with citizens (*Government Approach*), how the city of Rio de Janeiro can be inserted in the concept of *smart cities*, analyze whether the level of indebtedness of a Government has an effect on the degree of transparency, research type *survey* on the satisfaction of the population of Rio de Janeiro with e-participation applications (E-Sic, Fala.br), analyze citizen satisfaction with the government's responsiveness through E-Sic and Fala.br, analyze the influence of perceived e-participation on government decision-making, the evaluation of government transparency, among other possibilities of bibliometric contributions such as using other databases such as the *Web of Science* and/or *Google Scholar* for research in the area of transparency, control and equity in Public Administration.

With regard to the increase in productions on transparency, control, and equity in Public Administration, based on data analyzed in the period from 2001 to 2023, immediately after the implementation of the Fiscal Responsibility Law (LRF) in 2000, a significant trend is observed that suggests a positive impact of this legislation on the volume and relevance of academic publications in the field of transparency, control and equity in Public Administration. The annual growth rate of 12.56% in the documents, together with the total of 417 publications and the average citations per document and per year, indicate not only a quantitative increase, but also a reinforcement in the academic importance of these publications, but it is important to highlight that, for a more comprehensive and conclusive understanding, it would be necessary to carry out a more detailed analysis, including comparison with publication trends prior to the implementation of the LRF and further assessment of the direct correlation between the documents and the specific impacts of the LRF.

Finally, the future agenda consists of conducting research on decision-making in the context of the public sector. There are gaps to be studied regarding the tools made available by accounting techniques for decision making, with a focus on objective criteria covered by accounting applied to the public sector, aiming at promoting participatory management and

strengthening social control. As an example, the financial statements applied to the public sector provide subsidies for *vertical and horizontal* accountability.

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