A Bibliometric Analysis of Scientific Accounting Studies Concerning Fiscal Topics

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Abstract

This paper contributes to the development of accounting research by presenting a bibliometric analysis of scientific accounting studies that are concerned with fiscal topics during the period 2017-2022. The study was carried out on a sample of 555 articles published by specialized journals in the field of accounting. The clarity of the presentation is enhanced by the visual reflection of the main results with the help of color bibliometric maps and clustering techniques. The use of VOSviewer allowed us to present the findings in an easy-to-interpret graphical representation. Keywords, word occurrence, relevance of words in titles, and author citation were targeted. The study resulted in the identification of multiple results of interest both for academics and for the general interest involved with expanding knowledge and substantiating financial decisions on a solid basis of evidence and legal rigor. This paper can represent a relevant reference point for future research.

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J.E.L. classification: C38, E60, O50

1. Introduction

In a dynamic economy, faced with multiple challenges, taxation and its levers acquire an essential role. Although there are trends to standardize the principles of taxation worldwide, each state has the autonomy to configure its own system of taxes and fees in order to stimulate economic growth at the national level. The current economic context has pushed both the governance and the business environment to identify new opportunities and assess new risk management methods to help overcome their own conditions and achieve performance. Fiscal optimization thus becomes a common and at the same time antagonistic objective, the vision of the state generally manifesting a dual relationship with the vision of fiscal optimization of businesses or individuals. Financial information, provided by accounting and influenced by taxation principles, becomes a challenge and a necessity for knowledge.

The fiscal strategy oriented towards optimization is important from the perspective of the government decision, and, at the same time, it represents a permanent desire for business growth. The ability of an entity, whether we refer to a public entity, or a private one, or even to the individuals themselves (Brewer, 2017, p.5), to use the means, methods, and legal tools to reduce the financial obligations as much as possible defines financial knowledge. Mastering financial knowledge and fiscal optimization are talents that define "the art of finance". The desire to develop businesses with minimum tax obligations, confronted with the budgetary need to increase the budget revenues by influencing the size of taxes, represents the quintessence of an antagonistic interest. It is precisely this duality that gives taxation a distinct significance, conferring it the distinction of an art and the ingenuity of a strategist.

The links and combinations of taxation, the inclination of the actors involved in the use of fiscal levers to serve individual or common interests, determine different levels of risk towards which the financial management can adopt various positions. The field of taxation has stimulated research interest since ancient times. Many subjects received different analysis approaches, starting from the intricate perspectives of regulation (Lippi, 2021, p.1887), leading to theory or practice.

The present study is oriented towards a qualitative investigation of the evolution of accounting research related to fiscal topics. The study focuses on identifying the main research directions of the fiscal dimension, as can be observed from the analysis of research studies in the field of accounting. With the help of the bibliometric data analysis method (Van Eck and Waltman, 2020), the main research directions on the fiscal side of accounting are investigated. The analysis is set on keywords, word occurrence, word occurrence in titles, and authors' citations.

2. Literature review

The literature focused on the study of accounting presents the breadth and complexity of a strategic field with intricate meanings for the economy and for its actors. Accounting is an essential source of information for any decision with financial impact. The study of accounting followed various research paths. Empirical research shows that economic recession or monetary strength can be significantly influenced by the quality of accounting or auditing policies. (Tahinakis et al., 2017).

The fiscal side of financial information represented a research path preferred by accounting specialists. Mastering the understanding and modeling of financial information allows the identification of new opportunities and paves the way for progress. Understanding the interdependences between fiscal policies regarding personal income taxation and local tax outcomes, the analysis of the measure in which the change in tax prices impacts the outcomes of local budgets has shown interesting valences of progressive policy options (Coyne, 2017, p.223).

The studies addressed various topics, such as inflation determinants (Cornell et al., 2021, p.1), labor taxation and fiscal reforms (Sicsic, 2022, p.291), fiscal inequity (Aivaz et al., 2022, p.337), or quantitative and qualitative data analysis models focused on the modification of fiscal policies (Chiriac et al., 2022, p.298) as a result of the challenges brought by the Covid-19 pandemic (Di Pietro et al., 2020, p.927; Aivaz et al., 2022). The challenges brought by the modification of fiscal regulations both to the decision-making factors of the states and to the taxpayers (Costa-Font et al., 2017, p.365), are yet interesting research topics.

In this dynamic and varied context of research paths in accounting or taxation, notions can acquire distinct meanings. The meaning can be influenced by the field of research, by the specialization of the researcher or even by the definitions given by the referential that regulates the respective notions. In order to improve the side of qualitative analyses, Langfeldt et al. have proposed a multidimensional framework of "good research", in which the categorization and understanding of notions receive a systematized approach and a logical organization (Langfeldt et al., 2020, p.115).

In the field of qualitative research, bibliometric data analysis studies have gained momentum during recent years (Waltman et al., 2012). This statistical method has been used more and more for the exploration of various research topics. The increasingly intensive use of bibliometric analysis was encouraged by the possibility of online access and processing of databases (Szomszor et al., 2021, p.2), such as Web of Science, Scopus, BASE, PubMed, etc.

3. Research methodology

The rigors for accuracy and clarity that accounting imprints on information encouraged the choice of the research method used in this paper. The authors' option was oriented towards qualitative, visual statistical research, based on clusters and graphic representation. The bibliometric research used in this work was carried out with the help of the VOSviewer software. This program allows different clustering opportunities of data and the formation of easy-to-interpret color maps, which optimize the presentation and interpretation of results.

The database included scientific research studies published in specialized prestigious journals, selected with the help of the scientific studies database, Bielefeld Academic Search Engine (BASE). All selected items represented research in the field of accounting. The choice of items indexed in this database covered the period 2017-2022 and met the type condition of 'article contribution'. The data was further filtered following the condition of using the word "fiscal" in the title or in the abstract of the selected articles. After applying these filters, a sample of 555 items that met the filtering criteria were selected from 310,720,536 documents published in the field of accounting. Among the selected items, the items classified according to the content provider, with more than five contributions each, were provided by Wiley Online Library (238), UNTHSC Scholarly Repository (100), Emerald (50), Springer Nature (30), Oxford University Press (15), and University of Chicago Press (12).

The analysis of the selected sample was then carried out from the perspective of the most frequently used keywords, the most frequently used thematic words, the most frequently used words in the article titles, and the most frequently cited authors.

4. Findings

The bibliometric analysis of the database revealed a series of very interesting results. The VOSviewer software allowed us to present a comprehensive picture of previous research directions and polarization. The results obtained with the bibliometric analysis cluster method could be presented as network maps, with chromatic accents on the links established between various items relevant to the study.

4.1. Keywords analysis

Regarding the keywords frequently used in articles on the fiscal topic addressed in the body of accounting research, the graphical representation of the results is presented in Figure 1. The database identified a number of 354 keywords used, out of which 44 met the criterion of repetition of at least seven times. The software reduced the items to a number of 17 and grouped them into 3 clusters. The analysis showed a very strong connection between the research topics of accounting cases, with the direction of financial analysis and the development of econometric studies.

The first cluster, represented in red in Figure 1, includes the most interconnected keywords, respectively, a number of 8 items, the main keyword being "accounting". According to the analysis, the general themes of the accounting research are significantly related to a series of directions of case analysis focused on accountability, salaries, business, education, budget, and administration.

The second cluster includes 6 items and is represented in green in Figure 1. This cluster contains the keywords with the highest representation (the highest link strength) in the sample chosen for the items "accounting" (376 occurrences), "finance" (367 occurrences) and "economics and econometrics" (317 occurrences). These items also show significant links with "development", "public administration" and "sociology and political sciences".

Cluster 3 is represented in Figure 1 in blue and includes the terms "administration accountability" and "compliance". The statistically significant links identified between these items and the rest of the clusters suggest that, in general, the research focusing on compliance and administration accountability has shown interest in the direction of accounting investigations, business, education, and finance.

Figure no. 1. Keywords network
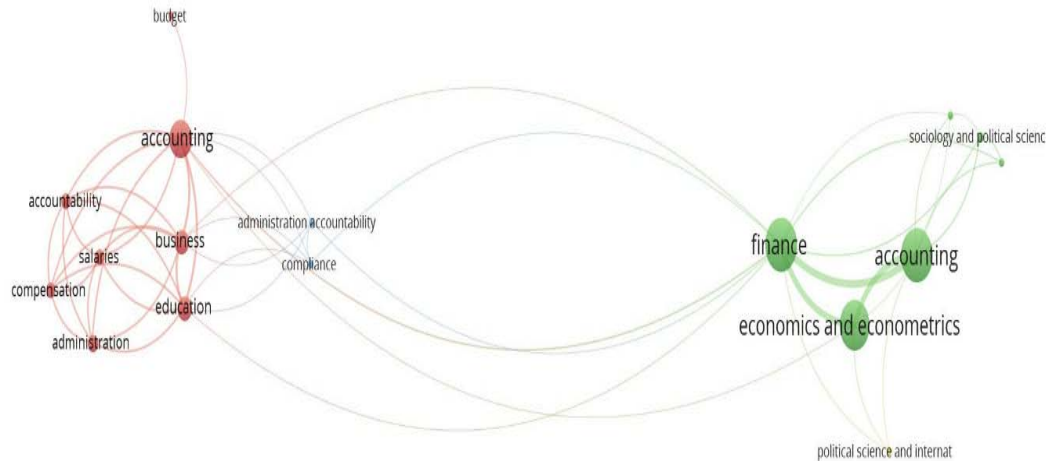
Source: Own research in VOSviewer

4.2. Word occurrence analysis

Regarding the words identified as frequently used in the sample studies, the analysis showed that the terms "fiscal year" (occurrence 122, total link strength 111) and "evidence" (occurrence 92, total link strength 147) have the best representation, being highlighted as central elements, with strong connections with all the identified clusters. As expected, the rigor of accounting information requires a solid foundation in 'evidence' and in the faithful representation of the financial statements reported each 'fiscal year'.

The analysis carried out at this stage focused on the repetitiveness of the words in the titles and abstracts of the works included in the sample. Among the 4562 repetitive items, a minimum threshold of 10 occurrences was set for each term. The result was that 77 terms met the criterion. From the list of terms obtained, the common words were removed. The program retained in the analysis a number of 16 items, which were grouped into 3 clusters, according to Figure no. 2.

In perfect agreement with the hypothesis of accounting rigor, the word "evidence", included in the red cluster, shows significant bibliometric links with "accounting", "development", "tax", "revenue", and "local government". At the same time, the link between "evidence" and the rest of the clusters is strongly represented, having the highest total link strength (147).

The accounting significance of financial reports is supported by the abundance of occurrence of the item "fiscal year". The studies oriented towards the development of analyses based on annual information used repetitively and related terms such as "report" (occurrence 32), "firm" (occurrence 43), "company" (occurrence 38), "disclosure" (occurrence 19) and "investor" (occurrence 14).

The blue cluster shows a very interesting grouping between the terms "government" (total link strength 39), "income" (total link strength 31), "fiscal policy", "inequality" and "covid".

*Figure no. 2. Word-occurrence network*

Source: Own research in VOSviewer

4.3. Author citation analysis

The analysis carried out in this stage of the study aimed to identify the representation and links between the authors who received the highest number of citations. The articles included in the analysis indicated a number of 3737 authors, of which 12 met the threshold of a minimum of 10 citations of an author. Of the 12 items, the program could make connections between only 9 items, grouped into 3 clusters.

As can be seen in Figure no. 3, the biographical sources most frequently cited in articles on the analyzed accounting and fiscal topics are the OECD and national statistical institutes. The result is significant and, in accordance with the results identified in the previous stage of the analysis of frequently used words, the conclusion that can be drawn is that, for the most part, accounting research is based on statistical data and regulations.

*Figure no. 3. Authors' Citation Network*
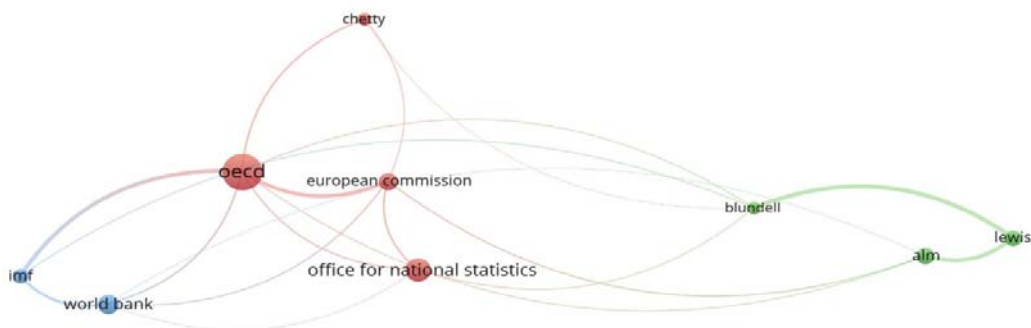
Source: Own research in VOSviewer

4.4. Title-word occurrence analysis

In another stage, the analysis followed the predilection for the use of certain words in the title of the analyzed accounting and fiscal articles. For this investigation, only published articles that were assigned DOI were extracted from the database; a total of 303 items were extracted. From the 773 repetitive terms observed, a minimum threshold of 3 occurrences was set for each term and 51 items were extracted. The software calculated a significance threshold of 60%, and a number of 22 items were selected, which were grouped into 4 clusters, as can be seen in Figure 4.

According to Figure 4, the most frequently used word in the title of the analyzed articles was "response", which presents significant bibliometric links with the term 'incentive' and with terms indicative of countries. The finding indicates a predilection toward the research of case studies anchored in the reality of statistical data and regional representations.

Figure no. 4. Title word occurrence network
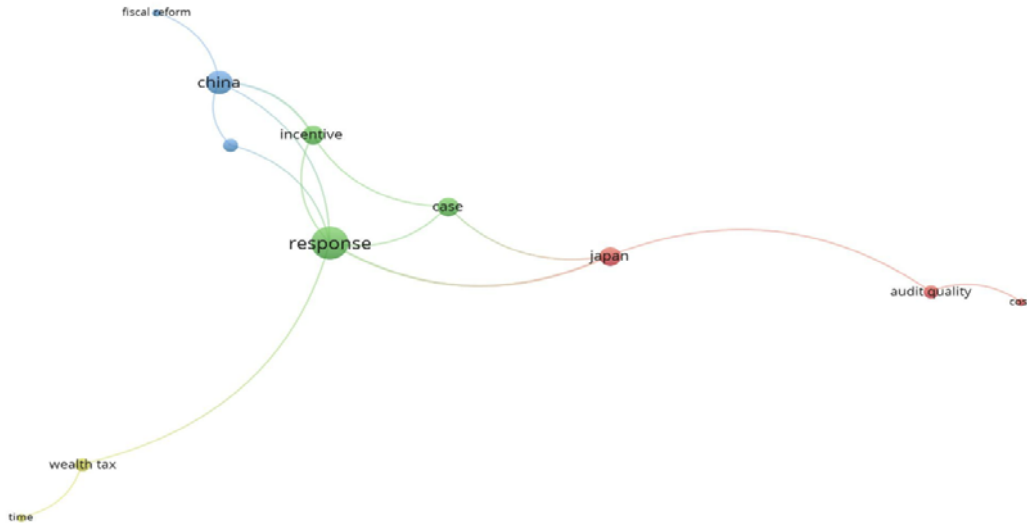
Source: Own research in VOSviewer

5. Conclusions

The present study proposed a bibliometric analysis based on a number of 555 articles published in distinguished journals, with the main theme accounting and the secondary study direction the fiscal dimension. The results of the bibliometric investigation allowed the identification of a series of keywords frequently used in research, various links between research directions, and the predilection for certain sources of data collection included in the accounting research.

The analysis of the bibliometric maps confirms the general hypothesis that any accounting study must be supported by evidence and be anchored in the precision of the regulations. Our work shows that accounting and financial research has experienced remarkable progress in developing econometric studies in recent years. The most frequently used keywords in the 555 specialized articles included in the research sample are "economics and econometrics", along with "accounting" and "finance". The investigation of financial indicators relevant to present 'the faithful image' in accounting, together with the evolution of financial regulations, found a better support for research in the statistical analysis of data and the econometric modeling, as the links between keywords and word occurrence show in Figures 1 and 2.

Accounting is a broad field, with deep interest both for scholars, as well as for specialists practicing accounting professions, for the business environment, and for the general public. Accounting information substantiates the foundation of all decisions with financial impact, whether we refer to the governmental, executive, business levels, or to individuals from a certain geographical area. In support of this conclusion, this paper shows that terms such as "evidence" and "fiscal year" are the most frequently studied. Furthermore, most studies are based on information provided by the OECD or statistical offices. The topics, the research directions, and the results of the analyzes carried out in the 555 articles analyzed in this paper considered that the most suitable titles should include terms like "response", "incentive", or the country where the study was carried out.

The intertwining between fiscal optimization and accounting information is also subject to the same broad interest area, accounting information and fiscal information being most often necessary to be observed and analyzed together. Evidence anchored in the legislative repertoire represents the tools that are the basis for any financial decision and provide answers to questions of financial

interest. Fiscal optimization cannot be fully understood without a good understanding of the research history in the field. The bibliometric research presented in this paper unequivocally shows that the links between fiscality and accounting are of deep research interest. We consider that the results of this article represent a relevant reference point for the development of future research.

6. References

- Aivaz, K. A., Munteanu, I., Chiriac, A., 2022. An exploratory analysis of the dynamics of the activity of the Fiscal Anti-fraud Directorate General in the 2014-2020 period at the level of Romania. *Technium Social Sciences Journal,* Vol. 30, Page: 337-347, https://doi.org/10.47577/tssj.v30i1
- Aivaz, K.A., Munteanu, I., Stan, M.I., Chiriac, A., 2022. A Multivariate Analysis on the Links Between Transport Noncompliance and Financial Uncertainty in Times of COVID-19 Pandemics and War. *Sustainability*, Vol. 14 Issue 16. https://doi.org/10.3390/su141610040.
- Brewer, M., & Shaw, J., 2018. How Taxes and Welfare Benefits Affect Work Incentives: A Life-Cycle Perspective. *Fiscal Studies*, 39(1), 5-38. https://doi.org/10.1111/j.1475-5890.2017.12150.
- Chiriac, A., Munteanu, I., Aivaz, K. A., 2022. The Financial Implications of Non-Compliance in the Transportation Business. *8th BASIQ International Conference on New Trends in Sustainable Business and Consumption*. pp.: 298-305, Conference Proceedings, 25-27 May 2022. https://doi.org/10.24818/BASIQ/2022/08/039.
- Cornell, Bradford, Gerger, Richard, Jarrell, Gregg A. and Canessa, James L., 2021. Inflation, Investment and Valuation. *Journal of Business Valuation and Economic Loss Analysis*, vol. 16, no. 1, pp. 1-13. https://doi.org/10.1515/jbvela-2020-0029.
- Costa-Font, J., Norton, E. C., & Siciliani, L., 2017. The Challenges of Public Financing and Organisation of Long Term Care. https://doi.org/10.1111/j.1475-5890.2017.12142.
- Coyne, D., 2017. Unmasking local fiscal responses to federal tax deductibility. *National Tax Journal,* 70(2), 223-255. https://doi.org/10.17310/ntj.2017.2.01.
- Di Pietro, M., Marattin, L., & Minetti, R., 2020. Fiscal policies amid a pandemic: the response of Italy to the COVID-19 crisis. *National Tax Journal*, 73(3), 927-950, https://doi.org/10.17310/ntj.2020.3.13.
- Langfeldt, L., Nedeva, M., Sörlin, S. et al. Co-existing Notions of Research Quality: A Framework to Study Context-specific Understandings of Good Research. *Minerva* 58, 115–137 (2020). https://doi.org/10.1007/s11024-019-09385-2.
- Lippi, F., 2021. The fiscal arithmetic of a dual currency regime. *Journal of Money, Credit and Banking*, 53(7), 1887-1897. https://doi.org/10.1111/jmcb.12796.
- Sicsic, M., 2022. Does labour income react more to income tax or means-tested benefits reforms?. *Fiscal Studies*, 43(3), 291-319. https://doi.org/10.1111/1475-5890.12306.
- Szomszor, M., Adams, J., Fry, R., Gebert, C., Pendlebury, D.A., Potter, RWK., and Rogers, G., 2021. Interpreting Bibliometric Data. *Front. Res. Metr. Anal*, 5, pp. 1-20, https://doi.org/10.3389/frma.2020.628703.
- Tahinakis, P. D., & Samarinas, M. P., 2017. Attributes of audit quality and weak fiscal sustainability countries. International Journal of Banking, Accounting and Finance, 8(1), 20-51. https://doi.org/10.1504/IJBAAF.2017.085328.
- Van Eck, N., & Waltman, L., 2010. Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, 84(2), 523-538. https://doi.org/10.1007/s11192-009-0146-3.
- Waltman, L., Calero-Medina, C., Kosten, J., Noyons, ECM., Tijssen, RJW., van Eck, N.J., van Leeuwen, T.N., van Raan, A.F.J., Visser, M.S., and Wouters, P., 2012. The Leiden ranking 2011/2012: Data collection, indicators, and interpretation. *Journal of the American Society for Information Science and Technology,* 63(12), pp. 2419-2432, https://doi.org/10.1002/asi.22708.