

## What We Know So Far about Transfer Pricing: a Bibliometric Analysis

*Ivo Mijoč*\* +

*Martina Briš Alić*\*\*

*Nataša Drvenkar*\*\*\*

**Abstract:** *The objective of this study was to provide comprehensive static information in the area of transfer pricing in order to assess the current situation and attempt to establish future research priorities. The data source used is the WoS database, where 788 different articles with 21,917 corresponding references were collected for the analysis. A bibliometric approach was applied using the VoSviewer software. In comparison to Kumar et al. (2021), who presented the results of the citation analysis of the articles found in the SCOPUS database, the authors performed a first-level analysis of the articles found in the WoS database, but also a second-level analysis, which was presented as a co-citation analysis. The primary similarity arises from the use of an identical methodology at the first level of analysing different sources, while the results of the co-citation analysis allow the formation of clusters for references, sources and authors, thus closing the obvious gap in the analysis of Kumar et al. (2021). The obtained results show two logical directions of continuation and development of the studied topic. The first direction allows future researchers to have a basic understanding of the breadth and depth of currently published works and studies on transfer pricing, while the development of the treated topic should be seen in the context of filling the gaps between transfer pricing and bibliometric analysis.*

**Keywords:** transfer pricing; WoS database; literature review; VoSviewer; bibliometric analysis

**JEL Classification:** H20; M41

---

\* Josip Juraj Strossmayer University of Osijek, Faculty of Economics in Osijek, Croatia.

+ Ivo Mijoč is corresponding author. E-mail: ivo.mijoc@efos.hr

\*\* Josip Juraj Strossmayer University of Osijek, Faculty of Economics in Osijek, Croatia

\*\*\* Josip Juraj Strossmayer University of Osijek, Faculty of Economics in Osijek, Croatia

## Introduction

Basically, the idea of determining transfer prices is relatively simple: prices between related parties must be the same as would be agreed upon by unrelated parties under the same conditions. These are therefore internal prices, which, according to Bartelsman et al. (2000), have accounted for a large share of international trade since 1977, in the U.S., for example, 36% of U.S. exports and 43% of U.S. imports. However, this relatively simple concept masks numerous problems (Lall, 1979). First, there is the question of the content of the transaction and the allocation of risk assumed by each of the related parties. The functional analysis of the group is the basis of the transfer pricing documentation that the individual companies and taxpayers use to demonstrate the reasonableness of the price to the relevant tax authorities. Moreover, it is virtually impossible to clearly assign issues such as marketing, customer service, and other similar activities to related individuals in defining the value chain. Securing financial resources, assuming credit and currency risks may also have a direct impact on the expected value distribution. All this is due to the fact that, depending on geographical circumstances, the parent company may establish different subsidiaries (affiliates) and thus directly influence the amount of profit generated, in order to partially or fully reduce the obligation to pay income taxes while benefiting from certain tax advantages (see Elitzur, 1996).

Table 1: Overview of the research questions of the paper

Level	Number	Question	Measurement	Estimation
First level (Citation analysis)	RQ 1.	What is the publication trend of transfer pricing?	Number of articles by year	Performance analysis – trend
	RQ 2.	Which are the most important published articles in the field of transfer pricing?	Citation analysis	Performance analysis – static
	RQ 3.	Who are the most prolific and frequently cited authors in the field of transfer pricing?	Number of papers and citations by author	Performance analysis – static
	RQ 4.	Which are the leading countries in publishing articles in the field of transfer pricing?	Analysis by countries	Performance analysis – static
	RQ 5.	What are the most important sources for publishing works on transfer pricing?	Source analysis	Performance analysis - static
Second level (Co-citation)	RQ 6.	What are the most frequently cited references in articles on transfer pricing?	Reference co-citations	Science mapping – network 3 clusters
	RQ 7.	What are the most frequently cited sources in the references of transfer pricing articles?	Co-citation of source	Science mapping – network 5 clusters
	RQ 8.	What are the most frequently cited authors in the references of transfer pricing articles?	Co-citation of authors	Science mapping – network 4 clusters

This raises the question of the broad meaning of transfer pricing, which may go beyond the widely held view that transfer pricing is considered exclusively in a tax context, so it is about the full, broader meaning and interdisciplinary nature of transfer pricing. Despite the growing popularity of transfer pricing, research in this area has reached a certain level of maturity. Therefore, following the example of Suban (2022), this paper attempts to analyze the current situation by reviewing the international literature using a bibliometric approach based on the analysis of citations and co-citations, i.e., it attempts to identify potential scholars for whom this field is of primary interest for all published papers after WW2. Several authors, most notably Donthu et al. (2021b), point to important review methods that compare goals, modes and reasons for use, scope, amount of data, and analysis. First, bibliometric analysis summarizes large quantities of bibliometric data to present the state of the intellectual structure and emerging trends of a research topic or field. Second, meta-analysis summarizes the empirical evidence of relationship between variables while uncovering relationships not studied in existing studies. Finally, systematic literature review summarizes and synthesizes the findings of existing literature on a research topic or field.

In this paper, we present an bibliometric analysis of a comprehensive theoretical framework for transfer pricing based on assumptions that underscore the importance of the topic due to its saturation in broader academic fields. By using standardized analytical protocols and advanced measurement techniques, we aim to strengthen the role of literature reviews in the field of transfer pricing by drawing the attention of researchers to this topic. In this article, therefore, all studies on transfer pricing were retrieved from the WoS sources to answer the research questions presented in Table 1. The remainder of the paper is organised as follows: In the second section, a review of the literature is given to clarify the object of research. In the third section, the methodology is developed, followed by the results and discussions. Finally, the conclusions are presented and the limitations of the research and suggestions are outlined with an agenda for future research to enrich the domain of transfer pricing.

## **Literature Review**

### *General about transfer pricing*

The concept of transfer pricing emerged as early as the early 1940s, the first models were developed in the 1970s and 1980s, and then the era of empirical studies in various fields began, as it is extremely difficult to adopt a particular model as the only approach to solving transfer pricing problems (Padhi, 2019). Historically, the development of transfer pricing was linked, on the one hand, to the need to obtain an inventory valuation for partially and fully completed productions and, on the

other hand, to the desire to determine profit results for semi-independent parts of a company (McNally, 1973). To determine purpose, McAulay and Tomkins (1992) formulated four arguments for the introduction and existence of transfer pricing: (i) the functional necessity argument arising from divisionalization into a profit center responsible for costs and revenues; (ii) economic arguments as resources need to be allocated efficiently; (iii) organizational arguments to improve and integrate differentiation within divisionalized organizations; and (iv) strategic arguments as corporate strategy can be influenced by accounting mechanisms.

Following on from the preceding, in international economic relations many companies often avoid the tax “burdens” of high-tax countries (Matei and Pirvu, 2011; Clausing, 2000) by transferring tax profits to low-tax countries (Rathke et al., 2021; de Mooij and Liu, 2018). The issue of transfer pricing comes even more to the fore when it comes to the economic integration of regions where not only companies but also “countries merge”. Weichenrieder (2009), for example, developed a correlation model between the level of profit taxation and the profitability of related companies by analysing foreign companies that have branches in Germany. The results showed that a 10-percentage point increase in the corporate tax rate of a company in its home country leads to a half percentage point increase in the profitability of its subsidiaries (which is artificially generated by transfer pricing). However, as (Weichenrieder, 2009) notes, governments of high-tax countries may seek to restrict the transfer of transfer pricing strategies, which can then lead to double taxation. Furthermore, the analysis of Kumar et al. (2021) concludes that transfer pricing research needs to be improved in order to use transfer pricing as a strategic tool in companies and not only as a kind of “tax administration strategy” by choosing different methods to calculate transfer prices. According to Matei and Pirvu (2011), but also Göx and Schiller (2006), the facts that should be considered when choosing the best method for determining transfer prices are the following: (a) the prices that depend on the free market of comparable companies/countries (Rathke et al., 2021; de Mooij and Liu, 2018), (b) the actual activity of the related companies involved in the transaction (Weichenrieder, 2009; Desai et al., 2005; Edwards and Weichenrieder, 2004; Clausing, 2000), (c) the accuracy with which we can make adjustments to achieve comparability, (d) the totality of the circumstances of the actors involved, (e) the actual activities of the various related parties (Matei and Pirvu, 2011), (f) the circumstances of the taxpayer’s business and market (Rathke et al. 2021; de Mooij and Liu 2018; Riedel and Zinn, 2014; Cools, 2005), and (g) the documentation of the taxpayer.

It can be concluded that, according to Capatina-Verdes (2022), the topic of transfer pricing covers the following areas: transfer pricing taxation, transfer pricing accounting, economic context of transfer pricing, transfer pricing theories, fraudulent use of transfer pricing or related party transactions, transfer pricing disclosure, and issues where transfer pricing is related to sustainability, innovation, and ethics research.

### *Bibliometric analysis in the field of transfer pricing*

Because transfer pricing plays multiple roles in creating and maintaining competitive advantage in the broadest sense of the word, numerous studies have been conducted (2.1). However, very few studies have been conducted through reference analysis of publications with a visual sample. Moreover, this topic has reached a critical point and a certain level of maturity, so a literature review analyzing the trends and directions of transfer pricing is necessary in terms of a clearer focus of research interests.

Bibliometric analysis has gained immense popularity in business research in recent years (Donthu et al., 2020; Donthu et al. 2021a; Donthu et al., 2021b; Khan et al., 2021), and its popularity can be attributed to (1) the advancement, availability, and accessibility of bibliometric software such as Gephi, Leximancer, VOSviewer, and scientific databases such as Scopus and WoS, and (2) the cross-disciplinary pollination of the bibliometric methodology from information science to business research. As far as the authors is aware, there are few research papers linking transfer pricing to bibliometric analysis.

Kumar et al. (2021) identified the leading authors, countries, institutions, outlets, articles, and topics in transfer pricing research over 50 years (1968-2019) using bibliometric data of 735 research articles from the Scopus database. The aforementioned authors recorded the discovery of the first paper on transfer pricing in 1968 as a seminal paper titled “*Profit Centers, Transfer Pricing and Mysticism*,” and the author discussed transfer pricing in budgeting (Wells, 1968). The results of this study suggest that transfer pricing research needs to go beyond compliance and tax management and use transfer pricing more meaningfully as a strategic tool in companies. Capatina-Verdes (2022) examined 3,885 articles from the WoS and Scopus databases in February 2022 and identified the most important topics discussed in research between 1968 and 2021. The search terms used were transfer pricing and related party transactions. Based on the results obtained, the level of development and the main trends in terms of influence, main publications, topics, authors, institutions and countries were identified. With the help of VOSviewer, the conceptual structure of the keywords was analyzed and they were divided into eight research directions according to the degree of their interaction. The study by da Fonseca and Jucá (2020) classified 41 selected articles cited in the WoS database. The results show that taxes are a crucial factor for multinational companies. However, the complexity of the legislation poses problems in the evaluation and results of these studies. Among the identified knowledge gaps, the problems in model estimation stand out due to the difficulty of calculating tax proxies.

## Research Methodology

After reviewing several papers, it was decided to follow the research methodology of Capatina-Verdes (2022) and Kumar et al. (2021) as they summarize a similar research topic, provide recommendations for a search and filtering strategy for bibliometric review, i.e. identification of studies through databases and registries (adapted from Page et al., 2021), a uniform number of steps, and addition of time criteria for publication of articles. In conducting the bibliometric analysis, we followed the guidelines of Donthu et al. (2021b), Moral-Muñoz et al. (2020) and da Fonseca and Jucá (2020) for software tools for conducting bibliometric analysis in science: an up-to-date review. The structure of the data analysis was elaborated following Suban (2022).

### *Data pre-processing*

The selection process took place on July, 2023, and was guided by the Kumar et al. (2021) search strategy, which consists of five steps: database search (thematic filtering), language filtering, subject filtering and scientific filtering which is similar to Capatina-Verdes (2022) and Page et al. (2021). Based on the term „*transfer pricing\**“, 1,262 previously published scientific papers were extracted from the WOS Core Collection database. The use of asterisks in the case of *pricing\** made it possible to identify the possible endings of these words in the research (price, pricing, etc.), as carried out by Capatina-Verdes (2022). Contrary to the view of the above authors, the use of abbreviations such as TP (transfer pricing) is common in the research literature in this field, but not in the title of the article or in the list of keywords. The aim is not to analyze the content of the included papers in a sample. The aim is to identify the most cited works by analyzing the main authors, citations, co-citations of references, sources, and authors for publications on transfer pricing, as done by Suban (2022).

We decided exclusively on the WoS base since Kumar et al. (2021) selected Scopus, and Capatina-Verdes (2022) conducted a survey including Scopus and WOS Core Collection. The WoS database was used as a source of data this paper. Some of the reasons for using the WoS database are (Ozturk, 2021): (i) WoS includes numerous journals in the social sciences. In this respect, it contains sufficient data for bibliometric analysis (ii) it is easy to access because of the membership through universities (iii) datasets for software can be obtained in a suitable file type. These advantages provide substantial facilities in terms of obtaining the dataset, transferring it to the program, and performing the analysis. However, most of the journals in WoS have a high impact factor and the potential to lead the field. Step 2 refers to the language criterion. Following the example of other authors, we included articles written in English. As Kumar et al. (2021) explain, this filtering was necessary because (1) we use English in everyday life and (2) translations are impractical for reviews

with large data sets. In this way, 65 articles from non-English speaking areas were excluded, i.e., 1,197 were included.

The next step is subject filtration. We choose to include articles in (1) economics, econometrics, and finance including economic theory, statistical methods and artificial intelligence, (2) business, management, and accounting including risk assessment, logistics and optimization, (3) political science and sustainability science including law. According to Kumar et al. (2021), this filtration was required as these WoS-defined subject areas were the broadest and most relevant to “business,” which is the overarching discipline where TP is situated. During the filtering performed, 304 items were sorted out, leaving only 893 items. The last step (step 4) involves scientific filtering. Following the example of other authors, we decided to filter the sample from step 3 to articles. The exclusion criteria were: 1) articles not officially published, 2) conference abstracts and proceedings, corrigendum documents, 3) repeated publications, 4) unrelated articles (Zhu et al., 2022), and 5) editorial material, notes and review. After the last step, 105 articles were excluded and 788 were included, which is about 7% more than expected from Kumar et al. (2021) and given the time lag. With the help of Mendeley Reference software in RIS format, duplicates were removed. All items not related to transfer pricing subjects were excluded. Data was downloaded in txt. format, suitable for processing in VOSviewer Software (Capatina-Verdes, 2022).

### *Modeling and pattern design*

A total of 474 articles were excluded based on language, subject and scientific, and thematic filtering. The remaining 788 articles that survived the filtering process will be subjected to bibliometric review, as explained. 21,946 references are included in the original .txt document. From the .txt document, 89 lines indicating [no title captured] were deleted - so in the co-citation analysis, the reference cited 89 times was deleted; and 9 lines indicating [anonymous] [no title captured] - so the number of references in the .txt document was reduced by 9 and is now 21,937. Different ways of writing OECD that have been replaced by OECD in references is shown in Appendix A. The list of references changed in the .txt document and the type of change can be seen in Appendix C. Different ways of writing European Commission that have been replaced by European Commission in references change is described in Appendix B. The final size of the references is 21,917 after all the terminological adjustments described earlier. Based on the above information, a bibliometric analysis is performed.

### *Methodology*

Two main techniques of bibliometric analysis were used in data analysis - performance analysis and scientific mapping. According to Moral-Muñoz et al. (2020), per-

formance analysis aims to evaluate different scientific actors (researchers, institutions, countries, etc.) using bibliographic indices based on publication and citation data (Narin and Hamilton, 1996), while scientific mapping is based on the topological and temporal representation of the cognitive and social structure of a given research field (Cobo et al. 2011a; Cobo et al. 2011b). The initial analysis of the sample is basically a descriptive analysis of the authors in the field, as opposed to scientific mapping, which relies solely on network analysis to measure efficiency. In this paper, an analysis of citations and co-citations was performed. In citation analysis, the impact of a publication is determined by the number of citations it receives. The analysis allows the identification of the most influential publications in a research area. Although there are several methods (e.g., network metrics) for determining the importance of publications in a research area, the most objective and straightforward measure of their influence is their citations (Donthu et al., 2021b; Pieters and Baumgartner, 2002; Stremersch et al., 2007). According to Donthu et al. (2021b) and da Fonseca and Jucá (2020), co-citation occurs when two publications are linked when they appear simultaneously in the bibliography of another publication.

The technical implementation of certain parts of the program is discussed by van Eck and Waltman (2010) using the similarity matrix and mapping technique: first, VOSviewer uses a similarity measure known as association strength, which they describe as the similarity  $s_{ij}$  between two elements  $i$  and  $j$ , calculated as follows:

$$s_{ij} = \frac{c_{ij}}{w_i w_j}$$

where  $c_{ij}$  denotes the number of co-citations of items  $i$  and  $j$  and where  $w_i$  and  $w_j$  denote either the total number of citations of items  $i$  and  $j$  or the total number of co-citations of these items. Da Fonseca and Jucá (2020) assume that the more co-citations two documents receive, the greater the total link strength (TLS); the popularity of an article is measured by the number of citations, while its prestige is measured by its influence - TLS. Second, it follows the VOS mapping technique. The authors van Eck and Waltman (2010) indicated that  $n$  denotes the number of elements to be mapped. The VOS mapping technique constructs a two-dimensional map in which the elements  $1, \dots, n$  are arranged so that the distance between any pair of elements  $i$  and  $j$  reflects their similarity  $s_{ij}$  as closely as possible according to the distance criterion. Items that have high similarity are placed close to each other and *vice versa*. The authors base the idea of VOS mapping techniques on minimizing the weighted sum of squares of Euclidean distances between all pairs of items. In general, the greater the similarity between two objects, the greater the weight of their squared distance in the sum:

$$V(\mathbf{x}_1, \dots, \mathbf{x}_n) = \sum_{i < j} s_{ij} \|\mathbf{x}_i - \mathbf{x}_j\|^2,$$



where the vector  $x_i = (x_{i1}, x_{i2})$  denotes the location of item  $i$  in a two-dimensional map and where  $\|\bullet\|$  denotes the Euclidean norm. Minimization of the objective function is performed subject to the constraint:

$$\frac{2}{n(n-1)} \sum_{i < j} \|x_i - x_j\| = 1.$$

In order for VOSviewer to produce consistent results, the authors van Eck and Waltman (2010) specified three solution transformations in the software: (a) the solution is shifted so that it is centered at the origin; (b) the solution is rotated to maximize the variance in the horizontal dimension, which is called principal component analysis; and (c) if the median  $x_{i1}, \dots, x_{in1}$  is greater than 0, the solution is mirrored on the vertical axis and the horizontal axis, *ceteris paribus*.

## Results and Discussion

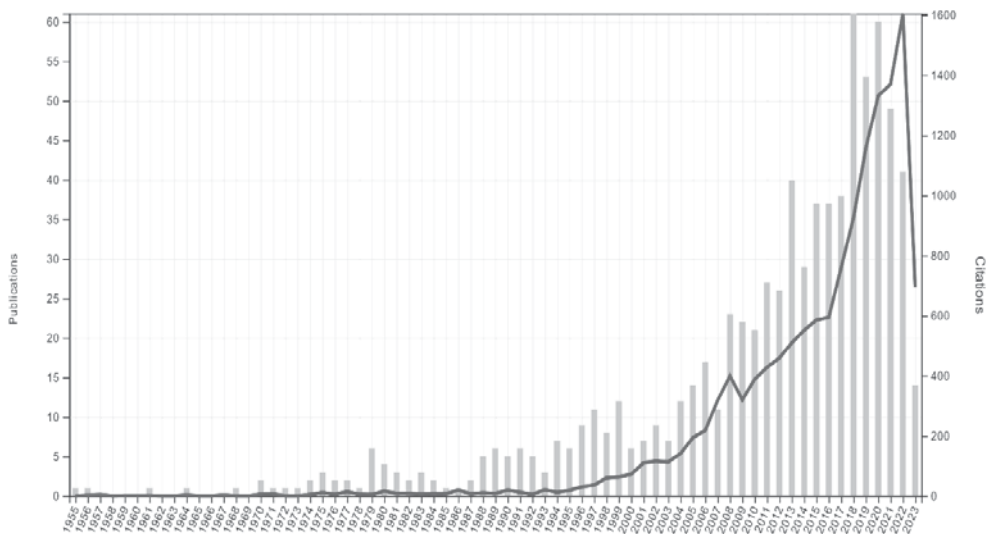
### *Performance analysis*

The work results obtained are based on two different analyses. In the first part, a performance analysis is carried out, aiming to examine the contributions of research constituents to a given field (Donthu et al., 2021; Cobo et al., 2011a; Ramos-Rodríguez et al., 2004).

### Publication by year – RQ 1

Figure 1 shows the evolution of the number of publications and citations over the years. It can be seen that the oldest work that is the subject of research was published in 1955. Cook published the first paper in the WoS database entitled *Decentralization and the transfer-price problem*, in which he discusses in two parts the fundamental importance of transfer-price policy as an intelligent system in relation to the efficiency of decentralized corporate entities recommends the use of market-based prices.

Figure 1: Evolution of articles published per year



Source: Authors (2023).

A year later, *Hirshleifer (1956)* published a paper *On the economics of transfer pricing* which according to Kumar et al. (2021) is also the most cited paper in Scopus ( $n = 172$  citations). The reasoning presented in this paper is based on the assumption that the market price is the correct transfer price only if the goods to be transferred are produced in a competitive market, while the correct transfer procedure is, in the most general case, at marginal cost or at a price between marginal cost and market price. In the following 23 years, 1 or 2 papers were published per year that are the subject of this research, only in 1975 3 papers were published. After that, up to 10 papers are published per year until 2004 (exceptions: 1997 with  $n=11$  papers and 1999 i.e.  $n=12$  papers).

Table 2: Most-cited papers

Author(s) / Year	Title	Source	Impact factor*	Total citation	Citation per year	Links
Kogut, and Kulatilaka (1994)	Operating Flexibility, Global Manufacturing, and the Option Value of a Multinational Network	Management Science	6.172	626	20,87	3
Lambert (2001)	Contracting Theory and Accounting	Journal of Accounting & Economics	7.293	425	18,48	4
Grubert and Mutti (1991)	Taxes, Tariffs and Transfer Pricing in Multinational Corporate Decision Making	Review of Economics and Statistics	6.481	330	20,63	47
Devereux, Lockwood, and Redoano (2008)	Do Countries Compete over Corporate Tax Rates?	Journal of Public Economics	8.262	330	10	13
Lee and Whang (1999)	Decentralized Multi-Echelon Supply Chains: Incentives and Information	Management Science	6.172	265	10,6	2
Shah (2004)	Pharmaceutical Supply Chains: Key Issues and Strategies for Optimization	Computers & Chemical Engineering	4.130	259	12,95	2
Hines (1999)	Lessons from Behavioral Responses to International Taxation	National Tax Journal	1.527	249	9,96	23
Clausing (2003)	Tax-Motivated Transfer Pricing and US Intrafirm Trade Prices	Journal of Public Economics	8.262	209	9,95	47
van Mieghem (1999)	Coordinating Investment, Production, and Subcontracting	Management Science	6.172	205	8,2	3
Vidal, and Goetschalckx (2001)	A Global Supply Chain Model With Transfer Pricing and Transportation Cost Allocation	European Journal of Operational Research	6.363	201	8,74	31

\* According to Accelerator (2023). Source: Authors (2023).

Capatina-Verdes (2022) emphasizes that the low number of publications in the early years was due to the fact that very little of what was published at that time could be included in WOS or Scopus. Most of the published articles, which are the subject of the research, were published in the last 20 years. Most papers were published in 2018 with 61 articles, while in Scopus, according to Capatina-Verdes (2022), the number of publications exceeded 100 articles. This is followed by 2020 with 57 published articles and 2022 with 50 published articles. By July 2023, 20 research papers have been published. Bornmann and Mutz (2015) and Frazzetto (2004) believe that science has become large, global and complex and the emphasis has shifted from individual scientists to collaborations, where an increase in publications is not accompanied by an increase in knowledge in a particular field. However, this pluralism,

whether in small groups or on a global scale, can be at the expense of the freedom and creativity of the individual scientist (Frazzetto, 2004), since knowledge growth and criticism are closely linked, warns Gattei (2009).

### Citation analysis – RQ 2

Simultaneously, in the Figure 1, it can be seen that the total number of citations of the observed papers has started to increase since 1995. The most citations were reached in 2022 with 1,604 citations. By July 2023, the studied articles have reached 694 citations. The general structure of quotations in transfer prices has a total quotation until July 2023 of 13,795. Table 2 shows the most frequently cited publications in the WoS database. The most cited paper is *Kogut and Kulatilaka (1994)*, which received 626 citations. The article presents the original model, the model for evaluating the option of switching production, is extended by the authors to analyze the impact of hysteresis and the possibility of growth within the country. The obtained model results show that the management of cross-border coordination leads to changes in the heuristic rules used to evaluate the production and transfer prices. *Lambert (2001)* is second with 425 citations, while *Grubert and Mutti (1991)* and *Devereux et al. (2008)* share third place with 330 citations. *Lambert (2001)* article provides an overview of agency theory and its application to accounting issues through a model of the incentive problem caused by moral hazard and the adverse selection problem. *Grubert and Mutti (1991)* study three interrelated aspects of the activities of American multinational corporations, and the results of a cross-sectional empirical analysis show that there is a pattern of reported profits in high- and low-tax countries consistent with income shifting behavior and that real investment corresponds to effective tax rates and tariffs host country. Finally, using data from 21 countries for the period 1983 to 1999, *Devereux et al. (2008)* examine whether OECD countries compete on corporate taxes to attract investment and confirm that there is evidence of competition, particularly on the statutory tax rate and the average effective tax rate. In all other periods, the number of citations increased rapidly, indicating the importance of transfer pricing in scientific circles.

### Number of papers and citations by author – RQ 3

1,391 authors wrote articles that are the subject of the analysis. Table 3 shows two lists - the list of authors who have been cited more than 250 times and the list of authors who have published at least 5 articles that are the subject of the analysis. It should be noted that authors *Kogut and Kulatilaka* are in the first place in terms of the number of citations, with 626 citations. They have published a joint work that is the subject of research, and thanks to this article they have collected the most citations. The author of the second most cited article is *Lambert* with a number of 425

citations. *Devereux* published 4 articles that are the subject of research and reached 415 citations, while *You* published 5 articles and had 408 citations.

Table 3: List of authors according to the number of published articles and citations

Author(s)	Documents	Citations	TLS	Author(s)	Documents	Citations	TLS
Kogut, B.	1	626	7	Valaskova, K.	10	145	27
Kulatilaka, N.	1	626	7	Clempner, J. B.	7	32	5
Lambert, R. A.	1	425	11	Dobrovic, J.	7	65	17
Devereux, M. P.	4	415	43	Durana, P.	7	75	22
You, F.	5	408	59	Matsui, K.	7	94	0
Grubert, H.	1	330	103	Becker, J.	5	20	6
Lockwood, B.	1	330	24	Richardson, G.	5	122	8
Mutti, J.	1	330	103	Riedel, N.	5	254	9
Redoano, M.	1	330	24	Taylor, G.	5	122	8
Shah, N.	2	323	43	Valente, P.	5	4	1
Hines, J. R.	2	285	44	You, F.	5	408	5
Lee, H.	1	265	5	Zielke, R.	5	4	0
Whang, S. J.	1	265	5				
Riedel, N.	5	254	134				

Source: Authors (2023).

The citations of the above authors are incomparably higher on Google Scholar, where the citation and publication metrics have many critical values with distinct metric units of comparison (*h-index*, *g-index*, *i-index*), as they bring citations and publications together to measure the effectiveness of research components, where publication is a proxy for productivity, while the measure is given for impact and effect. The results obtained should be considered in the context of the research interests and fields of the authors mentioned. *Kogut's* research interests (Columbia University, Business School and Sociology) are in comparative management, computational social sciences, and organizations, *Kulatilaka* (Boston University) and *Devereux's* (Oxford University) are in finance, taxation, and econometrics, while *You* (Cornell University) focus on energy systems engineering and artificial quantum intelligence.

According to the number of published articles that are the subject of analysis, *Valaskova* is in the first place with 10 published articles. In the second place are the authors who have published 7 articles: *Clempner* (32 citations), *Dobrovic* (65 citations), *Durana* (75 citations) and *Matsui* (94 citations). In the continuation of the Table 3 there are also authors who have published 5 articles. Capatina-Verdes (2022) reached similar results when analyzing the WoS and Scopus databases.

#### Number of articles and citations by country – RQ 4

788 researched articles were written by authors from 69 countries. The most productive country by number of published articles that are the subject of analysis (233), but also by number of citations (6,885), is the United States what is not surprising. In second place by number of articles published is the Republic of China (80), while England is second by number of citations (1,536). The Republic of China continues to rank third in number of citations (1,502), while Germany ranks third in number of articles published (65) and fourth in number of citations (798). Canada ranks fifth in both number of articles published (39) and number of citations (638), while the Netherlands and Australia switch places - the Netherlands ranks sixth in number of articles published (38) and seventh in number of citations (350), while Australia ranks sixth in number of citations (422) and seventh in number of articles (33).

This distribution of results is confirmed by Capatina-Verdes (2022) and Kumar et al. (2021), who, in contrast to Frazzetto (2004), emphasises that the production of scientific knowledge has also become more expensive and, as a result, the forms of financing have changed, with industry and venture capital now providing most of the financing. For this reason, Capatina-Verdes (2022) refers in particular to OECD data on research funding, according to which China, Korea, and Japan spend the highest percentage of GDP on research and development, the United States is sixth, and the United Kingdom is only eleventh, surpassed by Germany, Belgium, Austria, France, the Netherlands, Slovenia, and the Czech Republic (OECD, 2022b). Bornmann and Mutz (2015) therefore describe that future developments cannot be predicted with certainty, as new highly productive players such as China and India rapidly enter and adapt to the scientific community.

#### Analysis of sources – RQ 5

The articles that are the subject of the analysis were published in 344 different sources. As shown in Table 4 most of the articles were published in the journal *Intertax* (IF: 0.356) with even 82 articles. The mentioned journal is not among the top 10 journals by number of citations, with the mentioned results correlating with Capatina-Verdes (2022). According to an entry on the website of the publisher *Kluwer law Int.*, *Intertax* offers a detailed critical analysis and deals with direct taxes, indirect taxes and social security from a legal and economic point of view and provides both scientific and practical, up-to-date international tax information at a high level in 12 issues per year. The journals *Accounting Review* (IF: 5.182) published by the American Accounting Association, *European Journal of Operational Research* (IF: 6.363) and *International Journal of Production Economics* (IF: 11.251) rank second, third and fourth with 22, 21 and 17 articles, respectively, while they rank third, fourth and fifth with 813, 662 and 633 citations, respectively. The journal's website states that: (a) *The Accounting Review*, published since 1926, is the leading journal for the pub-

lication of articles reporting the results of accounting research and explaining and illustrating the research methodology involved; (b) *The European Journal of Operational Research* publishes high-quality original papers that contribute to operational research methodology and decision-making practice; and (c) *The International Journal of Production Economics*, publisher Elsevier, is interdisciplinary in nature and considers entire cycles of activities, such as the product life cycle - research, design, development, test, launch, disposal - and the material flow cycle - supply, production, distribution.

Table 4: List of journals (with their impact factor), number of published papers and citations

Journal	Impact (2022 - 2023)*	Articles	Citations	TLS	Rank SCOPUS
Intertax	0.356	82	186	40	1
Accounting Review	5.182	22	813	324	2
European Journal of Operational Research	6.363	21	662	185	6
International Journal of Production Economics	11.251	17	633	138	12
International Tax and Public Finance	1.289	15	210	132	7
Management Science	6.172	14	1531	90	10
EC Tax Review	0.350	13	25	5	n/a
Journal of Public Economics	8.262	13	989	210	11
National Tax Journal	1.527	12	421	90	15
Sustainability	3.889	11	116	8	20
Journal of International Economics	3.712	10	351	133	n/a

\* According to Accelerator (2023). Source: Authors (2023).

The journal *Management Science* (IF: 6.172) ranks first with 1,531 citations - by number of articles published, it ranks sixth with 14 articles. The *Journal of Public Economics* (IF: 8.262) is in second place with 989 citations - by number of articles published, it shares space with the journal *EC Tax Review* (IF: 0.350) with 13 articles. It is important to note that the number of articles published correlates with the number of citations and the journal's impact factor, i.e., a high resonance factor ensures high citations, which is in contrast to the SCOPUS database and Capatina-Verdes (2022) results.

### Science mapping

Science mapping was used to examine the relationships between research constituents (Donthu et al., 2021; Baker et al., 2021; Cobo et al., 2011a; Ramos-Rodríguez et al., 2004).

## Reference co-citations – RQ 6

The analysis of co-citations begins with an examination of co-citations of references. In 788 papers that are the subject of the analysis, 21,917 references were used. 2,849 references appeared in at least two articles that are the subject of the study, while the remaining 19,068 references appeared in only one article studied. Figure 2 shows the articles that appeared 23 or more times in the references of the studied articles. Therefore, the “minimum number of citations of a cited reference” was set to “23”. 39 references met this threshold.

Table 5: Most co-cited papers

Author(s) / Year	Title	Source	Impact factor	Total citation	Total link strength
Hirshleifer (1956)	On the Economics of Transfer Pricing	The Journal of Business	10.969	92	3,477
Clausing (2003)	Tax-Motivated Transfer Pricing and US Intrafirm Trade Prices	Journal of Public Economics	8.262	63	3,359
Baldenius, Melumad, and Reichelstein (2004)	Integrating Managerial and Tax Objectives in Transfer Pricing	Accounting Review	5.182	56	2,613
Hines Jr, and Rice (1994)	Fiscal Paradise: Foreign Tax Havens and American Business	Quarterly Journal of Economics	19.013	54	2,355
Horst (1971)	The Theory of the Multinational Firm: Optimal Behavior under Different Tariff and Tax Rates	Journal of political economy	9.637	51	1,706
Bartelsman, and Beetsma (2003)	Why Pay More? Corporate Tax Avoidance through Transfer Pricing in OECD Countries	Journal of Public Economics	8.262	49	2,464
Huizinga, and Laeven (2008)	International Profit Shifting Within Multinationals: A Multi-Country Perspective	Journal of Public Economics	8.262	49	2,178
Grubert, and Mutti (1991)	Taxes, Tariffs and Transfer Pricing in Multinational Corporate Decision Making	The Review of Economics and Statistics	6.481	47	2,370
Eccles (1985)	The Transfer Pricing Problem: A Theory for Practice Heath	Lexington, MA		44	3,303
Alles, and Datar (1998)	Strategic transfer pricing. Management Science	Management Science	6.172	35	1,468

Source: Authors (2023).

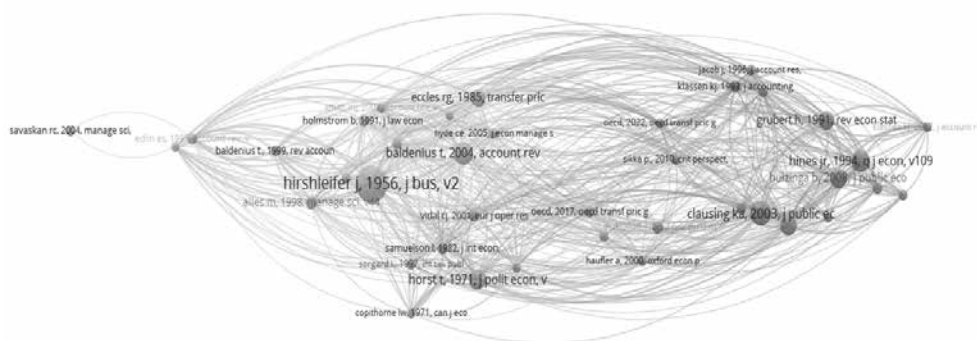
Based on the obtained results, the references are divided into 3 clusters with 39 references. The red cluster consists of 15 references, the green cluster consists of 14 references, and the blue cluster consists of 10 references. The most cited article is



*Hirshleifer (1956)* with 92 citations (3,477 TLS). The above article is shown in Figure 2 - it is represented by the largest circle, which, being in the green cluster, is colored green. It is followed by *Clausing (2003)* - 63 citations (3,359 TLS) - as the most cited representative of the red cluster. *Clausing (2003)* analyzes monthly data

on prices in U.S. international trade between 1997 and 1999 to examine the impact of tax effects on prices in intra-firm trade. The results suggest that there is considerable evidence of tax-motivated transfer pricing in U.S. intra-trade prices. It should be noted that the top 10 most cited papers contain the most papers from the red cluster: *Baldenius et al. (2004)* with 56 citations and 2,613 TLS, *Hines and Rice (1994)* with 54 citations and 2,355 TLS, *Bartelsman and Beetsma (2003)* with 49 citations and 2,464 TLS, *Huizinga and Laeven (2008)* with 49 citations and 2,178 TLS, and *Grubert and Mutti (1991)* with 47 citations and 2,370 TLS.

Figure 2. Co-citation of cited references



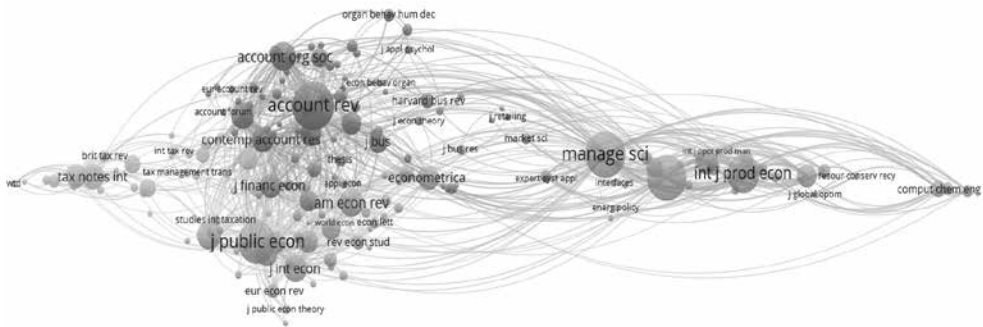
Source: Authors (2023).

Apart from the first place, the green cluster has its representatives in the top 10 most cited papers in the last two places: *Eccles (1985)* with 44 citations and 3,303 total link strength and *Alles and Datar (1998)* with 35 citations and 1,468 total link strength. The blue cluster has only one representative in the 10 most cited works, and that is *Horst (1971)*, which ranks fifth by number of citations (51, 1,706 TLS). Detailed data on the 10 most cited references can be found in Table 5. The red group contains authors who analyze the effects of tax optimization through the arm's length principle. Some of the earliest pronouncements on transfer pricing are found in the green group, while the blue group includes authors who consider the relationship between transfer pricing and multinational enterprise theory. It is certainly interesting to note that 2 articles that are in the top 10 most cited papers that are the subject of research are also in the top 10 most cited references of these 788 researched articles - they are articles by *Grubert and Mutti (1991)* and *Clausing (2003)*.

### Co-citation of source – RQ 7

References of 788 research articles were published in 9,408 different sources. 2,364 sources are mentioned at least 2 times in the references. The remaining 7,044 sources were cited only once in the references. Figure 3 shows sources that have 20 or more citations. Thus, the “minimum number of citations of a source” was set at “20.” 187 sources met this threshold. According to the obtained results, the sources are divided into 5 larger clusters and one smaller cluster. The red cluster consists of 49 sources, the green cluster consists of 41 sources, the blue cluster consists of 32 sources, the yellow and purple clusters consist of 30 sources each, and 5 sources are in the turquoise cluster.

Figure 3. Journal co-citation



Source: Authors (2023).

The most popular source from the studied area is *Accounting Review* (IF 5.182), which was cited 654 times (TLS 32,882). This can also be seen in Figure 3 and it is represented by the largest circle, which, being in the red cluster, is colored red. This journal is also the only representative of the red cluster when considering the top 5 most popular sources. Among the top 5 most popular sources, most journals are from the purple cluster: in second place is the journal *Management Science* (IF 6.172), which was cited 616 times (TLS 23,830), in third place the *European Journal of Operational Research* (IF 6.363), which was cited 591 times (TLS 24,582), and in fifth place the *International Journal of Production Economics* (IF 11.251), which was cited 434 times (TLS 19.188). In fourth place is the only representative of the green cluster among the five most popular sources - the *Journal of Public Economics* (IF 8,262), which was cited 539 times (TLS 23,621).

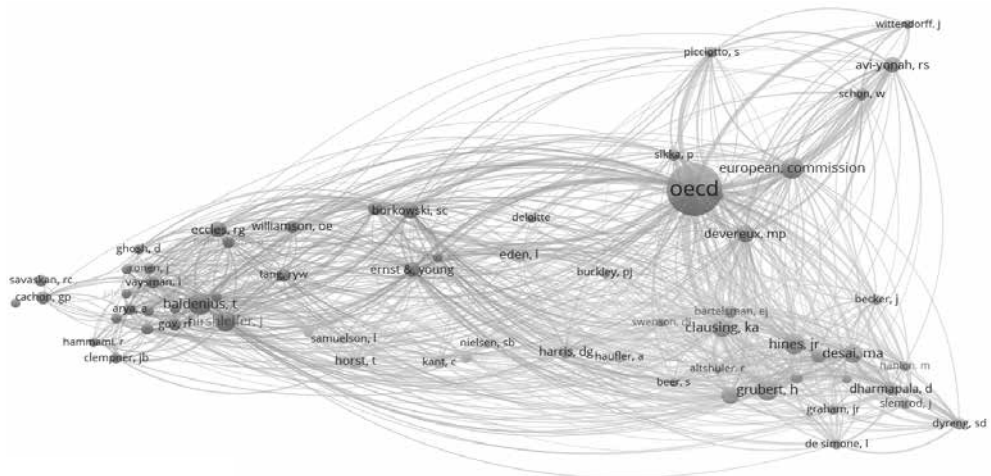
The 10 most popular sources also include the journals *Accounting, Organizations and Society* (IF 4,114), which was cited 268 times (17,806 TLS) and the *Journal of Accounting and Economics* (IF 7,293), which was cited 232 times (14,164 TLS). Between the two journals in the red cluster are three journals in the green cluster.

With 257 citations in the references of the articles studied, it is the journals *American Economic Review* (IF 11,490) and 11,739 total link strength, and *National Tax Journal* (IF 1.53) and 12,709 total link strength, and with 251 citations in the references of the articles studied, it is the journal *Journal of International Economics* (IF 3,712) and 10,570 total link strength. It is interesting to note that not a single source from the yellow, blue, or turquoise cluster is found in the top 10 most popular sources, illustrating the vertical permeability and growth of specialized journals rather than horizontal elasticity.

Co-citation of authors – RQ 8

This research also included an analysis of the main authors used in the references of the papers studied. References 788 research articles were written by 13,151 authors. 3,714 authors were cited at least 2 times in the references. The remaining 9,437 authors were cited only once in the references. Figure 4 shows the authors who appear 30 or more times in the references of the researched articles. Therefore, the “minimum number of citations of an author” was set to “30”. 67 authors met this threshold. Based on the obtained results, the authors were divided into 4 clusters. The red cluster consists of 27 authors, the green cluster consists of 21 authors, the blue cluster consists of 10 authors, and the yellow cluster consists of 9 authors.

Figure 4: Author co-citation



Source: Authors (2023).

The Organization for Economic Cooperation and Development (OECD) ranks first among the references of the researched articles studied, with 759 citations

(39,065 TLS). This can be seen in Figure 4 - it is represented by the largest circle, which, being in the blue cluster, is colored blue. This confirms, according to Kumar et. al. (2021), that the OECD guidelines have become a global norm that could push the boundaries by working in several countries at the same time, making the system more efficient, ethical and transparent, ultimately leaving less room for unethical practices such as tax avoidance, which still needs empirical validation.

It is followed by the European Commission (145 citations, 7,166 TLS) - also in the blue cluster. It is important to note that the EU has “jumped on” the challenges related to transfer pricing and tax burdens by adopting, as Matei and Pirvu (2011) pointed out, with a Code of Conduct on the necessary documentation that associated enterprises in member countries must prepare regarding transfer pricing in reciprocal and intercompany transactions. In particular, there is the question of how to effectively set prices under such conditions, as well as certain stimulative elements, and how all this can ultimately be justified to shareholders (Weichenrieder, 2009; Göx and Schiller, 2006; Desai, Foley, and Hines, 2005; Cools, 2005; Edwards and Weichenrieder, 2004; Clausing, 2000). In third place with 143 citations are *Baldenius* (5,982 TLS), who is in the blue cluster, and *Grubert* (6,502 TLS), who is in the green cluster. The green cluster has its representatives in fourth place *Hines* (138 citations, 5,455 TLS), in sixth place (116 citations, 5,823 TLS), in seventh place *Clausing* (113 citations, 5,838 TLS), and in eighth place *Klassen* (99 citations, 5,848 TLS). In eighth place by number of citations is the author from the blue cluster, *Devereux* (99 citations, 5,719 TLS). In the tenth place by number of citations in the references of the studied articles is another author from the blue cluster – *Eccles* (87 citations, 4,191 TLS). In the top 10 most cited authors, the red and yellow clusters have one representative each. The representative of the red cluster is *Hirshleifer* (132 citations, 4,420 TLS) - on the 5th place and *Eden* (94 citations, 5,016 TLS) - on the 9th place.

The OECD guidelines have a significant influence on the definition of transfer pricing, even if they are non-binding principles, postulates and standards for responsible business in the global environment, while in most EU countries the regulatory framework is set by national income tax laws. However, it should be noted that the European Commission is making considerable efforts to standardise and tighten controls in the area of transfer pricing through binding opinions and advanced pricing agreement.

## Discussion remarks

It is confirmed that an identical methodology was used to a certain extent. However, the authors of the paper have gone one step further and, in addition to the first level analysis, which includes citation analysis, have extended the analysis to include co-citation analysis, which is presented in the paper as a second (higher) level analysis. Quantitatively, the authors have a 7% larger number of analysed papers compared to

Kumar et al. (2021). Kumar et al. (2021) focused on 5 research objectives compared to this paper where 8 (5 first level + 3 second level) questions are examined and analysed. Comparative results for the SCOPUS database based on the results of Kumar et al. (2021) at the level of citation analysis are presented in RQ 1 - RQ 5, where the consistency of the results in terms of RQs can be observed, but they differ depending on the database search (Scopus vs. WoS). RQ 4 (themes and topic areas) and RQ 5 (future research) were not additionally analysed in the paper by the authors, but performed the primary analysis in the previous actions and came to identical conclusions as Kumar et al. (2021) by comparing the analysis.

Due to the overlaps identified, the authors conducted an additional second-level analysis - the co-citation analysis. RQ 6 analyses the co-citations of references, RQ 7 explains the co-citations of sources and RQ 8 focuses on the co-citations of authors. The references are categorised into 3 groups, while Kumar et al. (2021) grouped research topics and themes in RQ 4. The co-citation analysis performed fills the perceived gap between this paper and Kumar et al. (2021), where we performed an almost complete analysis of the WOS database and omitted the analysis of topics and themes that inform us about TP. Thus, the authors have undertaken a comprehensive vertical analysis of the WoS database and in a way scientifically “challenged” Kumar et al. (2021) to apply the methodology of secondary level analysis given in this paper in one of the subsequent papers.

## Conclusions

To examine the answers to the 8 RQs, a two-level analysis was conducted. The first level related to determining the descriptive characteristics of papers on transfer pricing through a citation analysis, which formed the basis for conducting a multifunctional analysis at the second level. The second level, based on network analysis, was conducted using co-citation analysis. After collecting and modeling the input data, 788 articles from the WoS database were classified into the final sample using a similarity matrix, a mapping technique, and data visualization by VOSviewer software. Through the first-level analysis, the observed sample was found to include 13,795 citations from various authors in 69 countries, published in 344 sources. The characteristics of the analyzed publications, especially the articles, show a dynamic growth trend in the publication of scientific WoS publications in the field of transfer pricing, confirming that the topic of transfer pricing is visible and popular in the studied publications and scientific communities (RQ1). The most cited paper is *Kogut and Kulatilaka* (1994), which received 626 citations, while author *Valsakova* ranked first with 10 published articles (RQ2). A total of 1,391 authors were identified who are from prestigious and renowned universities in the world (RQ3). The United States, England, and China are the countries with the most publications in the field of trans-

fer pricing, which does not necessarily imply an increase in knowledge in a particular area, but raises the question of the availability of funding, which may be a disjunctive component in the comparative differences between national researchers (RQ4). The journal *Intertax* has the most publications (82 articles), the second lowest response factor (0.356), and the third lowest number of citations (Table 3), as determined by other searches of the database Scopus or by using the platforms of several scientific databases simultaneously (RQ5).

The aim is to identify the most cited works by analyzing the main authors, citations, co-citations of references, sources, and authors for publications on transfer pricing, as done by Suban (2022). The central part of the paper refers to the analysis of co-citations, where an analysis of co-citations of references, sources, and authors was performed. In the co-citation category of co-citation of references, it was found that research articles were written based on 21,917 references. References that were cited at least 23 times-39 references-were included in the analysis.

The most cited article is *Hirshleifer* (1956) with 92 citations (3,477 TLS) and he is a representative of the green cluster. It is followed by *Clausing* (2003) with 63 citations (3,359 TLS) as the most cited representative of the red cluster. The blue cluster has only one representative among the 10 most cited works, *Horst* (1971), who is in fifth place by number of citations (51/1,706 TLS). It is certainly interesting that two articles that are among the 10 most cited articles that are the subject of research are also among the 10 most cited references of these 788 researched articles - they are articles by *Grubert and Mutti* (1991) and *Clausing* (2003). The references of 788 research papers were published in 9,408 different sources. Sources with 20 or more citations were considered in the paper – 87 sources (RQ7). The sources are divided into 5 larger clusters and one smaller cluster. The most popular source from the studied area is *Accounting Review* (IF 5.182), which was cited 654 times (TLS 32,882) - he is a representative of the red cluster. *Management Science* (IF 6.172), is in second place with 616 citations (TLS 23,830) and is the most cited representative of the purple cluster. In fourth place is the only representative of the green cluster among the five most popular sources – the *Journal of Public Economics* (IF 8,262), which was cited 539 times (TLS 23,621). It is interesting to note that not a single source from the yellow, blue, or turquoise clusters is in the top 10 most popular sources. References 788 research papers were authored by 13,151 authors. Authors were observed to be cited at least 30 times - 67 authors divided into 4 clusters (RQ8). The OECD ranks first among the references of the studied articles, with 759 citations (39,065 TLS) – blue cluster. *Grubert* (6,502 TLS) is the representative of the green cluster with 143 citations. In the top 10 most cited authors, the red and yellow clusters are represented by one representative each. The representative of the red cluster is *Hirshleifer* (132 citations, 4,420 TLS) - on the 5th place and *Eden* (94 citations, 5,016 TLS) - on the 9th place.

In the tax context, the area of transfer pricing is most often considered as a key factor of global operations for international companies and multinationals, which is

consistent with the conclusions of Fonseca and Jucá (2020). The authors' findings indicate that the complexity of the legislation causes problems in the valuation and results of these studies, with problems in model valuation due to difficulties in calculating tax proxies standing out among the knowledge gaps identified. Depending on how the independent tax variable is modulated, the works arrive at different results with the same information bases and research problems, which opens the possibility of personally conditioned interpretations of the results. On the other hand, transfer pricing emerges as an intermediate topic in various economic and non-economic disciplines. Therefore, the bibliographic findings obtained are positioned as a cumulative series with existing research studies that Fonseca and Jucá (2020), Kumar et al. (2021) and Capatina-Verdes (2022) point out as common links, highlighting certain limitations and recommendations for future research. For a more meaningful and operational interpretation of the results, it is necessary to extend the original input values to other scientific databases, due to the exclusion of other authors who have made a significant academic contribution to the research (Capatina-Verdes, 2022), due to apparent differences between the impact factors of the journals as indicators of research quality (Capatina-Verdes, 2022), by expanding the thematic filtering, or by allowing the use of other software in the field of data visualization.

We believe that Kumar et al. (2021) provide acceptable considerations and paths forward that include the use of transfer pricing compliance and tax avoidance, comparative mapping and continuous improvement of transfer pricing rules and regulations, the role of leadership in implementing transfer pricing practices, innovative approaches to arm's-length pricing, and global transfer pricing standards, in addition to clustering research topics. By the innovative approach, the aforementioned authors, mean redirecting the research focus from the usual methodological approaches such as game theory to computer techniques that use machine learning, simulations and mathematical modelling, or conducting experiments and empirical research that would greatly enrich the existing databases by expanding and complementing the existing TP context.

## **Declarations**

### *Funding*

This work was supported by the University J. J. Strossmayer in Osijek, Faculty of Economics under the grant EFOS\_ZIP2023/2024-1.

### *Conflicts of interest/Competing interests*

There is no conflict of interest/competing interests.

### *Availability of data and material*

The data supporting the results of this study are available from the corresponding author, Ivo Mijoč.

### *Code Availability*

The results of the computer programme are included in the text and tables of the manuscript.

### *Authors' Contributions*

All authors were equally involved in the following research processes: Methodology, investigation, conceptualisation, investigation, project management and writing – original draft, review and editing.

## REFERENCES

- AAA. (July, 2023). Accounting Review. Retrieved July 10, 2023, from <https://aaahq.org>
- Accelerator, A. (2023, July). Academic Accelerator, Accelerate Your Scientific Research. Retrieved July 10, 2023, from <https://academic-accelerator.com/>
- Baker, H. K., Kumar, S. & Pandey, N. (2021). Forty years of the Journal of Futures Markets: A bibliometric overview. *Journal of Futures Markets*, 41(7), 1027-1054.
- Baldenius, T., Melumad, N. D., & Reichelstein, S. (2004). Integrating managerial and tax objectives in transfer pricing. *The accounting review*, 79(3), 591-615.
- Bartelsman, E. J. & Beetsma, R. (2000). Why Pay More? Corporate Tax Avoidance through Transfer Pricing in OECD Countries, CESifo Working Paper, No. 324, Center for Economic Studies and ifo Institute (CESifo), Munich
- Bartelsman, E. J., & Beetsma, R. M. (2003). Why pay more? Corporate tax avoidance through transfer pricing in OECD countries. *Journal of public economics*, 87(9-10), 2225-2252.
- Bornmann, L., & Mutz, R. (2015). Growth Rates of Modern Science: A Bibliometric Analysis Based on the Number of Publications and Cited References. *Journal of the Association for Information Science and Technology*, 66(11), 2215–2222. DOI:10.1002/asi.23329
- Capatina-Verdes, N. (2022). Transfer Pricing and Related Party Transactions: A Bibliometric Analysis. *Central European Economic Journal*, 9(56), 237-253.
- Clausing, K. A. (2000). The Impact of Transfer Pricing on Intrafirm Trade, pp. 173-200. In Hiners, J. R. (2000). *International Taxation and Multinational Activity* (pp. 173-200). University of Chicago Press.
- Clausing, K. A. (2003). Tax-motivated transfer pricing and US intrafirm trade prices. *Journal of Public Economics*, 87(9-10), 2207-2223.



- Cobo, M. J., López-Herrera, A. G., Herrera-Viedma, E. & Herrera, F. (2011a). Science mapping software tools: Review, analysis, and cooperative study among tools. *Journal of the American Society for Information Science*, 62(7), 1382-1402. DOI:10.1002/asi.21525
- Cobo, M. J., López-Herrera, A. G., Herrera-Viedma, E. & Herrera, F. (2011b). An approach for detecting, quantifying, and visualizing the evolution of a research field: A practical application to the FST field. *Journal of Information Science*, 5(1), 146-166. DOI:10.1016/j.joi.2010.10.002
- Cook, P. W. (1955). Decentralization and the Transfer-Price Problem. *The Journal of Business*, 28(2), 87-94.
- Cools, M. (2005). Cross-Border Transfer Pricing: A Corporate Governance Perspective. *Finance & Business Review*, 3(25), pp. 65-74
- da Fonseca, P. V. & Jucá, M. N. (2020). The influence of taxes on foreign direct investment: systematic literature review and bibliometric analysis. *European Research Studies*, 23(2), 55-77.
- De Mooij, R. & Liu, L. (2018). At a Cost: The Real Effects of Transfer Pricing Regulations. IMF Working Paper, Fiscal Affairs Department. International Monetary Fund
- Desai, M. A., Foley, C. H. & Hines, J. R. (2005). A Multinational Perspective on Capital Structure Choice and International Capital Markets. *The Journal of Finance*, 59(6), 2451-2487. DOI: 10.1111/j.1540-6261.2004.00706.x
- Devereux, M. P., Lockwood, B., & Redoano, M. (2008). Do countries compete over corporate tax rates?. *Journal of Public Economics*, 92(5-6), 1210-1235.
- Donthu, N., Kumar, S. & Pattnaik, D. (2020). Forty-five years of *Journal of Business Research*: A bibliometric analysis. *Journal of Business Research*, 109, 1-14.
- Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021b). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*, 133, 285-296.
- Donthu, N., Kumar, S., Pandey, N. & Lim, W. M. (2021a). Research constituents, intellectual structure, and collaboration patterns in *Journal of International Marketing*: An analytical retrospective. *Journal of International Marketing*, 29(2), 1-25.
- Edwards, J. S. S. & Weichenrieder A.J. (2004). Ownership Concentration and Share Valuation. *German Economic Review*, 5(2), 143-171. DOI: 10.1111/j.1465-6485.2004.00100.x
- Elitzur, R. & Mintz, J. (1996). Transfer pricing rules and corporate tax competition. *Journal of Public Economics*, 60(3), 401-422.
- Elsevier. (July, 2023). *European Journal of Operational Research*. Retrieved July 10, 2023, from <https://www.sciencedirect.com>
- Elsevier. (July, 2023). *International Journal of Production Economics*. Retrieved July 10, 2023, from <https://www.sciencedirect.com>
- Frazzetto, G. (2004). The changing identity of the scientist: As science puts on a new face, the identity of its practitioners evolves accordingly. *EMBO reports*, 5(1), 18-20.
- Gattei, S. (2008). *Karl Popper's philosophy of science: Rationality without foundations*. N. York, USA:Routledge.
- Göx, R. F., & Schiller, U. (2006). An economic perspective on transfer pricing. *Handbooks of management accounting research*, 2, 673-695. DOI: 10.1016/S1751-3243(06)02009-8
- Grubert, H., & Mutti, J. (1991). Taxes, tariffs and transfer pricing in multinational corporate decision making. *The Review of Economics and Statistics*, 285-293.
- Hines Jr, J. R., & Rice, E. M. (1994). Fiscal paradise: Foreign tax havens and American business. *The Quarterly Journal of Economics*, 109(1), 149-182.
- Hirshleifer, J. (1956). On the economics of transfer pricing. *Journal of Business*, 29(3), 172-184.
- Huizinga, H., & Laeven, L. (2008). International profit shifting within multinationals: A multi-country perspective. *Journal of Public Economics*, 92(5-6), 1164-1182.
- Khan, M. A., Pattnaik, D., Ashraf, R., Ali, I., Kumar, S. & Donthu, N. (2021). Value of special issues in the journal of business research: a bibliometric analysis. *Journal of Business Research*, 125, 295-313.

- Kogut, B., & Kulatilaka, N. (1994). Operating flexibility, global manufacturing, and the option value of a multinational network. *Management science*, 40(1), 123-139.
- Kumar, S., Pandey, N., Lim, W.M., Chatterjee, A. N. & Pandey, N. (2021). What do we know about transfer pricing? Insights from bibliometric analysis. *Journal of Business Reesearch*, 134, 275-287. DOI: 10.1016/j.jbusres.2021.05.041
- Lall, S. (1979). Transfer pricing and developing countries: some problems of investigation. *World development*, 7(1), 59-71.
- Lambert, R. A. (2001). Contracting theory and accounting. *Journal of accounting and economics*, 32(1-3), 3-87.
- Matei, G. & Pirvu, D. (2011). Transfer Pricing in the European Union. *Theoretical and Applied Economics*. 18(4), 99-110.
- Mayr, P. & Scharnhorst, A. (2014). Scientometrics and information retrieval: Weak-links revitalized, *Scientometrics*, 102(3), 2193-2199. DOI: 10.1007/s11192-014-1484-3
- McAulay, L. & Tomkins, C. R. (1992). A review of the contemporary transfer pricing literature with recommendations for future research. *British journal of management*, 3(2), 101-122.
- McNally, G. M. (1973). Profit Centres and Transfer Prices—Are they Necessary?. *Accounting and Business Research*, 4(13), 13-22.
- Moral-Muñoz, J. A., Herrera-Viedma, E., Santisteban-Espejo, A. & Cobo, M. J. (2020). Software tools for conducting bibliometric analysis in science: An up-to-date review. *Profesional de la Información*, 29(1).
- Narin, F. & Hamilton, K. S. (1996). Bibliometric performance measures. *Scientometrics*, 36, 293-310. DOI: 10.1007/BF02129596
- Padhi, S. K. (2019). Transfer Pricing: A Review of Literature. *International Journal of Advanced Research in Management*, 10(1), 1-7. DOI: 10.34218/ijarm.10.1.2019.001
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., ... & Moher, D. (2021). The PRISMA 2020 Statement: An Updated Guideline for Reporting Systematic Reviews. *Systematic reviews*, 10(1), 1-11. DOI: 10.1016/j.rec.2021.07.010
- Pieters, R. & Baumgartner, H. (2002). Who talks to whom? Intra-and interdisciplinary communication of economics journals. *Journal of Economic Literature*, 40(2), 483-509.
- Ramos-Rodríguez, A. R. & Ruiz-Navarro, J. (2004). Changes in the intellectual structure of strategic management research: A bibliometric study of the *Strategic Management Journal*, 1980-2000. *Strategic Management Journal*, 25(10), 981-1004.
- Rathke, A. A. T., Rezende, A. J. & Watrin, C. (2021). The impact of countries' transfer pricing rules on profit shifting. *Journal of AAR*, 22(1), 22-49. DOI: 10.1108/JAAR-03-2020-0034
- Riedel, N. & Zinn, T. (2014). The Increasing Importance of Transfer Pricing Regulations: A Worldwide Overview. *Intertax*, 42(6/7), 352-404. DOI: 10.54648/taxi2014038
- Stremersch, S., Verniers, I. & Verhoef, P. C. (2007). The quest for citations: Drivers of article impact. *Journal of Marketing*, 71(3), 171-193.
- Suban, S. A. (2022). Bibliometric analysis on wellness tourism—citation and co-citation analysis. *International Hospitality Review*, (ahead-of-print).
- Uyar, M. (2014). A study on accounting of transfer pricing and its effect on taxation. *Accounting and Finance Research*, 3(1), 79-84.
- Van Eck, N. & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping, *Scientometrics*, 84(2), 523-538.
- Weichenrieder, A. J. (2009). Profit shifting in the EU: Evidence from Germany. *International tax and public finance*, 16(3), 281-297.
- Wells, M. C. (1968). Profit Centres, Transfer Prices and Mysticism. *Abacus*, 4(2), 174-181. DOI: 10.1111/j.1467-6281.1968.tb00417.x
- Zhu, K., Lin, R. & Li, H. (2022). Study of virtual reality for mild cognitive impairment: a bibliometric analysis using CiteSpace. *International Journal of Nursing Sciences*, 9(1), 129-136.

**APPENDIX A. Different ways of writing OECD**

<b>Different ways of writing OECD</b>	<b>Number of repetition</b>
*oecd	52
organisation for economic co-operation and development (oecd)	30
organization for economic cooperation and development (oecd)	17
oecd (organisation for economic co-operation and development)	8
organization for economic co-operation and development (oecd)	6
oecd committee on fiscal affairs	4
organisation for economic cooperation and development (oecd)	3
oecd model, convention	2
*oecd comm fisc af	1
*oecd int stream v	1
oecd (organization for economic cooperation and development)	1
oecd organisation for economic cooperation and development committee on fiscal affairs	1
oecdd	1
organisation of economic cooperation and development (oecd)	1
organization for economic co operation and development (oecd)	1
organization for economic cooperation and development (oecd	1
organization for economic cooperation development (oecd)	1

**APPENDIX B. Different ways of writing European Commission**

<b>Different ways of writing European Commission</b>	<b>Number of repetitions</b>
*eur comm	28
commission of the european communities	3
european commission ccctb working, group	2
*comm eur comm	1
*comm eur comm dir	1
[european commission ccctb working group]	1
european commission (ip)	1
european commission, com	1
european economic and social committee	1

## APPENDIX C. The list of references changed in the .txt document and the type of change

Cited reference	Number of repetitions	Replaced reference
[anonymous], 2022, oecd transf pric gui	23	oecd, 2022, oecd transf pric gui
[anonymous], 2021, upd oecd youth act p	22	oecd, 2021, upd oecd youth act p
[anonymous], 2004, oecds proj harmf tax, p29	2	oecd, 2004, oecds proj harmf tax, p29
[anonymous], 2010, oecd transfer pricin	2	oecd, 2010, oecd transfer pricin
[anonymous], 1998, oecd memb countr abs	1	oecd, 1998, oecd memb countr abs
[anonymous], 2000, oecd progr report gl	1	oecd, 2000, oecd progr report gl
[anonymous], 2001, oecd progr report ad	1	oecd, 2001, oecd progr report ad
[anonymous], 2001, oecd transf pric gui, p268	1	oecd, 2001, oecd transf pric gui, p268
[anonymous], 2004, oecd progr report oe	1	oecd, 2004, oecd progr report oe
[anonymous], 2004, oecds proj harmf tax	1	oecd, 2004, oecds proj harmf tax
[anonymous], 2008, oecd discussion draf	1	oecd, 2008, oecd discussion draf
[anonymous], 2008, oecd observer 0703	1	oecd, 2008, oecd observer 0703
[anonymous], 2009, oecd observer 1122	1	oecd, 2009, oecd observer 1122
[anonymous], 2010, oecd model tax conve	1	oecd, 2010, oecd model tax conve
[anonymous], 2013, oecd action plan bas	1	oecd, 2013, oecd action plan bas
[anonymous], 2014, oecd model commentar	1	oecd, 2014, oecd model commentar
[anonymous], 2014, oecd model commentar, v5	1	oecd, 2014, oecd model commentar, v5
[anonymous], 2014, oecd paper transfer	1	oecd, 2014, oecd paper transfer
[anonymous], 2015, 10 min oecds beps pr	1	oecd, 2015, 10 min oecds beps pr
[anonymous], 2015, final reports oecd g	1	oecd, 2015, final reports oecd g
[anonymous], 2015, oecd beps act 4 rep, p34	1	oecd, 2015, oecd beps act 4 rep, p34
[anonymous], 2017, oecd g20 incl fram b	1	oecd, 2017, oecd g20 incl fram b
[anonymous], 2017, oecd guidelines mult, p17	1	oecd, 2017, oecd guidelines mult, p17
[anonymous], 2017, oecd guidelines mult, p97	1	oecd, 2017, oecd guidelines mult, p97
[anonymous], 2017, oecd model commentar, p5	1	oecd, 2017, oecd model commentar, p5
[anonymous], 2017, oecd transf pric gui	1	oecd, 2017, oecd transf pric gui
[anonymous], oecd upd rep transf	1	oecd, oecd upd rep transf
Baldenius Tim	5	Baldenius T
Hirshleifer Jack	2	Hirshleifer J
Hirshleifer	1	Hirshleifer J
Hines J	8	Hines JR
Hines JR JR	2	Hines JR
Hines jr James R	1	Hines JR
Clausing Kimberly A	7	Clausing KA
Clausing K	3	Clausing KA
Desai M	6	Desai MA
Desai WA	5	Desai MA
Desai Mihir A	1	Desai MA
Desai AM	1	Desai MA
Eccles R	12	Eccles RG

<b>Cited reference</b>	<b>Number of repetitions</b>	<b>Replaced reference</b>
Eden Lorraine	7	Eden L
Eden	6	Eden L
Eden LAB	6	Eden L
Devereux, M	19	Devereux, MP
Devereux	3	Devereux, MP
Devereux, Michael P	3	Devereux, MP
Devereux, MR	2	Devereux, MP
Hortst Thomas	5	Hortst T
Borkowski S	12	Borkowski SC
Borkowski CS	2	Borkowski SC
Huizinga HP	1	Huizinga H
Klassen K	32	Klassen KJ
Dharmapala Dhammika	1	Dharmapala D
Cools	1	Cools M
Williamson Oliver, E	2	Williamson OE
Williamson	1	Williamson OE
Williamson O	1	Williamson OE
Dyreg S	3	Dyreg SD
Bartelsman E	1	Bartelsman EJ
Tang R	6	Tang RYW
Cachon G	8	Cachon GP
Arya Anil	3	Arya A
Dischinger, MP	3	Dischinger, M
Dischinger, MT	1	Dischinger, M
Harris D	23	Harris DG
Harris David	2	Harris DG
Avi-Yonah Reuven S	27	Avi-Yonah RS
Avi-Yonah R	13	Avi-Yonah RS
Avi-Yonah	4	Avi-Yonah RS
Avi-Yonah Reuven	3	Avi-Yonah RS
De Simone LN	1	De Simone L
Gresik T	2	Gresik TA
Graham J	2	Graham JR
Nielsen Soren Bo	1	Nielsen SB
Buckley P	3	Buckley PJ
Edlin A	1	Edlin AS
Vidal C	1	Vidal CJ
*kpmg	3	kpmg
*kpmg int	1	kpmg
kpmg international cooperative	1	kpmg
kpmg, international	1	kpmg
Picciotto Sol	3	Picciotto S
Picciotto	2	Picciotto S

<b>Cited reference</b>	<b>Number of repetitions</b>	<b>Replaced reference</b>
Slemrod JB	5	Slemrod J
Slemrod Joel	2	Slemrod J
deloitte economist debt pricing, group	1	Deloitte
deloitte savjetodavne usluge d.o.o	1	Deloitte
Schon Wolfgang	13	Schon W
Schon	6	Schon W
Gox R	21	Gox RF
Gox Robert F	1	Gox RF
Gox Robert	1	Gox RF
Swenson D	1	Swenson DL
Narayanan V	6	Narayanan VG
Wittendorff Jens	1	Wittendorff J
Yue D	1	Yue DJ