BIBLIOMETRIC ANALYSIS OF THE RESEARCH INCLUDED IN THE WEB OF SCIENCE PLATFORM REGARDING TAX EVASION

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Abstract

Tax evasion is a hotly debated research topic in the field of scientific research and of great interest, both for the private organizational environment, for public institutions with responsibilities in the field of prevention, control and combating the phenomenon.

Our study aims to determine the state of knowledge of the concept of tax evasion, by conducting a bibliometric analysis to identify research trends, scientific terminology used, the most researched topics, the most cited authors in the field, and the most influential studies, journals and countries addressing tax evasion. The available information was extracted from the Web of Science Core Collection database, one of the most popular scientific publication platforms that contains quality papers in terms of accuracy and relevance of scientific research. Based on the data obtained, we used the method of scientific mapping and examined the geographical areas with the most frequent studies on this topic, by analyzing the international collaboration of the authors.

Key words: *bibliometrics, tax evasion, scientific mapping.*

Jel Classification: *M41*

I. INTRODUCTION

The main objective of this paper is to determine the state of knowledge regarding research in the field of tax evasion, according to the Web of Science platform and to identify the most relevant terms within it. To achieve this goal, a bibliometric analysis was performed using Vosviewer software (van Eck & Waltman, 2010) to determine the scientific terminology used in relation to research in the field of tax evasion and to highlight the most common topics in this field domain.

From a historical perspective, bibliometric analysis has its origins in Western countries and refers to the study of bibliography using statistical tools (Egghe & Rousseau, 1990) . In Eastern countries, the authors argue, the measurement of scientific progress is called scientometry. In fact, in Hungary we find a journal with the same name (Scientometry) dating from 1978.

In the literature, (Hulme, 1923) used for the first time the term statistical bibliography with reference to the procedures for counting publications in the field of science and technology. But this method of research became known as early as 1969, when Pritchard (Pritchard, 1969) proposed the use of the term bibliometrics to describe the application of statistical-mathematical methods in the analysis of books and publications.

A concise definition of bibliometrics is provided by (Potter, 1981) “the study and measurement of publication patterns of all forms of written communication and their authors”. In the authors' view (White & McCain, 1989) bibliometrics refers to "the quantitative study of literature reflected in the bibliography." The quantitative dimension of this type of analysis is given by the use of mathematical techniques for counting and calculating patterns of scientific communication.

The bibliometric analysis of scientific publications is therefore not a novelty in research, being currently intensively used worldwide. The method quantitatively evaluates the relevant literature on certain topics of interest and provides results through information extracted from specific databases (such as Thompson Reuters - Web of Science, Scopus, ScienceDirect, etc.). This method of studying literature encompasses two main purposes: on the one hand, science mapping, which aims to determine the structure and dynamics of scientific fields, and on the other hand, performance analysis, which aims to evaluation of research and performance of institutions and authors of research papers (Abdullah et al., 2017).

II. THEORETICAL CONTEXT

Tax evasion is one of the complex economic and social phenomena of the utmost importance that the states of the world face and whose undesirable consequences seek to limit them as much as possible, eradication being virtually impossible. The phenomenon of tax evasion encompasses all the facts of taxpayers who manage to evade taxable income or goods from the tax law. This complex phenomenon is particularly dangerous for any company and even more so for the Romanian society, which is in a process of adapting to the specific conditions of the competitive market in the European Union.

At the international level, in 2016 a complex study was conducted by the International Monetary Fund on global losses due to tax evasion. The extent and nature of tax evasion was analyzed using data from 173 countries over a period of 33 years. The study highlighted an annual global loss of about $ 600 billion, of which a third is allocated to developing countries. (Crivelli et al., 2016) .

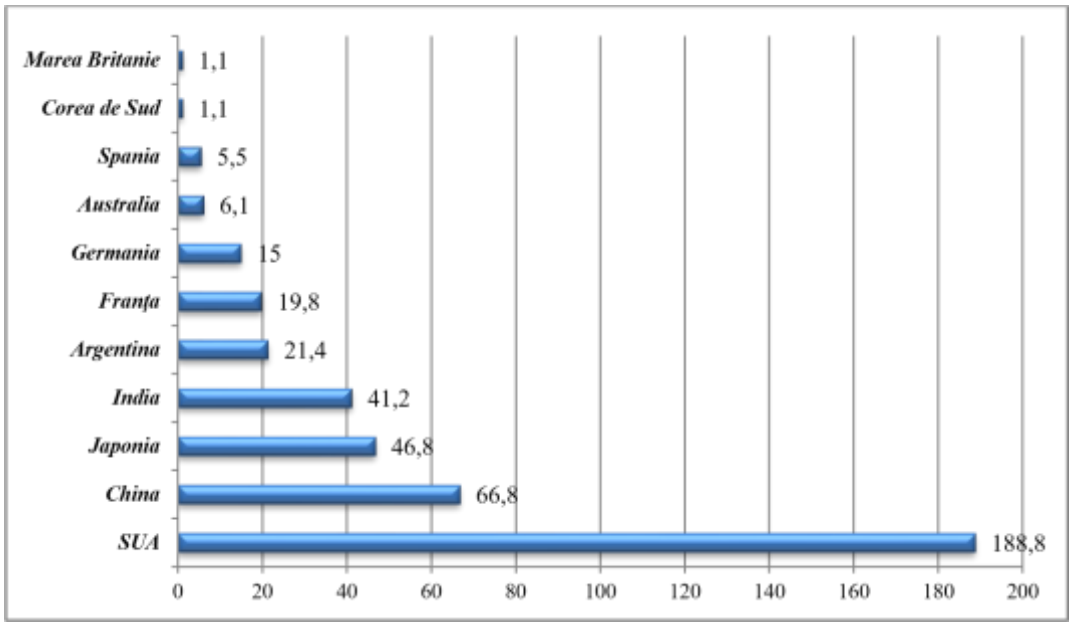


Figure 1. Global cost of international tax evasion (USD billion)

Source: UNU-WIDER Statistician, https://www.statista.com/chart/8668/the-global-cost-of-tax-avoidance/

At the level of the European Union, the European Anti-Fraud Office (OLAF) is organized (Palcu, 2013) , which is a specialized structure, and its tasks are also subordinated to the prevention of tax evasion.

After 2013, other structures were created, with responsibilities in the field of implementing anti-evasion community policies, among which we mention EUROFISC and the Platform for good fiscal governance, aggressive fiscal planning and double taxation.

OLAF is also responsible for identifying the amount of losses caused by Community fraud and cross-border tax evasion and mentions that these values should be recovered. Their amount was calculated on the basis of data on the investigation of Community fraud and cross-border evasion. According to Table 1., we notice that the level of these amounts to be recovered was the highest in 2017, respectively 3095 million Euros, and in 2020 the level of amounts to be recovered is the lowest, respectively 293.6 million Euros.

Table 1.Amounts recommended by OLAF to be recovered *(mil.Euro)*

The year	2016	2017	2018	2019	2020
Value to be recovered	631	3095	370.6	484.9	293.6

Source : European Anti-Fraud Office (OLAF), Report for 2020, available at https://ec.europa.eu/anti-fraud/sites/default/files/olaf_report_2020_en.pdf

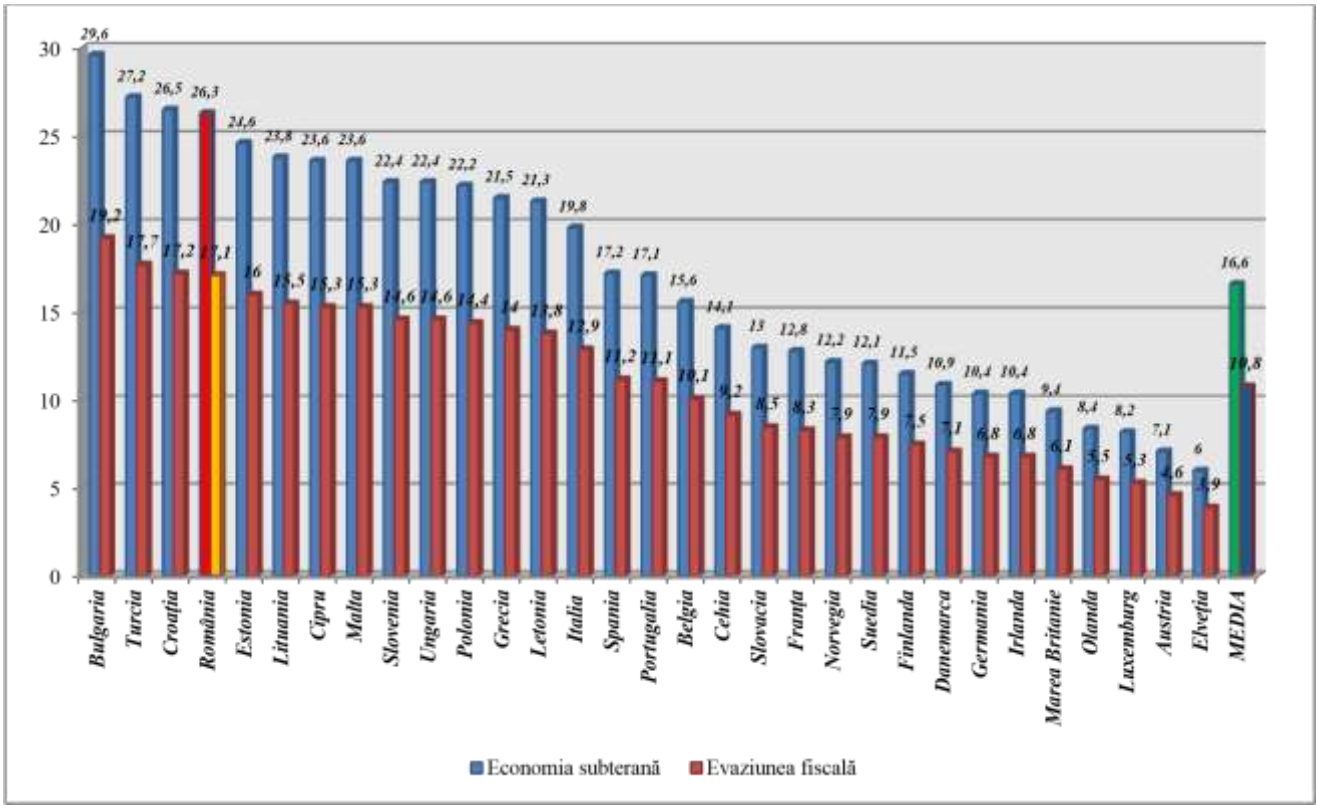
According to the European Commission, there are three ways to avoid taxes and duties: tax fraud and evasion by not reporting income, tax havens and avoiding the declaration and payment of taxes and fees by using legislative breaches.

In this context, the statistics show a value of losses in the European Union between 55 million and 75 million dollars annually (https://vatbox.com/eu-finally-rid-europe-of-tax-evasion/ accessed on 08.12.2017).

The most recent study (Medina & Schneider, 2018) on the dynamics of the underground economy and tax evasion in 31 European countries in 2017 was published under the auspices of the International Monetary Fund, the results of which are summarized in Figure 2.

According to the data presented in figure no. 2, about half of the amount of the underground economy is represented by tax evasion in all countries analyzed. In Romania, tax evasion is 17.1% of GDP, higher than the European average of 10.8%.

Figure 2. The size of the underground economy and tax evasion in European countries in 2017 (% of GDP)



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Source : (Medina & Schneider, 2018)

According to the data presented in the figure above, about half of the amount of the underground economy is represented by tax evasion in all the analyzed states. In Romania, tax evasion is 17.1% of GDP, higher than the European average of 10.8%.

III. RESEARCH METHODOLOGY

As our research interest concerns the concept of tax evasion, we wanted to realize its relevance in the literature by using bibliometrics. In order to achieve the general objective of this paper, the following objectives have been defined as secondary objectives:

- Carrying out a bibliometric analysis of research studies, having as subject tax evasion based on data and information extracted from the Web of Sciene platform (https://www-webofscience-com.am.e-nformation.ro/wos/woscc/basic -search , accessed on 10.06.2020) ;
- Identify the most relevant thematic clusters and the most common terms used in research studies related to tax evasion;

Search protocol followed on the Web of Science platform:

- Selection of all databases;
- Basic search for the words tax evasion in the title;
- Period: time interval 1975-2022.

The results, numbering 958, were generated following the query made on June 10, 2022, as a temporary interval resulting from the period 1975-2022, in 1975 3 publications were registered, and in 2022 23 publications were registered.

Table no. 2. Query results regarding the tax evasion of the VOS VIEWER platform after the year of publication

Nr. crt.	Year of publications	Number of publications / year	Cumulative publications / year	Percentage of publications / year
1	1975	3	3	0.313
2	1976	5	8	0.522
3	1977	4	12	0.418
4	1978	4	16	0.418
5	1979	7	2. 3	0.731
6	1980	7	30	0.731
7	1981	10	40	1,044
8	1982	8	48	0.835
9	1983	6	54	0.626
10	1984	8	62	0.835
11	1985	12	74	1,253
12	1986	7	81	0.731
13	1987	13	94	1,357
14	1988	14	108	1,461
15	1989	10	118	1,044
16	1990	2. 3	141	2,401
17	1991	11	152	1,148
18	1992	11	163	1,148
19	1993	7	170	0.731
20	1994	14	184	1,461
21	1995	6	190	0.626
22	1996	11	201	1,148

2. 3	1997	8	209	0.835
24	1998	10	219	1,044
25	1999	7	226	0.731
26	2000	14	240	1,461
27	2001	13	253	1,357
28	2002	6	259	0.626
29	2003	9	268	0.939
30	2004	11	279	1,148
31	2005	16	295	1,670
32	2006	10	305	1,044
33	2007	14	319	1,461
34	2008	12	331	1,253
35	2009	25	356	2,610
36	2010	21	377	2,192
37	2011	17	394	1,775
38	2012	59	453	6.159
39	2013	25	478	2,610
40	2014	49	527	5.115
41	2015	43	570	4,489
42	2016	49	619	5.115
43	2017	59	678	6.159
44	2018	50	728	5,219
45	2019	70	798	7,307
46	2020	78	876	8,142
47	2021	59	935	6.159
48	2022	2. 3	958	2,401

Source: own processing

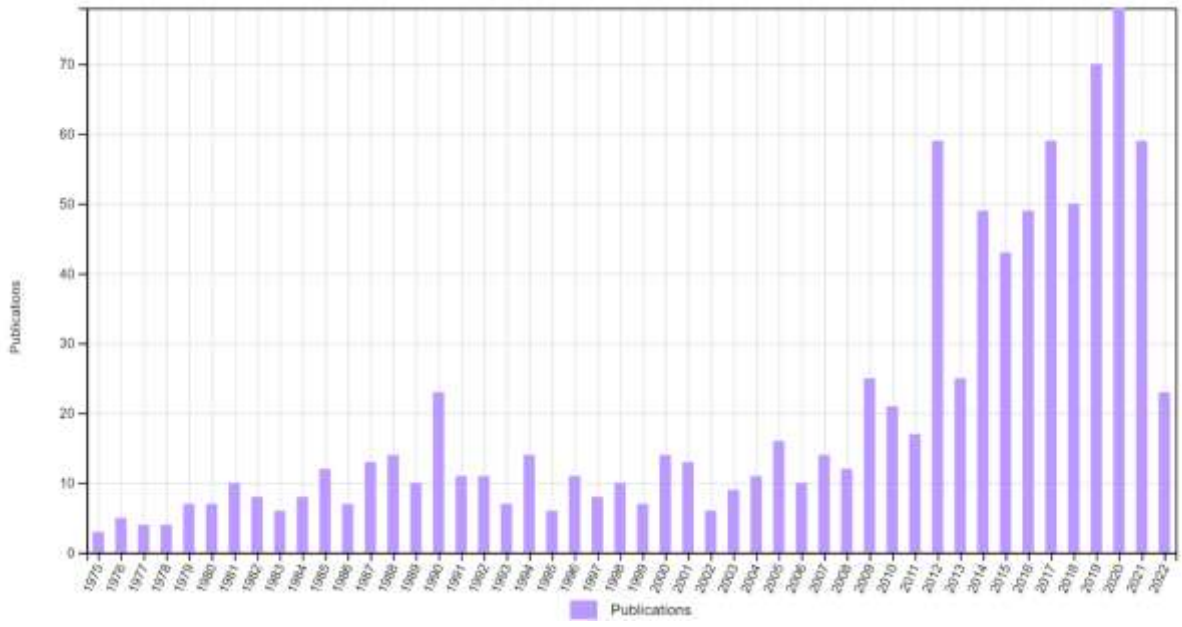

Figure no. 3 Query results regarding the tax evasion of the VOS VIEWER platform after the year of publication

Source: author's projection

It is thus found that the publications increase in volume in the years 2012, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, and the year 2022 can be considered as an insignificant year for the time being because it has not yet been completed.

Next, queries were made in the Web of Science platform regarding the research publications that study and information regarding the notion of tax evasion, results that are presented in table no. 3.

Table no. 3. Query results related to VOS VIEWER platform tax evasion by research areas

Nr. crt.	Publication titles	Number of records	Total percentage of 958
1	Economics	536	55,950
2	Business Finance	193	20,146
3	Business	81	8,455
4	Law	63	6,576
5	Political Science	52	5,428
6	Public Administration	50	5,219
7	Multidisciplinary Psychology	37	3,862
8	Management	35	3,653
9	Ethics	33	3,445
10	Criminology Penology	32	3,340
11	Social Sciences Interdisciplinary	32	3,340
12	Computer Science Artificial Intelligence	19	1983
13	Social Sciences Mathematical Methods	17	1,775
14	Computer Science Theory Methods	16	1,670
15	Sociology	16	1,670
16	Regional Urban Planning	15	1,566
17	Computer Science Information Systems	14	1,461
18	Computer Science Interdisciplinary Applications	14	1,461
19	International Relations	13	1,357
20	Area Studies	12	1,253
21	Engineering Electrical Electronic	11	1,148
22	Operations Research Management Science	11	1,148
2. 3	Environmental Studies	10	1,044
24	Development Studies	9	0.939
25	Education Educational Research	8	0.835
26	Multidisciplinary Sciences	8	0.835
27	Urban Studies	8	0.835
28	Mathematical Physics	7	0.731
29	Public Environmental Occupational Health	7	0.731
30	Social Issues	7	0.731
31	Information Science Library Science	6	0.626
32	Applied Mathematics	6	0.626
33	Mathematics Interdisciplinary Applications	6	0.626
34	Applied Psychology	6	0.626
35	Social Psychology	6	0.626
36	Automation Control Systems	5	0.522
37	Computer Science Software Engineering	5	0.522

38	Statistics Probability	5	0.522
39	Substance Abuse	5	0.522
40	Green Sustainable Science Technology	4	0.418
41	History	4	0.418
42	Multidisciplinary Physics	4	0.418
43	Psychology	4	0.418
44	Environmental Sciences	3	0.313
45	Health Policy Services	3	0.313
46	Multidisciplinary Humanities	3	0.313
47	Industrial Relations Labor	3	0.313
48	Religion	3	0.313
49	Robotics	3	0.313
50	Transportation	3	0.313
51	Agricultural Economics Policy	2	0.209
52	Biotechnology Applied Microbiology	2	0.209
53	Civil Engineering	2	0.209
54	Multidisciplinary Engineering	2	0.209
55	Geography	2	0.209
56	Literary Reviews	2	0.209
57	Experimental Psychology	2	0.209
58	Social Work	2	0.209
59	Anthropology	1	0.104
60	Article	1	0.104
61	Behavioral Sciences	1	0.104
62	Biochemistry Molecular Biology	1	0.104
63	Cell Biology	1	0.104
64	Communication	1	0.104
65	Computer Science Cybernetics	1	0.104
66	Computer Science Hardware Architecture	1	0.104
67	Dance	1	0.104
68	Energy Fuels	1	0.104
69	Ethnic Studies	1	0.104
70	Food Science Technology	1	0.104
71	Health Care Sciences Services	1	0.104
72	History Of Social Sciences	1	0.104
73	History Philosophy Of Science	1	0.104
74	Mechanics	1	0.104
75	General Internal Medicine	1	0.104
76	Experimental Medicine Research	1	0.104
77	Neurosciences	1	0.104
78	Philosophy	1	0.104
79	Physics Condensed Matter	1	0.104
80	Physics Fluids Plasmas	1	0.104
81	Physiology	1	0.104
82	Psychology Biological	1	0.104
83	Social Sciences Biomedical	1	0.104
84	Transportation Science Technology	1	0.104
85	Women S Studies	1	0.104

Source: author's projection

The research field with the most significant share in the total records generated by the Web of Science platform is represented by Economics with a number of 536 publications, Business Finance with a number of 193 publications and Business, with a number of 81 publications as it results and from figure no. 4.

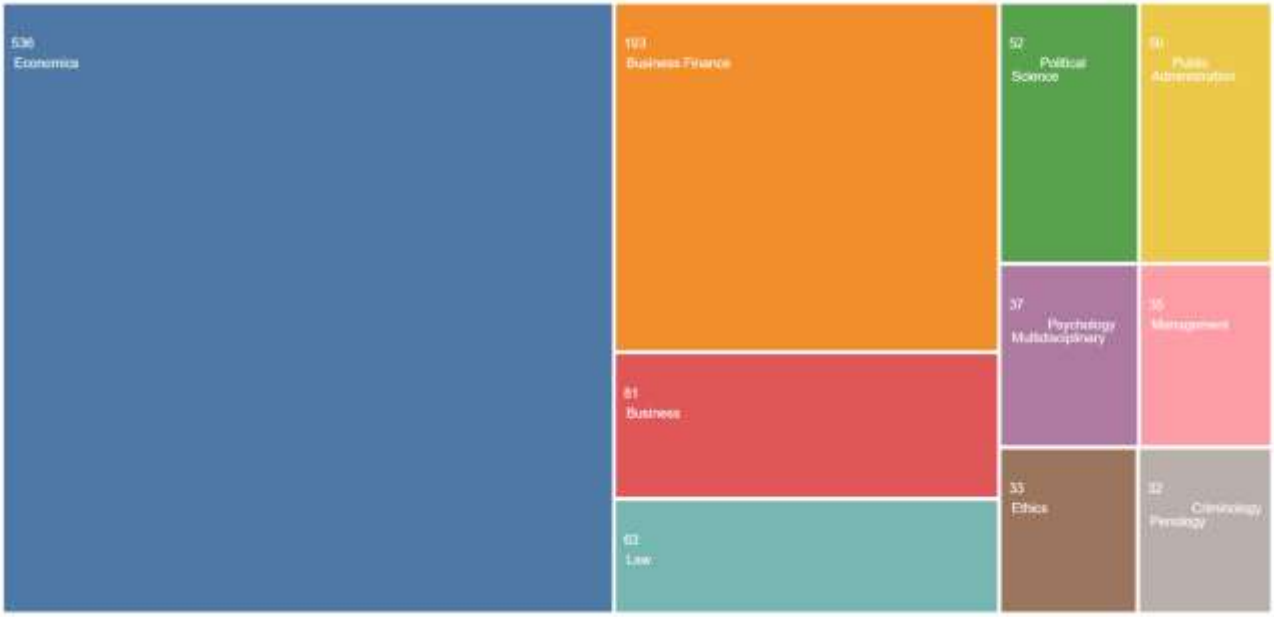

Figure 4 Results of queries of publications studying information on tax evasion VOS VIEWER platform

Source: author's projection

For the countries and regions where the most publications appear, these are shown in Table 3.

Table 4. Research query results related to tax evasion platform VOS VIEWER Countries / Regions

Nr. crt.	creep	Number of records	% of 958
1	DOOR	264	27,557
2	ENGLAND	84	8,768
3	GERMANY	81	8,455
4	ITALY	74	7,724
5	PEOPLES R CHINA	41	4,280
6	ROMANIA	38	3,967
7	CANADA	36	3,758
8	AUSTRIA	35	3,653
9	French	30	3.132
10	AUSTRALIA	29	3,027
11	ISRAEL	22	2,296
12	CZECH REPUBLIC	20	2,088
13	INDIA	20	2,088
14	SPAIN	20	2,088
15	TAIWAN	19	1983
16	NETHERLANDS	18	1,879
17	BRAZIL	15	1,566
18	greece	15	1,566
19	NORWAY	15	1,566

20	RUSSIA	14	1,461
21	TURKEY	12	1,253
22	SLOVAKIA	11	1,148
2. 3	SWEDEN	11	1,148
24	DENMARK	10	1,044
25	JAPAN	10	1,044
26	SWITZERLAND	10	1,044
27	INDONESIA	8	0.835
28	MALAYSIA	8	0.835
29	BOSNIA HERCEG	7	0.731
30	FINLAND	7	0.731
31	POLAND	7	0.731
32	SOUTH KOREA	7	0.731
33	BELGIUM	6	0.626
34	CROATIA	6	0.626
35	HUNGARY	6	0.626
36	IRAN	6	0.626
37	mexico City	6	0.626
38	PORTUGAL	6	0.626
39	SCOTLAND	6	0.626
40	ARGENTINE	5	0.522
41	NEW ZEALAND	5	0.522
42	SAUDI ARABIA	5	0.522
43	SINGAPORE	5	0.522
44	GHANA	4	0.418
45	bondage	4	0.418
46	SOUTH AFRICA	4	0.418
47	THE ARAB EMIRATES	4	0.418
48	URUGUAY	4	0.418
49	BANGLADESH	3	0.313
50	COLOMBIA	3	0.313
51	LEBANON	3	0.313
52	SLOVENIA	3	0.313
53	ALBANIA	2	0.209
54	CHILE	2	0.209
55	CYPRUS	2	0.209
56	EGYPT	2	0.209
57	ESTONIA	2	0.209
58	KOSOVO	2	0.209
59	KUWAIT	2	0.209
60	LATVIA	2	0.209
61	NIGERIA	2	0.209
62	PAKISTAN	2	0.209
63	TUNISIA	2	0.209
64	UGANDA	2	0.209

65	UKRAINE	2	0.209
66	VIETNAM	2	0.209
67	WALES	2	0.209
68	ARMENIA	1	0.104
69	BAHRAIN	1	0.104
70	BARBADOS	1	0.104
71	BELARUS	1	0.104
72	BELGIUM	1	0.104
73	BULGARIA	1	0.104
74	IVORY COAST	1	0.104
75	ETHIOPIA	1	0.104
76	FED REP GER	1	0.104
77	GEORGIA	1	0.104
78	IRELAND	1	0.104
79	KAZAKHSTAN	1	0.104
80	KYRGYZSTAN	1	0.104
81	LITHUANIA	1	0.104
82	LUXEMBOURG	1	0.104
83	MACEDONIA	1	0.104
84	Moldavia	1	0.104
85	MOROCCO	1	0.104
86	NICARAGUA	1	0.104
87	NORTH IRELAND	1	0.104
88	NORTH MACEDONIA	1	0.104
89	PERU	1	0.104
90	ZAMBIA	1	0.104

Source: author's projection

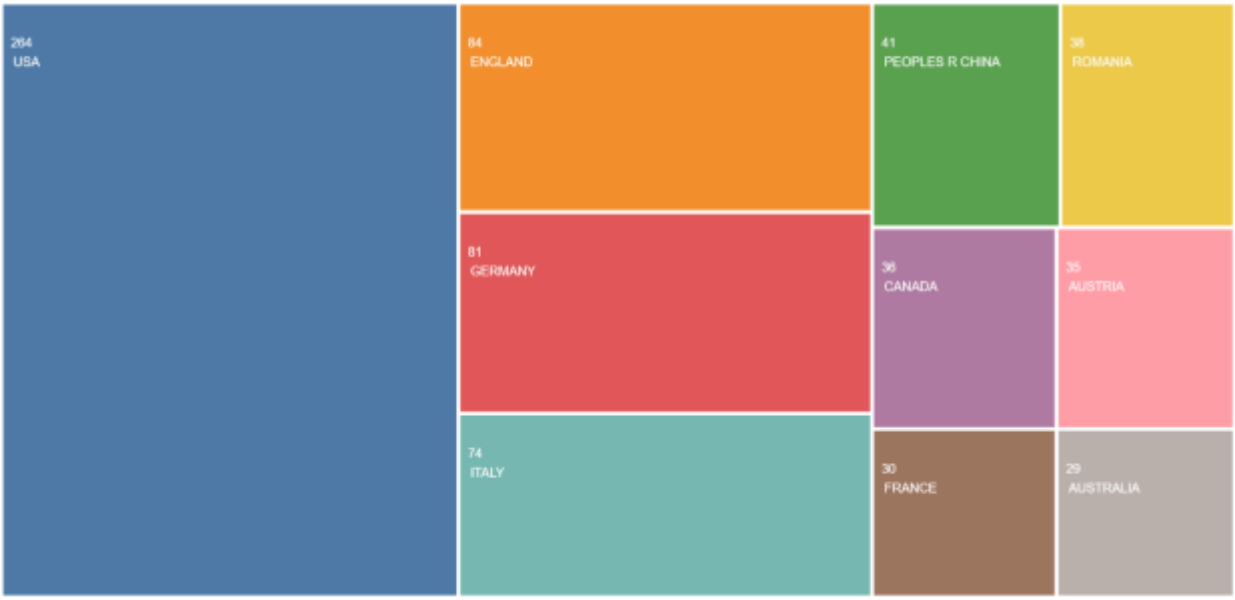

Figure 5 Results of queries of the country studying information on tax evasion VOS VIEWER platform

Source: author's projection

Table 4shows the list of the main authors who showed interest in research in the field of tax evasion during the analyzed period. They are presented in descending order of the number of citations in the literature.

Table 5. The main authors of scientific papers on research tax evasion

Nr. Crt.	Author	Number of scientific papers published	Number of citations
1	SPICER, MW	5	429
2	CREMER, H	6	225
3	GAHVARI, F	6	225
4	ALM, JAMES	8	126
5	YANIV, G	6	93
6	MCGEE, ROBERT W.	21	85
7	MCGEE, ROBERT W.	13	76
8	GOERKE, LASZLO	7	59
9	LEVAGGI, ROSELLA	6	41
10	MENONCIN, FRANCESCO	6	41
11	BENK, SERKAN	7	39
12	ZHENG, QINGHUA	5	30
13	SCHNEIDER, FRIEDRICH	5	30
14	ZHENG, QINGHUA	9	26
15	DONG, BO	8	25
16	CHIARINI, BRUNO	5	21
17	YAMEN, AHMED	6	0

Source: author's projection

The next step was to export the 958 results generated in the field of social sciences following the application of the search protocol on the WoS platform, in text format containing the following information: author, title and abstract (abstract).

The file thus obtained was imported into the VOSviewer software in order to perform the analysis on the association of terms and to identify the most common words and phrases used in research in the field of tax evasion.

After obtaining the sample I described above, we proceeded to the actual bibliometric analysis using the scientific mapping methodology using the software VOSviewer (van Eck & Waltman, 2010) , a software adapted for the construction and visualization of bibliometric networks. We first examined the network of collaboration between authors through the prism of their countries of origin to identify the interest of the scientific world in the direction of the quality of accounting information, corresponding to geographical areas. We set a minimum threshold of 5 papers with the source in the same state, and in the first stage we analyzed 500 documents queried in the Web of Science database, and out of a total of 64 countries related to the sample, 21 countries were selected. Subsequently, we interrogated the other remaining documents, from number 501 to number 958, and from the 77 countries related to the sample, 24 countries were selected.

Finally, we studied the distribution of the most intensively used keywords with the intention of observing and analyzing the links between them, taking into account only those proposed by the authors in published works, and we set a minimum threshold of 5 simultaneous occurrences . . Out of a total of 958 works, 1,489 keywords were identified, and of these, 87 are above the minimum threshold (benefit from the 5 simultaneous occurrences). We have selected the top 20 keywords with the highest link strength with other keywords, in other words, their occurrence together is the most relevant (for example, a high frequency of simultaneous occurrence in the same keyword job the quality of accounting information and corporate governance translates into an increased intensity of the correlation between them from a conceptual point of view).

IV. RESULTS AND DISCUSSIONS

Figure 6 and Figure 7 show the network between the authors according to the state they come from, based on co-authorship.

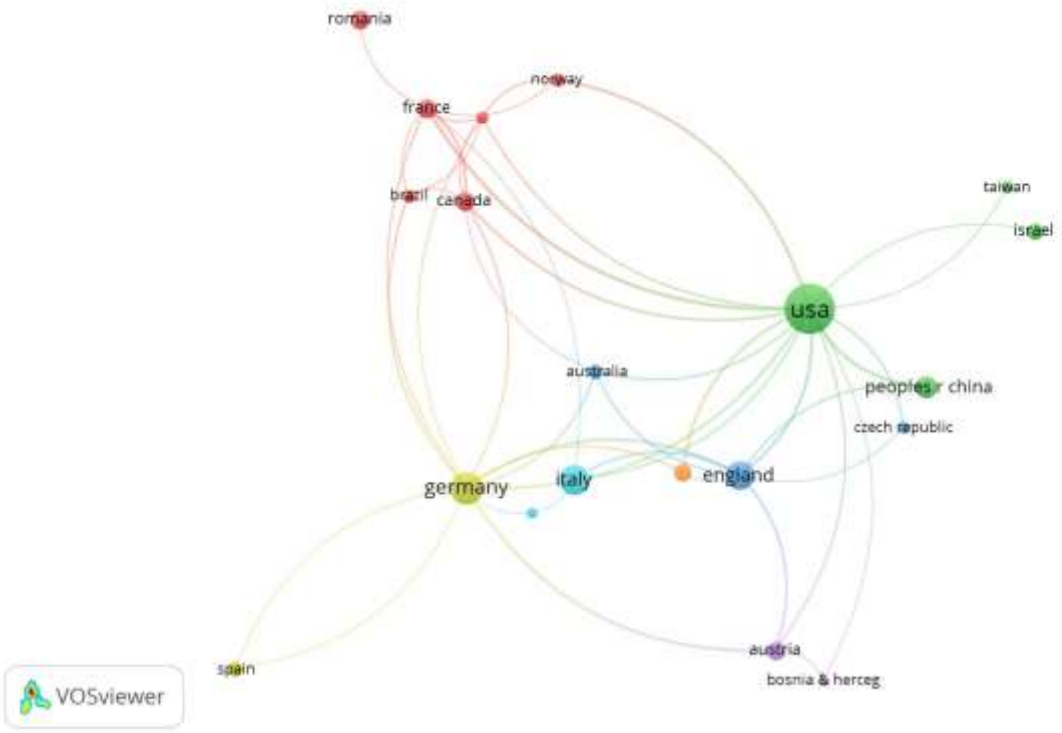

Figure 6. Network of authors corresponding to their countries of origin (500 documents)
Source: Author processing using VOSviewer

The size of the nodes corresponding to each state designates its relevance in the research on the specified topic. The thickness of the curves and the distance between the nodes signify the collaboration between the authors.

The graphic representation (Figure no. 6) reveals seven groups (clusters) of different colored states that have in common the links between the authors of studies on tax evasion in the sense of scientific collaboration between them (groups are formed according to the intensity of the collaboration link), so:

- The red group (cluster 1), a number of 6 states: Brazil, Canada, Denmark, France, Norway and Romania;
- 2-green cluster: Israel, China, Taiwan, USA;
- 3-blue cluster: Australia, Czech Republic, England;
- Cluster 4- yellow: Germany, Spain, Switzerland;
- Cluster 5 - purple: Austria, Bosnia and Herzegovina;
- Cluster 6- light blue: Greece, Italy;
- Cluster 7: India.

The most relevant country in terms of international cooperation is represented by the United States of America, which belongs to the second group, colored in green and is also represented by the countries Israel, China, Taiwan. American authors have mainly collaborated in their research with authors and institutions from Canada, the People's Republic of China, South Korea or Taiwan. Romanian authors had collaborative relationships with other authors from France, Brazil, Denmark, USA, Canada, Norway.

Based on the data presented above, it results that 38 works addressing tax evasion have Romanian authors. We also noticed links to scientific collaboration between authors located in different parts of the world. Spain, for example, is connected in this respect with countries such as Brazil, Canada or India.

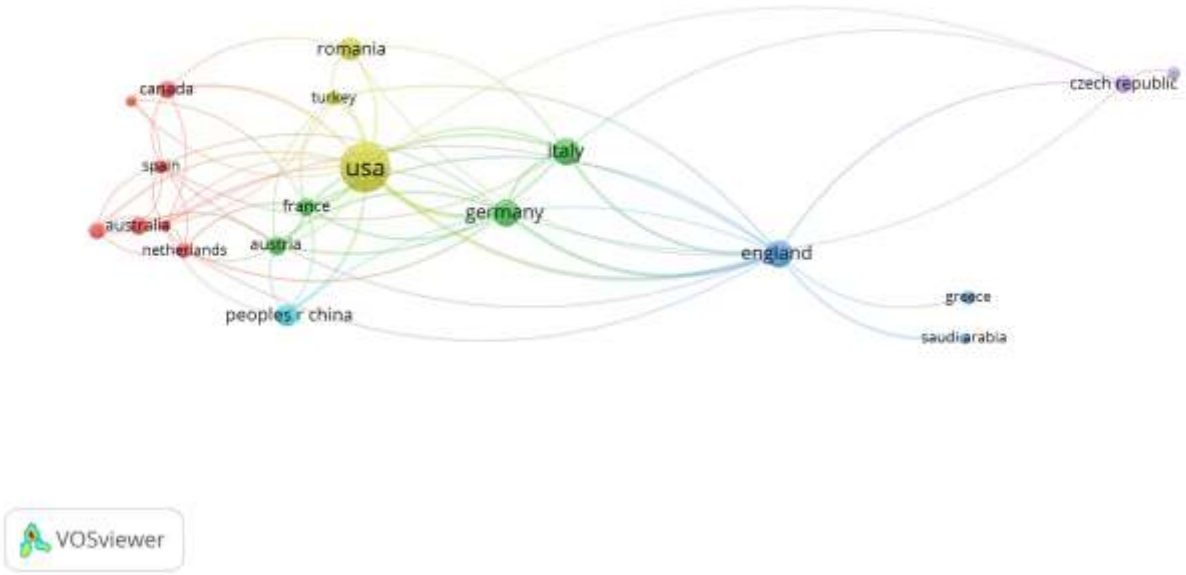

Figure 7. Corresponding network between authors their countries of origin (501 -958 documents)
Source: Author processing using VOSviewer

The size of the nodes corresponding to each state designates its relevance in the research on the specified topic. The thickness of the curves and the distance between the nodes signify the collaboration between the authors.

The graphical representation reveals six groups of different colored states that have in common the links between the authors of studies on the quality of accounting information in the sense of scientific collaboration between them (groups are formed according to the intensity of the collaboration link).

- Red cluster group 1, a number of 7 states: Australia, Canada, Japan, the Netherlands, Bulgaria, Spain, Taiwan.
- 2-green cluster: Austria, France, Germany, Italy;
- 3-blue cluster: England, Greece, Saudi Arabia;
- Cluster 4- yellow: Romania, Turkey, USA;
- Cluster 5 - purple: Czech Republic, Slovakia;
- Cluster 6- light blue: China

The most relevant country in terms of international cooperation is represented by the United States of America, which belongs to the fourth group, colored in yellow and is represented by the countries Romania, Turkey, USA. American authors have mainly collaborated in their research with authors and institutions from Japan, Turkey, Romania, India, England or Taiwan. Romanian authors have had collaborative relationships with other authors from Turkey, Italy, Canada, USA or England.

In Table 6 we show the 20 keywords analyzed, sorted in descending order according to the strength of the links with other keywords.

Table 6. Relevant keywords used by authors in tax evasion research on the first 500 documents

Nr. crt.	Keywords (original)	The notion in Romanian	Nr. of appearances	The intensity of the link between the keywords
1	corruption	corruption	12	17
2	development	development	6	7
3	economic growth	economical growth	6	7
4	evasion	evasion	9	7
5	inflation	inflation	5	2
6	optimal taxation	optimal taxation	7	6
7	shadow economy	underground economy	7	7
8	tax avoidance	tax avoidance	16	19
9	tax compliance	compliance with tax obligations	17	20
10	tax evasion	tax evasion	173	67
11	tax fraud	tax evasion	6	4
12	moral tax	fiscal morale	11	10

Source: Author's projection

Table 7. Relevant keywords used by authors in tax evasion research on the following 501-958 documents

Nr. crt.	Keywords (original)	The notion in Romanian	Nr. of appearances	The intensity of the link between the keywords
1	corruption	corruption	19	18
2	economic growth	Economical growth	5	6
3	econophysics	econophysics	5	7
4	evasion	evasion	7	2
5	informal economy	Informal economy	7	5
6	prospect theory	Prospectus theory	5	5
7	shadow economy	underground economy	13	17
8	social norms	Social norms	6	5
9	tax	Toll	7	7
10	tax avoidance	tax evasion	9	9
11	tax compliance	Compliance with tax obligations	10	11
12	tax evasion	Tax evasion	193	77
13	tax evasion detection	Detection of tax evasion	5	0
14	moral tax	Fiscal morale	9	10
15	taxation	taxation	11	6
16	underground economy	Underground economy	5	5

Source: Author's projection

Figure 8 and Figure 9 show the significance or relevance of the most important keywords identified in the sample studied in terms of the intensity of the link with other keywords in terms of simultaneous occurrence in the same paper.

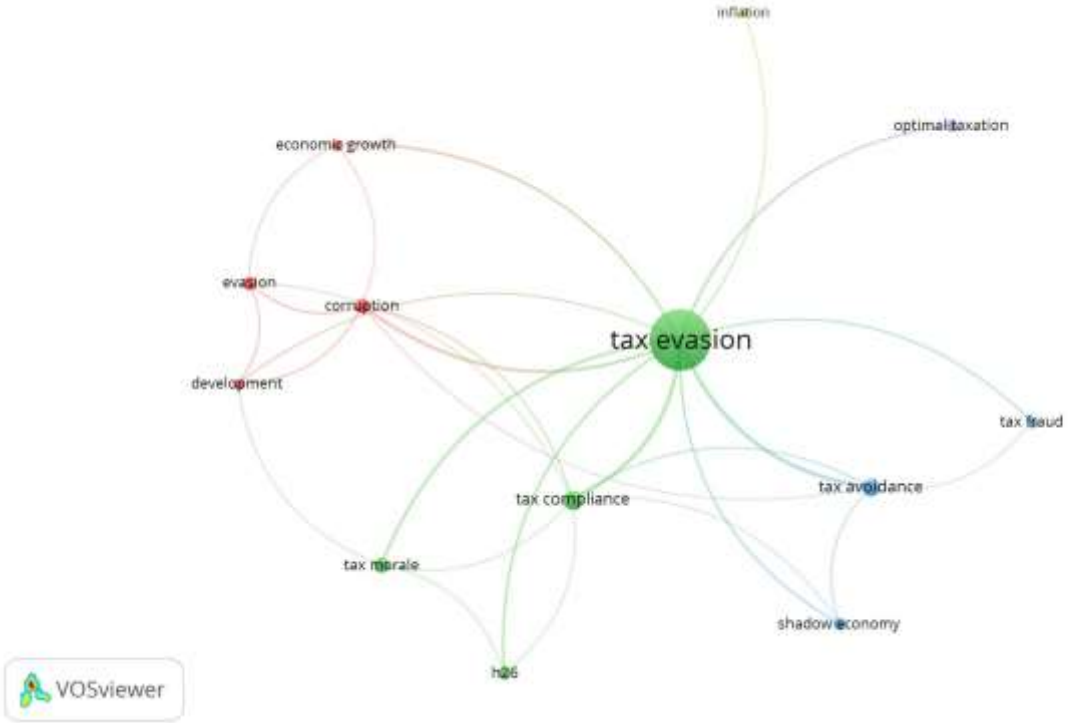

Figure 8. The link network between the keywords on tax evasion in the first 500 documents analyzed

Source: Author processing using VOSviewer

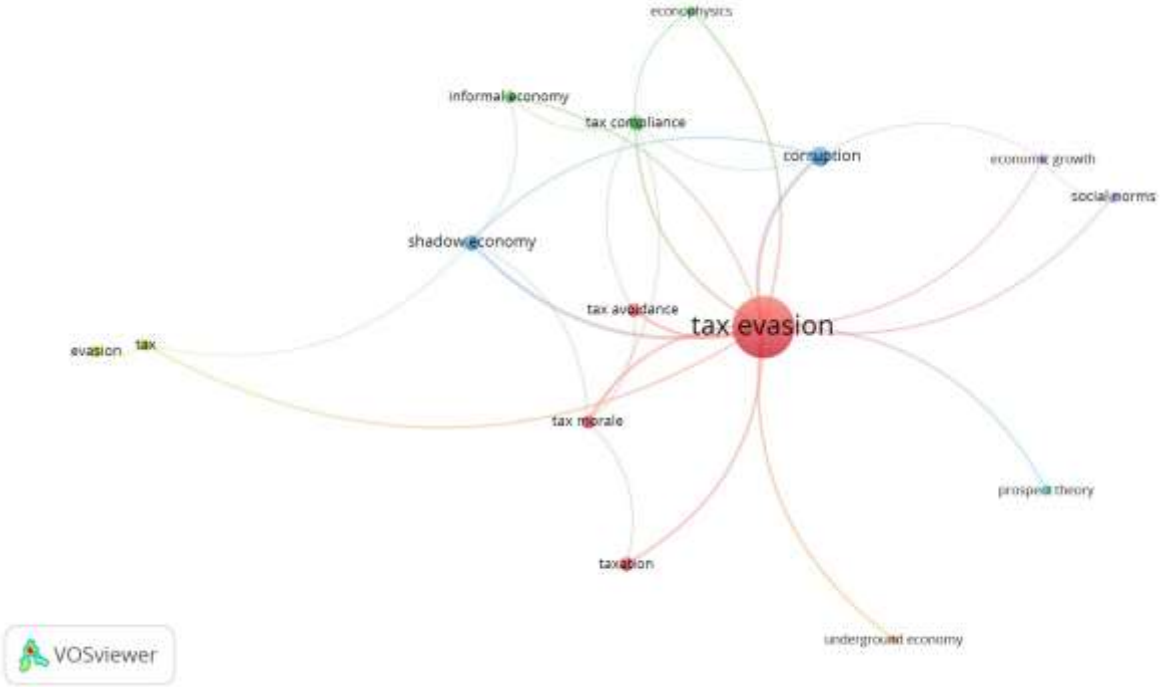

Figure 9. The link network between the tax evasion keywords in the following 501 -958 documents analyzed

Source: Author processing using VOSviewer

As can be seen, the most relevant keywords are in English, since, as mentioned above, the scientific papers identified on tax evasion are mostly written in this language. Related keyword groups (appearing simultaneously in the same paper) are graphically represented with the same color.

Figures 8 and 9 show the relevance of each keyword by means of nodes (clusters) whose size indicates the degree of importance: the larger the node (cluster), the more relevant the term it represents in the sample. The links between two nodes, represented graphically by curves, describe the frequency of occurrence of the two terms they connect: the thicker the connecting curve line, the more frequent the simultaneous appearance of the two keywords joined by that line .

At the same time, the shorter the connection curve, the stronger the two terms it unites. We got two keyword groups. The red one contains the most related keywords through the notion of tax evasion in figure 9, the green cluster in figure 8.

The largest node in this group corresponds to the concept of tax evasion. The interrelated keywords in Figure 8 are as follows:

- 12 items;
- Cluster 1: 4 items - corruption, development, economic grotw, evasion;
- Cluster 2: 3 items - tax compliance, tax evasion, tax morale;
- Cluster 3: 3 items - shadow economy, tax avoidance, tax fraud;
- Cluster 4: 1 item: inflation;
- Cluster 5: optimal taxation.

The interrelated keywords in Figure 9 are as follows:

- 15 items;
- Cluster 1: 4 items - tax avoidance, tax evasion, moral tax, taxation;
- Cluster 2: 3 items - econophysics, informal economy, tax compliance;
- Cluster 3: 2 items - corruption, shadow economy
- Cluster 4: 2 items: evasion, tax;
- Cluster 5: 2 items- economic growth, social norms;
- Cluster 6: 1 item: prospect theory;
- Cluster 7: 1 item: underground economy.

The interrelated keywords in the red group (figure 9) are five in number: l tax evasion (tax evasion); l tax avoidance (tax evasion); l moral tax (fiscal morale); l taxation (tax); l underground economy.

The interrelated keywords in the green group (figure 8) are four in number: l moral tax (fiscal morale); l tax compliance compliance with tax obligations); l inflation (inflation); l optimal taxation.

V. CONCLUSIONS

The bibliometric analysis performed in this study revealed some interesting information:

- The most relevant country in tax evasion research is the United States, closely followed by Germany, Italy, the People's Republic of China, and the United Kingdom.
- We also find relevant studies in our country, in collaboration with authors from France, Brazil, Denmark, USA, Canada, Norway, Turkey, Italy, England or Canada.
- Keyword analysis reveals strong links between the concept of tax evasion, tax morale, tax, underground economy, inflation, optimal taxation.

The results of the study reveal an important research interest in the field of tax evasion. Approaching in this context the concepts of tax evasion shows how an efficient and responsible administration of state bodies can help reduce the effects of tax evasion and can add value to the management of economic entities so as not to resort to tax evasion. and taxes due to the state budget.

As a limitation of our research we can mention the fact that only bibliographic materials (958 records) were analyzed according to the results obtained by searching the Web of Science platform in the category Document, Title. Thus, a significant part of the relevant research literature as well as other contributions to this field are not included.

The study describes the evolution and research trends in the field of tax evasion, but does not have the ability to make predictions or explain the authors' interest in this concept. That is why we believe that it is necessary to deepen the analysis by taking into account the factors that determine these trends, so that the research offers an increased utility.

I believe that the results of this research could have significant implications for scientists, academics and students, as it reveals the research gap in this field, indicating areas that could be researched in the future.

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