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Article

Sustainability reporting trends: A systematic literature network analysis

Comparative Economic Research. Central and Eastern Europe

Provided in Cooperation with:

Institute of Economics, University of Łódź

Suggested Citation: Hyk, VasyI; Vysochan, Oleh; Vysochan, Olha (2023) : Sustainability reporting trends: A systematic literature network analysis, Comparative Economic Research. Central and Eastern Europe, ISSN 2082-6737, Lodz University Press, Lodz, Vol. 26, Iss. 2, pp. 7-31,
<https://doi.org/10.18778/1508-2008.26.10>

This Version is available at:

<https://hdl.handle.net/10419/289733>

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Sustainability Reporting Trends: A Systematic Literature Network Analysis

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Abstract

Compiling and submitting sustainable development reports is a key area for reforming corporate reporting in light of the implementation of the Sustainable Development Goals. In recent years, the share of companies that report sustainable development and corporate social responsibility has grown significantly. Thus, the study of the definition of the conceptual apparatus is important. The article aims to study the quantitative and qualitative structure of the documentary flow of scientific periodicals, the main areas of research, and development trends and. It also presents the results of a systematic review of publications on “sustainability reporting”.

The study used bibliometric analysis of scientific periodicals from the Scopus scientometric database between 2011–2021. The scientific papers selected by the keyword “sustainability reporting” were exported for processing in the VOSviewer and R (bibliometrix package) computer programs. Based on the results of quantitative analysis, 625 publications were accepted, most of which were scientific articles. The main areas of research on sustainability reporting in accounting are sustainable development, sustainability, decision-making, sustainability reporting, and accountability.



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Received: 4.06.2022. Verified: 16.11.2022. Accepted: 21.03.2023

The study also made it possible to identify the authors and research schools that have made the most significant contribution to this topic, and to establish geographical clusters in the context of countries around the world that work closely with each other and the highest-rated journals.

The originality of this study is that it helps to create a conceptual framework. It should guide the definition of future research, and it is designed to provide qualitative new insight into the role of sustainable development reporting. The article provides an opportunity to fill the gaps in quality research on sustainable development reporting. The main conclusions of this article will help researchers to expand their knowledge in this area through retrospective analysis of the research results.

Keywords: sustainability reporting, accounting, CSR, bibliometric analysis, network analysis

JEL: M41, Q01, Q56

Introduction

The concept of sustainable development aims to harmonize the economic, social, and environmental components of social development, making it possible to solve problems of environmental protection, increase social development, and overcome the effects of economic crises (Hyk 2021). The principles of sustainable development are embodied in sustainability reporting, which contains a set of data that reflect the environment, methods of cooperation with impact groups, and the results of the enterprise in the economic, social, and environmental spheres of society.

Given the current trends in economic systems and their impact on economic and environmental security and social consensus in society, sustainability reporting is a priority information tool to manage business activities and meet the needs of external users (Vysochan, Hyk, and Vysochan 2021a). Such reporting is public and is considered as a tool for informing the company's shareholders, employees, partners and customers about how and at what pace it is implementing the goals of economic sustainability, social welfare and environmental stability laid down in its strategic development plans.

Sustainability reporting is a means of communication between business, government and civil society, and it provides an opportunity for constructive dialogue between them to balance the interests of all stakeholders. This creates the preconditions for solving the problems of resource and energy conservation, improving the environmental safety of production and products, increasing productivity and territorial development, and taking a leading position in a competitive environment in domestic and foreign markets (Hyk, Vysochan, and Vysochan 2021).

In world and domestic practice, sustainability reporting can be presented in the following ways: Social reporting, Corporate Social Responsibility Reporting, Corporate

Responsibility Reports, Progress Reports, and Sustainable Development Reporting and others.

An important problem that needs to be solved is to determine the prospects for the development of corporate reporting in response to changes in the global economic system. Due to this, the rules, features and research areas for this type of reporting are becoming increasingly important in accounting science and practice. Therefore, there is a need to study the current state and trends in sustainable development reporting. The results will make it possible to argue the main approaches to understanding the essence of sustainable development reporting to determine the biggest priority areas of research and sources of its scientific and methodological support.

Literature review

The formation and development of the concept of sustainability reporting were raised in the works of many authors, including Herzig and Schaltegger (2006), O'Dwyer, Owen, and Unerman (2011), Boiral (2013), Hahn and Kühnen (2013), Brown and Dillard (2014), De Villiers, Rinaldi, and Unerman (2014), Adams (2015), Stacchez-zini, Melloni, and Lai (2016), Sukhonos and Makarenko (2017), Unerman, Bebbington, and O'Dwyer (2018), Makarenko et al. (2020), Petryk et al. (2020), Mysaka, Derun, and Skliaruk (2021), Siryk et al. (2021), Vysochan et al. (2021a) and other.

There have been relatively few systematic reviews of the scientific literature on sustainable development reporting. Kulevicz et al. (2020) searched 53 articles indexed in the ScienceDirect database between 2012 and 2017. Di Vaio et al. (2021) studied 60 publications in English with a release date from 1990 to 2019. Navarrete-Oyarce et al. (2021) conducted a bibliometric analysis of integrated reporting as a source of information in 268 articles published in the Web of Science database from 2011 to 2019. Baidoiu, Partenie, and Alexandru (2021) analyzed 262 sources from the Core Collection Web of Science (WoS) database from 1999 to 2021. Minutiello and Tettamanzi (2022) analyzed publications from 2010 to 2020. Pasko et al. (2021) analyzed scientific articles in Scopus and the Web Science Core Collection using CiteSpace software.

Separate literature reviews on the relationship between performance measurement and sustainable development reporting have been cited by Klovienè and Speziale (2014) and Speziale and Klovienè (2014), while Dienes, Sassen, and Fischer (2016) systematized the research area of sustainable development reporting. Traxler, Schrack, and Greiling (2020) investigated the interaction of the concepts of management control systems (MCS) and sustainability reporting (SR) in 53 publications from 2000 to 2018.

Without diminishing the valuable work of these scientists, those scientific articles have different orientations. To address this research gap, our paper explores the conceptual value of sustainability reporting based on bibliometric analysis and visualization of results using the VOSviewer and R (bibliometrix package) computer programs. The following questions were then formulated:

- RQ 1:** How many publications on sustainability reporting are in the Scopus scientometric database?
- RQ 2:** What keywords are most often used in conjunction with the term sustainability reporting?
- RQ 3:** Which articles and authors have the highest citation index on sustainability reporting?
- RQ 4:** What is the cooperation between countries and scientific journals on sustainability reporting?

Methodology

This article uses a mixture of general and specific methods to analyze the literature on sustainable development reporting. The study is based on a bibliometric analysis. A bibliographic analysis of documents is based on the study of formal, substantive and functional features. It makes it possible to identify the role and place of the document (or a homogeneous set) in the overall flow and its value properties, and it gives a meaningful interpretation of statistical and other indicators that are obtained.

A sample of publications for analysis was conducted in the scientometric database Scopus, using the search bar (Table 1).

Table 1. Stages of information selection in Scopus

Search steps	Query in Scopus	Description
1	TITLE-ABS-KEY	("sustainability AND reporting")
2	TITLE-ABS-KEY	("accounting")
3	OR LIMIT-TO PUBYEAR	("> 2011 to <= 2021")

Source: proposed by the authors.

Auxiliary search terms (e.g., environmental reporting, integrated reporting) were deliberately omitted because the purpose of the study was to accurately explore the specific concept of “sustainability reporting” in accounting.

The search was conducted in February 2022, and no restrictions on the language or type of publications were set. Before the quantitative and qualitative analysis, the data set was cleaned and corrected, i.e., duplicate documents were removed, and keywords were cleared.

The resulting data were imported to the VOSviewer and R computer programs (bibliometrix package). VOSviewer is designed to visualize bibliometric links and allows you to build a terminology map based on common terms in the titles and annotations of publications. R (bibliometrix package) is a tool for quantitative research in scientometrics and bibliometrics and includes all major bibliometric analysis methods (Aria and Cucurullo 2017). In R program, the overall conceptual structure was investigated using Multiple Correspondence Analysis (MCA) and K-means clustering methods, which were successfully used in our previous studies (Vysochan, Vysochan, and Hyk 2021b; Vysochan et al. 2021b).

Results

General characteristics of information

Based on the results of the content analysis for 2011–2021, 625 publications were identified in terms of the following types of documents: abstract report – 1, article – 473, book – 14, book chapter – 49, conference paper – 40, conference review – 7, letter – 1, note – 2, and review – 38. As a result of the structural analysis, it was found that among all publications, most are articles, accounting for about 75% of the total. Generalized data on the number of publications are shown in Figure 1.

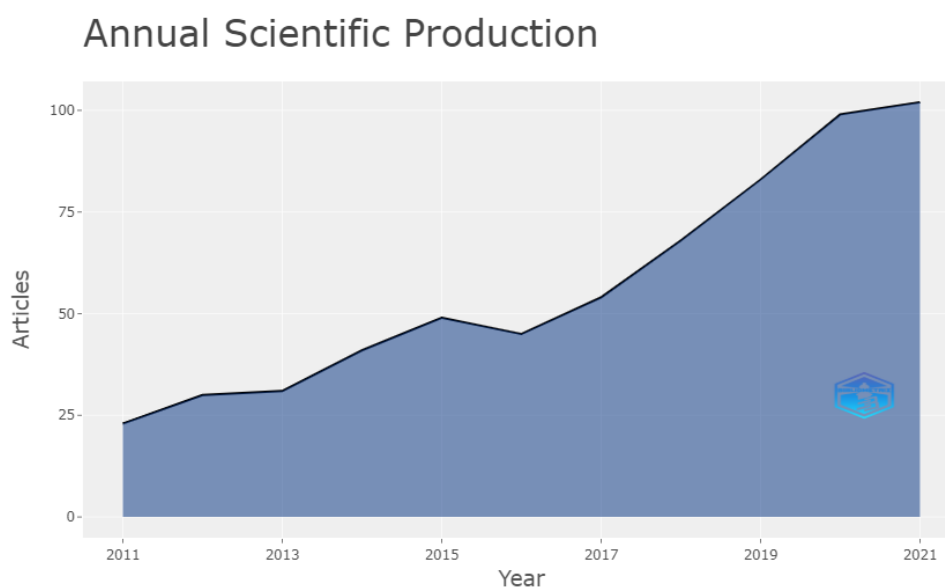


Figure 1. Total number of publications by year

Source: formed by the authors using R software.

Figure 1 shows that during the analyzed period, the number of publications on sustainability reporting grew steadily – from 23 in 2011 until 2021, inclusive, when it reached its highest value of 102, exceeding the initial number more than fourfold. In recent years, the growth in the total number and dynamics of publications indicates positive trends and increased scientific interest in this topic.

Characteristics and essential parameters are presented in the general information about the results of the study in Table 2.

Table 2. General information

Description	Results
Timespan	2011: 2021
Sources	300
Documents	625
Author's keywords	1535
Average citations per documents	20.03
Authors	1367
Author appearances	1639
Authors of single-authored documents	111
Authors of multi-authored documents	1256
Single-authored documents	137
Documents per Author	0.457
Authors per document	2.19
Co-Authors per documents	2.62
Collaboration index	2.57

Source: formed by the authors using R software.

From the description of the data in Table 2, on the topic of sustainability reporting for the period 2011–2021, 1367 authors were mentioned 1639 times. In total, the authors published 625 publications in 300 different types of documents. The average citations per document indicator were quite high, at 20.03. The vast majority of publications (91.88%) are co-authored by several authors; only 8.12% were written alone. The relative numbers of authors per publication (2.19) and the number of co-authors per publication (2.62) are low. An important indicator that characterizes international cooperation is the value of the Collaboration Index, which was 2.57, indicating a low level of cooperation.

Analysis of repeated words in documents

A keyword analysis is the starting point for any search query. It is conducted to determine which words and phrases are most often mentioned by scientists in articles. Bibliometric analysis by keywords makes it possible to establish the fundamental and priority areas of research development. Based on the results of the analysis, information was obtained on the frequency of use of keywords by authors in publications on sustainability reporting, which are summarized in Figure 2.

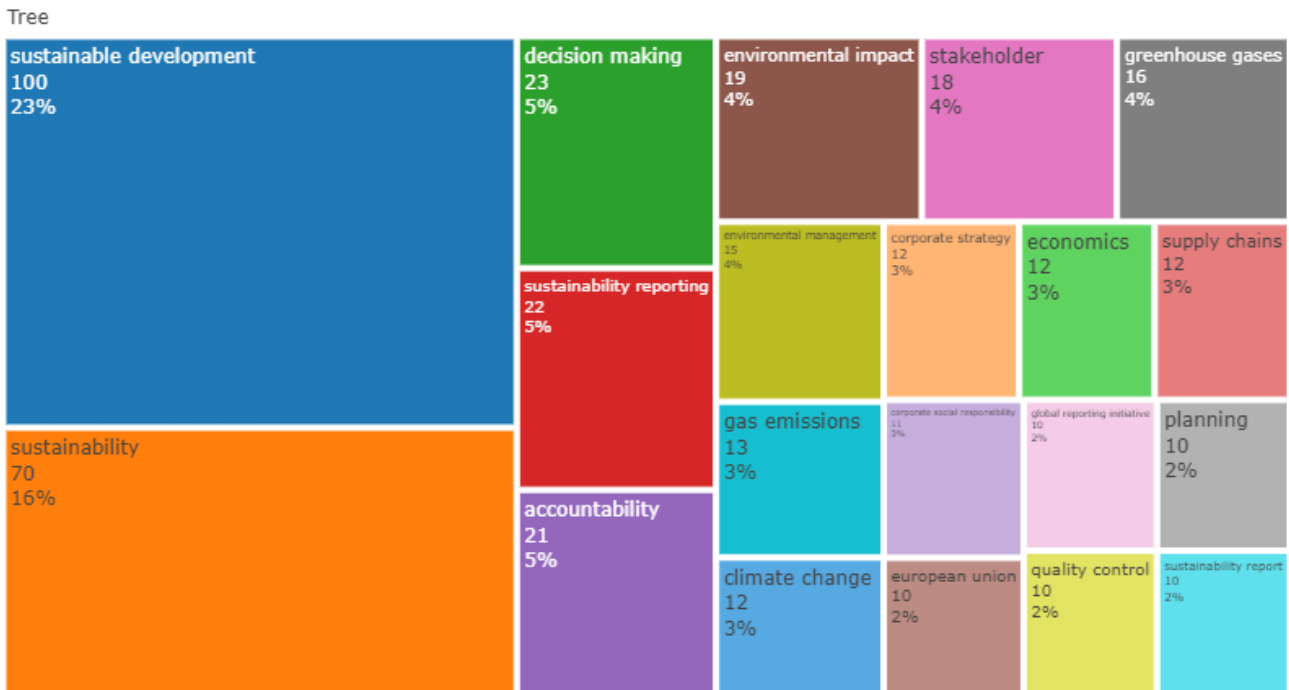


Figure 2. Use of keywords in publications (top 20)

Source: formed by the authors using R software.

According to the data, the most commonly used terms are sustainable development (23%), sustainability (16%), decision-making (5%), sustainability reporting (5%) and accountability (5%). However, among common terms were phrases associated with corporate responsibility, i.e., environmental management (4%), corporate strategy (3%), and corporate social responsibility (3%). This is not surprising. The use of such terms in sustainability reporting as an effective method of improving company management is directly related to the purpose of sustainability reporting, which is to reflect a responsible and balanced strategic social policy. As a result, social programs can be systematized, and areas for further implementation can be identified. Figure 3 gives a visual representation of integration chains by key terms.

Trend Topics

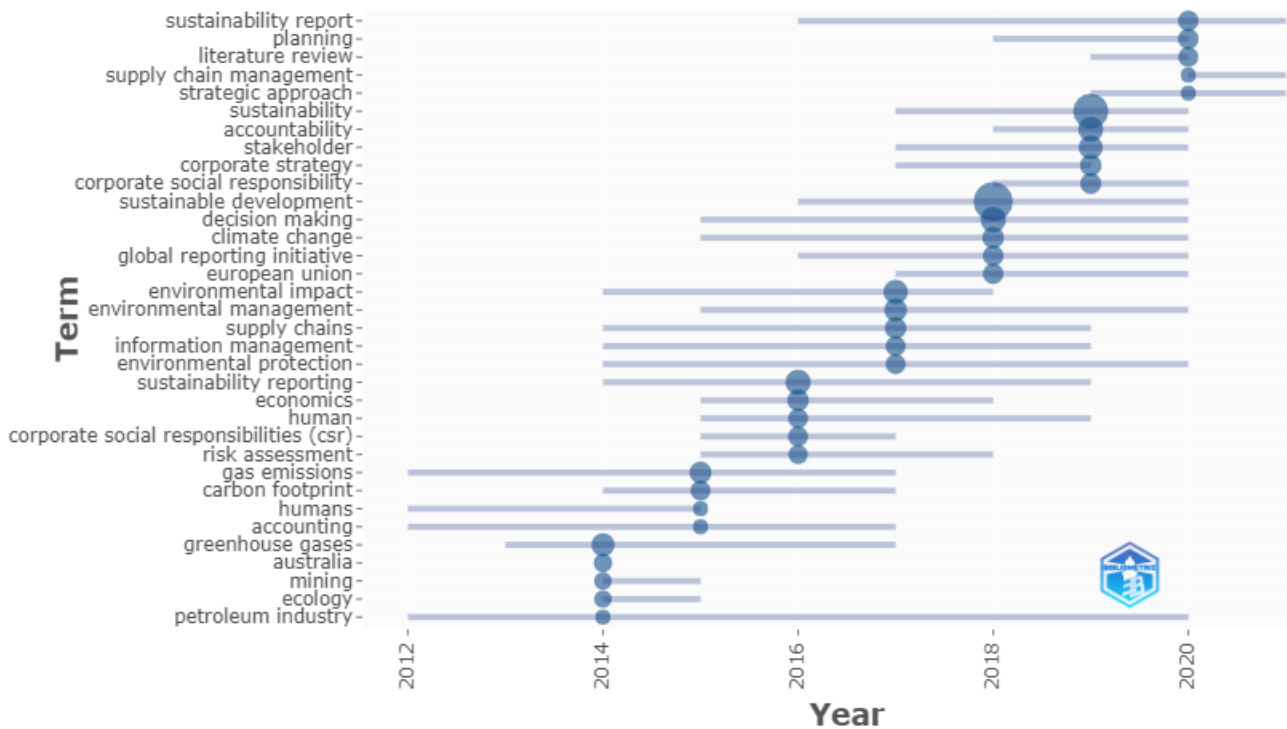


Figure 4. Trend Topics on sustainability reporting

Source: formed by the authors using R software.

To determine the trends in time measurement on this topic, we selected key terms by filter – Word Minimum Frequency = 5, Number of Words per Year = 5. As a result of using these filters, it was found that research topics such as sustainable development and sustainability were of maximum scientific interest among researchers, and they became especially relevant in 2018–2019. It was also determined that in recent years, economist-accountants are actively researching issues related to the terms sustainability report, supply chain management, and strategic approach. The works focus on a new direction in the development of supply chain management – Sustainable Supply Chain Management. It includes improving product quality, customer service, and corporate social responsibility, taking into account modern environmental challenges and regulating social processes.

Figure 5 shows a map of the conceptual basis built on the authors’ keywords.

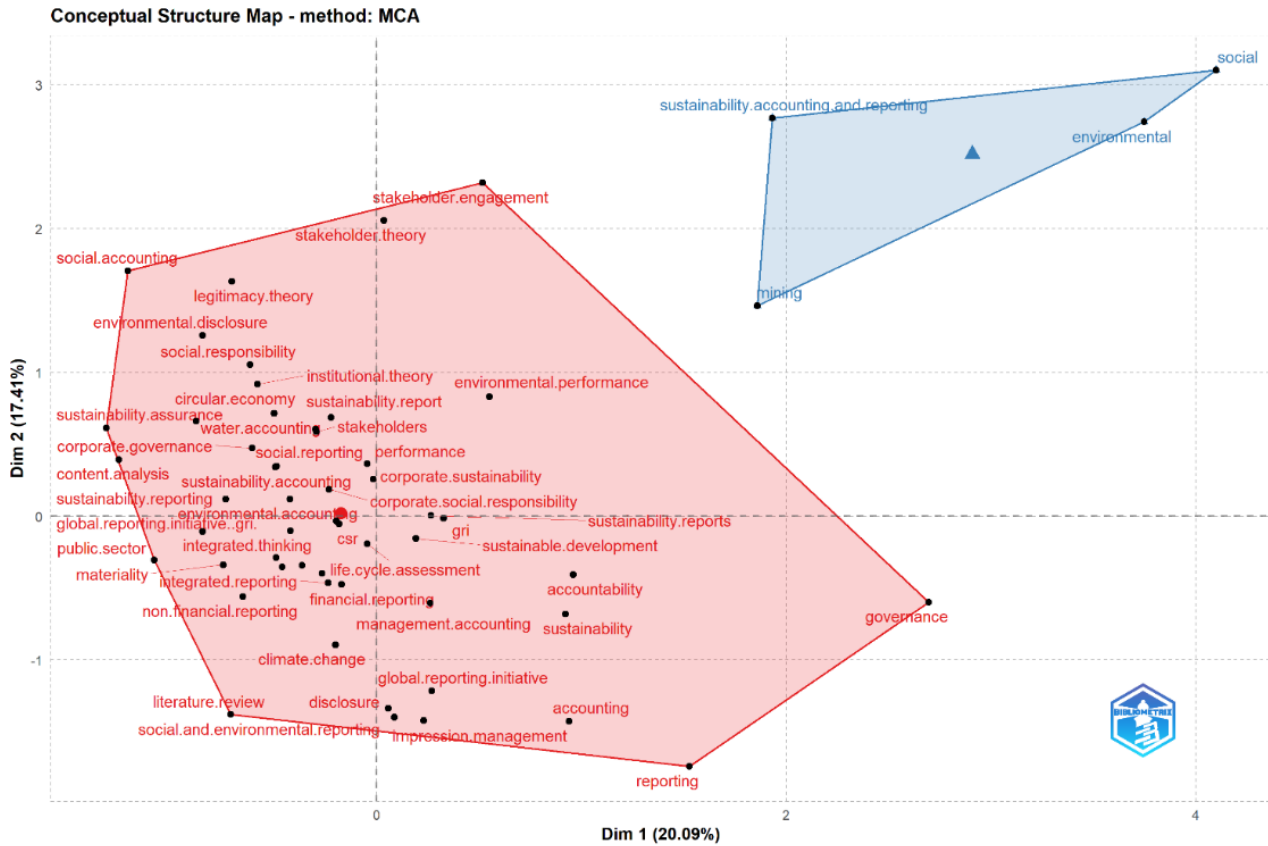


Figure 5. Map formed by keywords of authors

Source: authors' elaboration using R software.

This map was built using the MCA (Multiple Correspondence Analysis) method, in which two clusters can be distinguished. The most notable cluster size is the red cluster, which is characterized by a wide range of interrelated terms. The blue cluster is much smaller and is represented by only four keywords: sustainability accounting and reporting, social, environmental, and mining.

The results of the analysis by author and scientific work

An important qualitative feature of a scientific article is the number of citations. The most cited works of authors on this topic are given in Table 3.

Table 3. Works of authors on the indicator Local and Global Citations (top-15)

Document	Article title	Local Citation (LC)	Global Citation (GC)	GC/LC ratio (%)
O'Dwyer, Owen, and Unerman (2011)	Seeking legitimacy for new assurance forms: The case of assurance on sustainability reporting	40	304	13.16
De Villiers, Rinaldi, and Unerman (2014)	Integrated Reporting: Insights, gaps and an agenda for future research	38	331	11.48
Flower (2015)	The International Integrated Reporting Council: A story of failure	36	268	13.43
Brown and Dillard (2014)	Integrated reporting: On the need for broadening out and opening up	35	187	18.72
Hahn and Kühnen (2013)	Determinants of sustainability reporting: A review of results, trends, theory, and opportunities in an expanding field of research	34	558	6.09
Adams (2015)	The International Integrated Reporting Council: A call to action	30	236	12.71
Boiral (2013)	Sustainability reports as simulacra? A counter-account of A and A+ GRI reports	30	287	10.45
Stubbs and Higgins (2014)	Integrated Reporting and internal mechanisms of change	25	202	12.38
Owen (2013)	Integrated Reporting: A review of developments and their implications for the accounting curriculum	16	44	36.36
Stacchezzini, Melloni, and Lai (2016)	Sustainability management and reporting: the role of integrated reporting for communicating corporate sustainability management	14	116	12.07
Gond et al. (2012)	Configuring management control systems: Theorizing the integration of strategy and sustainability	13	233	5.58
Cho, Michelon, and Patten (2012)	Impression management in sustainability reports: An empirical investigation of the use of graphs	13	97	13.40
Clarkson, Overell, and Chapple (2011)	Environmental Reporting and its Relation to corporate environmental performance	13	279	4.66
Perego, Kennedy, and Whiteman (2016)	A lot of icing but little cake? Taking integrated reporting forward	12	88	13.64
Unerman, Bebbington, and O'Dwyer (2018)	Corporate reporting and accounting for externalities	11	54	20.37

Source: formed by the authors using R software.

Table 3 shows that according to the Local Citation (LC) criterion, the two best positions are occupied by works from:

the team of authors Brendan O'Dwyer from Alliance Manchester Business School (Manchester, United Kingdom), David L. Owen from the University of Nottingham (Nottingham, United Kingdom), and Jeffrey Unerman from Royal Holloway, University of London (Egham, United Kingdom);

the team of authors Charl De Villiers from The University of Auckland Business School (Auckland, New Zealand) and Leonardo Rinaldi and Jeffrey Unerman, both from Royal Holloway, University of London (Egham, United Kingdom).

They also occupy leading positions in the Global Citation (GC) index. They are preceded only by the team of authors Rüdiger Hahn from Heinrich-Heine-Universität Düsseldorf (Dusseldorf, Germany) and Michael Kühnen from Universität Hohenheim (Stuttgart, Germany).

According to GC/LC (%), Gareth Owen of the Association of Chartered Certified Accountants (United Kingdom) is the most important (36.36).

The analysis of the cited works shows that the authors mainly linked the development of the concept of sustainability reporting with improvements in the preparation and submission of integrated reporting, and its role in ensuring corporate governance.

An important indicator that is widely used around the world to evaluate the work of researchers and research teams is the citation index. The values of the impact factor (IF) of the authors on the subject are given in Table 4.

Table 4. Impact factors of Top 15 Authors

Author	h-index	g-index	m-index	Total citation	Number of publications	Publication year
S. Schaltegger	7	10	0.700	330	10	2013
O. Boiral	6	6	0.600	507	6	2013
C. De Villiers	5	5	0.556	521	5	2014
J. Hazelton	5	5	0.500	113	5	2013
S. Lodhia	5	6	0.500	234	6	2013
W. Maroun	5	9	0.625	204	9	2015
D.M. Patten	5	5	0.455	253	5	2012
J. Unerman	5	5	0.417	744	5	2011
J. Atkins	4	4	0.500	86	4	2015
A. Kaur	4	5	0.571	73	5	2016

Author	h-index	g-index	m-index	Total citation	Number of publications	Publication year
C. Larrinaga	4	5	0.667	58	5	2017
C.A. Adams	3	3	0.375	249	3	2015
A.H. Almagtome	3	3	0.750	50	3	2019
Ch. Cho	3	3	0.273	176	3	2012
L. Corazza	3	4	0.500	46	4	2017

Source: formed by the authors using R software.

The authors above published their works between 2011 and 2019, and received a large number of citations. As Table 4 shows, in first place is Prof. Stefan Schaltegger, with an h-index of 7, a g-index of 10, and 10 publications. He is followed by Olivier Boiral from the University of Laval (Quebec, Canada) with slightly lower values: h-index = 6, g-index = 6, and number of publications = 6. Charl De Villiers from The University of Auckland (Auckland, New Zealand) comes in third: h-index = 5, g-index = 5, and number of publications = 5. Based on the Total Citation indicator, Jeffrey Unerman has the highest value (744).

Figure 6 provides a visual representation of the relationships between authors on this topic.

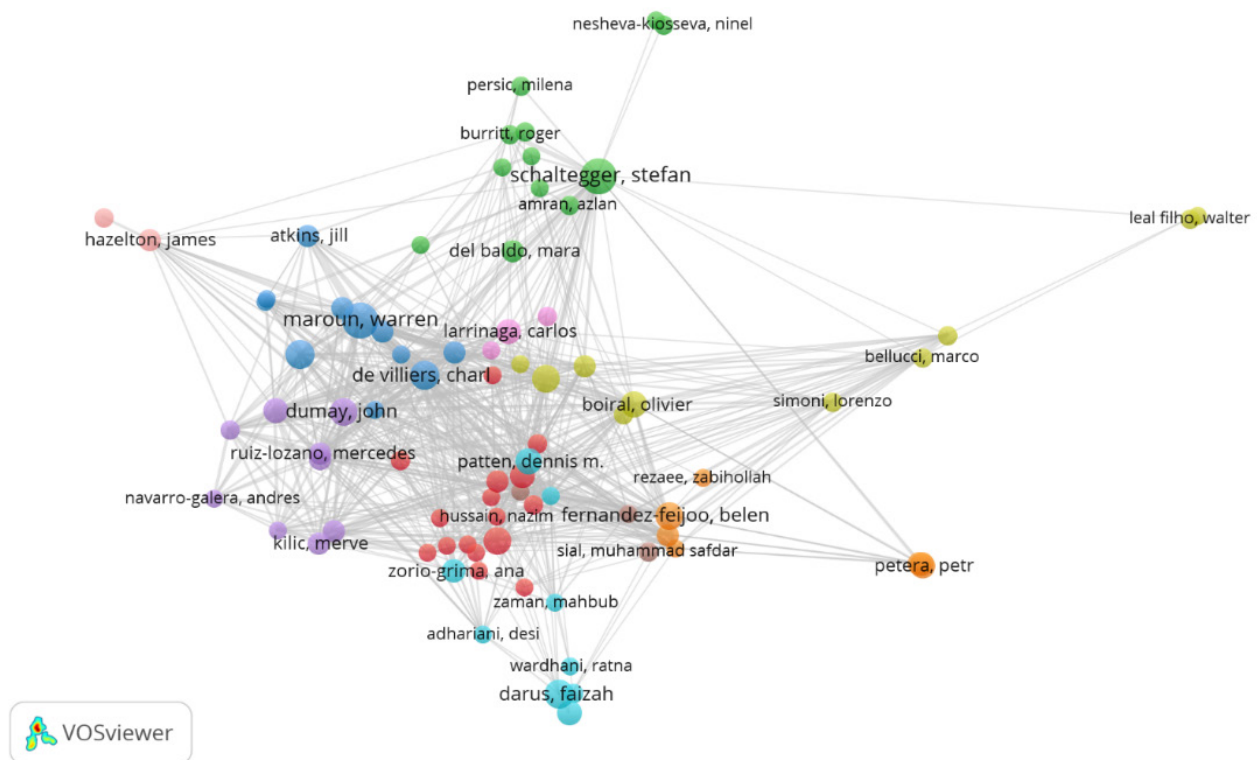


Figure 6. Map of relationships between authors on sustainability reporting

Source: authors' elaboration using VOSviewer.

From Figure 6, it is clear that researchers, united in clusters of different colors, form scientific schools and work closely with each other.

Results of the analysis of cooperation between countries

The next stage is related to the identification of trends and directions in the publishing activity of researchers from different countries. This type of bibliometric analysis gives an idea of which country has made the greatest contribution to the study of this issue. Table 5 provides information on publishing activity by country.

Table 5. Number of citations per publication for countries

Country	Total citation	Average article citation	Articles	Single Country Publications	Multiple Country Publications	MCP ratio
United Kingdom	2108	56.97	37	21	16	0.432
Australia	1629	33.94	48	43	5	0.104
Germany	1118	50.82	22	15	7	0.318
Italy	984	21.39	46	40	6	0.130
Canada	748	37.40	20	12	8	0.400
USA	658	20.56	32	24	8	0.250
Spain	604	20.13	30	22	8	0.267
Netherlands	539	67.38	12	5	7	0.583
New Zealand	351	29.25	12	5	7	0.583
France	172	21.50	8	4	4	0.500
Greece	159	26.50	6	3	3	0.500
Austria	158	26.33	6	5	1	0.167
Malaysia	153	17.00	9	5	4	0.444
South Africa	136	12.36	11	7	4	0.364
Brazil	114	14.25	8	6	2	0.250

Source: formed by the authors using R software.

The data in Table 5 show that the leaders in the total number of citations are the United Kingdom ($n = 2108$), Australia ($n = 1629$) and Germany ($n = 1118$). However, the number of publications was slightly different: 1) Australia ($n = 48$), 2) Italy ($n = 46$), and the United Kingdom ($n = 37$). The collaboration of authors from one or more countries is determined by the indicators Single Country Publications (SCP) and Multiple Country Publications (MCP), which are presented in Figure 7.

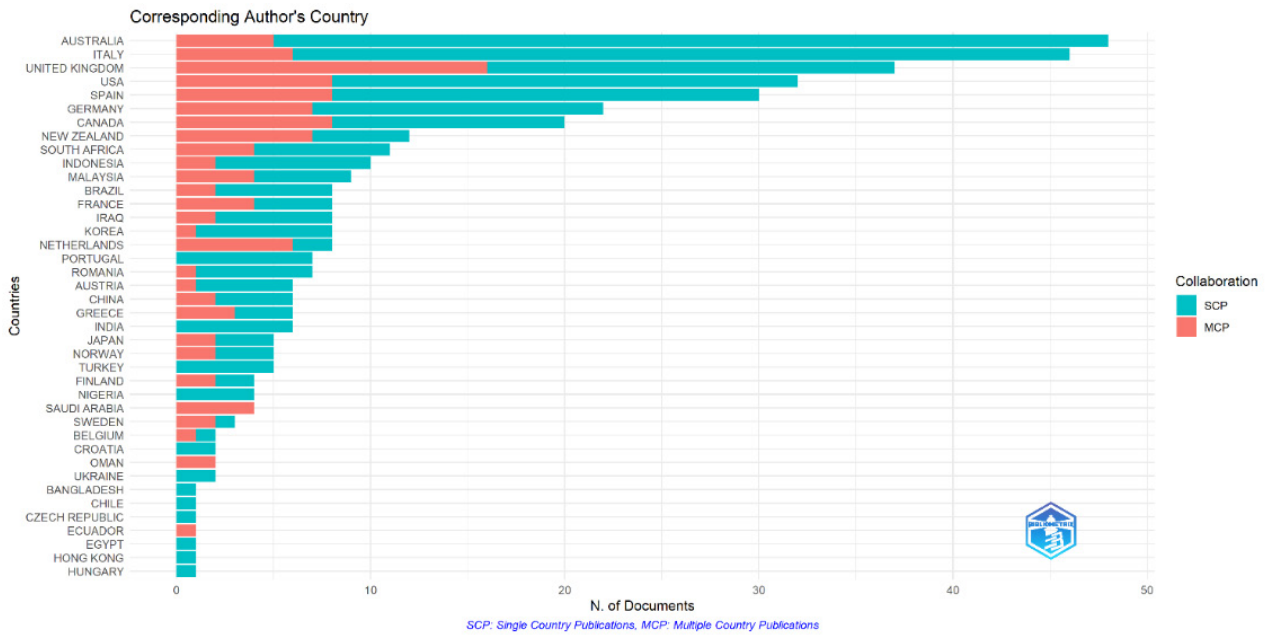


Figure 7. Ratios of Single Country Publications (SCP) and Multiple Country Publications (MCP) by country

Source: authors' elaboration using R software.

An important relative indicator is the MCP Ratio, which is determined by dividing the number of publications written in collaboration with foreign authors by the total number. The values for this indicator were the highest in the Netherlands (0.583), New Zealand (0.583), France (0.500) and Greece (0.500).

For a clearer visual understanding, a network of cooperation in the geographical dimension is presented in Figure 8.

Country Collaboration Map

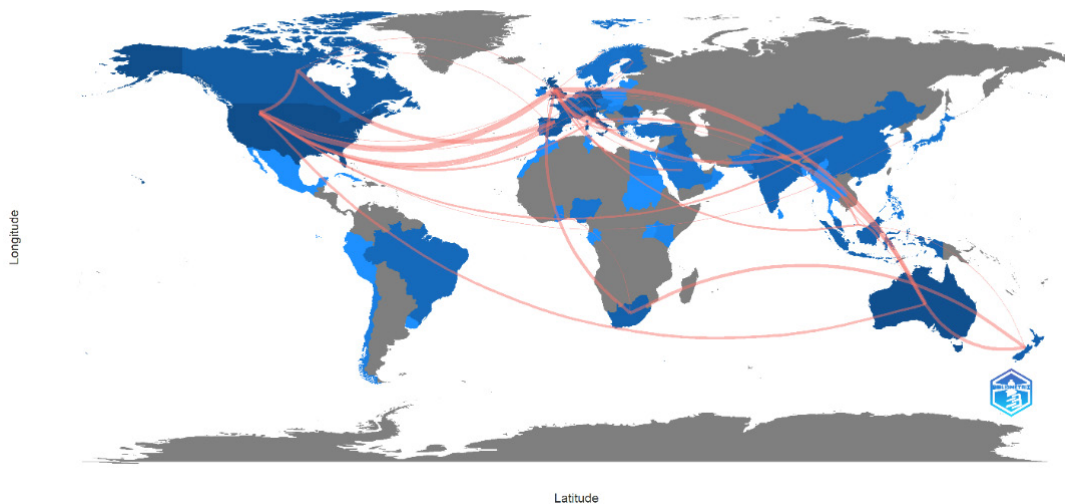


Figure 8. Map of cooperation between countries on sustainability reporting

Source: authors' elaboration using R software.

To build this map, the selection criterion was set: Min edges = 2. Different variants of cooperation between scientists from countries and their frequency of publishing activity are shown by nodes. Figure 8 shows that cooperation between countries is most clearly represented by English-speaking countries, i.e., the USA, the United Kingdom, Australia, New Zealand, and Canada, as well as some countries from the European Union, i.e., Italy, Spain, and Germany, as well as South Africa and China.

Based on this, a visual network of cooperation between countries on this topic was formed (Figure 9).

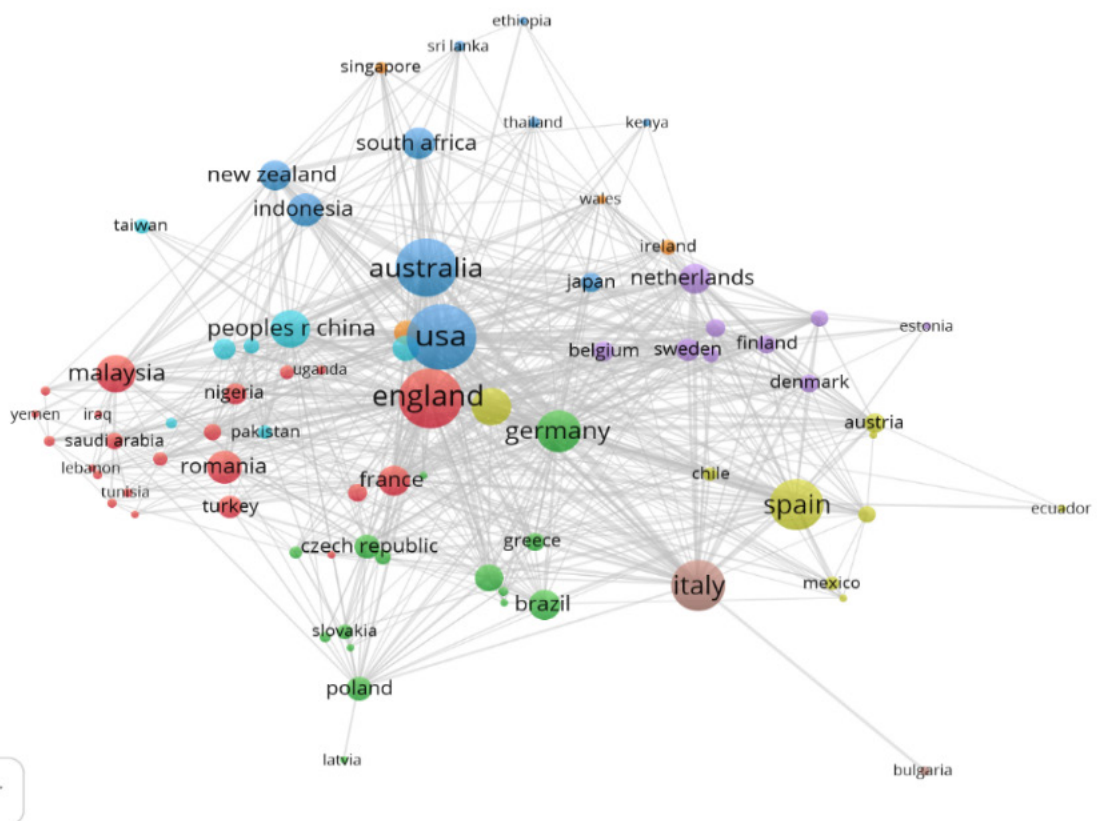


Figure 9. Map of relations between countries on the topic of sustainability reporting

Source: authors' elaboration using VOSviewer.

The size and area of the network node characterize the countries whose scientists have made the greatest contribution to the study of this issue. From Figure 9, it is clear that the red cluster is dominated by the United Kingdom (England), the blue cluster by the USA and Australia, the green cluster by Germany, the pistachio cluster by Spain, and the brown cluster by Italy.

The results of the analysis of journals

Typically, each journal's performance is determined using the Journal Impact Factor (JIF), developed by Eugene Garfield in the early 1960s as a magazine selection tool. It is also used as an indicator to determine a journal's relative influence. However, many evaluation agents use it to evaluate a researcher's performance, suggesting that articles published in journals with a high JIF will have a greater impact. In our study, the results of the journal analysis and the various coefficients of influence are given in Table 6.

Table 6. Source local impact Top 15

Sources	h-index	g-index	m-index	Total citation	Number of publications	Publication year
Accounting, Auditing and Accountability Journal	18	34	1.8	1519	36	2013
Journal of Cleaner Production	18	28	1.8	1642	30	2013
Sustainability (Switzerland)	11	18	1.1	393	43	2013
Sustainability Accounting, Management and Policy Journal	9	14	0.75	239	25	2011
Critical Perspectives on Accounting	7	7	0.64	817	7	2012
Journal of Business Ethics	7	9	1	354	10	2016
Meditari Accountancy Research	6	9	1	260	16	2017
Business Strategy and the Environment	5	5	0.42	266	5	2011
Corporate Social Responsibility and Environmental Management	5	6	0.625	142	6	2015
Journal of Accounting and Organizational Change	5	6	0.45	95	6	2012
Pacific Accounting Review	5	6	0.56	111	6	2014
Revista de Contabilidad-Spanish Accounting Review	5	5	0.42	125	5	2011
Social Responsibility Journal	5	8	0.5	69	10	2013
Journal of Legal, Ethical and Regulatory Issues	4	5	0.44	39	5	2014
Social and Environmental Accountability Journal	4	9	0.36	84	10	2012

Source: authors' elaboration using R software.

Table 6 shows that the leading indicators are the Accounting, Auditing and Accountability Journal (Emerald), the Journal of Cleaner Production (Elsevier), and Sustainability (Switzerland) (Multidisciplinary Digital Publishing Institute (MDPI)). These are high-ranking and world-famous journals. However, based on the quantitative indicator Total Citation, the situation is somewhat different: 1) the Journal of Cleaner Production (1642), 2) the Accounting, Auditing and Accountability Journal (1519), and 3) Critical Perspectives on Accounting (817). Figure 10 shows the number of articles on the topic in these journals.

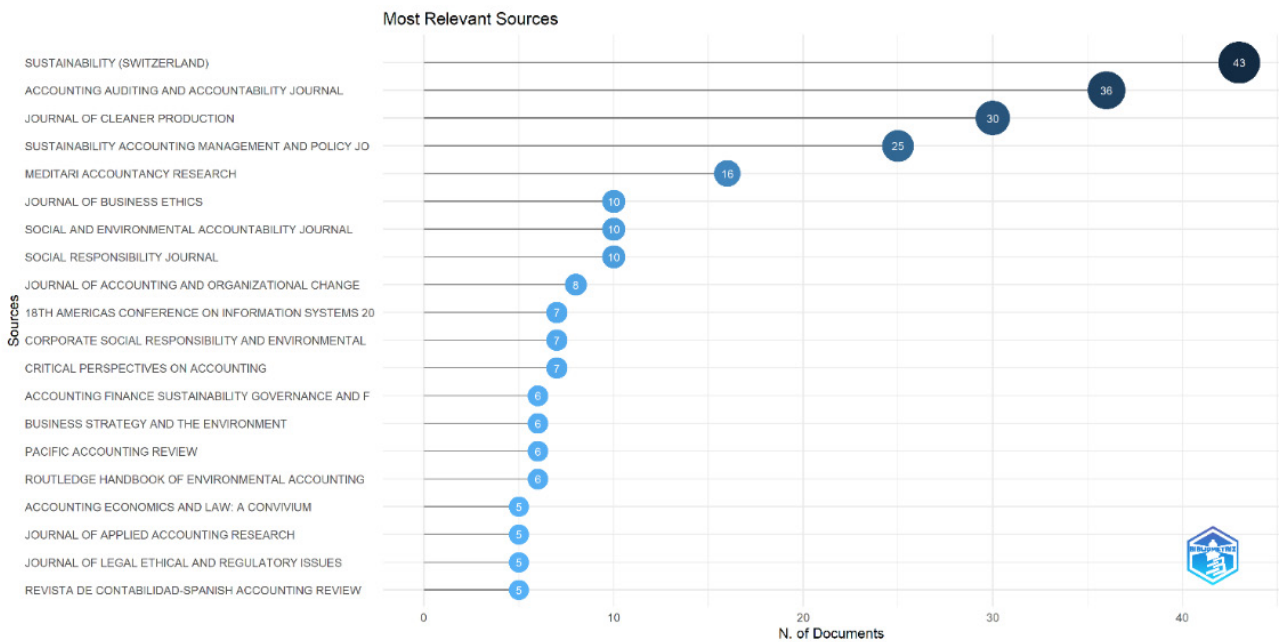


Figure 10. Most Relevant Sources

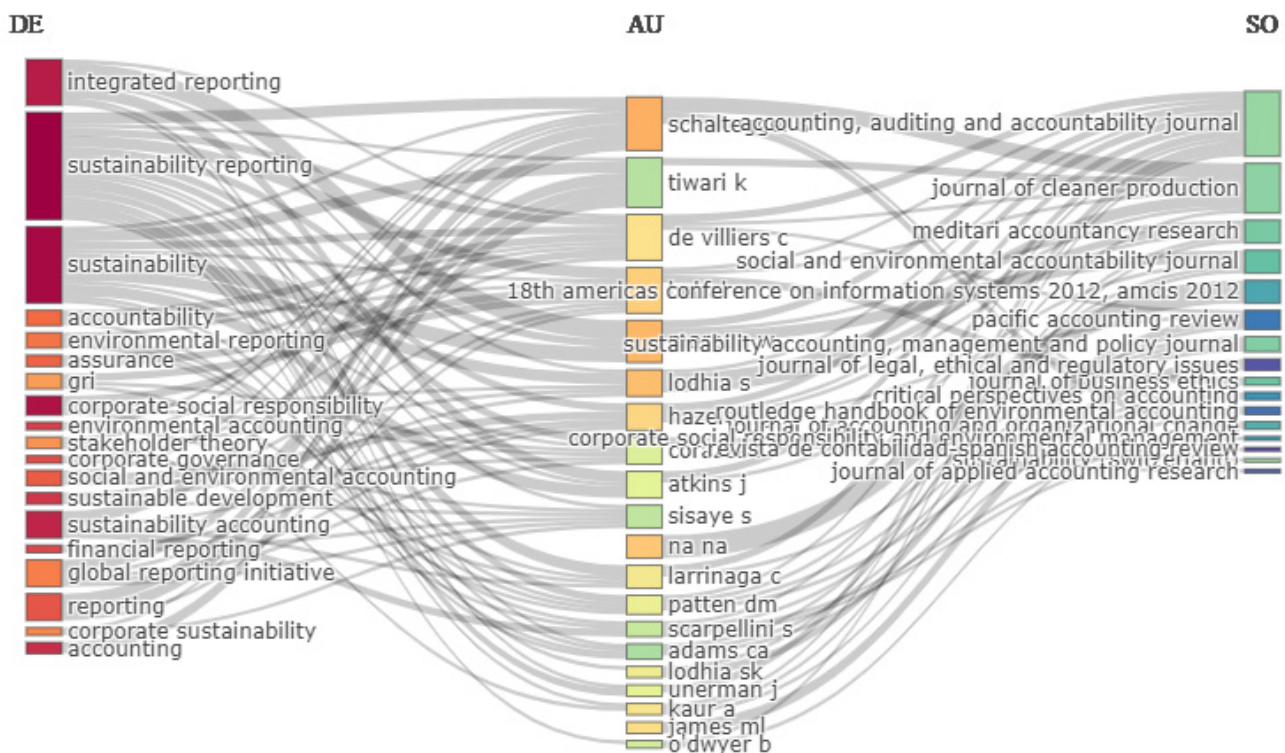
Source: authors' elaboration using R software.

As Figure 10 shows, the most articles are found in the previously mentioned journals: Sustainability (Switzerland) (43), the Accounting, Auditing and Accountability Journal (36), the Journal of Cleaner Production (30) and the Sustainability Accounting, Management and Policy Journal (25).

Sankey diagrams: Three field plots

A Sankey diagrams is a visualization tool that is used to show the flow from one set of values to another. This diagram combines two characteristics: the line shows the relationship between objects, while the width of the line represents its strength, a quantitative indicator of the relationship. Sankey diagrams provide a visual emphasis on the main transmission flows in the system and are useful in finding the dominant “contributions” to the overall flow.

The tripolar section in Biblioshiny is used to visually assess the relationship between sources, countries, affiliation, keywords, lead authors, and cited sources (Kumar et al. 2021). Figure 11 shows the results of the analysis of the communication network between keywords, authors and journals in this field.



Abbreviations. DE – author keywords; AU – authors; SO – publication name (or source)

Figure 11. Three-fields plot

Source: author's elaboration using R software.

Figure 11 shows the relationship between the keyword (left), author (middle), and source (right). Scholars such as Schaltegger, Tiwari, and De Villiers were found to have predominantly used the following keywords: integration reporting, sustainability reporting, sustainability, accountability, and environmental reporting. They published in the following publications: the Accounting, Auditing and Accountability Journal, the Journal of Cleaner Production, Meditari Accountancy Research, and the Social and Environmental Accountability Journal.

Conclusion

The bibliometric method of analysis of scientific papers based on the international scientometric database Scopus was used to establish current trends in the development of sustainability reporting. The query results for the period 2011–2021 were processed

using the VOSviewer and R (bibliometrix package) computer programs. There was an increase in scientific interest in the topic, which is manifested in an increase in the number of scientific papers, especially since 2016, amounting to a total of 625 publications.

The study of subject areas in terms of keywords indicates that in recent years, special attention has been paid to the study of sustainable development, sustainability, decision-making, sustainability reporting, accountability, environmental impact, climate change, corporate social responsibility, and more. A more specific analysis of the most cited articles on the subject has shown an emphasis on sustainable development reporting, taking into account climate and environmental issues. The analysis made it possible to establish that significant scientific achievements on this topic were made by Prof. Stefan Schaltegger, Olivier Boiral, Charl De Villiers, Jeffrey Unerman, Leonardo Rinaldi, and Brendan O'Dwyer, among others. These authors have mainly published their papers in the following journals: Sustainability (Switzerland), the Accounting, Auditing and Accountability Journal, the Journal of Cleaner Production and Sustainability Accounting, and the Management and Policy Journal.

As a result of the analysis, it was possible to establish that the following papers have the highest number of citations and have made a significant contribution to solving the pressing issues on the topic: "Seeking legitimacy for new assurance forms: The case of assurance on sustainability reporting" by O'Dwyer, Owen, and Unerman; "Integrated Reporting: Insights, gaps and an agenda for future research" by De Villiers, Rinaldi, and Unerman; and "The International Integrated Reporting Council: A story of failure" by Flower.

Based on the geographical structure of the authors who have researched the problems of reporting on sustainable development, the following countries should be distinguished: The United Kingdom (England), the USA, Australia, Germany, Spain, and Italy. Researchers from Central and Eastern Europe (mainly Poland, the Czech Republic, Romania, Croatia, Hungary, and Lithuania) have researched this issue somewhat less. However, they also have quite a lot of experience, which made it possible to follow the process of disclosing information about investments in reports from sustainable development (Staszkievicz and Werner 2021), trace companies' financial sustainability (Paseková et al. 2017), implement aspects of sustainable development in the reporting system (Vallišová, Černá, and Hinke 2018), establish trends and regularities in the development of knowledge of reporting on sustainable development in the public sector (Stefanescu 2021), investigate the quality of social information disclosed in non-financial reports (Peršić and Lahorka 2018), investigate the sustainability of companies based on the importance of marketing communications in business (Jianu, Țurlea, and Gușatu 2016), and increase business transparency through corporate social reporting (Dagilienė, Leitonienė, and Grenčíkova 2014).

The results of the study are aimed at helping researchers better understand the state of research on sustainability reporting. In addition, the literature and conclusions presented in this article provide researchers with a broader vision of the topic and make it more open. In the future, researchers may focus on problem areas to explore further. In addition, the usefulness of this study is that it provides an opportunity to summarize and generalize the work on the topic during previous periods, allowing other scholars to use the results as a starting point for their research.

Acknowledgments

This study was based on two scientific topics: “Accounting in the context of sustainable economic development” (code of R&D work – OA–16) and “Formation and distribution of information flows between the subjects of the accounting system of the enterprise” (code of R&D work – OA–20).

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Trendy raportowania zrównoważonego rozwoju: systematyczna analiza sieciowa literatury

Sporządzanie i składanie raportów zrównoważonego rozwoju jest kluczowym obszarem reformy sprawozdawczości korporacyjnej w świetle realizacji celów zrównoważonego rozwoju. W ostatnich latach znacząco wzrósł udział firm, które składają raporty dotyczące zrównoważonego rozwoju i społecznej odpowiedzialności biznesu. Dlatego ważne jest badanie definicji aparatu

pojęciowego. Artykuł ma na celu zbadanie struktury ilościowej i jakościowej przepływu dokumentacji czasopism naukowych, głównych obszarów badań i trendów rozwojowych. Przedstawiono w nim również wyniki systematycznego przeglądu publikacji dotyczących raportowania zrównoważonego rozwoju.

W pracy wykorzystano analizę bibliometryczną czasopism naukowych pochodzącą z bazy Scopus dla lat 2011–2021. Prace naukowe wybrane za pomocą słowa kluczowego „raportowanie zrównoważonego rozwoju” zostały wyeksportowane do przetwarzania w programach komputerowych VOSviewer i R (pakiet bibliometryczny). Na podstawie wyników analizy ilościowej wyodrębniono 625 publikacji, z których większość stanowiły artykuły naukowe. Główne obszary badań nad sprawozdawczością w zakresie zrównoważonego rozwoju w rachunkowości to zrównoważony rozwój, stabilność, podejmowanie decyzji, sprawozdawczość w zakresie zrównoważonego rozwoju i odpowiedzialność.

Badanie pozwoliło również zidentyfikować autorów i szkoły badawcze, które wniosły największy wkład w ten temat, oraz zdefiniować klastry geograficzne w kontekście ściśle współpracujących ze sobą krajów całego świata i najwyżej ocenianych czasopism.

Oryginalność tego opracowania polega na tym, że pomaga stworzyć ramy koncepcyjne. Powinno być przydatne dla zdefiniowania zakresu przyszłych badań i ma na celu zapewnienie nowego jakościowo wglądu w rolę sprawozdawczości w zakresie zrównoważonego rozwoju. Artykuł stanowi okazję do wypełnienia luk w badaniach jakościowych dotyczących sprawozdawczości w zakresie zrównoważonego rozwoju. Główne wnioski płynące z tego artykułu pomogą badaczom poszerzyć swoją wiedzę w tym zakresie poprzez retrospektywną analizę wyników badań.

Słowa kluczowe: raportowanie zrównoważonego rozwoju, rachunkowość, CSR, analiza bibliometryczna, analiza sieciowa