

---

# Sustainability Reporting Assurance within Worldwide Trends

---

*Univ. Lecturer Andreea CÎRSTEA, Ph.D.,  
Babeş-Bolyai University, Cluj-Napoca, Romania,  
Faculty of Economics and Business Administration,  
e-mail: andreea.cirstea@econ.ubbcluj.ro*

## Abstract

*Assurance of sustainability reports has gained increasing attention in academic research and professional practice as organizations strive to enhance the credibility and transparency of their environmental, social, and governance (ESG) disclosures. This bibliometric analysis examines the academic landscape of assurance in sustainability reporting by analyzing relevant literature indexed in the Scopus database from 1995 to 2024. The study focused on analyzing the co-authorship at the country level, the co-occurrence of keywords, as well as co-citations at the level of cited references. The analysis explores trends, patterns, and emerging themes in research related to assurance practices, methodologies, standards, and stakeholder perspectives. The results revealed a growing interest in the topic of sustainability reporting assurance, particularly in countries such as the United Kingdom, USA, Spain, and Australia. Furthermore, the high number of citations indicates that the topic is increasingly debated among researchers.*

**Key words:** *sustainability reporting assurance; bibliometric analysis; co-authorship analysis; keywords analysis; co-citation analysis;*

**JEL Classification:** *M41, M42, M48*

### To cite this article:

Cîrstea, A. (2024), Sustainability Reporting Assurance within Worldwide Trends, *Audit Financiar*, vol. XXII, no. 3(175)/2024, pp. 547-558, DOI: 10.20869/AUDITF/2024/175/020

### To link this article:

<http://dx.doi.org/10.20869/AUDITF/2024/175/020>

Received: 22.04.2024

Revised: 14.05.2024

Accepted: 8.07.2024

## 1. Introduction

The concept of sustainability began to be widely used in the 1980s, with increasing concerns about the impact of human activities on the environment and the need to adopt more sustainable practices to protect natural resources and ensure the well-being of future generations (World Commission on Environment and Development, 1987; Hawken et al., 1999).

The first steps towards developing sustainability reports were taken in the 1990s, when organizations began to include information on environmental and corporate social responsibility in their annual reports (Krzus and Kleiman, 2013). However, reporting was often voluntary and fragmented, without clear standards or guidelines. Sustainability reports emphasized aspects such as social and environmental performance, but ESG reporting expands its scope to include governance aspects as well. This transition reflects an increased recognition of the importance of strong governance within organizations and its impact on long-term sustainability.

Sustainability reporting has evolved from a niche practice to a mainstream phenomenon, with an increasing number of organizations recognizing the importance of reporting their ESG performance. These reports serve as vital communication tools, allowing companies to demonstrate their commitment to sustainability and engage with stakeholders. While these reports are intended to enhance transparency and accountability, questions persist about their reliability (Eccles and Krzus, 2010). Assurance, defined as the independent examination of sustainability disclosures, plays a vital role in addressing these concerns (Deegan, 2002).

This type of verification provides stakeholders, including investors, consumers, employees, and regulatory authorities, with confidence in the accuracy and reliability of sustainability reports (Kolk, 2003). By subjecting reported information to independent scrutiny, assurance helps alleviate concerns about greenwashing and ensures that organizations adhere to rigorous standards of transparency and disclosure (Epstein and Wisner, 2001).

Efforts are being made to develop harmonized assurance standards for sustainability reporting (Simnett et al., 2009). These initiatives aim to promote consistency and comparability in assurance practices, thereby enhancing the credibility of sustainability reports (Bebbington et al., 2008).

Technological advancements are revolutionizing assurance practices in sustainability reporting (Dyllick și Hockerts, 2002). Technologies such as blockchain, artificial intelligence (AI), and data analytics enable real-time data verification, enhanced traceability, and predictive analytics, thereby improving the efficiency and effectiveness of assurance processes (Wallace, 1995).

As the demand for credible sustainability information intensifies, there arises a need for assurance mechanisms to verify the accuracy and reliability of these reports. Assurance, in this context, refers to the independent examination or validation of information presented in sustainability reports to enhance their credibility and trustworthiness (Akisik and Gal, 2014; Hahn et al., 2018; Deegan, 2002; Adams, 2002; Bebbington et al., 2007; Arena et al., 2017). Researchers such as Burritt et al. (2011) have highlighted the importance of assurance in building stakeholders' trust in the validity of reported sustainability performance data.

Through a comprehensive review of relevant literature, we aim to contribute to current trends in sustainability reporting assurance, providing a comprehensive synthesis of existing knowledge and outlining paths for future research. This article seeks to provide valuable insights to researchers, practitioners, and policymakers to inform decision-making processes and promote the field of sustainability reporting assurance. Additionally, the developed bibliometric analysis aims to provide an overview of the specialized literature on assurance in sustainability reporting, examining trends, patterns, and emerging themes in academic research.

## 2. Research methodology

In order to gain an overview of this subject and following the identification of a large number of associated articles, we considered bibliometric analysis as the most appropriate method,

providing clear indications of what has already been studied and showing the trends towards which research on sustainability reporting assurance is heading. Additionally, the study is based on content analysis, which also played an important role in achieving the proposed objectives. The factors we considered include co-authorship analysis, co-citation analysis, and co-occurrence keyword analysis (Pizzi et al., 2024; Oware and Moulya, 2023; Van Eck and Waltman, 2023; Donthu et al., 2021). The analysis is based on information extracted from the Scopus database, which is one of the most representative platforms for scientific publications and is used in many studies analyzing specialized literature (Pizzi et al., 2024; Oware and Moulya, 2023; Kumar et al., 2023; Anand et al., 2021, 2020). The reason for choosing this platform is based not only on the large number of indexed journals and existing publications but also on the fact that it covers a wide time range.

Thus, the first step taken involved identifying relevant articles using search terms in titles, abstracts, and keywords: "sustainability reports assurance" or "sustainability reports audit".

#### **(TITLE-ABS-KEY(sustainability reports assurance) OR TITLE-ABS-KEY(sustainability reports audit))**

The search yielded 728 documents, but we limited the search to articles only in English and therefore the number of remaining articles was 705. Subsequently, by analyzing the types of documents, we selected only Articles, Conference Papers, Book Chapters, and Reviews, reducing the number to 683 documents. Upon reviewing the resulting articles, we found it necessary to exclude several research subject areas such as Pharmacology, Toxicology and Pharmaceutics, Neuroscience, Multidisciplinary, Immunology and Microbiology, Biochemistry, Genetics and Molecular Biology, Health Professions, Nursing, Medicine, which determined the total number of documents included in our analysis: 578 documents.

The analysis was conducted using the VOSviewer 1.6.20 software, through which we

examined collaboration links between authors, considering their countries of origin, with the aim of identifying the scientific community's interest in sustainability reporting, in accordance with geographic diversity. Subsequently, we studied how the most frequently used keywords are distributed, with the purpose of examining and analyzing the interconnections between them, establishing a minimum threshold of 10 simultaneous appearances. Additionally, the research also aimed to analyze the co-citation network of references, which helps identify the literature structure regarding sustainability reporting assurance. All these steps have helped us to gain an overview of the impact and direction of sustainability reporting assurance research.

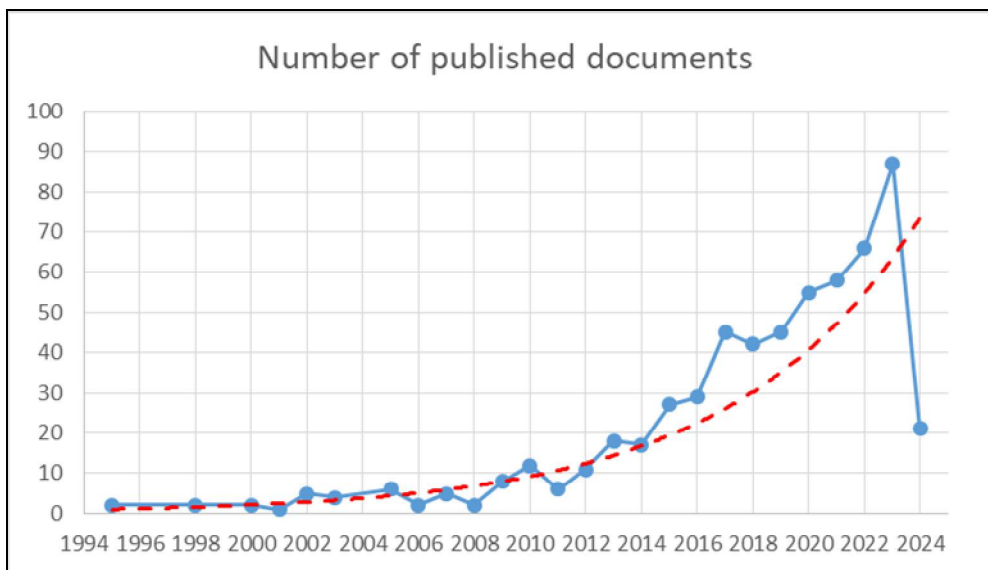
### **3. Descriptive and bibliometric analysis**

#### **3.1 The evolution of publications between 1995 and 2024**

*Figure no. 1* shows the evolution of publications regarding sustainability reporting assurance or sustainability reporting audit from 1995 to 2024. It can be clearly observed that the number of published documents that discussed sustainability reports assurance or audit over 30 years has significantly increased. The number of studies remained below 20 until 2014 and starting with 2015, a substantial increase is evident, reaching 87 articles in 2023. Also, another equally important aspect that we must pay attention to is that out of the total of 578 articles, open access with various degrees, including full open access, gold, hybrid gold, bronze and green amounted to 412 articles, representing 85.29% of all identified articles. This high percentage of open access articles shows that studies on the assurance of sustainability reports will have a high citation index (Gonzalez-Brancor and Dorta-Gozalet, 2019; Li et al., 2018, Davis et al. 2008, Craig et al., 2007; Moed, 2007; Kurtz et al., 2005; Lawrence, 2001).

The increase in studies that addressed the subject of assurance and auditing of sustainability reports in the recent period may be due to the desire of entities to use audit functions in the assessment of sustainability risks (Bao, X. et al., 2020).

**Figure no. 1. Publications evolution**



Source: Own processing

### 3.2 The impact of the topic in specialized journals

Analyzing the number of articles on the assurance or auditing of sustainability reports published in journals, **Table no. 1** shows that Sustainability Switzerland has the highest number of publications, with 35 (6.05%), followed by Sustainability Accounting Management and Policy

Journal with 25 (4.32%) and Corporate Social Responsibility and Environmental Management with 18 (3.11%). Regarding the number of citations, things are slightly different. Even if Sustainability Switzerland has the highest number of published articles, the number of their citations is 401 (50 citations being the most for 1 article).

**Table no. 1. The number of articles and citations per journal**

Journal name	Number of articles	Journal publishers	Total citations per journal/ The highest number of citations for an article in a journal
<b>Sustainability Switzerland</b>	35	MDPI	401/50
<b>Sustainability Accounting Management and Policy Journal</b>	25	Emerald Publishing	811/246
<b>Corporate Social Responsibility and Environmental Management</b>	18	John Wiley and Sons Ltd	1169/244
<b>Journal of Cleaner Production</b>	17	Elsevier Ltd	1151/217
<b>Business Strategy and the Environment</b>	14	John Wiley and Sons Ltd	1009/445
<b>Journal of Business Ethics</b>	12	Springer Netherlands	1367/313
<b>CSR Sustainability Ethics and Governance</b>	8	Springer Nature	19/9
<b>Meditari Accountancy Research</b>	8	Emerald Publishing	114/58
<b>Social Responsibility Journal</b>	8	Emerald Publishing	200/74
<b>Accounting Auditing and Accountability Journal</b>	7	Emerald Publishing	729/450

Source: Own processing

However, **Table no. 2** highlights that the most cited article is found in the Accounting Review with 812 citations, followed by an article in Critical Perspectives on Accounting with 540 citations, and another article in the

Accounting, Auditing & Accountability Journal with 450 citations. As can be seen, the most cited articles do not correspond to the journals with the highest number of publications.

**Table no. 2. The top 10 articles based on the number of citations**

Journal name	Authors	Article	Total citations
Accounting Review	Simnett R.; Vanstraelen A.; Chua W.F. (2009)	Assurance on sustainability reports: An international comparison	812
Critical Perspectives on Accounting	Michelon G.; Pilonato S.; Ricceri F. (2015)	CSR reporting practices and the quality of disclosure: An empirical analysis	540
Accounting, Auditing and Accountability Journal	Boiral O. (2013)	Sustainability reports as simulacra? A counter-account of A and A+ GRI reports	450
Business Strategy and the Environment	Kolk A.; Perego P. (2010)	Determinants of the adoption of sustainability assurance statements: An international investigation	445
British Accounting Review	O'Dwyer B.; Owen D.L. (2005)	Assurance statement practice in environmental, social and sustainability reporting: A critical evaluation	393
Journal of Business Ethics	Perego P.; Kolk A. (2012)	Multinationals' Accountability on Sustainability: The Evolution of Third-party Assurance of Sustainability Reports	313
Auditing	Pflugrath G.; Roebuck P.; Simnett R. (2011)	Impact of assurance and assurer's professional affiliation on financial analysts' assessment of credibility of corporate social responsibility information	277
Auditing	Peters G.F.; Romi A.M. (2015)	The association between sustainability governance characteristics and the assurance of corporate sustainability reports	251
Sustainability Accounting, Management and Policy Journal	Dienes D.; Sassen R.; Fischer J. (2016)	What are the drivers of sustainability reporting? A systematic review	246
Corporate Social Responsibility and Environmental Management	Rosati F.; Faria L.G.D. (2019)	Business contribution to the Sustainable Development Agenda: Organizational factors related to early adoption of SDG reporting	244

Source: Own processing

### 3.3 Contributions at the country and institution level

The descriptive analysis also reveals that the University of South Wales Sydney has the highest number of publications. The Universidad de Salamanca is also on the podium, followed by the University of Gloucestershire Business School. Moreover, the importance of these institutions is also reflected in the country analysis, which shows that the United Kingdom has the highest number of publications (89 documents), with Spain (58 documents) also among the top 3 countries with the highest number of publications. The

United States cannot be ignored either, although it does not appear in the first 8 at the institution level, the number of publications is significant (78 documents). At the same time, it can be observed that the University of South Wales Sydney contributes to 35.18% of the 54 publications of all universities in Australia, and RMIT University contributes to 12.96%. Similarly, the Universidad de Salamanca contributes to 25.86% of the 58 publications attributed to Spain, while the University of Gloucestershire Business School contributes to 15.73% of the total of 89 publications (**Table no. 3**).

**Table no. 3. Representative institutions and countries**

Institutions	Country	Number of articles	Country	Number of articles
University of South Wales Sydney	Australia	19	UK	89
Universidad de Salamanca	Spain	15	USA	78
University of Gloucestershire Business School	UK	14	Spain	58
Universitat de València	Spain	12	Australia	54
RMIT University	Australia	7	Italy	34
University of the Witwatersrand, Johannesburg	South Africa	7	Indonesia	33
Universidade de Vigo	Spain	7	Germany	29
American University of the Middle East	Kuweit	7	Canada	24

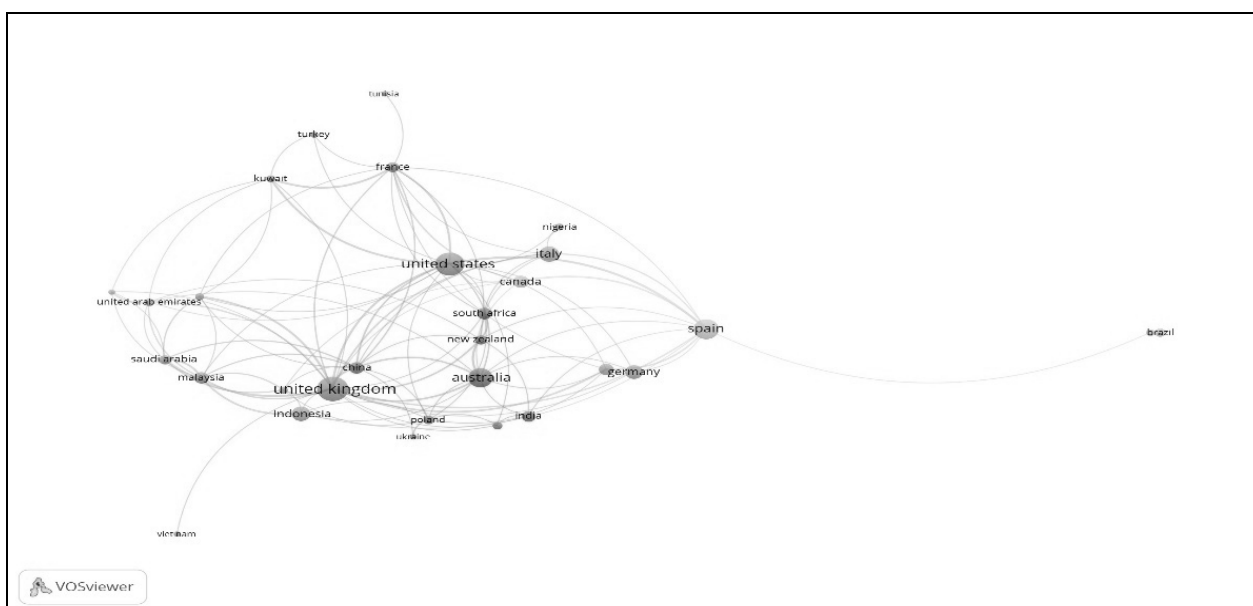
Source: Own processing

### 3.4 Country collaboration of co-authors analysis

Analyzing the co-authorship at the country level, 8 clusters emerged, indicating the existing connections between the countries (Figure no. 2). Thus, from the analysis carried out, it can be observed that the United Kingdom, which has the highest number of publications, also has the highest collaboration (22 links and 57 times co-authorship). The next country in terms of collaboration is the United States, with 17 links and 36 co-authorships.

France (13 links and 24 times co-authorship), Spain (12 links and 25 times co-authorship), China (12 links and 23 times co-authorship) and Australia (12 links and 21 times co-authorship) represent countries that must be taken into account in terms of assurance or audit of sustainability reports, having high collaborations on this topic. At the opposite pole are the countries with the fewest collaborations, namely: Vietnam, Brasil and Tunisia (1 link and one time co-authorship).

**Figure no. 2. Country collaboration of co-authors analysis**



Source: Own processing with VOSviewer

### 3.5 Keywords analysis

Chen and Xiao (2016) suggest that the connections between keywords provide an overview of the analyzed topic. This finding is supported by Smith et al. (2018), who emphasize the importance of keywords analysis in uncovering specific meanings within a field. Additionally, research conducted by Johnson and Patel (2020) highlights the importance of understanding relationships between keywords for mapping the conceptual landscape of a given domain. Thus, we continued our research with a co-occurrence analysis of keywords.

Given the large number of keywords, we considered it necessary to limit the minimum number of simultaneous appearances of keywords to 10. In this case, 37 keywords were identified, indicating that the topics discussed in the sphere of sustainability reporting assurance/audit are diverse, which may be linked to the increasing number of publications in recent years. The main keywords used by researchers are "sustainability" with 164 appearances, "sustainable development" with 110 appearances, "sustainability reporting" with 105 appearances, and "assurance" with 70 appearances. As shown in **Table no. 4**, these keywords can be considered the most relevant in terms of their connections with other keywords.

**Table no. 4. Relevant keywords used in articles**

Keyword	Number of occurrences	Total link strength	Keyword	Number of occurrences	Total link strength
Sustainability	164	313	Economic and social effects	12	41
Sustainable development	110	254	Environmental economics	10	39
Sustainability reporting	105	201	Reporting	11	37
Assurance	70	143	External assurance	19	36
Corporate social responsibility	63	142	Auditing	15	35
Sustainability report	43	92	Disclosure	14	35
Stakeholder	22	81	Climate change	12	33
Corporate governance	39	70	Stakeholders	10	31
Integrated reporting	29	60	Audit	18	30
Global reporting initiative	20	58	Finance	11	30
Accountability	25	56	Corporate sustainability	14	28
GRI (Global Reporting Initiative)	21	52	CSR (Corporate social responsibility)	11	26
European Union	15	51	Environmental impact	10	25
Corporate strategy	13	50	Sustainability reports	19	24
Environmental management	14	44	Materiality	10	23
Governance approach	13	44	Quality assurance	17	23
Stakeholder engagement	14	44	Life cycle	10	21
Sustainability assurance	38	42	Indonesia	10	17
Decision making	13	41			

Source: Own processing

Moreover, the analysis revealed the existence of five clusters (**Figure no. 3**), providing a clearer picture of the themes addressed by researchers. Among the most relevant themes, we can highlight: the interaction between corporate sustainability initiatives, governance practices, and stakeholder responsibility, with an emphasis on the role of assurance

mechanisms such as audits, in increasing transparency and credibility; the complex challenges posed by climate change and the need for integrated strategies that consider economic, social, and environmental aspects; the importance of assurance mechanisms, such as auditing, in ensuring the credibility and reliability of corporate social

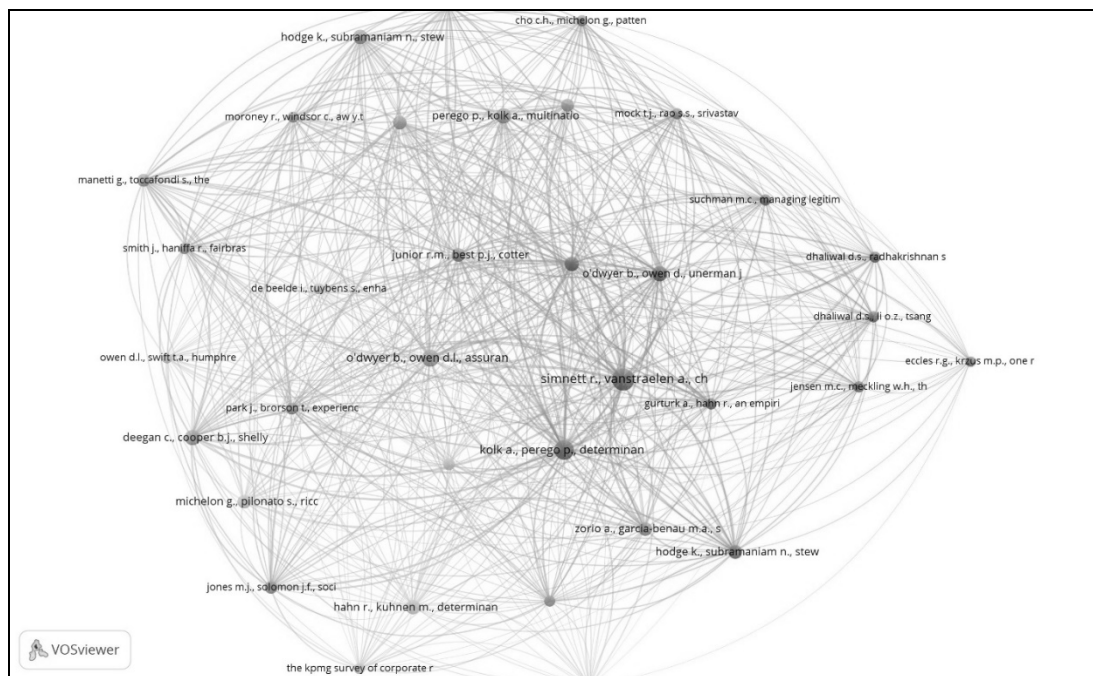




Analyzing the results obtained from the co-citation analysis, we identified strong connections between articles. The total link strength of co-citation indicates how strong the relationship is between one element and other elements cited together. The higher this indicator is, the closer the relationship between these bibliographic sources is. Therefore, a higher strength may suggest that a particular article is frequently cited

together with other similar works, reflecting significant influence or relevance in its research field. The article with the highest strength is that of Simnett et al. (2009), followed by Kolk and Perego (2010), and O'Dwyer and Owen (2005), which also have the highest number of citations. However, it can be observed that there are multiple co-citation links between articles (*Figure no. 4*).

**Figure no. 4. Co-citation network of reference map**



Source: Own processing with VOSviewer

## Conclusions

The evolution of research on sustainability reporting assurance from 1995 to 2024 reflects a significant upward trend. Although initially, the number of publications remained low, below 20 until 2014, it experienced substantial growth starting in 2015, reaching 87 articles in 2023. Open access to these articles, including full open access and other forms of access, has dominated, representing 85.29% of the total of 578 identified articles. This openness may suggest a high likelihood of citation for these studies.

The recent increase in interest in sustainability reporting assurance and audit may be linked to entities' desire to

assess sustainability risks through audit functions.

However, although some journals have published a large number of articles, the most cited works come from other sources, indicating that impact and quality are not always proportional to the number of publications.

United Kingdom's Universities, United States' Universities and Spain's Universities have been among the most active in publishing articles about sustainability reporting assurance, and international collaborations are frequent. Keyword and co-citation analyses suggest significant diversity and complexity in the themes addressed, reflecting current concerns in the field of sustainability reporting assurance. Additionally, analysis tools like

VOSviewer have facilitated understanding the structure and evolution of specialized literature, highlighting dominant themes and interactions among them.

In conclusion, research on sustainability reporting assurance and audit has experienced significant expansion in recent years, reflecting the

increased importance of this field. With a growing diversity in the themes addressed and extensive collaboration between institutions and countries, there is a clear global concern for promoting transparency and accountability in sustainability reporting.

## BIBLIOGRAPHY

1. Adams, C.A., 2002. Internal organisational factors influencing corporate social and ethical reporting: Beyond current theorizing. *Accounting, Auditing & Accountability Journal*, 15(2), 223-250.
2. Akisik, O. and Gal, G., 2014. Financial performance and reviews of corporate social responsibility reports. *Journal of Management Control*, 25(3-4), 259-288.
3. Anand, A., Kringelum, L.B., Madsen, C.O. and Selivanovskikh, L., 2021. Interorganizational Learning: A Bibliometric Review and Research Agenda. *Learning Organization*, 28(2), 111-136.
4. Bao, X., Zhang, H., Pan, K. ve Wei, C., 2020. A Bibliometric Analysis of Research on Auditing for Sustainable Corporate Governance. *Proceedings – 2020 2nd International Conference on Economic Management and Model Engineering, ICEMME 2020*, 132-139.
5. Bebbington, J., Larrinaga-González, C., & Moneva-Abadia, J. M., 2008. Legitimizing reputation/the reputation of legitimacy theory. *Accounting, Auditing & Accountability Journal*, 21(3), 371-374.
6. Bebbington, J., Brown, J., & Frame, B., 2007. Accounting technologies and sustainability assessment models. *Ecological economics*, 61(2-3), 224-236.
7. Burritt, R.L., Schaltegger, S., Zvezdov, D. 2011. Carbon management accounting: Explaining practice in leading German companies. *Australian Accounting Review*, 21(1), 80-98.
8. Chen, Guo & Xiao, Lu, 2016. Selecting publication keywords for domain analysis in bibliometrics: A comparison of three methods. *Journal of Informetrics*, 10(1), 212-223.
9. Craig, I. D., Plume, A. M., McVeigh, M. E., Pringle, J., & Amin, M., 2007. Do open access articles have greater citation impact? A critical review of the literature. *Journal of Informetrics*, 1(3), 239–248.
10. Davis, P. M., Lewenstein, B. V., Simon, D. H., Booth, J. G., & Connolly, M. J., 2008. Open access publishing, article downloads, and citations: Randomised controlled trial. *British Medical Journal*, 337(7665), 343–345.
11. de Beelde I., Tuybens S., 2015. Enhancing the credibility of reporting on corporate social responsibility in Europe. *Business strategy and the environment*, 24, 3, 190-216.
12. Deegan, C., Cooper, B.J. and Shelly, M., 2006. An investigation of TBL report assurance statements: Australian evidence. *Australian Accounting Review*, 16(39), 2-18
13. Deegan, C., 2002, Introduction: The legitimising effect of social and environmental disclosures – a theoretical foundation. *Accounting, Auditing & Accountability Journal*, 15(3), 282-311.
14. Dhaliwal, D.S., Li, O.Z., Tsang, A. and Yang, Y.G., 2011. Voluntary nonfinancial disclosure and the cost of equity capital: the initiation of corporate social responsibility reporting. *The Accounting Review*, 86(1), 58-100.
15. Donthu, N., Kumar, S., Mukherjee, D., Paney, N. and Lim, W.M., 2021. How to conduct a bibliometric analysis: an overview and guidelines. *Journal of Business Research*, 133, 285-296.
16. Dyllick, T., & Hockerts, K., 2002. Beyond the business case for corporate sustainability. *Business Strategy and the Environment*, 11(2), 130-141.
17. Eccles, R. G., & Krzus, M. P., 2010. One report: Integrated reporting for a sustainable strategy. *John Wiley & Sons*.
18. Epstein, M. J., & Wisner, P. S., 2001. Using a balanced scorecard to implement sustainability. *Environmental Quality Management*, 11(2), 1-10.
19. Gonzalez-Brancor, M.S. and Dorta-Gozalet, P., 2019. Publication modalities 'article in press'

20. and 'open access' in relation to journal average citation. *Scientometrics*, 120, 1209-1223.
21. Hahn, T., Figge, F., Pinkse, J. et al., 2018. A Paradox Perspective on Corporate Sustainability: Descriptive, Instrumental, and Normative Aspects. *Journal of Business Ethics*, 148, 235–248.
22. Hawken, P., Lovins, A., & Lovins, L. H., 1999. *Natural Capitalism: Creating the Next Industrial Revolution*. Back Bay Books.
23. Hodge, K., Subramaniam, N. and Stewart, J., 2009. Assurance of sustainability reports: impact on report users' confidence and perceptions of information credibility. *Australian Accounting Review*, 19(3), 178-194.
24. Jones, J.M. and Solomon, F., 2010. Social and environmental report assurance: some interview evidence. *Accounting Forum*, 34(1), 20-31.
25. Kolk, A. and Perego, P., 2010. Determinants of the adoption of sustainability assurance. *Business Strategy and the Environment*, 19, 182-198.
26. Kolk, A., 2003. Trends in sustainability reporting by the Fortune Global 250. *Business Strategy and the Environment*, 12(5), 279-291.
27. Krzus, M.P., and G. Kleiman (eds.), 2013. *Corporate Sustainability Reporting and Assurance: Accountability Beyond the Enterprise*. Wiley.
28. Kumar, S., Pandey, N. and Kaur, J., 2023. Fifteen years of the social responsibility journal: a retrospective using bibliometric analysis. *Social Responsibility Journal*, 19(2), 377-397.
29. Kurtz, M. J., Eichhorn, G., Accomazzi, A., Grant, C., Demleitner, M., Henneken, E., et al., 2005. The effect of use and access on citations. *Information Processing and Management*, 41(6), 1395–1402.
30. Lawrence, S., 2001. Free online availability substantially increases a paper's impact. *Nature*, 411(6837), 521–522.
31. Li, Y., Wu, C., Yan, E., & Li, K., 2018. Will open access increase journal CiteScores? An empirical investigation over multiple disciplines. *PLoS ONE*, 13(8), e0201885.
32. Michelon, G., Pilonato, S. and Ricceri, F., 2015. CSR reporting practices and the quality of disclosure: an empirical analysis. *Critical Perspectives on Accounting*, 33, pp. 59-78.
33. Mock TJ, Rao SS, Srivastava RP., 2013. The development of worldwide sustainability reporting assurance. *Australian Accounting Review*, 23(4), 280–294.
34. Moed, H. F., 2007. The effect of open access on citation impact: An analysis of ArXiv's condensed matter section. *Journal of the American Society for Information Science and Technology*, 58(13), 2047–2054.
35. O'dwyer, B., 2011. The case of sustainability assurance: constructing a new assurance service. *Contemporary Accounting Research*, 28(4), 1230-1266.
36. O'Dwyer, B., Owen, D. and Unerman, J., 2011. Seeking legitimacy for new assurance forms: the case of assurance on sustainability reporting. *Accounting, Organizations and Society*, 36(1), 31-52.
37. O'Dwyer, B and Owen, D.L., 2005. Assurance statement practice in environmental, social and sustainability reporting: a critical evaluation. *British Accounting Review*, 37(2), 205-229.
38. Oware, K.M. and Moulya, V.H., 2023. The outlook of sustainability assurance in global trends: a bibliometric review and research agenda. *South Asian Journal of Marketing*, 4(2), 110-127.
39. Owen, D.L., Swift, T.A., Humphrey, C., Bowerman, M., 2000. The new social audits: accountability, managerial capture or the agenda of social champions? *European Accounting Review*, 9, 1, 81-98.
40. Park, J. and Brorson, T., 2005. Experiences of and views on third-party assurance of corporate environmental and sustainability reports. *Journal of Cleaner Production*, 13(10-11), 1095-1106,
41. Perego, P. and Kolk, A, 2012. Multinationals' accountability on sustainability: the evolution of third-party assurance of sustainability reports. *Journal of Business Ethics*, 110(2), 173-190.
42. Perego, P., 2009. Causes and consequences of choosing different assurance providers: an international study of sustainability reporting. *International Journal of Management*, 26(3), 412-425.
43. Pizzi, S., Venturelli, A., Caputo, F., 2024. Restoring trust in sustainability reporting: the enabling role of the external assurance, *Current Opinion in Environmental Sustainability*, 68.

45. Simnett, R., Vanstraelen, A., & Chua, W. F., 2009. Assurance on sustainability reports: An international comparison. *The Accounting Review*, 84(3), 937-967.
46. Smith, M.S. et al., 2018. Advancing sustainability science for the SDGs. *Sustainability science*, 13, 1483-1487.
47. van Eck, N.J. and Waltman, L., 2023. VOSviewer Manual, Univeriteit Leiden, Leiden, available at: [http://www.vosviewer.com/documentation/Manual\\_VOSviewer\\_1.6.20.pdf](http://www.vosviewer.com/documentation/Manual_VOSviewer_1.6.20.pdf)
48. Zorio A, García-Benau MA, Sierra L., 2013. Sustainability development and the quality of assurance reports: Empirical evidence. *Business Strategy and the Environment*, 22(7), 484–500.
49. Wallace, D., 1995. Zappenduster: People make a difference. *Management Accounting Research*, 6(1).
50. World Commission on Environment and Development., 1987. Our Common Future. Oxford University Press