



## Sustainability Reporting Academic Research: A Bibliometric Trends and Future Directions

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### ABSTRACT

Sustainability reporting has emerged as a critical area for businesses, governments, and society, reflecting a growing emphasis on transparent environmental, social, and governance (ESG) practices. Despite its importance, there is a limited understanding of bibliometric trends within this field. This study aims to examine recent sustainability reporting studies and explore how bibliometric analysis can shape future research directions. Utilizing a bibliometric approach, we analyzed 2,282 scholarly publications on sustainability reporting from 2010 to 2024, sourced from the Scopus database. VOSviewer software was employed to map and visualize patterns in authorship, countries, journals, keywords, and collaboration networks. The findings reveal a significant upward trend in sustainability reporting publications, especially after 2019, indicating heightened global focus on sustainability issues. The United Kingdom and the United States lead in research contributions, with substantial participation from Italy, Australia, and Germany. Key journals identified include the journal of cleaner production and corporate social responsibility and environmental management. Keyword analysis highlights central themes such as “sustainability reporting,” “global reporting initiative,” and “sustainable development.” Influential authors and collaborative networks were mapped, showcasing the interconnectedness within the research community. The study concludes that while sustainability reporting research has grown notably, many areas remain underexplored. Expanding research to less-focused topics, refining theoretical frameworks, and incorporating diverse stakeholder perspectives are crucial for advancing the field. This comprehensive review provides valuable insights into the current state of sustainability reporting research and identifies potential areas for future exploration, contributing to the promotion of transparency, accountability, and ethical corporate practices.

**Keywords:** Sustainability Reporting, Bibliometric Analysis, Scopus, Global Reporting Initiative, Sustainable Development

**JEL Classifications:** Q56, M14, M41, L15, C89

### 1. INTRODUCTION

In today’s world, marked by rapid industrial growth and heightened environmental awareness, sustainability has become a key focus for businesses, governments, and society as a whole. Sustainability reporting plays a vital role in helping businesses demonstrate responsible practices and proactively manage risks. It also aligns with the growing demand from stakeholders for greater transparency in environmental, social, and governance (ESG) practices, driven by increasing environmental challenges (Arkoh et al., 2023). This phenomenon is not merely an ancillary feature of corporate strategy but rather a fundamental element that shapes

stakeholder relationships and corporate reputation (Delmas and Blass, 2010; KPMG, 2020).

Sustainability reporting is multifaceted, encompassing various dimensions, including quantitative and qualitative disclosures about an organization’s sustainability practices (Tahat et al., 2019; Ioannou and Serafeim, 2011). The global reporting initiative (GRI) defines sustainability reporting as the process of publicly disclosing an organization’s economic, environmental, and social impacts, as well as how its operations promote sustainable development (GRI, 2022). This form of accountability is paramount as it facilitates informed decision-making among stakeholders while fostering

corporate transparency and trust (O'Dwyer and Unerman, 2008; Mio et al., 2024).

Sustainability reporting offers numerous benefits, including enhancing transparency, accountability, and stakeholder trust in organizations (Momchilov, 2022; Wagenhofer, 2024; Paridhi and Ritika, 2024). It enables companies to communicate their ESG performance, aligning with the principles of sustainable development (Momchilov, 2022). By disclosing economic, environmental, and social performance, sustainability reports contribute to improved financial performance and overall organizational success (Paridhi and Ritika, 2024). Moreover, sustainability reporting fosters a culture of responsibility towards society and the environment, guiding businesses in mitigating negative impacts and enhancing positive outcomes (Agama and Zubairu, 2022). Sustainability reporting enables stakeholders, including investors, customers, and regulators, to assess how a company manages risks and opportunities related to sustainability (KPMG, 2020). As businesses face increasing pressure to operate sustainably and transparently, sustainability reporting has become an essential aspect of strategic decision-making and corporate accountability (Eccles et al., 2014). The integration of sustainability metrics into financial reporting provides a comprehensive view of a company's long-term viability and contributes to informed investment decisions (García-Sánchez et al., 2021). Overall, sustainability reporting not only aids in meeting current demands sustainably but also ensures the well-being of future generations and the preservation of the environment (Eltom et al., 2023).

Despite its critical importance, the existing literature on sustainability reporting reveals a limited understanding of bibliometric approaches within the field. Our search identified only a handful of bibliometric or systematic review articles specifically focused on sustainability reporting (Hahn and Kühnen, 2013; Dienes et al., 2016; Pasko, 2021; Hyk et al., 2023; Bosi, 2022).

Research on sustainability reporting has significantly expanded, covering various topics including the production of the reports and the frameworks employed for sustainability reporting (Dumay and Guthrie, 2019). Moreover, a substantial proportion of sustainability reporting research based on journals has emerged. Acknowledging the significant advancements in sustainability reporting practices in research and practice, we were prompted to conduct this bibliometric review.

The aim of this study is to examine sustainability reporting studies from recent years and explore how this bibliometric analysis will shape future research. This study addresses the following research questions:

1. What is the current trend in the publication of sustainability reporting?
2. Which are the most influential articles on sustainability reporting?
3. Which countries have actively participated in sustainability reporting research?
4. Which are the most popular themes of sustainability reporting among scholars?

5. Who are the most influential authors of sustainability reporting?
6. What is the current state of collaboration involving sustainability reporting?

This study contributes to the existing body of knowledge on sustainability reporting in two key ways: Firstly, it offers enhanced insights into addressing the challenges impacting the quality of sustainability reporting by analyzing both historical and contemporary literature. Secondly, it provides a thorough review of the assessment methods used to evaluate the quality of sustainability reporting, aiming to expand the literature covering this aspect from 2010 to 2024. Additionally, the researchers expect that the findings from this analysis will offer a deeper understanding of the topic and identify potential areas for future research exploration.

## 2. METHODOLOGY

Bibliometric analysis has become an increasingly popular method for uncovering research trends and mapping knowledge structures within various academic fields (Zakaria et al., 2020). It offers a robust alternative to traditional literature reviews by employing quantitative techniques to systematically analyze written units or bibliographic data (Broadus, 1987). This analytical approach provides a deeper understanding of the literature by evaluating metrics such as publication frequency, authorship patterns, keyword co-occurrences, and citation counts (Kleminski et al., 2020). By analyzing these parameters, bibliometric analysis reveals intricate patterns and relationships within a specific field of study, offering valuable insights into its development and future directions.

For this study, we used Scopus as the primary data source due to its extensive collection of over 90 million records of peer-reviewed literature spanning multiple disciplines. Scopus was chosen for its interdisciplinary scope, high-quality citation data, and advanced export tools that facilitate comprehensive bibliometric analysis. To ensure a focused and relevant dataset, we applied the following search string to the Scopus database: TITLE-ABS-KEY ("sustainability reporting") AND PUBYEAR > 2009 AND PUBYEAR < 2025 AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re") OR LIMIT-TO (DOCTYPE, "cp")) AND (LIMIT-TO [LANGUAGE, "English"]). This search was specifically designed to identify articles, reviews, and conference papers related to sustainability reporting published in English between 2010 and 2024.

The search process, conducted on 29 May 2024, initially retrieved a total of 2,299 records. A rigorous screening procedure was then applied to eliminate irrelevant and duplicate entries, resulting in the removal of 17 records (14 duplicates and 3 with missing data). This process refined the dataset to 2,282 records, which were deemed suitable for the bibliometric analysis. We extracted detailed bibliographic information from the final dataset, including article titles, authors, abstracts, citation counts, and keywords. This information was meticulously cleaned and standardized to ensure consistency across all entries. The dataset was then imported into VOSviewer software, a widely-used tool for constructing and

visualizing bibliometric networks (van Eck and Waltman, 2017). VOSviewer was instrumental in performing a comprehensive analysis of various bibliometric indicators, including journals, authorship patterns, keyword co-occurrences, citation networks, and country-level collaborations. This comprehensive approach enabled us to visualize and interpret complex relationships within the data, providing a detailed picture of the global research landscape in sustainability reporting. The findings from the VOSviewer analysis were used to identify clusters of high-impact research, influential authors, and key areas of international collaboration (Donthu et al., 2021). By combining quantitative analysis with visualization techniques, this study not only highlights the most influential publications, authors, and countries in the field of sustainability reporting but also offers insights into the evolving research trends.

### 3. ANALYSIS AND DISCUSSION OF THE RESULTS

#### 3.1. The Distribution of Scholarly Works

Figure 1 illustrates the number of publications on sustainability reporting from 2010 to 2024, revealing a clear upward trend. Publications grew from 30 in 2010 to 91 in 2014, and then steadily to 144 in 2018. A significant surge is observed from 2019, peaking at 435 in 2023, reflecting heightened global focus on sustainability issues. For 2024, data extracted in May shows 223 publications, indicating continued interest. This trend underscores the increasing recognition of sustainability reporting as a critical research area. Figure 2 shows the yearly citations for sustainability reporting publications from 2010 to 2024. Citations peaked at 6573 in 2016, reflecting the lasting impact of early influential works. From 2020 onwards, there is a sharp decline, with 1448 citations in 2023 and 131 in 2024, likely due to the lag in recent publications gaining recognition. This pattern underscores the dynamic nature of the

field, with fluctuations reflecting evolving research focus and citation cycles.

#### 3.2. Country Analysis

Figure 3 presents the number of sustainability reporting publications by country, illustrating the global distribution of research activity in this field. The United Kingdom leads with 246 publications, followed closely by the United States with 243, showcasing substantial contributions from both countries. Italy and Australia also show strong engagement with 232 and 214 publications, respectively. Germany and Spain contribute significantly with 170 and 156 publications. India, Malaysia, and Indonesia each demonstrate notable research output with 129, 123, and 122 publications, respectively. Canada and South Africa have substantial contributions with 85 and 79 publications. France, New Zealand, the Netherlands, and China each have between 58 and 69 publications, indicating their involvement in sustainability reporting research. This chart underscores the diverse global participation in sustainability reporting research, highlighting varying degrees of engagement and contributions from different countries. The widespread distribution emphasizes the global recognition of the importance of sustainability reporting and the active research involvement across multiple regions, although South Africa is the only representative from Africa.

The study analyzed over 2,200 publications to reveal a network of international collaboration in sustainability reporting research using VOSviewer, focusing on clusters and link strength, as shown in Figure 4. Cluster 1 (red) includes leading collaborators such as the United Kingdom (2198 total link strength), Italy (1961), Germany (1439), the United States (1223), Spain (1310), and Canada (1080), with France (659), the Netherlands (762), and China (400) also demonstrating strong collaboration. Cluster 2 (green) features emerging collaborators like India (575), Malaysia (617), and Indonesia (416), indicating growing research partnerships. Cluster 3 (blue) includes key regional players such as Australia (1693), New Zealand (902), and South Africa (691), highlighting robust international ties. This analysis underscores the importance of international collaboration in advancing sustainability reporting research, with leading countries in Cluster 1 playing central roles and emerging collaborators and regional players in Clusters 2 and 3 demonstrating significant engagement in the global research landscape.

#### 3.3. Key Journals Analysis

Table 1 highlights the top 10 journals with the most-cited publications in sustainability reporting. The Journal of Cleaner

Figure 1: Publication trends over 2010 to 2024

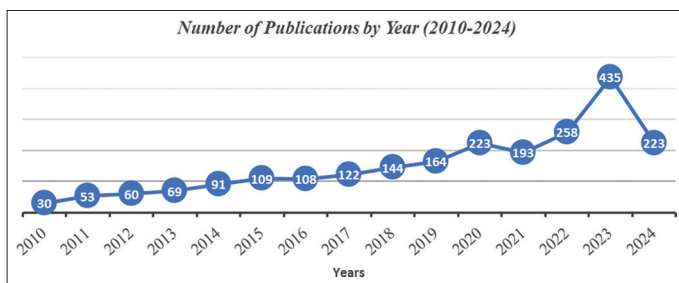


Figure 2: Citation trends over 2010 to 2024

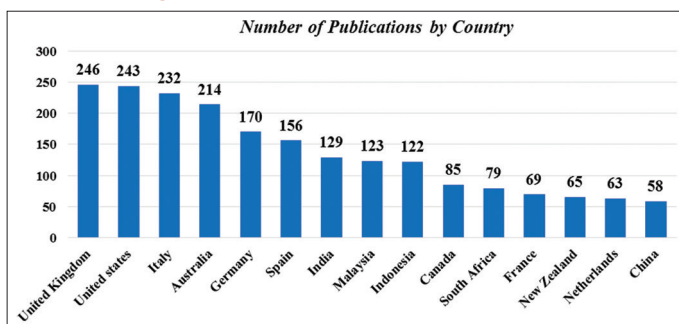


Figure 3: Countries with the most publications and citation

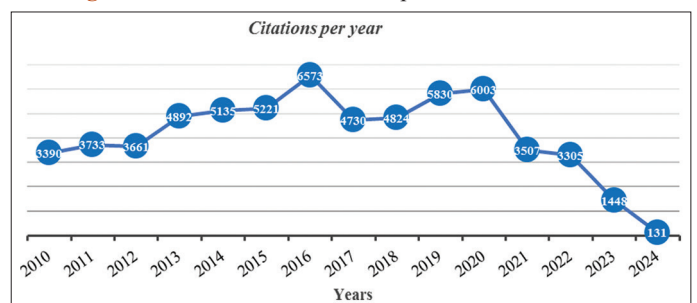


Figure 4: A network of cooperation among the countries

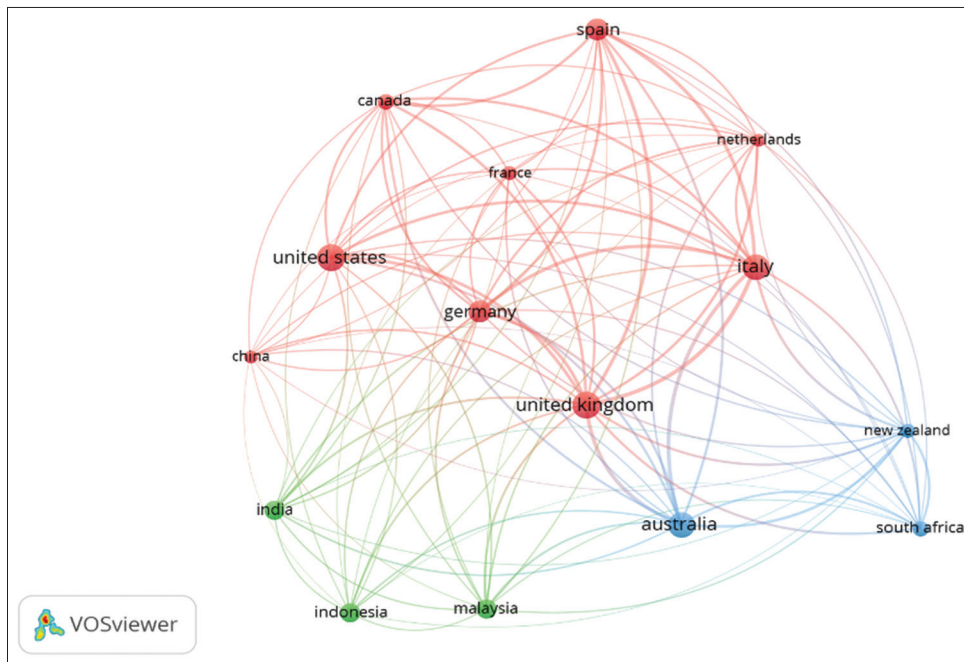


Table 1: Top 10 journals with most-cited publications

No	Sources	Publisher	TC	TP	AC/P	CS	SNIP	SJR
1	Journal of cleaner production	Elsevier	9,277	98	95	20.4	2.236	2.058
2	Corporate social responsibility and environmental management	John Wiley and Sons	4,200	76	55	17.2	2.559	2.201
3	Business strategy and the environment	John Wiley and Sons	3955	50	79	22.5	3.043	3.666
4	Sustainability (Switzerland)	Multidisciplinary digital publishing institute	3,744	175	21	6.8	1.086	0.672
5	Accounting, auditing and accountability journal	Emerald publishing	3,452	53	65	7.6	2.11	1.73
6	Journal of business ethics	Springer nature	3,414	29	118	12.8	2.841	2.624
7	Sustainability accounting, management and policy journal	Emerald publishing	2,581	83	31	9.5	1.478	1.197
8	Meditari accountancy research	Emerald publishing	1,473	50	29	7.8	1.323	0.932
9	Social responsibility journal	Emerald publishing	909	34	27	7.3	1.382	0.844
10	International journal of sustainability in higher education	Emerald publishing	875	21	42	6.6	1.369	0.83

TC: Total citations, TP: Total publications; AC/P: Average citations per publication; CS: Cite score; SNIP: Source normalized impact per paper; SJR: SCImago journal rank

Production (Elsevier) leads with 9,277 total citations and 98 publications, indicating its significant impact in the field. Its high average citations per publication (95) and strong impact metrics (Cite Score of 20.4, SNIP of 2.236, and SJR of 2.058) underscore its prominence. Following are Corporate Social Responsibility and Environmental Management and Business Strategy and the Environment (both by John Wiley and Sons), which also demonstrate substantial influence through high citation counts and average citations per publication. Notably, the journal of business ethics (Springer Nature) has the highest average citations per publication (118) among the top 10, reflecting exceptional impact despite fewer articles.

### 3.4. Keywords Analysis

The authors' keywords were mapped using VOSviewer, a software tool for constructing and visualizing bibliometric networks. Figure 5 shows a network visualization where color, node size, font size, and line thickness indicate relationships among keywords. Keywords with the same color are closely

linked and frequently co-occur. Key terms such as “sustainability reporting,” “global reporting initiative,” and “sustainable development” are central and interconnected, indicating their prominence. Other high-occurrence keywords include “integrated reporting,” “corporate governance,” “stakeholder engagement,” “corporate social responsibility,” “environmental management,” “environmental impact,” “climate change,” “decision making,” “strategic approach,” “corporate strategy,” “sustainability indicators,” “sustainability assurance,” “legitimacy theory,” “stakeholder theory,” “empirical analysis,” “firm value,” and “firm performance.” This visualization highlights the thematic clusters and interconnectedness of key concepts in sustainability reporting research, showcasing their significance and relationships within the academic discourse.

### 3.5. Authorship Analysis

Table 2 lists the top 10 productive authors in sustainability reporting research, categorized by cluster, total link strength, and citation count, with cluster colors as shown in Figure 6. Gray R.

Figure 5: Matching network for the most common keywords

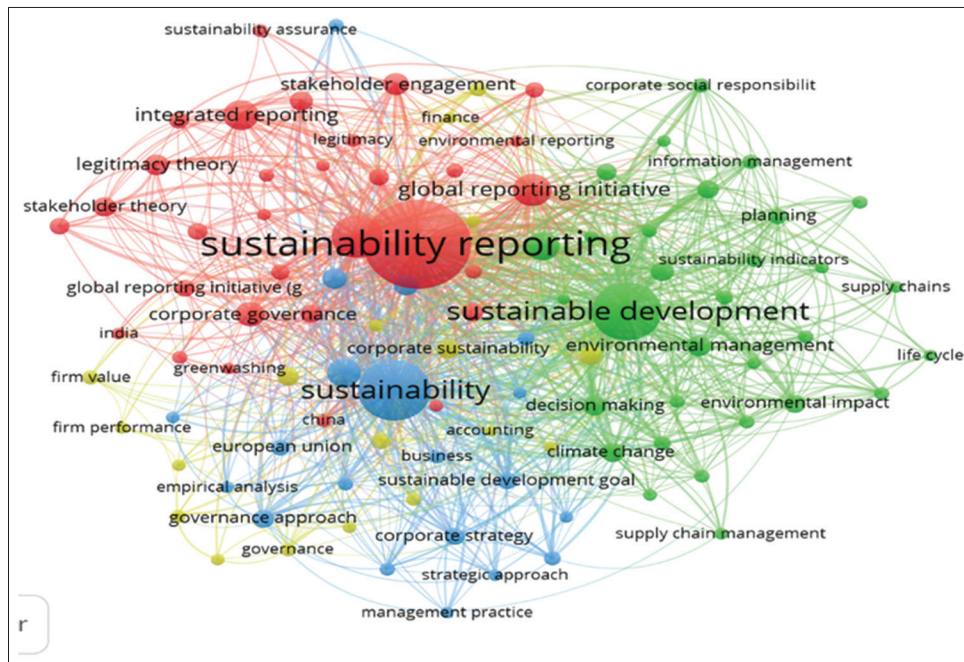
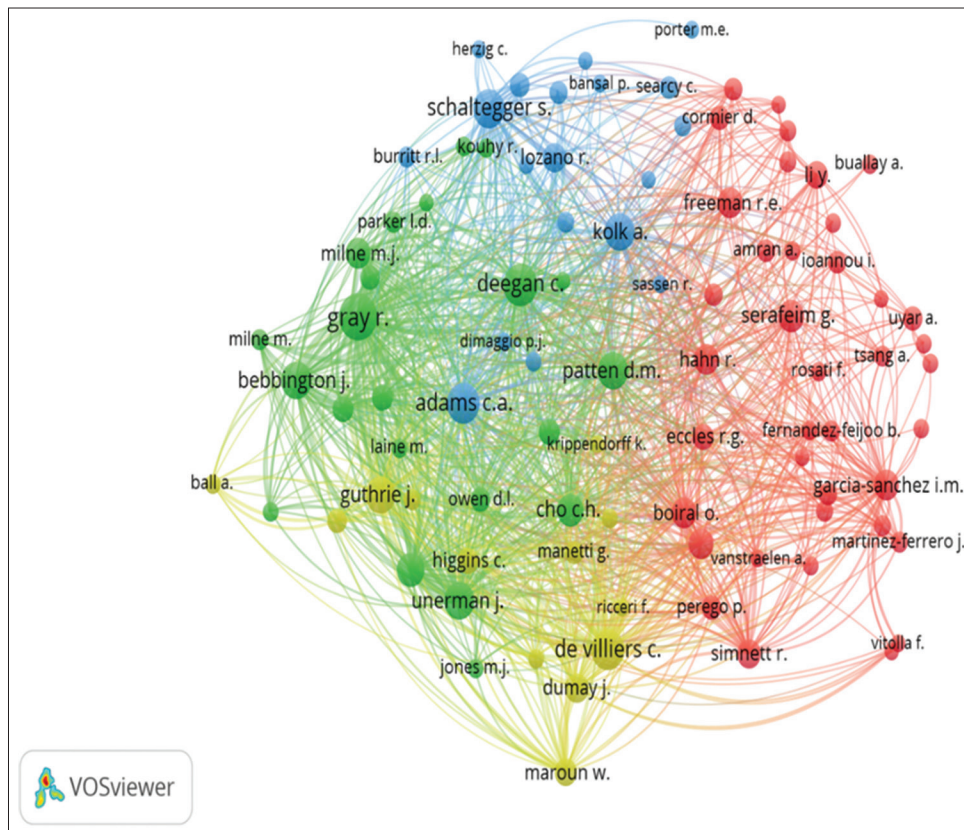


Figure 6: Collaborative network connections among renowned authors



and Deegan C., both from the green cluster (Cluster 2), are the most cited authors with 1,344 and 1,066 citations, respectively, underscoring their substantial impact on the field. Key contributors from the blue cluster (Cluster 3), such as Adams C.A. (952 citations), Schaltegger S. (907 citations), and Kolk A. (820 citations), also show significant influence. Regional influencers from the yellow cluster (Cluster 4), including De Villiers C.

(899 citations) and Guthrie J. (847 citations), demonstrate strong regional impact. Additional notable authors from the green cluster, Patten D.M. (861 citations), Bebbington J. (821 citations), and Unerman J. (814 citations), further highlight the extensive contributions and collaboration within the research community. This analysis emphasizes the significant influence of these top-cited authors in advancing sustainability reporting research.

**Table 2: Top 10 productive authors**

No	Authors	Cluster	Total link strength	Citation
1	Gray R.	2	42,698	1,344
2	Deegan C.	2	34,503	1,066
3	De Villiers C.	4	35,403	989
4	Adams C.A.	3	29,281	952
5	Schaltegger S.	3	22,679	907
6	Patten D.M.	2	29,218	861
7	Guthrie J.	4	26,742	847
8	Bebbington J.	2	26,907	821
9	Kolk A.	3	22,481	820
10	Unerman J.	2	27,818	814

#### 4. CONCLUSION AND LIMITATIONS OF THE STUDY

The sustainability reporting research has experienced notable growth, characterized by diverse thematic focuses and geographic variations. Despite advancements in understanding the implications and practices of sustainability reporting, many areas remain underexplored. Expanding research to cover less focused areas, refining theoretical frameworks, and incorporating diverse stakeholder perspectives are crucial steps in advancing this field. As sustainability reporting continues to evolve in response to global challenges, academic contributions will be pivotal in shaping best practices and guiding policy developments.

This comprehensive review of bibliometric trends and future research directions highlights the evolving nature of sustainability reporting studies, highlighting their crucial role in promoting transparency, accountability, and ethical corporate practices. The analysis, focusing on the most-cited publications in sustainability reporting, reveals significant growth in the field. From 2010 to 2024, there has been a marked increase in scholarly interest, with both publications and citations rising notably. The United Kingdom, United States, and Italy have emerged as key contributors to sustainability reporting research, alongside significant contributions from Germany, Australia, and Spain, reflecting the global importance and collaborative scope of this research area. Moreover, this study highlights influential journals, such as the “Journal of Cleaner Production” and “Corporate Social Responsibility and Environmental Management,” with the former standing out as particularly significant in the field. This identification of top-cited journals and key publications provides valuable direction for researchers seeking to deepen their engagement with sustainability reporting. By mapping the literature, this study has identified essential authors, prominent keywords, and relevant publication outlets, offering a well-structured guide for academics navigating the landscape of sustainability reporting.

The insights derived from this comprehensive analysis offer a foundational tool for future researchers, aiding them in identifying critical research gaps and advancing the collective knowledge base within sustainability reporting. Moving forward, four key areas warrant further scholarly attention: Integrated reporting, corporate governance, stakeholder engagement, and environmental impact. Each of these dimensions offers rich opportunities for exploration

and development, promising to deepen our understanding of how sustainability reporting can shape corporate strategy and influence broader societal outcomes.

This bibliometric study has several limitations. Firstly, the literature search was confined to the Scopus database, chosen for its comprehensive coverage of sustainability reporting. However, using additional databases could yield slightly different findings. My study focuses on publications from 2010 to 2024, reflecting trends during these years but may not encompass broader interdisciplinary perspectives. The analysis was limited to the most-cited publications, which might have led to different conclusions if a wider range of publications were considered. The findings are sensitive to the inclusion criteria, and different criteria could yield varying outcomes. Despite efforts to maintain objectivity, some aspects of subjectivity were unavoidable, particularly in generating and interpreting results. Future research should incorporate datasets from diverse databases and sources and expand the scope to include a wider range of publications and interdisciplinary perspectives for a more comprehensive understanding of sustainability reporting trends.

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