Sustainability Reporting Assurance: A Bibliometric Analysis

Januar Rahmad[1], Muhammad Agung Prabowo[2], Rahmawati[3]
[1,2,3] Master of Accounting, Sebelas Maret University

Abstract

This study aims to map the development of research on sustainability reporting assurance and identify research trends, intellectual structures, and future research directions through a bibliometric approach. The data were collected from the Scopus database using relevant keywords and analyzed using descriptive bibliometric methods, citation analysis, source and country mapping, and keyword co-occurrence analysis with VOSviewer. The results indicate that research on sustainability reporting assurance has grown significantly in recent years and is primarily focused on themes such as sustainability reporting quality, external assurance, ESG, corporate governance, information credibility, and assurance provider quality. In addition to identifying the most influential authors, journals, institutions, and countries in this field, the study also reveals emerging research trends and potential avenues for future research. The findings are expected to provide a comprehensive overview of the development of the sustainability reporting assurance literature and serve as a valuable reference for academics, practitioners, and policymakers in advancing research and practices related to sustainability reporting assurance.

Keywords: sustainability reporting assurance, sustainability assurance, external assurance, ESG.

INTRODUCTION

In a number of decade lastly, the issue sustainability has be one of attention main for companies, investors, regulators, and the public. Increasing awareness to change climate, damage environment, gaps social, as well as demands towards governance good company has push organization For No only focused on achievement performance finance, but also consider impact economic, social and environmental from activity his business (Dasinapa, 2024). Condition the cause reporting sustainability *reporting* is growing be one of mechanism important to use company for communicate performance its sustainability to stakeholders interest.

ESG (*Environmental, Social, and Governance*) is framework assessment used For measure performance company in aspect environmental, social, and governance as indicator sustainability as well as not quite enough answer company towards stakeholders interest (Jagrič et al., 2025). ESG information provides description about commitment company to sustainability as well as his abilities in manage related risks and opportunities with issue environmental, social, and governance company (Krasin, 2025). Information sustainability become the more important because investors and stakeholders interest other need more information comprehensive for evaluate performance, risks, opportunities and prospects company. Different with report finance that focuses on aspects financial, reports sustainability serve information about impact economic, social and environmental company as well as show commitment company in create mark term long through implementation practice responsible business responsible and sustainable (Rusu et al., 2024).

Development reporting sustainability experience rapid growth in a number of year final along with increasing demands transparency and accountability company to stakeholders interest (Kurniawati & Michelle, 2025). Condition the marked with emergence various standards and regulations reporting sustainability, such as the Global Reporting Initiative (GRI), the International

Sustainability Standards Board (ISSB), and the European Sustainability Reporting Standards (ESRS), which aim increase quality, consistency, comparability, and transparency information sustainability expressed company. In addition, various jurisdiction start apply regulations that require company disclose information sustainability so that coverage companies that compile report sustainability the more wide from time to time (Hummel & Jobst, 2024).

Although thus, increasing amount report sustainability also gives rise to various challenge related quality and credibility information disclosed. Different with information finance in general has through the audit process and have standard relative measurement clear, information sustainability often non - financial, qualitative, and involving various estimates and considerations management. Conditions This cause concern about reliability information conveyed to stakeholders interest. Delmas & Burbano (2011) defines greenwashing as practice companies that provide misleading information about performance environment company or display image a better environment Good compared to actual conditions. For overcome problem said, many company start use *Sustainability reporting assurance*. Sustainability reporting assurance is a verification process independent by the party external purposes increase credibility and reliability information disclosed in report sustainability so that can increase trust of stakeholders interest (Simnett et al., 2007). Through assurance, the company can increase trust stakeholders interest to information sustainability that is disclosed. In addition, the existence of assurance can reduce asymmetry information as well as increase legitimacy and reputation company through improvement credibility report sustainability (Martínez-Ferrero & García-Sánchez, 2017).

The importance of sustainability reporting assurance is increasing increase along development investment ESG -based. Modern investors do not Again only consider indicator finance in taking decision investment, but also pay attention to How company manage risk environmental, social, and governance. In context said, quality and credibility ESG information becomes very important factor. Assurance of report sustainability viewed capable increase investor confidence that information disclosed company has through the evaluation process independent and able trusted. Therefore that, sustainability reporting assurance is increasingly considered as part important in practice reporting modern sustainability.

As the number of assurance practices on report sustainability, research regarding sustainability reporting assurance is also developing in a way significant. Various study has study factors that influence decision company for using assurance, such as size company, profitability, structure ownership, governance company, existence committee sustainability, as well as pressure regulations (Kolk & Perego, 2010). Other research focuses on the impact use of assurance against quality reporting sustainability, cost of capital, reputation company, value companies, and investor (Pflugrath et al., 2011)confidence. In addition, several the study also discusses quality assurance providers, including difference between assurance providers originating from from office accountant public and non- accountant assurance providers (Martínez-Ferrero & García-Sánchez, 2017).

In a number of year Lastly, sustainability reporting assurance research shows that quite an improvement rapid development standard global sustainability, increasing demands transparency company, as well as increasing attention big to ESG issues have push birth various study new in field this. Topics like sustainability reporting assurance, namely sustainability reporting assurance, sustainability assurance, sustainability reporting assurance, ESG assurance, and

non-financial assurance. become focus main in various study. Condition This show that sustainability reporting assurance has been develop be one of theme important in literature accounting, auditing, and sustainability.

Although amount study regarding sustainability reporting assurance continues increasing, existing literature Still spread in various topics and approaches research. Most of study previously use approach empirical for test connection intervariable certain, while research that seeks map development literature in a way comprehensive Still relatively limited. As a result, information about trend publications, most influential authors, dominant countries and institutions, and themes developing research Not yet documented in a way comprehensive. Condition the make things difficult researchers in understand structure intellectual and direction development sustainability reporting assurance research.

For overcome limitations mentioned, it is necessary approach bibliometrics capable give description systematic about development sustainability reporting assurance research. Analysis bibliometrics is methods used for evaluate literature scientific based on characteristics publications, citations, authors, institutions, countries, journals, and keywords. Through approach this, researcher can identify trend research, structure intellectual, network collaboration, as well as dominant themes something field science. In addition, analysis bibliometrics also allows identification opportunity research that is still ongoing open and potential developed in the future.

Based on description said, research This aim for analyze development study regarding sustainability reporting assurance using approach bibliometrics. Research This make an effort identify trend publications, countries, institutions, journals, and most contributing authors in field of sustainability reporting assurance. In addition, research it also analyzes themes developing research through keyword mapping use VOSviewer. In special, research This make an effort answer question study following:

RQ1: How trend development publication study regarding sustainability reporting assurance during 2015-2025 period?

Research result This expected can give comprehensive overview about development sustainability reporting assurance literature and become reference for academics, practitioners, and makers policy in understand direction development research and assurance practices on report sustainability in the future.

RESEARCH METHODOLOGY

This study employs a bibliometric analysis method to map the development of the literature on sustainability reporting assurance. Bibliometric analysis is a quantitative approach used to evaluate and visualize the characteristics of scientific publications based on bibliographic information, such as the number of publications, citations, authors, institutions, countries, publication sources, and keywords. This method enables researchers to systematically identify research trends, intellectual structures, and the evolution of a particular research field.

This study adopts the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) protocol, which consists of three main stages: identification, screening, and inclusion. The use of the PRISMA protocol aims to enhance transparency and ensure that the articles included in the analysis have undergone a systematic selection process and are relevant to the research objectives (Page et al., 2021).

The Scopus database was used as the source of research data because it is a reputable scientific database that provides extensive literature coverage and comprehensive bibliographic information. These characteristics enable a more comprehensive bibliometric analysis and facilitate future research replication (Setiawan et al., 2023). Data collection was conducted in June 2026 through searches in

the title, abstract, and keywords (TITLE-ABS-KEY) fields.

The article search was performed using several keywords related to sustainability reporting assurance, namely "sustainability reporting assurance," "sustainability assurance," "sustainability report assurance," "ESG assurance," and "non-financial assurance." The use of multiple keywords was intended to obtain literature that comprehensively represents the development of research on sustainability assurance.

During the identification stage, a total of 373 documents indexed in Scopus were retrieved. Subsequently, a screening process was conducted by applying several inclusion criteria. First, only journal articles were included because journal articles have undergone a peer-review process and generally possess higher academic quality than other document types. Second, only articles written in English were selected to maintain consistency in the analysis and avoid language interpretation issues. Third, the publication period was limited to 2015–2025 to capture recent developments in sustainability reporting assurance research.

After the screening process, 170 documents were excluded because they did not meet the established inclusion criteria. As a result, 203 articles satisfied all criteria and were included in the bibliometric analysis. The article selection process is illustrated in Figure 1 through the PRISMA flow diagram.

Data analysis was conducted using VOSviewer software. This software was employed to visualize relationships among bibliographic elements in the form of research networks. The analyses included annual publication trend analysis, country analysis, author analysis, affiliation analysis, and co-word analysis. Annual publication trend analysis was used to identify the development of research output over time. Country, author, and affiliation analyses were conducted to identify the major contributors to the field of sustainability reporting assurance. Meanwhile, co-word analysis was used to map dominant research themes and identify emerging topics within the literature.

Through this bibliometric approach, the study is expected to provide a comprehensive overview of the development of sustainability reporting assurance research, identify the intellectual structure of the literature, and uncover potential research opportunities for future studies.

RESULTS AND DISCUSSION

The annual publication trend presented in Figure 2 indicates that research on *sustainability reporting assurance* experienced significant growth during the 2015–2025 period. During the early years, from 2015 to 2018, the number of publications remained relatively low and stable. An upward trend began in 2019 with 14 publications and continued to increase to 20 publications in 2020. Although the number of publications declined to 10 in 2021, research activity rebounded in subsequent years. The highest number of publications was recorded in 2025, with a total of 61 documents, representing a substantial increase compared to 30 publications in 2024.

The growing number of publications indicates that *sustainability reporting assurance* has become an increasingly important topic among academics and researchers. The development of global sustainability reporting standards, the increasing demand for credible ESG information, and growing stakeholder expectations regarding corporate transparency have been major drivers of research growth in this field (Hazaea et al., 2022). Therefore, *sustainability reporting assurance* can be considered an emerging research area with considerable potential for future studies.

The country analysis presented in Figure 3 shows that the United States is the largest contributor to *sustainability reporting assurance* research, with 33 publications. It is followed by Spain with 29 publications, Australia with 25 publications, and the

United Kingdom with 23 publications. China also demonstrates a substantial contribution with 19 publications. Meanwhile, Indonesia ranks sixth with 14 publications, followed by France, New Zealand, Tunisia, and Germany.

The dominance of developed countries suggests that research on *sustainability reporting assurance* has advanced more rapidly in countries with mature sustainability regulations, developed capital markets, and high stakeholder awareness of ESG issues. Nevertheless, Indonesia's position among the leading contributors indicates that sustainability assurance has also attracted increasing attention in developing countries. These findings demonstrate that sustainability assurance research has become a global phenomenon rather than being concentrated solely in developed economies.

Figure 4 presents the most productive authors in the field of *sustainability reporting assurance*. Martínez-Ferrero, J. is the most prolific author with 10 publications, followed by García-Sánchez, I.M. with 7 publications. Farooq, M.B. and Ruiz-Barbadillo, E. have each contributed 5 publications. Other notable authors, including Al-Shaer, H., Alsahali, K.F., Bakarich, K.M., Boiral, O., Channuntapipat, C., and Fernandez-Feijoo, B., have each published 3 articles.

These findings indicate that the development of *sustainability reporting assurance* research has been driven by a number of scholars who consistently examine sustainability reporting quality, external assurance, corporate governance, and ESG disclosure. Their contributions have played a significant role in shaping the intellectual structure and research direction of sustainability assurance studies.

Based on Figure 5, Universidad de Salamanca is the most productive institution, contributing a total of 15 publications. It is followed by the University of Auckland, Curtin University, and the University of Sfax, each with 6 publications. UNSW Sydney and Universitas Airlangga have each produced 5 publications, while RMIT University, Montclair State University, Universidad de Cádiz, and Deakin University have each contributed 4 publications.

These results demonstrate that research on *sustainability reporting assurance* is supported by institutions from various regions of the world, including Europe, Asia, Africa, and Oceania. The presence of Universitas Airlangga among the leading institutions highlights the growing contribution of Indonesian scholars to sustainability assurance research. This institutional diversity reflects the global relevance of *sustainability reporting assurance* and its importance across different countries.

The co-word analysis visualization presented in Figure 6 reveals that research on *sustainability reporting assurance* is dominated by several interconnected themes. Keywords such as *sustainability reporting assurance*, *assurance provider*, *ESG*, *corporate governance*, *sustainability reporting*, and *external assurance* emerge as the most central terms within the research network.

The strong relationships among these keywords suggest that research in this field largely focuses on enhancing the credibility of sustainability reports through the use of external assurance. Furthermore, the quality of assurance providers has become a key concern because it contributes to improving assurance quality and the reliability of sustainability information disclosed by companies. These findings indicate that research on *sustainability reporting assurance* extends beyond assurance practices themselves and also examines factors influencing assurance quality and their implications for corporate transparency and accountability (Farooq & de Villiers, 2019).

Based on the results of the co-word analysis, future research may further explore topics related to assurance quality, assurance levels (*limited assurance* and *reasonable assurance*), the role of assurance providers, ESG integration, and the impact of

sustainability regulations on sustainability assurance practices. These findings suggest that *sustainability reporting assurance* remains a dynamic and expanding research field with substantial opportunities for future investigation as global attention to sustainability issues continues to increase.

Figure 1. Prisma flow diagram

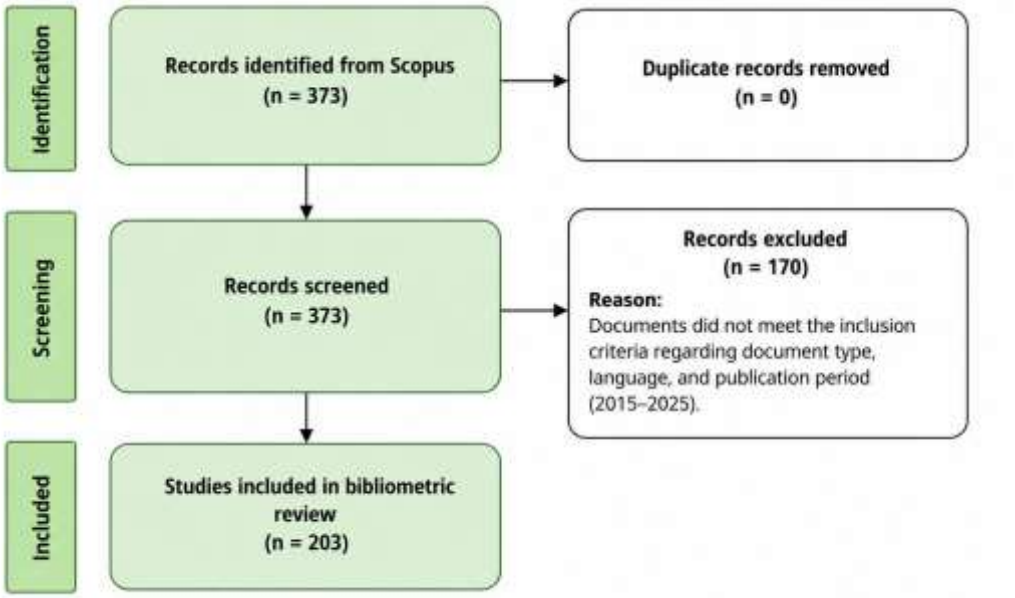


Figure 2. Document by year

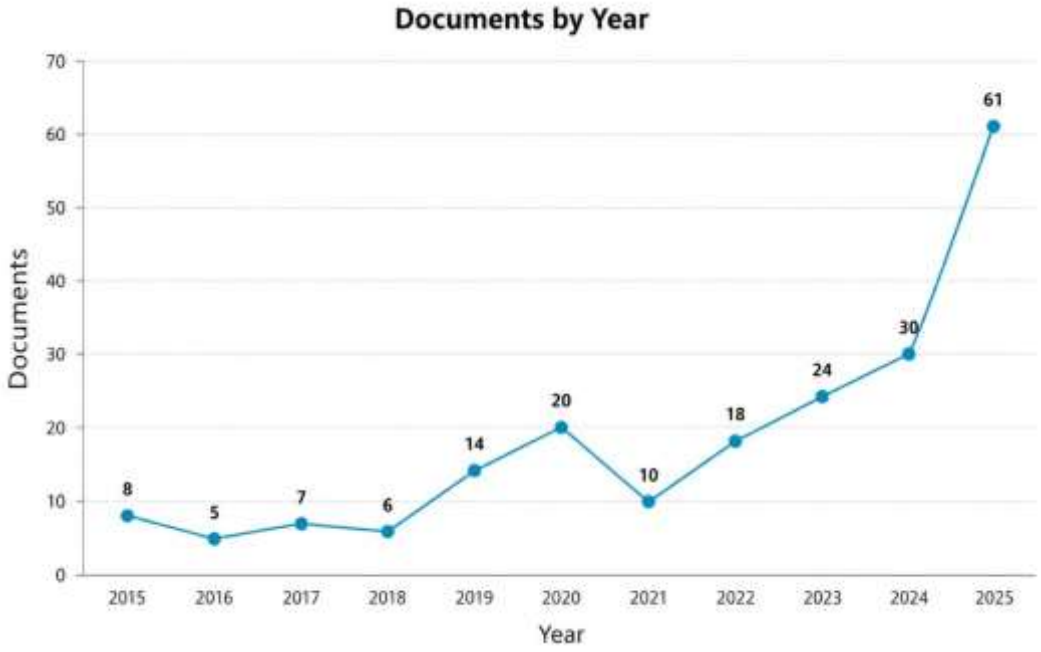


Figure 3. Document by country

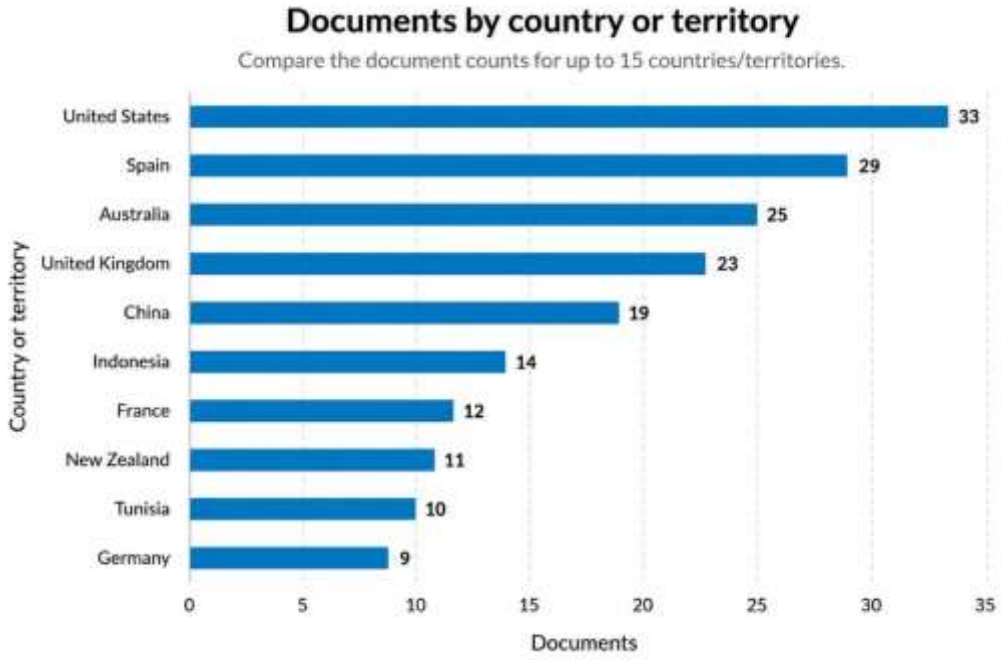


Figure 4. Document by author

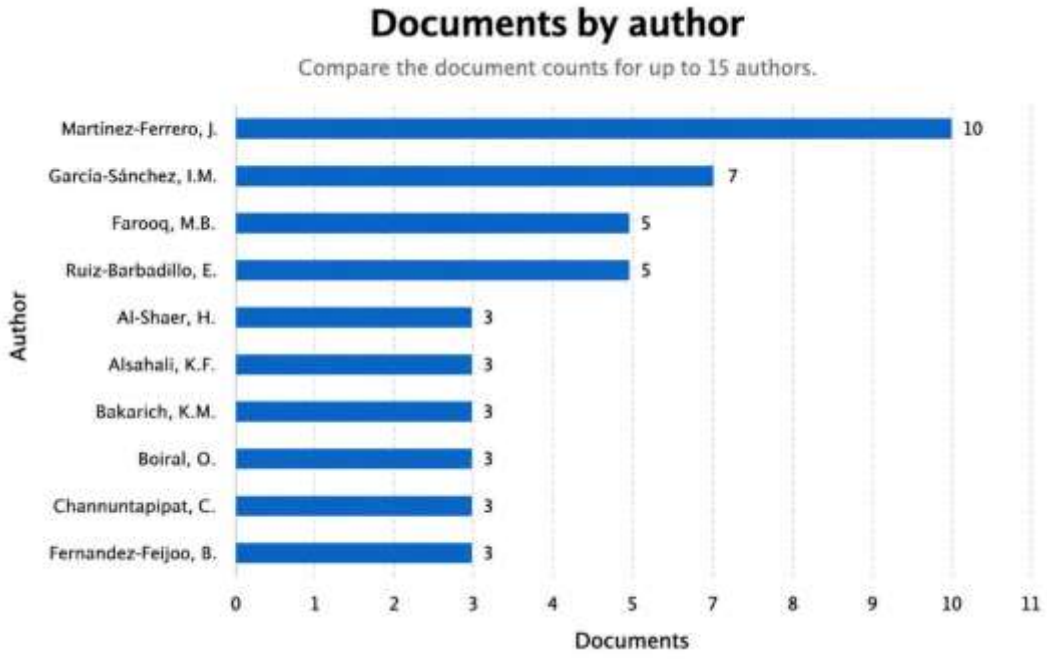


Figure 5. Document by affiliation

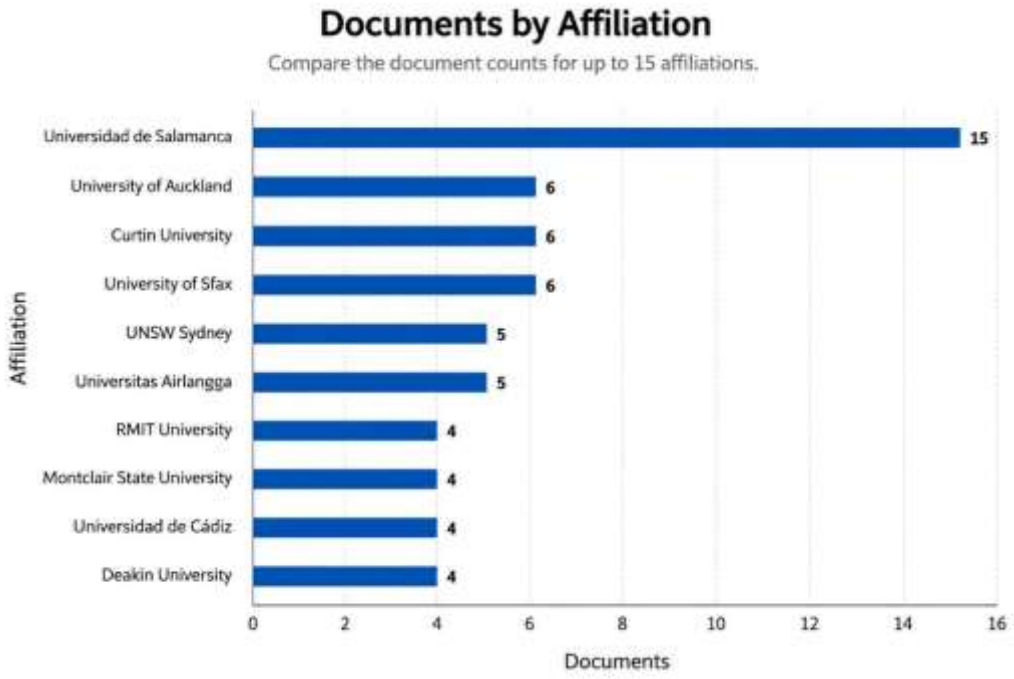
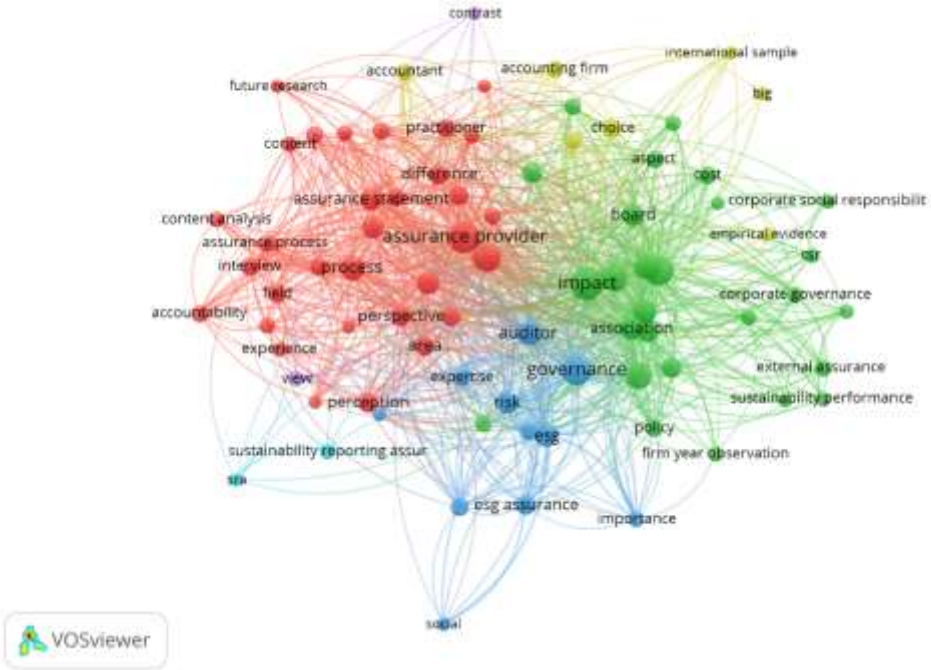


Figure 6. Co-word analysis



CONCLUSION

Based on the findings, it can be concluded that research on *sustainability reporting assurance* experienced significant growth during the 2015–2025 period. The increasing number of publications indicates that this topic has attracted growing attention from academics and researchers, driven by the development of global sustainability reporting standards, the increasing demand for credible ESG information, and stakeholders' expectations for greater corporate transparency and accountability. The bibliometric analysis also reveals that research in this field is largely dominated by developed countries, although contributions from developing countries such as Indonesia have continued to increase. Furthermore, several authors and institutions have played a significant role in shaping the development of the *sustainability reporting assurance* literature.

The keyword analysis indicates that the main research themes focus on *sustainability reporting assurance*, *assurance providers*, ESG, *corporate governance*, and *external assurance*. These findings suggest that the literature not only examines the use of assurance to enhance the credibility of sustainability reports but also highlights the role of corporate governance, assurance provider quality, and their implications for corporate transparency and accountability. Therefore, *sustainability reporting assurance* can be regarded as a rapidly evolving research field that continues to offer substantial opportunities for future studies, particularly in the areas of assurance quality, assurance levels, ESG integration, and the impact of sustainability regulations on sustainability assurance practices.

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