

**ANALIZA BIBLIOMETRICĂ PRIVIND RAPORTAREA DE SUSTENABILITATE –  
TENDINȚA ISTORICĂ ȘI EVOLUȚIA POTENȚIALĂ****A BIBLIOMETRIC ANALYSIS ON SUSTAINABILITY REPORTING – HISTORICAL  
TREND AND POTENTIAL EVOLUTION****Author: Phd Student: Oana-Valentina BEZERGHEANU**

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**Abstract.** *The business environment started to show an increased interest for sustainability reporting. The aim of this paper is to explore scientific progress, map research connections and subjects, and to critically analyse gaps and future opportunities in sustainability reporting literature. I have gathered and filtered data from Web of Science platform, resulting in a final sample of 419 articles. Using the data extracted, I have created bibliometric networks, cover trends in citations, authors and keywords, using VOSviewer software. I have also conducted a review analysis to demonstrate the significant rise in scholarly literature since 2005, showing notable groupings in sustainable development, sustainability and decision-making. Additionally, the study offers practical insights for organizations, policymakers, and stakeholders, thereby closing the gap between theory and practice and enhancing the practical utility of research.*

**Keywords:** *sustainability reporting, bibliometric analysis, literature review, disclosures, non-financial reporting*

**JEL cod:** M14, M41, M49, Q56

**Introduction**

In a constantly changing society where digitalization, globalization, and integrated solutions are crucial for business growth, the accounting profession has to adapt quickly and turn challenges into opportunities. Nowadays, there is an increased need for broader thinking beyond finances, to guarantee long-term business success and value creation. Thus, sustainability reporting is now widely adopted by companies worldwide as they strive to meet stakeholder expectations and address criticism and pressure for greater accountability regarding their social and environmental impact. Alongside financial data, there's a rising emphasis on ecosystem and population protection, underscoring the increasing importance of sustainability disclosure. Researchers widely agree that all forms of sustainability reporting are growing and will continue to do so.

Understanding the importance, impact, and implications of sustainability reporting is crucial for businesses as they navigate towards a future where such reporting will be mandatory. This article's relevance lies in its exploration of the evolution, standards, and emerging trends in sustainability reporting, providing valuable insights for practitioners and prepare them for the implications of corporate responsibility.

Balancing the long-term objectives of sustainability—such as maintaining a sustainable environment, ensuring profitability, and upholding social responsibility—can sometimes present conflicting priorities. The challenge of achieving economic success while also demonstrating genuine corporate social responsibility and environmental protection may be one of humanity's most significant challenges. To address this, various national, regional, and international organizations are actively developing guidelines, standards, and regulations for non-financial reporting. These efforts aim to provide stakeholders with additional insights into organizational practices and impacts. Notably, sustainability reporting has predominantly been voluntary thus far, with organizations adopting various standards, frameworks, and rankings to guide their reporting practices.

Under the influence of diverse stakeholders seeking both financial and non-financial information, a shift occurred in the reporting landscape, favoring concepts beyond traditional financial reporting.

These include corporate social responsibility, corporate environmental reporting, corporate sustainability performance (or ESG performance), sustainability reporting, integrated reporting, circular economy initiatives, and climate reporting. To address sustainability concerns, an organization must first evaluate its relevance to its activities, identify its priorities in this field, and assess sustainability risks and opportunities that could impact its financial performance. Questions arise regarding whether the organization should prioritize creating value for investors or for society at large. Additionally, considerations emerge about whether it should be mandatory for companies to report on the harm caused to other parties, such as the environment, even if there is no direct impact on the company itself.

From these premises, a new area of scientific inquiry emerges: the drawing up of sustainability reports and adherence to associated standards. Therefore, the research is driven by three primary objectives. Firstly, the aim to explore the progression of standards concerning sustainability reporting. Secondly, the attempt to discover research connections and topics in corporate sustainability reporting. Lastly, to critically examine the gaps in existing literature and propose directions for future research in the field of sustainability reporting.

The article is structured as following: a summary of literature – such as frameworks and the evolution of issued standards (Section 1), the method used to outline the connections (Section 2), the results obtained from the bibliometric analysis - using Vos Viewer Software (Section 3) and a summary of the issues identified, limitations, and future perspectives (Section 4).

This study helps improve our understanding of sustainability reporting's importance in shaping how stakeholders view a company. It provides an overview of the breadth of information companies disclose to stakeholders about their environmental and societal impacts, and how this disclosure can validate organizational activities. Under this article, the theoretical implications and the literature's development are depicted, as well as practical implications for regulatory bodies, organizations, and stakeholders.

### **Literature review**

Sustainability reporting, stemming from non-financial reporting, provides an overview of a company's practices in social responsibility, internal governance, and its environmental impact. In conducting a literature review, it is important to highlight key moments in the evolution of standards, institutions, and regulatory frameworks, which since 1987 until nowadays have shaped the concept of global sustainability reporting.

The Brundtland Commission, known also as “World Commission on Environment and Development”, aimed to unite countries in pursuit of sustainable development. The global beginning of sustainability development was established by the Brundtland Report in 1987, in "Our Common Future", thereby initiating a paradigm shift towards environmental and societal sustainability.

As crucial point to be mentioned for the beginnings of sustainability reporting is the reporting Initiative (GRI) in 1997 and the publication of the GRI Guidelines in 2000, that marked the inception of the first global standard in this field. Subsequently, additional standards such as the Carbon Disclosure Project (CDP) and the Greenhouse Gas Protocol. Further on, another outstanding point on the evolution scale of sustainability reporting standards was significantly shaped by the establishment of the Sustainability Accounting Standards Board (SASB). Formed in 2011, it aimed to create standards and regulations that have developed approaches for companies to use in identifying, evaluating, and reporting their performance regarding climate-related aspects. Another marking point is June 2021, when the SASB organization, along with the International Integrated Reporting Council established the Value Reporting Foundation (VRF). Starting from November same year, until June 2022, the VRF was integrated, along with the Climate Disclosure Standards Board, forming the International Sustainability Standards Board. From August 2022, the responsibility over the SASB Standards was taken by the ISSB, part of IFRS Foundation.

Since 2011, there has been a surge in regulations, largely influenced by voluntary frameworks and standards, particularly within the European Union (EU). Mandatory sustainability reporting is set to encompass a growing number of businesses, exemplified by the forthcoming European Corporate

Sustainability Reporting Directive (CSRD) – issued in 2023 by EU Commission. The CSRD proposal represents a significant step towards enhancing sustainability reporting within the European Union. By replacing the Non-Financial Reporting Directive (NFRD), the proposed CSRD aims to expand reporting requirements to include more comprehensive aspects related to climate change and sustainability. This reflects a strong commitment from the EU to promote transparency and accountability among companies, in line with sustainable development goals. Furthermore, the CSRD could strengthen the EU's position in sustainability and serve as a model for other regions and jurisdictions looking to enhance their sustainability reporting standards.

Taking into account the aforementioned, it can be concluded that over time, four emblematic concepts have been identified for the evolution of corporate sustainability, namely: non-financial reporting, sustainability reporting, with integrated reporting and climate reporting being points of great interest currently (Baumuller and Sopp, 2022). Certainly, considering the upcoming directions that companies must adhere to and implement in the near future, there has been a question mark regarding how sustainability reporting can address stakeholders' interests and what are the suitable mechanisms for adequate presentation.

### **Methods used**

To analyze the existing literature, we utilized the Web of Science Core Collection database, from which we extracted a dataset for analysis based on specific keywords. This dataset was retrieved on March 11, 2024 and was processed according to the following criteria: among the total of 639 articles obtained, as result from the key word entered (using „and” function from all fields) : „sustainability reporting”, „non-financial reporting” and „corporate sustainability”. We considered relevant criteria such as the English language and business environment for selecting the population of articles to be analyzed. Considering the topic, there is an extensive literature on sustainability reporting in other areas of interest such as the environment, human resources, technology, or environmental studies. Therefore, as of the aforementioned date and following the applied filters, we obtained a sample of 419 articles for bibliometric analysis.

For the bibliometric study, we have utilized VOS viewer, a specialized software, for scientific mapping purposes. This tool enables the creation and visualization of bibliometric networks and the generation of network-based maps. Network data can either be pre-existing or generated, encompassing scientific publications, keywords, researchers, countries, and research organizations. The software facilitates the analysis of co-occurrence for key words, and citation of authors, offering to researchers the capability to discern patterns and trends in scientific literature and explore relationships between terms and concepts. As mentioned, this robust and adaptable tool finds frequent application in scientific analysis and bibliometric research.

### **Results obtained**

The selected publications have been included in an Excel file, which was analyzed and considered for upload into the Vos Viewer program. Through the analyses listed below, bibliometric study enables recognition of contemporary trends related to sustainability reporting.

### **PRISMA MODEL**

For the article, we utilized a PRISMA model to exclude articles identified as irrelevant to the study and highlighted the remaining information for analysis.

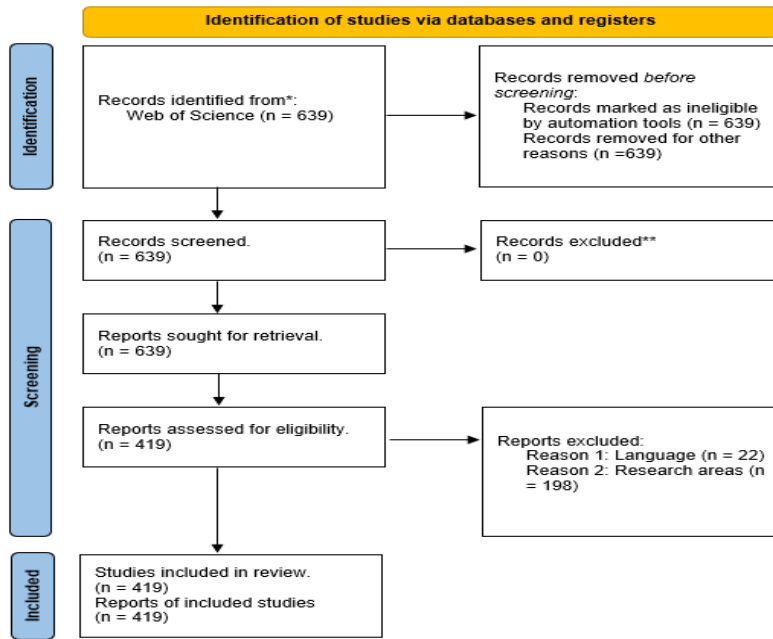


Fig. 1. Flow of the literature extracted to study, using PRISMA model

### Publication origin

After analyzing the exported data, the top 5 journals containing the most publications referring to sustainability reporting and non-financial reporting were identified. It is noteworthy that the majority of these publications were found in the journal "Mandatory Accountancy Research" - 35 articles, while the journal with the highest impact factor, „Business Strategy and the environment journal of applied accounting research” is ranked fourth with a total of 12 publications on the analyzed subject.

Table 1. Top 10 publication journals on sustainability reporting and sustainability disclosure

| Journal Name   | Publication | %     | Impact Factor (2021) |
|--|-------------|-------|----------------------|
| MEDITARI ACCOUNTANCY RESEARCH  | 35          | 8.35% | 3.5                  |
| CORPORATE SOCIAL RESPONSIBILITY AND ENVIRONMENTAL MANAGEMENT                 | 24          | 5.73% | 9.8                  |
| SUSTAINABILITY ACCOUNTING MANAGEMENT AND POLICY JOURNAL                      | 21          | 5.01% | 4.5                  |
| BUSINESS STRATEGY AND THE ENVIRONMENT JOURNAL OF APPLIED ACCOUNTING RESEARCH | 12          | 2.86% | 13.4                 |
| JOURNAL OF APPLIED ACCOUNTING RESEARCH                                       | 12          | 2.86% | 3                    |

### Keywords and co-occurrence analysis

The analysis method used, namely co-citation, reflects the most frequently used words related to sustainability reporting in scholarly articles and focuses on the connections between them within written studies. It is worth mentioning that all 419 articles were considered in this co-occurrence analysis applying a threshold of 5 co-occurrences. The result was divided into 7 clusters based on the number of occurrences and connections of words within titles, abstracts, and word lists. It can be observed that among the largest circles, signifying the most cited words, are terms such as "sustainability," "governance," "corporate social responsibility," "determinants," "management," and "integrated reporting." The proximity of terms in the graph represents robust connections at the word



3. Empirical analyses. It is necessary for researchers to focus on analyzing existing reports in the market and observe their trends, as well as how terms like success, profitability, or community impact are influenced.

**Table 2. Most Cited Authors – by author, university, and publication**

| Author                  | Citations | Links | University                                     | Most cited publications   |
|-------------------------|-----------|-------|--|---|
| 1 simnett (2009)        | 721       |       | 27 Deakin University                           | Assurance on Sustainability Reports: An International Comparison  |
| 2 kolk (2010)           | 381       |       | 15 University of Amsterdam                     | Determinants of the adoption of sustainability assurance statements: an international investigation                                     |
| 3 frias-aceituno (2013) | 376       |       | 23 Univ Granada, Granada, Spain                | The Role of the Board in the Dissemination of Integrated Corporate Social Reporting   |
| 4 atkins (2015)         | 168       |       | 15 Univ Witwatersrand, South Africa            | Integrated reporting in South Africa in 2012: Perspectives from South African institutional investors                                   |
| 5 guthrie (2017)        | 141       |       | 12 Macquarie Univ, Bologna, Italy              | Integrated reporting and integrated thinking in Italian public sector organisations   |
| 6 velte (2017)          | 139       |       | 12 Leuphana Univ Lueneburg, Germany            | Integrated reporting: The current state of empirical research, limitations and future research implications                             |
| 7 stolowy (2018)        | 133       |       | 12 HEC Paris, Jouy En Josas, France            | The expansion of non-financial reporting: an exploratory study  |
| 8 la torre (2018)       | 135       |       | 23 "G.d'Annunzio" University of Chieti-Pescara | Harmonising non-financial reporting regulation in Europe: Practical forces and projections for future research                          |
| 9 maniora (2017)        | 103       |       | 12 Ruhr Univ Bochum, Germany                   | Is Integrated Reporting Really the Superior Mechanism for the Integration of Ethics into the Core Business Model? An Empirical Analysis |
| 10 stubbs (2018)        | 101       |       | 13 Monash Univ, Australia                      | Stakeholders' Perspectives on the Role of Regulatory Reform in Integrated Reporting   |

## Conclusion

The results obtained in this study outline the area of sustainability reporting. By systematically analyzing the database extracted from the Web of Science at the publication level, we can observe the main trends over time, the most important publications, and also that the literature is continuously growing on the subject. The analysis of the most used words describes researchers' focus on sustainability reporting, integrated reporting, corporate governance, impact, and determinants. At the same time, new articles may focus on other key terms, such as assurance or the costs of sustainability reporting. Following the analysis, we identified various highlighted themes, which lead to identified practices regarding sustainability reporting and influences in decision-making.

Firstly, the paper contributes to a better understanding of the terms, the evolution of sustainability reporting standards, and synthesizes the identified literature, serving as a research foundation for future works. Secondly, the article addresses significant questions for the process of identifying current trends - such as the main keywords, important authors, and connections between them. Furthermore, the study can be used by global players to frame the importance of sustainability reporting within operational activities and positively influence a company's performance through changes that impact the achievement of sustainability objectives. Of course, it is worth mentioning that the study also has certain shortcomings, such as the fact that the extracted database is limited to information found on WoS, while there may be many more articles related to sustainability reporting. To broaden the study's scope, future researcher have the opportunity to consider this article as a starting point for new ones.

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