

NON-FINANCIAL REPORTING: A BIBLIOMETRIC REVIEW OF THE PAST DECADE

Roxana Mirella IRIMUȘ

Accounting department, Doctoral School of Economic Science and Business Administration, West University of Timișoara, Timișoara, Romania
roxana.irimus95@e-uvt.ro

Abstract: *As it is shown in the Web of Science database, non-financial reporting spans from the early studies back in 1988, until nowadays. Its importance in the research field started to grow only in the past decade, as from 1988 till 2012 only 180 publications were issued on this subject. The current paper aims to study the following matters: the evolution of "sustainability reporting" research field, the most frequently used terms associated with the subject of "non-financial reporting", the most interested countries in publishing literature on "non-financial reporting" and the most cited authors on this matter. To do so, a bibliometric research will be carried on the topic of "non-financial reporting", using the VOS Viewer program.*

Keywords: *bibliometric analysis; non-financial reporting; VOS Viewer; CSR.*

JEL Classification: M41; Q56

1. Introduction

The interest in Corporate Social Responsibility (CSR) reporting has shown an increasing trend in the last few years, especially in the light of the new coronavirus pandemic and the current war in Ukraine. Even though still overlooked by some stakeholders, who make business decisions based on the financial statements only, most of them check the non-financial reports to see the bigger picture.

Businesses that are socially responsible can also appear more attractive to investors. Most investors consider CSR a way of reducing investment risk, as the company promotes an ethical behaviour and responsibility towards community. Employees will be more likely to choose a socially responsible company as it promotes work-life balance, flexible hours and interest in taking care of its employees through private health care, life insurance or childcare bonuses. Also, customers would be more attracted in purchasing products from an environmentally aware company which practices recycling, GHG emission reduction and supply chain environmental check-ups.

I believe the results of a bibliometric research on the subject of "non-financial reporting" could be of use to scholars, academics and students, as they reveal the subject areas that have not been studied yet and could be researched in the future.

2. Literature review

A CSR report is seen as a way of measurement, disclosure and communication of information about CSR and sustainability topics, including a firm's CSR/ESG (Environmental, Social and Governance) activities, risks and policies. Companies can include CSR information in their annual report, provide a separate CSR report or even list non-financial information on their websites. Firms may refer to it as an "integrated report", "CSR report", "ESG report", "non-financial report", etc. Firms may also ask an auditor, consultant or another external assurance provider to certify their CSR reports and disclosures in order to create a higher credibility to its stakeholders (Casey and Grenier, 2015).

Corporate social responsibility is not a completely new concept, it even dates a few centuries ago (Carroll 2008). But it was not until the 1930s and 1940s that the specifics of social responsibilities of the private sector began to be discussed in the literature (Carroll 1999). The first definition, given by Bowen in 1953, was that the social responsibility of management is to make decisions based on the moral values of society.

The relevance of the relationship between companies and society was a new perspective added in the '60s, which focused mainly on profit making and to a lesser extent on employee satisfaction and social welfare management (Davis, 1960; Frederick, 1960; Walton, 1967).

The 1970's brought a growing sense of concern for the environment, human and labour rights, which raised expectations of corporate social behaviour. The Committee for Economic Development (CED) of the USA argued that the private sector should take on greater social responsibilities. As a result, the popularity of the concept of corporate social responsibility (CSR) has grown but has remained discretionary and limited to certain areas such as waste management, pollution and human and employee rights.

Carroll issued the first unitary definition of CSR in 1979, according to which specific expectations and responsibilities - legal, economic, ethical and discretionary - were placed upon corporations and the company's social objectives were perceived not as incompatible with business infrastructure but as an integral part of it. In the 80's and 90's, CSR operationalization started, with the concept being accepted as a decision-making process and the emergence of the first implementation models (Cochran and Wood, 1984; Strand, 1983). The adoption of several international agreements on sustainable development has also led to an increase in the awareness of the impact of corporate behaviour.

Strategic implementation of CSR began in the late 90's, after Burke and Logsdon demonstrated in 1996 that it could generate economic benefits by creating identifiable and measurable value for the company.

After 2000 international institutions, including the European Commission, realized that they could use CSR as a tool to respond to corporate challenges. Companies have been invested with new responsibilities in the areas of human and employee rights, the environment, anti-corruption and sustainable development. Sustainability

was the criterion that motivated them to make strategic decisions to meet society's expectations (Husted and Allen, 2007; Porter and Kramer, 2006).

Companies were able to improve their competitiveness and at the same time produce shared value through holistic implementation of strategic corporate social responsibility. This concept was included in the Paris Agreement on Climate Change, signed by 195 states in 2015 and the Sustainable Development Agenda adopted by UN member states in 2015, which defined sustainable development goals. The two documents reflected a new social contract in which corporations are expected to play an important role in the global efforts to achieve the sustainable development goals.

After 2015 the perception of the concept of CSR remained focused on its potential to produce shared value and the literature mainly reflected the implementation of CSR and its impact on areas of performance related to sustainable development goals.

3. Research methods

The bibliometric research implies several steps:

- Identifying the necessary data;
- Collection of data;
- Quantitative data processing;
- Result interpretation. (Radu, 2021).

Bibliometric research analyses a large quantity of scientific publications, using statistical instruments to determine trends and citations associated with a specific subject on certain categories like years, countries, authors, journals, methods, theories and research questions. (Paul, Criado, 2020).

A graphic bibliometric analysis can be drawn up with the help of the VOS Viewer programme (Visualisation of Similarities). This programme is highly used in bibliometric analysis of any kind.

The data for this research was collected from Web of Science (WOS), an online data platform. WOS platform, created and maintained by Clarivate Analytics, includes more than 34500 journals, books, articles and it contains 116 million publications.

For this research I used the following keywords: „non-financial reporting” OR „CSR reporting” OR „integrated reporting” OR „sustainability reporting”. After that, I limited the research to select only information about released publications from 2012 to 2021 (I excluded year 2022 from the research, as it has not ended and the graphic comparison would have no relevance). Therefore, the statistical data sample that I obtained, contains 2,411 scientific papers (articles, books, etc.) and 200 authors, most of them (97.43%) written in English.

4. Results and discussions

4.1. Bibliometric analysis of scientific papers and citations

The graph in Figure 1 represents the number of scientific publications with the subject of „non-financial reporting” during the past decade. It can be noticed the increasing trend of „CSR reporting” publications, signalling a high interest on this subject by researchers. So, if at the beginning of the research period i.e. 2012-2013, only an average of 62 papers were published, at the end of it, in 2020-2021, the average spikes to 423 publications.

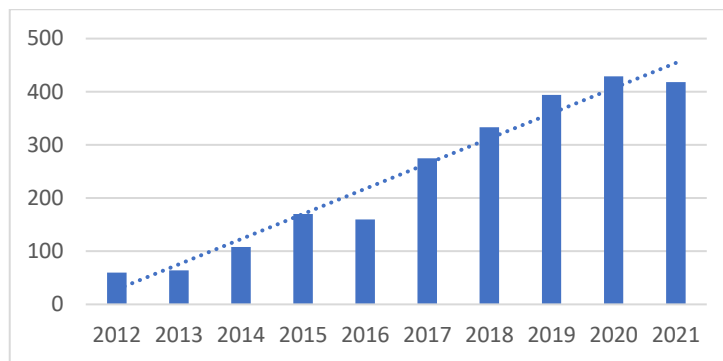


Figure1: The evolution of „non-financial” publications from 2012 to 2021

Source: Author’s processing

This powerful increase in the research interest in this field is due to the fact that more companies disclose a larger quantity of non-financial information. A KPMG study shows that nearly 80 percent of the N100 companies worldwide reported on sustainability as of 2020. In comparison, nearly 90 percent of the world's largest companies by revenue as defined in the Fortune 500 ranking of 2019, have reported on sustainability that year. An increase in the global sustainability reporting rate from N100 companies is expected in the coming years.

Furthermore, graph in figure 2 shows that the most frequently used journal is “Sustainability”. Sustainability is an international, cross-disciplinary, scholarly, peer-reviewed and open access journal of environmental, cultural, economic and social sustainability of human beings. It provides an advanced forum for studies related to sustainability and sustainable development and is published semi-monthly online.

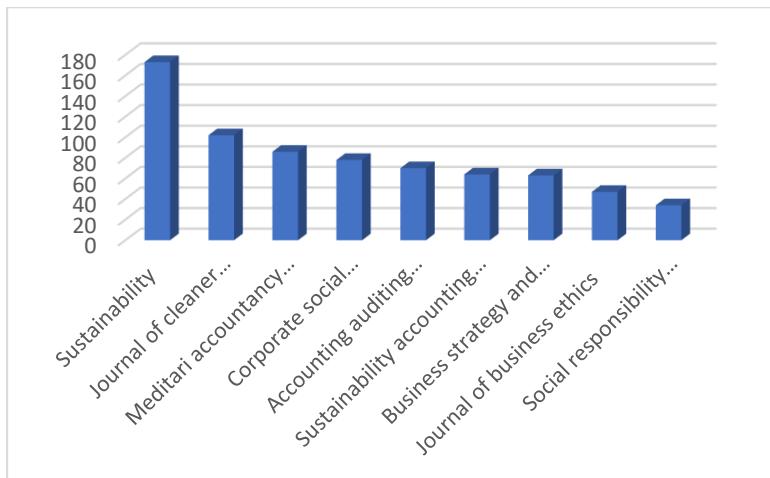


Figure2: Top 10 Journals publishing research papers on „non-financial reporting” field

Source: Author’s processing

In a bibliometric study the citation analysis is one of the most important tools, as it considers the scientific knowledge of a paper and the value recognition of a previous publication. The citation analysis consists of several research techniques, from determining the number of citations to the co-authorship study through simultaneous citations (Lord, 1984).

Table 1 reveals the top 20 countries most interested in publishing scientific research on the topic of “non-financial reporting”. Italy published the highest number of research papers during the past decade, 292. But because the importance of the scientific papers is given by the number of citations, it is the English-speaking countries (England, Australia and USA) that published the most relevant work on the subject of “CSR reporting”, displaying the most citations, with over 5552 citations. Even though Romania published a relatively high number of papers (136), their citation number is low.

Table 1: Top 20 most interest countries in releasing „CSR reporting” publications

Country	Citations	Documents
England	5647	237
Australia	5586	230
USA	5552	210
Italy	5108	292
Spain	4584	168
Germany	3352	127
Canada	2664	75
New Zealand	2570	76
South Africa	2387	112

China	2274	111
France	2015	70
Netherlands	1725	48
Scotland	1131	27
Malaysia	895	78
Belgium	790	20
Poland	767	115
Sweden	752	30
Portugal	643	58
Romania	583	136
Finland	577	24

Source: Author's processing

4.2. Bibliometric analysis of the Keywords

The keywords used by authors, with a higher occurrence of 20 times in the WOS data base were selected for the final keyword bibliometric research and it resulted in a number of 58 keywords from the total of 4154. In Table 2, the top 20 keywords used by authors are sorted in decreasing order based on the link strength between them.

Table2: Top 20 keywords

Keywords	Occurrences	Total link strength
sustainability reporting	586	510
integrated reporting	489	414
corporate social responsibility	352	387
sustainability	257	314
sustainable development	147	183
content analysis	113	162
corporate governance	121	152
non-financial reporting	131	132
global reporting initiative	88	130
csr	95	129
gri	75	121
legitimacy theory	67	113
disclosure	80	112
stakeholder engagement	61	108
reporting	82	106
stakeholder theory	59	98
csr reporting	117	95

stakeholders	62	95
assurance	61	92
accountability	53	77

Source: Author’s processing

Figure 3 represents a scientific map which visualises the clusters of publications where the keywords from the articles searched are found. Keywords which have a link to each other, from the same cluster, (appear simultaneously in the same publication) have the same colour. The relevance of each key word is given by the size of the dot, so the larger the dot, the more important it is. The links between the dots, graphically represented by lines between them, show the occurrence frequency of the two terms it connects: the closer the keyword is to the terms, the stronger the relationship.

As a result of the research, I obtained three clusters of keywords. The red cluster makes up most of the keywords. The biggest dot from this group is represented by the term: „corporate social responsibility”. The cluster contains 10 keywords: corporate social responsibility, assurance, CSR, CSR reporting, GRI (Global Reporting Initiative), Non-financial reporting, Reporting, Stakeholders, Sustainability, Sustainable development.

The most used terms, keywords in author’s publications, which have an occurrence of over 300 times are: „Sustainability reporting”, „integrated reporting”, „corporate social responsibility”. There are also 4 terms referring to stakeholders, which implies their interest in this type of reporting.

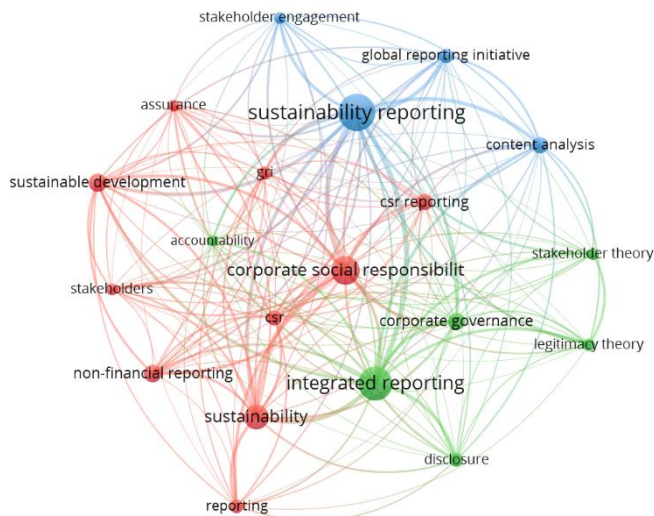


Figure 3: Bibliometric analysis of keywords in “non-financial reporting” publications.

Source: Author’s proceedings using VOS viewer

4.3. Bibliometric analysis of co-authorship by countries

I examined the network of collaboration between authors in terms of their countries of origin to identify the interest of the scientific world in the direction of the CSR reporting, corresponding to geographical areas. Therefore, I set a minimum number of documents of a country at 20 and from a total of 96 countries, 33 were selected. Results are depicted in Figure 4.

The size of a dot shows the country's research relevance in the field of CSR reporting. The line thickness and the distance between dots represents the collaboration between authors of different countries. Figure 4 shows six clusters of co-authorship from different countries. The country that had the most international collaborations is England, with 29 links, represented in the cluster by the green colour, and the authors from England have mostly collaborated with authors from Scotland, Australia, India, Denmark, Italy and Sweden.

Romania also shows a high interest in publishing CSR reporting information, with 136 documents published and its authors collaborated with authors from 12 different countries the most frequent being: Croatia, Czech Republic, Poland, England.

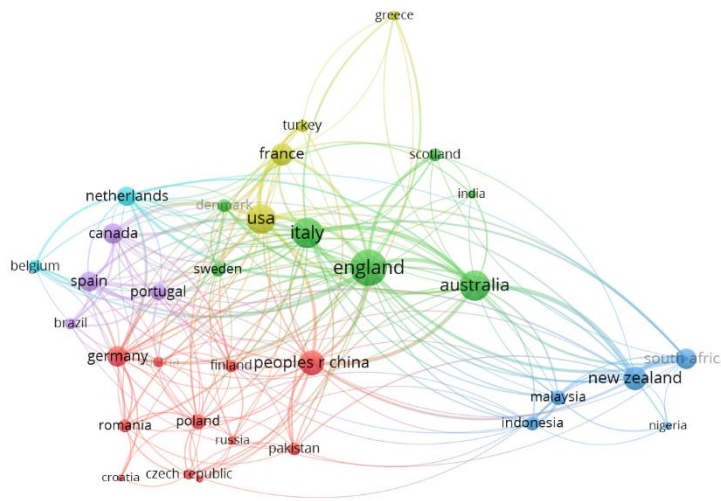


Figure 4: Country co-authorship representation in the „non-financial reporting” field
Source: Author's proceedings using VOS viewer

Conclusions

The bibliometric analysis in this study reveals several interesting information:

- The “CSR reporting” publications have shown an increasing trend throughout the past decade, going from 60 documents per year in 2011 to over 800 documents in 2021.
- The keywords analysis shows that CSR reporting is also strictly tied to integrated reporting, corporate governance and stakeholders' engagement.

- The most relevant country in researching “CSR reporting” is England and its authors have a wide variety of international collaborations like Australia, Sweden, etc.

The number of bibliometric studies with the subject of “non-financial reporting” is limited at international level and this is why I consider this analysis contributes to the accounting research by providing premises for further research and a starting point for relevant bibliographic references on this topic.

References

1. Carroll, A. B. (1999). Corporate social responsibility. *Business & Society*, 38(3), 268–295
2. Carroll, A. B. (1999). Corporate social responsibility. *Business & Society*, 38(3), 268–295
3. Casey, R.J., and J.H. Grenier. (2015). Understanding and contributing to the enigma of corporate social responsibility (CSR) assurance in the United States. *Auditing: A Journal of Practice & Theory* 34 (1): 97– 130.
4. Cochran, P. L., & Wood, R. A. (1984). Corporate social responsibility and financial performance. *The Academy of Management Journal*, 27(1), 42–56.
5. Davis, K. (1960). Can business afford to ignore social responsibilities? *California Management Review*, 2(3), 70–76.
6. Frederick, W. C. (1960). The growing concern over business responsibility. *California Management Review*, 2(4), 54–61.
7. Husted, B. W., & Allen, D. B. (2007). Strategic corporate social responsibility and value creation among large firms: Lessons from the Spanish experience. *Long Range Planning*, 40(6), 594–610.
8. Lord, S. (1984), Le rôle de l’analyse de citations dans l’histoire des sciences, *Argus*, vol. 13, nr. 2, pp. 59-65.
9. Porter, M. E., & Kramer, M. R. (2011). Creating shared value. *Harvard Business Review*(January-February)
10. Radu, V., Radu, F., Tabirca, A. I., Saplacan, S. I., & Lile, R. (2021). Bibliometric Analysis of Fuzzy Logic Research in International Scientific Databases. *International Journal of Computers, Communications & Control*, 16(1)
11. Strand, R. (1983). A systems paradigm of organizational adaptations to the social environment. *Academy of management review*, 8(1), 90–96.
12. Walton, C. C. (1967). *Corporate social responsibilities*. United States of America: Wadsworth Publishing Company.