




Non-financial reporting: identifying the role of accounting through bibliometric analysis

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Abstract

Motivation: The subject of financial reporting has been discussed for decades. The concept of non-financial reporting (NFR) arose later, and thus the study of this field began slightly later. This is currently a subject with great research potential. Both the multitude of studies of the scientific community and data obtained from business practice confirm the increase in the importance of non-financial reporting. A review of publications on this subject will indicate the state of this area of research. Particular attention will be paid to the role of NFR from an accounting point of view.

Aim: Evaluation of non-financial reporting as a new area of scientific research using bibliometric analysis of scientific publications indexed in the Web of Science database. Investigating the contribution of scientific communities related to accounting, in the development of this area of research.

Results: The results will allow for assessing the research activity and the stage of development of the research in the field of non-financial reporting. What is the level of interest of accounting-related scientists in this subject? The latest correctly conducted scan of the issue of NFR will reliably summaries the current state of knowledge, providing information about gaps in the literature and the need to carry out new research. It can also be a way to identify new research areas. The bibliometric analysis of non-financial reporting from the accounting point of view will be a new and original contribution to research in this field.



Keywords: accounting; non-financial reporting; corporate social responsibility; management; bibliometric
JEL: M41; A12

1. Introduction

Global economic development based on sustainability is only possible through broadly understood knowledge. The term corporate sustainability is the result of understanding the three aspects: social, environmental, and economic, taking into account the costs of current decisions for future generations. Sustainability is a contemporary and current issue recognized by researchers (Al-Ali Mubarak et al., 2020) and is the main derivative of this concept for business. Civilisational changes have resulted in the world economy moving from the industrial era to the era of information and knowledge. Information is very important. The conceptual assumptions of the International Accounting Standards emphasises the importance of financial reporting, which aims to provide numerical information about the reporting entity, which is useful to a wide range of stakeholders. The fundamental qualitative characteristics of useful financial information are relevance, faithful representation, comprehensibility and comparability. The concept, according to which organisations take into account social interests and environmental protection as well as relationships with other entities at the stage of building their strategy, has been around for two decades already. The combination of the high importance of information with the concept of CSR has resulted in the development of non-financial reports. In the past non-financial reporting was only a good practice of enterprises, but today it is becoming increasingly important in building relationships between enterprises and their stakeholder groups (Piersiala, 2019). To increase consistency and comparability of non-financial information shown in the territory of the European Union, some of the big units should prepare a statement on non-financial information containing information on environmental, social and labour issues, respect for human rights, counteracting corruption and bribery Directive No. 2014/95/EU (Tylec, 2020). On December 16, 2022, the Corporate Sustainability Reporting Directive (CSRD) was published in the Official Journal of the EU. According to it, all large entities and small and medium-sized listed companies will present information on: environmental, social and human rights issues and corporate governance in their management report. This information will be reported according to the Common European Sustainability Reporting Standards (ESRS). Simplified ESRS will be developed for small and medium-sized listed companies.

The synthetic, numerical nature of the information flowing from a company's accounting system constitutes its foundation. This generates the question of whether the generation of non-financial information is correctly assigned to accounting. The management reports is an important source of non-financial information within company reporting. Throughout the years, accounting has developed and expanded. Today's accounting is governed by legislation. The role

of scientists operating in the area of accounting is to define the substance, scope, purpose and, in some cases, to propose the form and content of new reporting obligations, such as the contemporary non-financial report (Kawacki, 2018). The purpose of this article is to examine the impact of the accounting research community on the development of non-financial reporting. For this purpose, a bibliometric analysis of the concept will be carried out using the Web of Science database. A sample of 2099 publications from an interdisciplinary perspective will be examined and a sample of 488 items linked to accounting publications will be selected. The research hypothesis of the prepared article is: non-financial reporting should be closely linked to accounting.

Article will be divided into following sections: introduction, literature review, research methodology, results, discussions, conclusions. The first part shows the meaning of non-financing reporting in context of accountancy. The second part includes the overview on the writing in the field of bibliometric analyse contacted to the non-financing reports. The third part describes the methodology of the taken research with the particular emphasis on description of the studied samples, accepted queries. There will be indicated a tool that support the process of analysis and presentation of the collected research material. The next points presents data and calculates the level of dependence. The later phase interprets the numerical data. The presentation of numerical data in tabular form and graphs can be found in the annex at the end of the publication. The entire study will be closed with a summary including: general summary of the article, its results and findings, compare to findings of other authors, recommendations for practice, research limitations and some suggestions for future research.

2. Literature review

It can be stated that interest in non-financial reporting started more than half a century ago. The wave started in 1970 with social reporting, especially in the U.S. and Western Europe (Saini et al., 2022). Intensification covers the period after 2000. Some conclude that 2008, when their publication starts to become systematic, although the number is still very small (Fusco & Ricci, 2018). It's hard to pinpoint a specific year and draw a line. However, it can be indicated out that in 2015 the number of publications on non-financial reporting already reached 101, and in 2018 it exceeded 200. The next record high number was achieved in 2021 — already over 300 publications.

The expression “non-financial information” is used in very different contexts to describe different forms of disclosures/measures (Erkens et al., 2015). Synthesizing past research findings is one of the most important tasks for advancing a particular line of research (Zupic & Cater, 2015). Bibliometric analysis is used in many scientific fields including in management and quality sciences. In recent years, articles have already been published in which a bibliometric analysis of the issue of non-financial reporting has been conducted. This can be seen by

using the following query: TS=(Non-financial AND report* AND bibliometric) in the Web of Science database.

This search indicates 18 items that present different types of bibliometric analysis of a non-financial reporting issue. This means that studies of this kind have already been conducted in recent years. Therefore, further analysis will relate to the results of the research that has already been carried out. The research is up to date, most of them (16) were published between 2020 and 2022. Others research results are from 2015 and 2019. This means that several research teams have taken up the topic in parallel. 54 researchers have worked on similar topics, some of whom are co-authors of more than one publication in the area studied. Three of these publications deal directly with the subject of accounting, with five of the 18 articles published in them.

Some of the studies are general and deal with bibliometric analysis of non-financial reporting per se, while others are narrowed down to specific issues like human resources (Di Vaio et al., 2020a; Monteiro et al., 2021) or to specific sectors (Fusco & Ricci, 2018) of selected geographical areas (Ha, 2022). Interesting conclusions are presented in each of the studies. The research periods vary, with some taking as their starting point the year when the first articles on the NFR appeared in WoS (Grueso Gala & Camisón Zornoza, 2022) others covering only a period of intensified research on the issue (Stefanescu, 2021; Turzo et al., 2022). The analyses are based on various methodologies including PRISMA or AMSTAR 2 (Turzo et al., 2022). However, there are some analyses that do not describe the research protocol in detail. The most frequently recurring keywords include: non-financial reporting, sustainability reporting, integrated reporting, corporate social responsibility reporting; bibliometric, management, literature review, sustainable development goals (SDGs) and others. Most of them present their analyses in graphical form.

All of the published papers indicate the high research potential of the issue. Some provides researchers with a map of the field, improving their understanding of the interconnection between aspects within the topic. It also enables researchers to better position their studies and to identify new streams of research (Grueso Gala & Camisón Zornoza, 2022). They indicate further areas of research.

3. Methods

Bibliometric analysis is a popular method for exploring and analysing large volumes of scientific data. It enables us to unpack the evolutionary nuances of a specific field, while shedding light on the emerging areas in that field. Yet, its application in business research is relatively new (Chen et al., 2020; de Souza Vanz & Chitto Stumpf, 2010; Donthu et al., 2021). Bibliometric methods have been used to map the fields of strategic management, entrepreneurship, innovation, and others (Zupic & Cater, 2015). The bibliometric analyses scientific publications with a set of indicators under different scopes. It is the aim

to recognize scientific trends, to validate statements about scientific development and to look on actors and institutions in the scientific landscape (Tunger & Wilhelm, 2013). The latest systematic and correctly conducted review reliably summarises the state of knowledge to date, reporting any gaps in the literature and the need for new research to be conducted (Mazur & Orłowska, 2018). It is also a way of discovering new research topics. These features make systematic reviews useful in many areas of science and practice, including medicine, education, psychology, management and organisation.

For the bibliometric analysis of keywords program VOSviewer will be used. It is a software tool which can be used to conduct bibliometric analyses and create visualizations from selected databases. This software builds maps based on mathematical algorithms. It is used in other bibliometric studies (Castillo-Vergara et al., 2018; Garrigos-Simon et al., 2018) because it provides especially useful graphical representations with maps based on network data (Grueso Gala & Camisón Zornoza, 2022).

To ensure high quality of the analysis, the study will be divided into the following stages:

- planning, defining the purpose of the review (preliminary search) including testing a few phrases to clarify the topic, testing the issue of non-financial reporting from an accounting perspective;
- full search and acquiring literature;
- extraction and evaluation of the evidence collected;
- result synthesis and analysis;
- reporting and sharing results.

When carrying out bibliometric analyses of non-financial reporting research, the source of data for further analysis was identified in the first step. Relevant data is provided by global bibliographic databases among which the two largest ones in terms of subject coverage are: Web of Science and Scopus. These databases range from the sciences, social sciences, humanities, medical sciences to the arts. It was decided to use WoS because of the tools it offers for the purpose of bibliometric analyses. The original, non-purified dataset was then determined. The first step in performing a bibliometric analysis is to formulate a suitable search query. An important factor to consider in this respect is the principle of precision and recall, which ensures that the final search results contain only relevant hits, while also ensuring that as many relevant hits as possible are returned (Tunger & Wilhelm, 2013).

For this purpose, a set of different phrases consisting of a combination of the words [Non-financial] [report*] [bibliometric] [account*] as well as a dash [-] and quotation marks [“”] in the widest search fields were tested. Ultimately, 2 queries were indicated. The study will present 2 research samples A and B (see Table 1).

The analysis of the literature and the initially prepared research material allows the formulation of a set of research questions:

- RQ1. What are the most relevant scientific categories when it comes to research regarding non-financial reporting?
- RQ2. In light of the data analysed, which authors/researchers are the most relevant when it comes to research on non-financial reporting?
- RQ3. In light of the data analysed, which journals are the most relevant when it comes to publishing research results related to non-financial reporting?
- RQ4. From an accounting perspective, what keywords are associated with the term “non-financial reporting”?
- RQ5. Is non-financial information reporting within the research area of the accounting research community?

4. Results

NFR is an interdisciplinary topic, as evidenced by articles related to the subject being found in as many as 128 WoS categories. The most represented Web of Science Categories are as follows: Business Finance, Management, Business (see Table 2) (Di Vaio et al., 2020a; 2020b; Erkens et al., 2015; Kostenko et al., 2021). Taking the research sample B, we now have only 10 categories. The first two places are the same as for sample A, while the third place is Green Sustainable Science Technology.

A wide area in terms of geographical origin is also indicated. The largest number of publications is obtained from Italy (more than 10% of the total) as well as England, USA, Australia, Spain (see Table 3). Taking into account the selected group addressed to accounting-related publications, England is in the first place, followed by Australia, while Italy is in 3rd place.

An analysis of publications regarding non-financial reporting shows that this is an interdisciplinary research area. The search indicated as many as 1,000 items (see Table 4). The range of subjects covered by the journals is broad. In the first instance, these are journals related to management, finance, sustainability, accounting, economics or law. They are also related to public health, the environment, quality. The largest number, namely 110 publications appeared in the Sustainability journal, followed by: *Meditari Accountancy Research* — 57 articles, *Journal Of Financial Reporting And Accounting* — 39 articles *Journal Of Applied Accounting Research* — 35 items. The scope needs to be narrowed in order to define the role of accounting in the area of NFR research (see Table 5). Therefore it is reasonable for this research to narrow the field down to accounting-related publications. A list of 488 publications in 116 different publications was created this way. The most popular is *Meditari Accountancy Research* — 57 items, *Journal Of Financial Reporting And Accounting* — 39, *Journal Of Applied Accounting Research* — 35, *International Journal Of Accounting And Information Management* — 23, *Sustainability Accounting Management And Policy Journal* — 22.

When analysing sample A, the first item appears in 1991, while the next two in 1994. More than 10 publications appeared only in 2005. That year can

be described as the beginning of intensified research in this area. The first item in sample B appears in 2003, while 2012 (11 published articles) can be considered a period of intensified research on non-financial reporting by accounting scientists. This means that NFR was not in the scientific interest of accounting from the beginning.

The person who appears most often as an author of publications in research sample A is Khaled Hussainey, who is affiliated with the University of Portsmouth Fac Business & Law — 21 items. He is also the author of the largest number of Group B publications — 10 items. Among those with the most NFR-related publications, four of the ten samples in category B are also in category A (see Table 6).

The most frequently cited work in Group A and B is Assurance on Sustainability Reports: An International Comparison (Simnett et al., 2009). A list of the works most frequently cited in both groups is presented in Table 7. Further items vary depending on the research sample. The citation dynamics in both cases accelerated significantly in 2020 (see Charts 1 and 2). The H-Index for group A is 77 while for group B: 44.

Keyword co-occurrence analysis is frequently used in bibliometric studies (Gruesso Gala & Camisón Zornoza, 2022). For this analysis, it was considered to apply both author keywords (the terms that each author adds to their own article) and Keyword Plus, which are provided by a WoS algorithm (see Chart 3). The analysis of the keywords indicated in sample B shows 6 clusters, illustrated in the Chart 3 by colours (red, blue, green, yellow, purple, light blue). The largest cluster (red) — 61 words — highlights the following phrases: performance, determinants, earnings management, corporate governance, impact. Second cluster (green) — contains 49 words including: disclosure, corporate social responsibility, governance, accountability, non-financial reporting. Third cluster (blue) — contains 32 words including: financial reporting, cost, IFRS, quality, market, among others. Fourth cluster (yellow) — contains 24 words including: value relevance, earnings, accounting information. Fifth cluster (purple) — contains 21 words including: management, integrated reporting, sustainability, insights. The smallest cluster containing 16 words is the light blue cluster with the dominance of: information, assurance, sustainability reporting.

5. Discussion

The adopted method of bibliometric analysis based on Web of Science has been used for many years. It was also used for the purpose of this research. The reliability and high quality of the study is ensured by dividing it into 5 stages: planning, defining the purpose of the review, full search and literature retrieval,

extraction and evaluation of the collected evidence, synthesis and analysis of the results, reporting and sharing the results. Zotero, VOSviewer and the WoS analysis system provided a great deal of support in the research. The research provides answers to the research questions posed. It analyses publications related to non-financial reporting.

The presented analysis is a confirmation of the growing interest in research linked to non-financial reporting. Many articles have been written relating to this issue. A very large share of them comes from an accounting-related background. There are already more than a dozen publications in the Web of Science database from the recent years summarising the topic using bibliometric analysis. A discussion on them can be found in the review of literature. Some of those items refer to the concept in general, while others similarly limit the study to a selected area. Each item seems valuable and it is hard to choose the leading one. In my opinion, the authors of the following articles formulate the most interesting conclusions:

- Non-financial reporting research and practice: Lessons from the last decade (Turzo et al., 2022);
- Sustainability Reporting in the Public Realm-Trends and Patterns in Knowledge Development (Stefanescu, 2021);
- A bibliometric analysis of the literature on non-financial information reporting: Review of the research and network visualization (Grueso Gala & Camisón Zornoza, 2022).

The presented analysis confirms the main research hypothesis. Non-financial reporting is closely linked to corporate accounting. An attempt of this publication was to look at the topic from an accounting perspective. This is its unique value when compared to the previous bibliometric analyses of the concept of non-financial reporting. The topic of NFR should be regarded as interdisciplinary, but it is strongly associated with accounting as this research has demonstrated.

6. Conclusions

The material presented herein provides answers to the research questions posed. It shows the moment when research in this direction began and the time when research into the issue intensified. It also presents a map of the keyword links. On the one hand, it shows the interdisciplinary nature of research on non-financial reporting while on the other hand, the strong research contribution of the accounting research community.

It means that today's accounting cannot be limited to a synthetic numerical description of business management. It must take into account reporting sustainability goals (SDGs). The traditional approach to accounting that reduces it to a field of science conflicts with the idea of non-financial reporting. The redefinition of the financial reporting model as well as changes in its structure and scope are driven by the changing information needs of reports users

(Śnieżek et al., 2018). They want to make decisions based on financial and asset information from traditional financial statements, information about adopted strategies. The impact on the socio-economic environment is also deemed important to them. Non-financial reporting is a toll on sustainability. It is also a form of transparency reporting where businesses formally disclose certain information not related to their finances, including information on human rights, environmental, social and labor rights, and anti-corruption. It helps organizations to measure, understand and communicate impacts of those areas, as well as set goals, and manage change more effectively. The concepts, according to which organizations at the stage of strategy building take into account social interests and environmental protection as well as relations with other entities, have already existed for two decades. Combining these two elements resulted in creating non-financial reports. The research in this field intensified the introduction of Directive 2014/95/EU. This is a breakthrough moment for the social side of business.

The material developed has some weaker points. One of them is the restriction to only a selected single repository, namely the Web of Science database. This means that it does not take into account studies published in journals that were not indexed in the database. Such as the analysis presented in the article entitled: “The importance of non-financial reporting research: a bibliometric analysis” (Ivan & Pătrînjă, 2022). As a justification for the above, one may state that the chosen database is one of the two largest databases available. A comparison of the two largest ones, i.e. WoS and Scopus, could constitute a topic for another research. The second point that may be debatable is the choice of the search query that determines samples A and B. However, in the opinion of the author, who tested various search combinations when approaching the topic, the adopted TS=(Non-financial AND report*) is the most objective and authoritative one. Study sample B was restricted using the word account* in the “publications” field. This fact can also be subject to discussions. Referring only to European Union regulations may also constitute some restrictions. Nevertheless, it did not have an impact on the research material collected.

The research has a beyond-national reach; another area of research could be a similar analysis from the point of view of selected countries. One may also look for correlations with other related issues such as integrated reporting, Corporate Social Responsibility or other areas of management.

References

- Al-Ali Mubarak, N.Y.M., Gorgenyi-Hegyész, E., & Fekete-Farkas, M. (2020). Perceived corporate sustainability practices and performance of small and medium enterprises (SMEs) in Qatar. *Polish Journal of Management Studies*, 22(1), 26–42. <https://doi.org/10.17512/pjms.2020.22.1.02>.

- Castillo-Vergara, M., Alvarez-Marin, A., & Placencio-Hidalgo, D. (2018). A bibliometric analysis of creativity in the field of business economics. *Journal of Business Research*, 85, 1–9. <https://doi.org/10.1016/j.jbusres.2017.12.011>.
- Chen, S., Zhang, Y., Dai, W., Qi, S., Tian, W., Gu, X., Chen, X., Yu, W., Tian, J., & Su, D. (2020). Publication trends and hot spots in postoperative cognitive dysfunction research: a 20-year bibliometric analysis. *Journal of Clinical Anesthesia*, 67, 110012. <https://doi.org/10.1016/j.jclinane.2020.110012>.
- de Souza Vanz, S.A., & Chitto Stumpf, I.R. (2010). Procedures and tools applied to bibliometric studies. *Informacao & Sociedade-Estudos*, 20(2), 67–75.
- Di Vaio, A., Palladino, R., Hassan, R., & Alvino, F. (2020a). Human resources disclosure in the EU Directive 2014/95/EU perspective: a systematic literature review. *Journal of Cleaner Production*, 257, 120509. <https://doi.org/10.1016/j.jclepro.2020.120509>.
- Di Vaio, A., Syriopoulos, T., Alvino, F., & Palladino, R. (2020b). “Integrated thinking and reporting” towards sustainable business models: a concise bibliometric analysis. *Meditari Accountancy Research*, 29(4), 691–719. <https://doi.org/10.1108/MEDAR-12-2019-0641>.
- Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W.M. (2021). How to conduct a bibliometric analysis: an overview and guidelines. *Journal of Business Research*, 133, 285–296. <https://doi.org/10.1016/j.jbusres.2021.04.070>.
- Erkens, M., Paugam, L., & Stolowy, H. (2015). Non-financial information: state of the art and research perspectives based on a bibliometric study. *Comptabilité Contrôle Audit*, 21(3), 15–92. <https://doi.org/10.3917/cca.213.0015>.
- Fusco, F., & Ricci, P. (2018). What is the stock of the situation: a bibliometric analysis on social and environmental accounting research in public sector. *International Journal of Public Sector Management*, 32(1), 21–41. <https://doi.org/10.1108/IJPSM-05-2017-0134>.
- Garrigos-Simon, F., Narangajavana-Kaosiri, Y., & Lengua-Lengua, I. (2018). Tourism and sustainability: a bibliometric and visualization analysis. *Sustainability*, 10(6), 1976. <https://doi.org/10.3390/su10061976>.
- Grueso Gala, M., & Camisón Zornoza, C. (2022). A bibliometric analysis of the literature on non-financial information reporting: review of the research and network visualization. *Management Letters/Cuadernos de Gestión*, 22(1), 175–192. <https://doi.org/10.5295/cdg.211545mg>.
- Ha, H.H. (2022). Audit committee characteristics and corporate governance disclosure: evidence from Vietnam listed companies. *Cogent Business & Management*, 9(1), 2119827. <https://doi.org/10.1080/23311975.2022.2119827>.
- Ivan, R.O., & Pătrînjău, B.I. (2022). The importance of non-financial reporting research: a bibliometric analysis. *The USV Annals of Economics and Public Administration*, 21(2(34)), 121–130.
- Kawacki, M. (2018). Sprawozdanie niefinansowe jako nowy raport na granicy rachunkowości. *Prace Naukowe Uniwersytetu Ekonomicznego we Wrocławiu*, 503, 195–206. <http://dx.doi.org/10.15611/pn.2018.503.17>.

- Kostenko, O., Kravchenko, O., Ovcharova, N., Oleksich, Z., & Dmytrenko, A. (2021). Integrated reporting in investment decision-making: bibliometric analysis of scientific landscape. *Agricultural and Resource Economics: International Scientific E-Journal*, 7(2), 141–159. <https://doi.org/10.51599/are.2021.07.02.08>.
- Mazur, Z., & Orłowska, A. (2018). Jak zaplanować i przeprowadzić systematyczny przegląd literatury. *Polskie Forum Psychologiczne*, 23(2), 235–251. <https://doi.org/10.14656/PFP20180202>.
- Monteiro, A.P., Aibar-Guzman, B., Garrido-Ruso, M., & Aibar-Guzman, C. (2021). Employee-related disclosure: a bibliometric review. *Sustainability*, 13(10), 5342. <https://doi.org/10.3390/sul3105342>.
- Piersiała, L. (2019). Społeczne oddziaływanie specjalnych stref ekonomicznych w Polsce. *Przedsiębiorczość i Zarządzanie*, 20(11), 163–174.
- Saini, N., Singhania, M., Hasan, M., Yadav, M.P., & Abedin, M.Z. (2022). Non-financial disclosures and sustainable development: a scientometric analysis. *Journal of Cleaner Production*, 381, 135173. <https://doi.org/10.1016/j.jclepro.2022.135173>.
- Simnett, R., Vanstraelen, A., & Chua, W.F. (2009). Assurance on sustainability reports: an international comparison. *Accounting Review*, 84(3), 937–967. <https://doi.org/10.2308/accr.2009.84.3.937>.
- Śnieżek, E., Krasodomska, J., & Szadzińska, A. (2018). *Informacje niefinansowe w sprawozdawczości biznesowej przedsiębiorstw*. Wydawnictwo Nieoczywiste.
- Stefanescu, C.A. (2021). Sustainability reporting in the public realm-trends and patterns in knowledge development. *Sustainability*, 13(8), 4128. <https://doi.org/10.3390/sul3084128>.
- Tunger, D., & Wilhelm, J. (2013). The bibliometric community as reflected by its own methodology. *Journal of Scientometric Research*, 2(2), 92–101. <https://doi.org/10.4103/2320-0057.128990>.
- Turzo, T., Marzi, G., Favino, C., & Terzani, S. (2022). Non-financial reporting research and practice: lessons from the last decade. *Journal of Cleaner Production*, 345, 131154. <https://doi.org/10.1016/j.jclepro.2022.131154>.
- Tylec, A. (2020). Non-financial reporting in Poland: standards and first experience of companies related to the implementation of directive 2014/95/EU. *Scientific Papers of Silesian University of Technology: Organization and Management Series*, 144, 573–582. <https://doi.org/10.29119/1641-3466.2020.144.47>.
- WoS. (2023). *WoS citation report*. Retrieved 03.03.2023 from <https://www.webofscience.com/wos/woscc/citation-report>.
- Zupic, I., & Cater, T. (2015). Bibliometric methods in management and organization. *Organizational Research Methods*, 18(3), 429–472. <https://doi.org/10.1177/1094428114562629>.



Acknowledgements

Author contributions: author has given an approval to the final version of the article.

Funding: this research was fully funded by the Czestochowa University of Technology.

Note: the results of this study were presented at *12th International Conference on Applied Economics Contemporary Issues in Economy* (June 29–30, 2023, Poland).

Appendix

Table 1.
Search protocol

Criteria	Research sample A	Research sample B
database	Web of Science	Web of Science
download date	06.02.2023	07.02.2023
timespan (date of first publication)	1900–01.2023 (1991)	1900–01.2023 (2003)
query	TS=(Non-financial AND report*)	TS=(Non-financial AND report*) + Publication Title *account*
sample size	2099	488

Source: Own preparation.

Table 2.
Web of Science categories

Web of Science Categories	Record Count	% of 2099	Web of Science categories	Record Count	% of 488
business finance	680	32.396	business finance	455	93.238
management	528	25.155	management	80	16.393
business	453	21.582	green sustainable science technology	24	4.918
economics	354	16.865	environmental studies	23	4.713
environmental studies	213	10.148	economics	22	4.508
green sustainable science technology	200	9.528	business	17	3.484
environmental sciences	158	7.527	public administration	7	1.434
law	47	2.239	computer science information systems	1	0.205
public environmental occupational health	43	2.049	regional urban planning	1	0.205
social sciences interdisciplinary	37	1.763	social sciences mathematical methods	1	0.205

Showing 10 out of 128 entries.

Source: Own preparation based on WoS (2023).



Table 3.
Publication by countries/regions

Countries/Regions	Record count	% of 2099	Countries/Regions	Record count	% of 488
Italy	214	10.195	England	83	17.008
England	207	9.862	Australia	79	16.189
USA	171	8.147	Italy	60	12.295
Australia	150	7.146	USA	36	7.377
Spain	129	6.146	Malaysia	30	6.148
Poland	122	5.812	Romania	25	5.123
Romania	109	5.193	Spain	25	5.123
China	97	4.621	New Zealand	24	4.918
Malaysia	90	4.288	Egypt	21	4.303
Germany	72	3.430	Germany	20	4.098
Showing 10 out of 113 entries, 10 record(s) (0.476%) do not contain data in the field being analysed.			Showing 10 out of 73 entries 2 record(s) (0.410%) do not contain data in the field being analysed.		

Source: Own preparation based on WoS (2023).

Table 4.
Publication Titles (research sample A)

Publication titles	Record count	% of 2099
Sustainability	110	5.241
Meditari Accountancy Research	57	2.716
Journal of Financial Reporting and Accounting	39	1.858
Journal of Applied Accounting Research	35	1.667
Corporate Social Responsibility and Environmental Management	26	1.239
International Journal of Accounting and Information Management	23	1.096
Journal of Asian Finance Economics and Business	23	1.096
Managerial Auditing Journal	23	1.096
Business Strategy and the Environment	22	1.048
Sustainability Accounting Management and Policy Journal	22	1.048
Showing 10 out of 1000 entries.		

Source: Own preparation based on WoS (2023).

Table 5.
Publication Titles (research sample B)

Publication titles	Record count	% of 488
Meditari Accountancy Research	57	11.680
Journal of Financial Reporting and Accounting	39	7.992
Journal of Applied Accounting Research	35	7.172
International Journal of Accounting and Information Management	23	4.713
Sustainability Accounting Management and Policy Journal	22	4.508
European Accounting Review	16	3.279
Accounting in Europe	15	3.074
Journal of Accounting in Emerging Economies	14	2.869
Proceedings of the International Conference Accounting and Management Information Systems	14	2.869
Accounting Auditing Accountability Journal	13	2.664

Showing 10 out of 116 entries.

Source: Own preparation based on WoS (2023).

Table 6.
Authors most frequently published

Authors	Record count	% of 2099	Authors	Record count	% of 488
Hussainey K	21	1.000	Hussainey K	10	2.049
Venturelli A	14	0.667	Dumay J	8	1.639
Pizzi S	13	0.619	Guthrie J	8	1.639
Garcia-sanchez IM	12	0.571	De Villiers C	7	1.434
Dumay J	11	0.524	Maroun W	6	1.230
Guthrie J	10	0.476	Abhayawansa S	5	1.025
Caputo F	9	0.429	Costa E	5	1.025
De Villiers C	8	0.381	Elmarzouky M	5	1.025
Di Vaio A	8	0.381	Krasodomska J	5	1.025
Krasodomska J	8	0.381	La Torre M	5	1.025

Showing 10 out of 4743 entries 1 record(s) (0.048%) do not contain data in the field being analysed.

Showing 10 out of 1043 entries 1 record(s) (0.205%) do not contain data in the field being analysed.

Source: Own preparation based on WoS (2023).

Table 7.
Publications with highest citation

Sample A	Sample B
Assurance on sustainability reports: an international comparison, by: Simnett, R Vanstraelen, A; Chua, WF, in <i>Accounting Review</i> 2009 (citation score 649)	Assurance on sustainability reports: an international comparison, by: Simnett, R Vanstraelen, A; Chua, WF, in <i>Accounting Review</i> 2009 (citation score 649)
ESHRE Guideline: management of women with premature ovarian insufficiency, by: Webber, L; Davies, M; (...); Vermeulen, N, in <i>Human Reproduction</i> 2016 (citation score 581)	Gender diversity, board independence, environmental committee and greenhouse gas disclosure, by: Liao, L; Luo, L and Tang, QL in <i>British Accounting Review</i> 2015 (citation score 522)
Gender diversity, board independence, environmental committee and greenhouse gas disclosure, by: Liao, L; Luo, L and Tang, QL, in <i>British Accounting Review</i> 2015 (citation score 522)	The association between board composition and different types of voluntary disclosure, by: Lim, S; Matolcsy, Z and Chow, D in <i>European Accounting Review</i> 2007 (citation score 230)
Determinants of the adoption of sustainability assurance statements: an international investigation, by: Kolk, A and Perego, P, in <i>Business Strategy And The Environment</i> 2010 (citation score 343)	Antecedents to management accounting change: a structural equation approach, by: Baines, A and Langfield-Smith, K, in <i>Accounting Organizations and Society</i> 2003 (citation score 226)
The role of the board in the dissemination of integrated corporate social reporting, by: Frias-Aceituno, JV; Rodriguez-Ariza, L and Garcia-Sanchez, in <i>Imcorporate Social Responsibility and Environmental Management</i> 2013 (citation score 324)	Does integrated reporting matter to the capital market?, by: Zhou, S; Simnett, R and Green, W, Abacus, A., in <i>Journal of Accounting Finance and Business Studies</i> 2017 (citation score 198)

Source: Own preparation based on WoS (2023).