

Review

A Bibliometric Analysis of Sustainability and Risk Management

Haitham Nobanee ^{1,2,3,*} , Fatima Youssef Al Hamadi ¹, Fatma Ali Abdulaziz ¹, Lina Subhi Abukarsh ¹,
Aysha Falah Alqahtani ¹, Shayma Khalifa AlSubaey ¹, Sara Mohamed Alqahtani ¹
and Hamama Abdulla Almansoori ¹

¹ Department of Accounting & Finance, College of Business, Abu Dhabi University, Abu Dhabi 59911, United Arab Emirates; 1078514@students.adu.ac.ae (F.Y.A.H.); 1078610@students.adu.ac.ae (F.A.A.); 1077646@students.adu.ac.ae (L.S.A.); 1077095@students.adu.ac.ae (A.F.A.); 1079475@students.adu.ac.ae (S.K.A.); 1077375@students.adu.ac.ae (S.M.A.); 1078268@students.adu.ac.ae (H.A.A.)

² Oxford Centre for Islamic Studies, University of Oxford, Oxford OX3 0EE, UK

³ Management School, The University of Liverpool, Liverpool L69 7ZH, UK

* Correspondence: nobanee@gmail.com or haitham.nobanee@oxcis.ac.uk or haitham.nobanee@online.liverpool.ac.uk; Tel.: +971-2-501-5709

Abstract: Sustainability practices in a working environment represent superior quality performances, while risks remain to be a challenge. Our study's primary purpose is to deploy the bibliometric method to analyze the related literature. Bibliometric parameters analyzed using the VOSviewer software were employed to identify citations relevant to sustainability and risk contexts' critical themes. From 1990–2020, a reflection of 1233 documents appeared in Scopus on sustainability practices and risk management. We searched the current papers, authors, institutes, and keywords on VOSviewer. The bibliometric search provided us an understanding, which reflected that the collected works on literature of sustainability and risk factors, in general, is suggestively increasing. Mainly, in our report, we highlighted six major streams, related to topics such as the moral responsibilities and sustainability development, blockchain technology and minimization of risks, social sustainability and supply chain, environmental impacts, safety engineering and risk identification, and optimization and sustainability practices. The primary purpose of using streams was to cite the key authors and their contributions to the related literature. This bibliometric analysis was developed to obtain further understanding regarding the importance of sustainability to the individual, firms, and the entire economy. Moreover, the factors associated with risk also sought to be examined to prevent or at least minimize its negative impact. It was identified in this paper that sustainability remains an issue in the global perspective that has been challenging the individual and/or the organization's point of views. Risk factors were also identified as inevitable; hence, everyone must be socially responsible to minimize the negative impact on the economy.

Keywords: sustainability practices; bibliometric analysis; VOSviewer; risk assessment; sustainable development; environmental impacts



Citation: Nobanee, H.; Al Hamadi, F.Y.; Abdulaziz, F.A.; Abukarsh, L.S.; Alqahtani, A.F.; AlSubaey, S.K.; Alqahtani, S.M.; Almansoori, H.A. A Bibliometric Analysis of Sustainability and Risk Management. *Sustainability* **2021**, *13*, 3277. <https://doi.org/10.3390/su13063277>

Academic Editor: Guang-Liang Feng

Received: 24 December 2020

Accepted: 12 March 2021

Published: 16 March 2021

Publisher's Note: MDPI stays neutral with regard to jurisdictional claims in published maps and institutional affiliations.



Copyright: © 2021 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

Sustainability consists of a wide scale of models connected to integrating economic, social, and ecological concerns [1]. The practices of sustainability deal with responsible actions by taking being resourceful into consideration. Sustainability of economy ensures we make efficient use of resources that could prove to be long term secure structures [2]. Social sustainability consists of social reliability, social investment, public progress, and social accountability. When societies are neutral, diverse, connected, and independent, they are responsible for better life superiority. Finally, environmental sustainability suggests that regular possessions should be preserved at an ecological frequency as these are commonly nonrenewable. It indicates preserving ecological assets, or at least not depleting them [3].

The other name for sustainability is “corporate social responsibility”. CSR is a multidisciplinary concept whereby corporations can reflect on the effective practices of studying the best actions for responsibility, which may mean intelligent and objective concern for the community’s welfare. Earlier, most business organizations’ emphasis was philanthropic; sustainability structures currently served to succeed the moderate initiations surrounded by corporate significances and common social prerequisites [4]. A corporation may have evaluated and assessed its risk, which was unpredictable and unknown. The sources of risks could be pure or dynamic [5].

Pure risks usually are static risks [1]. The primary sources arise from the base of pure forms of risks that bring threats or vulnerabilities, causing physical damage to individual business assets or possessions. Pure risks strike an organization due to uncontrollable natural forces, which might frequently arise in the phases of external sources. They may perhaps arise from floods, rainstorms, underground eruption, twisters, fire, power-driven failures, or technology’s collapse due to natural calamities. In every stage of a business lifecycle, risks are uncertain in the environment [2]. Speculative risks, on the other hand, can strike a business corporation from factors such as competitive factors; fluctuations in stock values; mismanagement of business practices; lack of proper planning; inadequate controls on business establishments; changes in laws or regulations; changes in modern trends; unethical practices such as dishonesty, fraudulence, or theft; or misusing companies’ assets for personal gains [2].

Businesses have been challenged by various factors, especially by the socio-economic context in the present, resulting in these firms identifying new opportunities and developing new strategies to retain and improve their competitive advantage [6]. Firms that adopt innovation successfully gain positive and significant benefits such as profits, growth, and new market opportunities [7].

In general, we understand that risks could arise from internal aspects or external aspects, which could impact the business environment’s sustainability and operational practices. [8] Every business is committed to satisfying specific responsibilities that it owes to the general public. [9] This paper employed a bibliometric analysis of sustainability and risk management to develop and gain a further in-depth understanding of the importance of sustainability to each individual, organization, and the entire economy. Moreover, we also sought to further investigate the factors associated with risks and their impact. The results of this study shall contribute to the existing literature regarding sustainability and risk management.

We were able to generate the top most influential authors, country distribution, citations and sources, citations of documents, organizations, and affiliations of universities using the Scopus database. In addition to that, we have developed six streams for the cluster analysis, such as moral responsibility and sustainability development, blockchain technology minimizing risk, social sustainability and supply chain management, environmental impact, safety engineering, and optimization. Our recommendations for future research and conclusions shall also be included by the end of this paper. The remainder of this paper proceeds as follows: Section 2 presents the materials and methods, the results of the bibliometric analysis are presented in Section 3, the discussion of cluster analysis showed in Section 4, and recommendations for future research presented in Section 5. Finally, the study is concluded in Section 6.

2. Materials and Methods

We began by using an analysis with bibliometric references and citations to collect the greater quantity of literature on sustainability practices and risk dimensions [10] and framework of background analysis for around 1233 document articles for 32 years from 1989 to 2020. A science mapping method has been employed to analyze the existing literature, which involves the analysis of bibliographic data related to a corpus of documents drawn from a field of study [11]. Bibliometric analysis can facilitate the mapping of large volumes of scientific literature [12]. Bibliometric analysis anticipates a similar form of systematic

literature reviews and rigorous techniques that guarantee the quality of the information used and results' output generated [13]. We also used VOSviewer software to construct and visualize linkages of bibliometric sources to source top authors to extract refined information from publications, academics, or individual journals [14].

To accomplish the research aim and get over the quoted parameters, we executed an organized literature review to ensure logical consistency in plotting the understanding, formed roughly so far, of the connection concerning sustainability and dimensions of risks. Our analysis follows the support of the bibliometric process of view of correspondences, through a bibliographic connector, which leads to the documentation of three refrains of assessment on dimensions of risks and sustainability. We learned about exporting the bibliometric particulars of the documents into an Excel workbook [15].

One of the most significant great drifts in sustainability, continuing from the past few centuries, has been corporate objectives for acquiring support for sustainability, along with risk management protocols. Even though significant risk managing and sustainability experts are motivated to be unconvinced by one another, the up-to-date method promotes clear unimpaired vision over confined rational thinking [16].

There are various reasons why researchers adopt the bibliometric method: First, research studies with data are considered more relevant than the subjective evaluation. Second, subjective and critical scientific paper synopses can be obtained through traditional reviews. Finally, bibliometric methods help in obtaining scientific review overviews [17]. Furthermore, in this study, we opted for VOSviewer for generating, visualizing, and evaluating the networks in bibliometrics. There is other existing computer software that can also help in bibliometric mapping; however, VOSviewer focuses on the bibliometric map's graphical representation, which enables the audience to easily assess and interpret the bibliometric maps due to its large display function [18]. Bibliometrics has been widely used in various contexts, ranging from the traditional assessment of the citation impact [19] to the identification of the factors impacting the environment [20]. This software has been widely used in various studies to assess different articles and visualize the data networks [21].

We chose the Scopus database for bibliographic research for systemic projected literature analysis on risk and sustainability dimensions, which is accessed through Elsevier. We explored the Scopus database on 5 November, 2020 to obtain the journals and articles related to sustainability and risk management. The bibliographic archive had records of over 2000 multidisciplinary subjects, which we have used to support the bibliometric study centered on the visualization of resemblances method. For searching for more relevant data, we refined data on the topic of sustainability and risk where the file was extracted by exporting the data to a CVS file, exporting the citations information, bibliographical information, abstracts, keywords, findings, and other related info. We used keywords such as "sustainable" and "risk", with the application of some filters linked to sustainability and the concepts of risks associated with allocating the search practice. We concentrated the pursuit merely in the heading because using a comprehensive exploration saved not openly correlated reports [22]. The exact keyword search is presented below:

TITLE ("sustainab*" AND "risk") AND (LIMIT-TO (DOCTYPE , "ar") OR LIMIT-TO (DOCTYPE , "cp") OR LIMIT-TO (DOCTYPE , "ch") OR LIMIT-TO (DOCTYPE , "re") OR LIMIT-TO (DOCTYPE , "no") OR LIMIT-TO (DOCTYPE , "le")) AND (LIMIT-TO (LANGUAGE , "English"))

Using bibliometric searches, we learned sorting dimensions of analysis and units. For bibliometric analysis, we deployed mixed citations. The citations included co-authorships, which helped in examining the research field's social structure [23], a bibliographic coupling that utilized several references shared by the two documents as comparison measure [1,24,25], co-occurrences to comprehend the document set patterns that underlie the research [26], and co-citations, which could help to determine the conceptual structure of the topic of the study [27]. To generate and produce the figures and data from cited articles, we conducted co-occurrence analysis of keywords, co-authorship analysis of the influential authors and country distribution, co-citation analysis of cited sources, citation analysis of documents

3. Results

3.1. Published Documents on Sustainability and Risk Assessment

In Figure 3, complete bibliometric research was lead using the VOSviewer software, along with Scopus. Our analysis contained 1233 documents from the year 1989 to 2020.



Figure 3. Top published journal documents on Sustainability and Risk assessment.

3.2. Keywords Analysis

As shown in Figure 1, we used network analysis where the critical leading related words connected to sustainability and risks were identified in the research study. The network analysis, using keywords, accompanied the software of VOSviewer to pinpoint more than quite a few ranges and information on investigation of sustainability and risks generally impacting the firms. It was generated through conducting a co-occurrence analysis of both author and index keywords. The significance of this analysis is that it helped the researcher to reveal the research field's development and structure. It helped in mapping the scientific literature's intellectual structure [29]. The keywords could be obtained from the publication's title and abstract; however, there was a restriction for single words. The figure represents a grid centered on replicating keywords in the literature on general dimensions of sustainability and risks. The linkage in the network analysis showed that environmental impacts, sustainable development, risks, vulnerability, climate change, risk perception, economic and social factors, health risks, accident prevention, and risk assessment are the key related backgrounds in the literature we perceived. As we selected our research connectedly on the generalization of sustainability and risk dimensions, a few keywords, such as China, decision-making, and humans, usually do not result in a literature search of sustainability or risks. Figure 1 shows that risk assessment and sustainability have passed over the essential and most crucial research context on how sustainability and risks can impact firms in general. The slight gaps in the network analysis can be closed with the relevant speculative acquaintance of data in our research study through crucial citations of keywords for research in the future.

3.3. Influential Authors

Using the VOSviewer software, we conducted a co-authorship analysis, which is a tool used to identify the key organizations and scientists, as well as examine their association [1]. It helped us to generate the leading authors and rank them by documents and citations. The documents' publication characterized the most significant ten authors, as well as another set-top ten authors whose citations were most potent in Figure 4 and Table 1. Based on Table 1, the most potent authors were Dong Y., Frangopol D M., and Li Y. (six documents). Likewise, if we saw the authors represented by citations, we saw 311 by Harman E, followed by Busse C (210 sources) and Bode C. (162 references), we can view similar patterns from the format. Almost 20,113 authors were spotted on VOSviewer, where we focused on the top 10 prevailing authors with documents as well as citations.

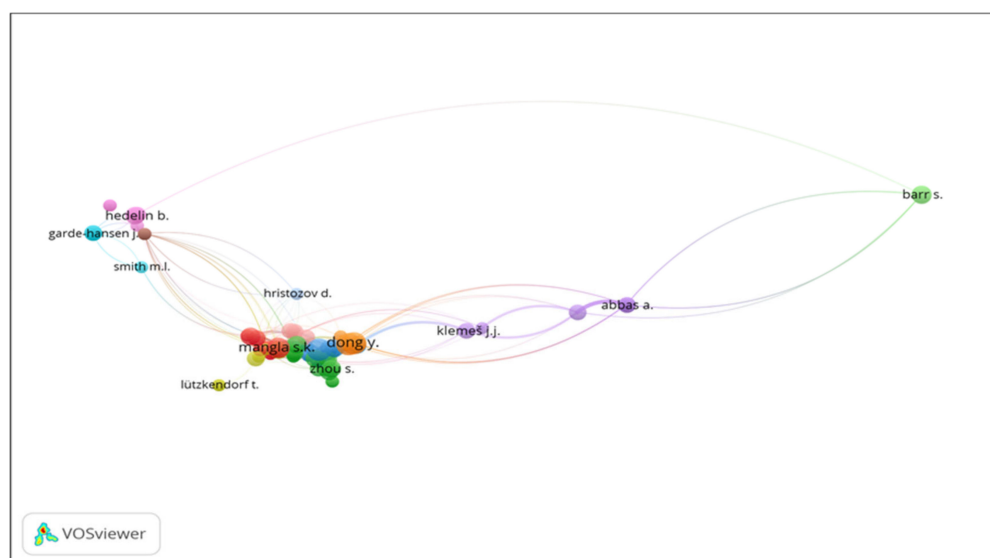


Figure 4. Influential Authors generated using VOSviewer.

Table 1. Prominent Authors by documents and citations.

Rank	Author by Documents	Documents
1	Dong Y. [30]	6
2	Frangopol D.M. [30]	6
3	Li Y. [31]	6
4	Mangla S.K. [32]	5
5	Barr S. [33]	4
6	Busse C. [34]	4
7	Caparros-Midwood D. [35]	4
8	Dawson R. [36]	4
9	Ghezavati V. [37]	4
10	Hedelin B. [38]	4
Rank	Author by Citation	Citations
1	Hartmann E. [39]	311
2	Busse C. [34]	210
3	Bode C. [40]	162
4	Engel G. [41]	152
5	Lattimore B. [42]	152
6	Smith C.T. [43]	152
7	Stupak I. [44]	152
8	Choi t.-M. [45]	116
9	Mangla S.K. [32]	108
10	Tseng M.-I. [46]	106

3.4. Country Distribution

In Figure 5, the list of influential top origin of countries was identified in the network using VOSviewer software, where the countries were ranked by number of documents and the ranking of the states was also based on citations from the previous 32 years. Using the co-authorship analysis, the trending collaboration among the influential countries was assessed. Similar to the scientists, we also sought to identify opportunities in discovering new information and knowledge through collaboration [47].

The top 10 countries in Table 2 represent the highly graded documents. The top-ranked citations of the countries show that, in the leading position through documentation and citations, United States was the first country to research and initiate more on the work practices of sustainability and to analyze the study of risk impact on firms compared to other countries ranked. The United Kingdom was the second-ranked country by citation

and documentation. The nation was working closely to create an overview of its progress with sustainability indicators, evaluation of risks, and mitigating measures. Likewise, the country of China was ranked in the third position, which is considered to be close to emerge with the concept of sustainability practices and reduce the measures of risks in the associated line of diverse firms or organizations. Countries with an emerging economy were scarce and irregular in the literature as these countries did not have enough resources. Most organizations may not adopt sustainability factors as it remains a challenge and requires a more significant amount of capital investment. Hence, countries with an emerging economy should utilize sustainability to improvise society's triple line approaches, economy, and environment.

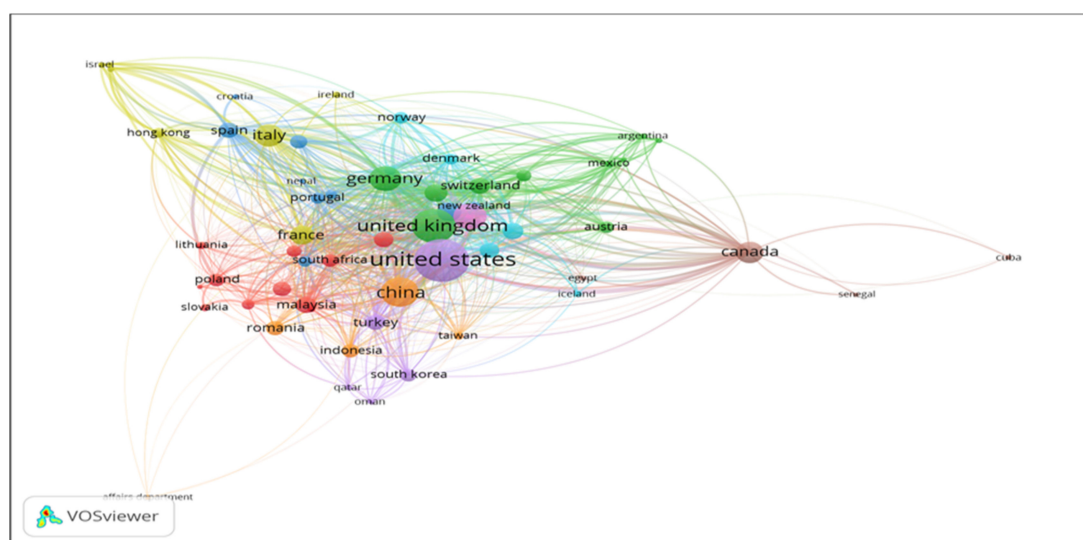


Figure 5. Analysis of citation network identifying the origin of a country for diverse authors.

Table 2. Prominent country by documents and citations ranked.

Rank	Country by Documents	Documents	Rank	Country by Citation	Citations
1	United States	235	1	United States	2192
2	United Kingdom	148	2	United Kingdom	1938
3	China	114	3	China	1759
4	Australia	88	4	Australia	1224
5	Germany	80	5	Canada	1067
6	Italy	64	6	German	818
7	Canada	60	7	Switzerland	765
8	France	48	8	France	700
9	India	48	9	Netherlands	620
10	Netherlands	40	10	Iran	592

3.5. Citations and Sources

In Figure 6, required journal distribution and linkages were generated in VOSviewer and Scopus software to isolate the handful of journal distributions and links that were done by using the co-citation analysis of cited sources. This type of analysis enabled us to visualize the relationship between the publications [48]. The top nine ranked journals were in two categories: the highest number of documents in a journal reported with the highest number of distributed journals published on the subject matter. Secondly, a highly cited number of journal documents were ranked.

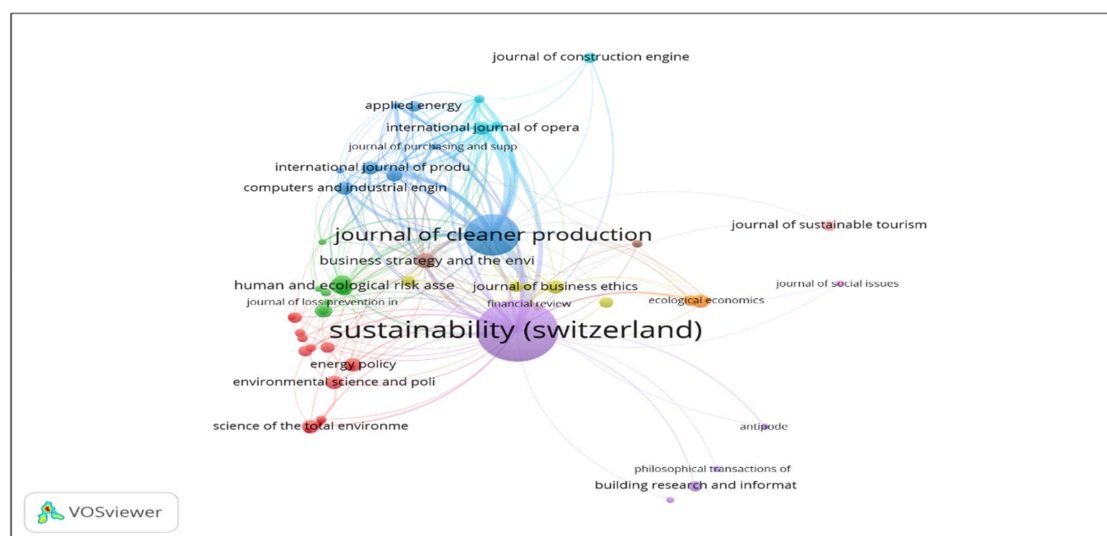


Figure 6. Citations of journal network using VOSviewer.

In Table 3, sourced by published journals on the topic, Sustainability (Switzerland) journal ranked first with a higher document availability of 99 papers. The source, with citations, of published journals showed some gaps as the highest ranked journal publication was shown to be the Journal of supply chain management with 1069 citations. Philosophical truncations of the royal society with biological sciences cited around 621 documents. Unexpectedly, in the sourced citations, a limited journal in the field of sustainability, with 189 document citation, was ranked as ninth, which implied a not significant number of proper citation references with sustainability practices. On the other hand, risk analysis, had citations of 259 sources, but by documents, there were no documents with the “risk perspective.” As per our analysis, we found that sustainability vision had a shortage with organizations’ low perspective, ignored by organizations and business journals. Moreover, from our sourced citations of networks on journal distributions, the cited articles were more on the top-ranked, with supply chain management ignoring and overlooking less prominent journals, leading to the bias of citations.

Table 3. Top nine, prominent source by documents and citations ranked for journals.

Rank	Source by Documents	Documents	Rank	Source by Citation	Citations
1	Sustainability (Switzerland)	99	1	Journal of supply chain management	1069
2	Journal of cleaner production	45	2	Philosophical transactions of the royal society b: biological sciences	621
3	Human and ecological risk assessment	8	3	Green chemistry	354
4	Business strategy and the environment	6	4	Risk analysis	259
5	Entrepreneurship and sustainability issues	6	5	International Journal of production research	243
6	Computers and industrial engineering	5	6	Natural hazards and earth system sciences	242
7	Energy policy	5	7	Aquaculture in the ecosystem	229
8	Environmental science and policy	5	8	Oie revue scientifique et technique	198
9	International Journal of operations and production management	5	9	Sustainability (Switzerland)	189

3.6. Citations of Documents

In the format of Figure 6, the dominant authors issued journals with citations of years acknowledged using the VOSviewer software. The result was drawn from conducting citation analysis of documents. This analysis is considered one of the most important parts of a bibliometric study [49]. Significant authors have researched sustainability and risk aspects; from the database, we found that 20,175 authors have put out articles appropriate to sustainability and risk between 1989 and 2020. To categorize the most applicable and, the top authors ranked, lists were cited documenting 20 cited authors whose citations showed more than 100 published papers.

3.7. Organization

Using the software of VOSviewer and citation analysis, we gathered the top 10 affiliations where we could observe the published documents of sustainability and risk journals under the entity of organizations where the research has accompanied their principal investigations on the focus, the results reported in Table 4. Furthermore, the bibliometric study considered exploring the published journal and references and listing the highest 10 affiliations. In the list, we observed that the School of Industrial Engineering, University of Tehran, and the College of Engineering Tehran published the most journals on sustainability practices and associated risk management with five important journal documents. “Ghent University Belgium” from the Department of Geography published the three most important published journal documents on sustainability practices and risk factor management. We observed most of the subsequent affiliations listed by almost the same figure as the three most important documents.

Table 4. Top 10 universities in the dataset by number of affiliated documents published.

Rank	Organization by Documents	Documents
1	School of Industrial Engineering, College of Engineering, University of Tehran, Tehran, Iran	5
2	Department of Geography, Ghent University, Ghent, Belgium	3
3	Leibniz centre for Agricultural Landscape Research (Zalf), Eberswalde str. 84, Müncheberg, 15374, Germany	3
4	Old Dominion University, United States	3
5	School of Economics and Management, Beihang University, Beijing 100191, China	3
6	School of Economics and Management, North China Electric Power University, Beijing 102206, China	3
7	Swiss Federal Institute of Technology Zurich, Switzerland	3
8	Accounting Research Institute, University technology Mara, Shah Alma, Selangor, Malaysia	2
9	Australian National University, Canberra, Australia	2
10	Business School, Hohai University, Nanjing 211100, China	2

3.8. Affiliations of Universities

We observed in the affiliations of documents in Figure 7 the conception of correspondence exploration, created on bibliographic coupling; the stemmed articles documented frequently explored private enterprise in addition to the context for sustainability. This was done through conducting a bibliographic coupling. The ranked universities with corresponding positions have published document journals on sustainability and risk assessment. In Figure 8, we see that Karlstad University (Sweden) released seven publications of documents. North China Electric Power University (China), University of Toronto (Canada), and Wageningen University (Netherlands) released eight publications, Curtin University (Malaysia), Chinese Academy of Science (China), Universidad Nova de Lisboa (Portugal), Newcastle (England) had overall nine publications, and the most published articles, by affiliation with 12 journals, were published by Eth Zurich University (Switzerland). The most published journals on sustainability practices are released and recorded by Switzerland. It could be evidence that society was more focused on studying the contexts of environments and economic parameters, as we see the 12 most published articles from Eth Zurich University.

The research output in sustainability has grown sharply compared to the findings of similar bibliometric studies [11,12,14]; more countries, affiliations, and authors engaged in sustainability research outputs, and the sustainability topic has more connections with several new disciplines and fields. The study of [11], regarding the energy being linked with public participation, has resulted in 12,000 publications. The publications focus on the topic of sustainability, sustainable energy, energy efficiency, and sustainable environment.

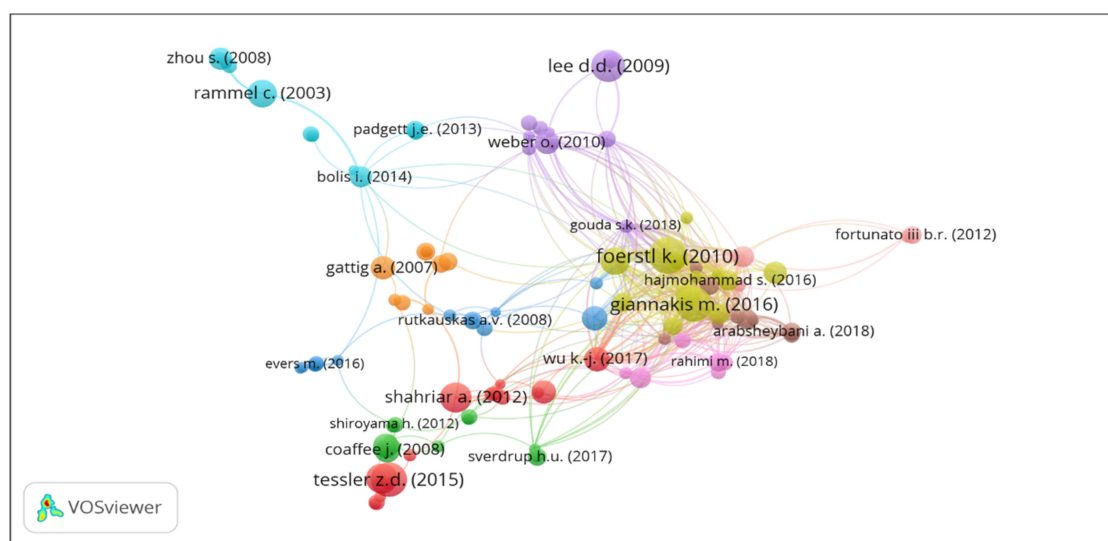


Figure 7. Citations of document network using VOSviewer.

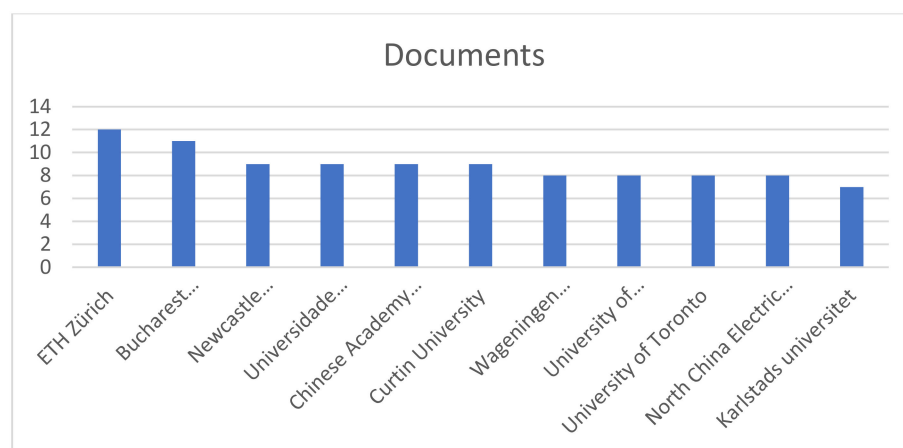


Figure 8. Affiliations of universities by documents published.

4. Discussion on Cluster Analysis

Cluster analysis, content analysis, and future research questions are presented in Table 5. To create a cluster, we constructed mainly five columns. The most significant purpose of analyzing the cluster was to evaluate the vital top journals and articles we cited based on the context of sustainability and risk management actionable measures. We created a table mainly with five leads streams: authors of the streams, the purpose of the vital paper, the main findings, and lastly, we framed recommendations, which we transformed into main research questions. We searched the key journals related to sustainability and risk management to generate the streams of information from Scopus. Then, we cited the journals' prominent authors who contributed their efforts to the context, mentioning the published years of the articles released. To track the keywords, we gathered some samples for clustering the streams that included keywords, such as life cycle, risk assessment, risk perception, sustainability development, environmental protection, risk factors, climate change, and disaster management. From the main leads of keywords, we framed six streams relating to the subject. We framed lead questions for six selected streams, plotting two primary citations of top authors and 24 research questions.

Table 5. Cluster analysis, content analysis, and future research questions.

Streams	Authors	Purpose	Findings	Recommendations for future Research Agenda (Converted to Research Questions)
Moral Responsibility and Sustainability Development	Sendlhofer, T.(2020) [50].	Linking the ethical responsibilities of employees for visionary engagement towards thinking sustainably.	- It is not only the sole responsibility of business alone to underlie sustainable approaches. - Businesses assume that the future generations from an individual perspective also need to pursue strong interest about how a job environment could move towards sustainability.	- How can the perspectives of sustainability at individual level engagement impact corporate social responsibility? - How can the risks be compressed from deploying visionary ideas of sustainability at a distinct level?
Moral Responsibility and Sustainability Development	Nicholson, J and Kurucz, Z (2019) [51].	Connecting logical self-directed thinking with business responsibilities.	- Self-directing approaches link to the resilience of individual sustainable construction in a circular economy, reducing environmental impacts. (E.g., Sweden has been recorded as the top first country with 2.8% of least toxic wastes, followed by Finland and France with a score of 3.5% with the least risks to the environment. In comparison, the United States shows the most significant polluted environment with more risks hazardous to business and life. - Linking rational self-directed intellectuals can create more incredible opportunities for every workforce with a platform free from carbon footprints and leverage business resources in a resilient green economy for a healthy future.	- Does the growth of Urbanization and overpopulation embrace a sustainable future in a circular economy where the government will be solely responsible? - How strongly can we believe that going green and attempting to reduce overconsumption can jeopardize emissions in the current economy?
Blockchain Technology Minimizing Risk	(Abdel-Basset, M., Gunasekaran, M., Mohamed, M., and Chilamkurti, N, 2019) [52].	Linking an innovative risk assessment reducing structure through Blockchain technology can validate the identification of risk factors around the present and future economy.	Emerging deployment of using blockchain technologies at a business or corporate level can eliminate human errors at the more significant potential. The authors signified the Blockchain model's importance in an organization, which reduces about 90% accuracy with better performance over the conventional systems. (implemented on the complex corporation–IT sector)	- Which sectors will benefit from using Blockchain technologies, and will it be cost-effective to take advantage on a broad spectrum? - Based on following the conventional approaches of technologies, is it worth using Blockchain evaluation?
Blockchain Technology Minimizing Risk	(Rana, R., Zaeem, R. N., and Barber, K. S., 2019) [53].	Linking Blockchain's strategic approach to archive coordination with delivering an exceptional solution, providing security and confidentiality with its rooted functional program.	- The altitudes of risks at an organizational level can be managed effectively, like fraud, theft of confidential information, and information sustainability. - Blockchain in the business sectors can reduce the risks of preventing consequential losses, which are insurable and measured from a strategic viewpoint.	- Does Blockchain create restrictions between private and public access? - How can the impact of operational risks and liquidity risks be condensed to an exceptional level at a strategic viewpoint? - How can Blockchain benefit in uncontrollable risks such as pure risks? Can it comply with hedging and insurance?
Social Sustainability and Supply Chain Management	(D'Eusanio, M., Zamagni, A., and Petti, L, 2019) [54].	Linking the corporate social sustainability with supply chain administration.	- Currently, organizations are required to be publically liable by evaluating their social influences besides performances, including managing supply chain operations to accomplish advantages of competitive edges with sustainability. - Tools of preferred reporting items for systematic review and meta-analysis are considered significant tools for supply chain sustainability of the economic and community perspectives.	- Can the market illusions in a circular economy structured with sustainability gaps connect to social sustainability? - How can the current researchers contradict the fact that the paradigm of social sustainability meets the challenges of business knowledge gaps?
Social Sustainability and Supply Chain Management	(Orji, I. J., Kusi-Sarpong, S., and Gupta, H., 2020) [55].	Studying the correlation of sustainability with diffusions of risks with supply chain implication	- MNC's can track challenges, such as management, of tackling environmental sustainability. When the small, medium and large enterprises join resources mutually, an organization can be managed prudently with better practices of sustainability - The major intermediary problem was intensely intrinsic in the conglomerates, boosting the risk management executives to task substantial acquaintance utilizing capital investments.	- How exponentially can the collaboration of SME and MNC's sustain environmentalism? - What sort of inspirations can attract public procurement towards the sustainability of social and environmentally friendly methods?

Table 5. Cont.

Streams	Authors	Purpose	Findings	Recommendations for future Research Agenda (Converted to Research Questions)
Environmental Impact	(Elsaid, K., Kamil, M., Sayed, E. T., Abdelkareem, M. A., Wilberforce, T., and Olabi, A., 2020) [56].	The role of modern technology linking ecosystem, which impacts the environment.	- According to the authors, cleaner production, a new fast advancing concept, emphasizes the adoption of eco-friendly methods or procedures to prevent pollution and reduce the risks of the human race to minimize environmental hazards - Cleaner production in an environment is possible by reducing waste, recycling waste, using renewable sources of resources, and using better housekeeping approaches, processes, product modifications, and raw material changes to minimize waste.	- How far and in what sort of ways can cleaner productions in a society eliminate waste controls for better economic development? - What are the stepladders that ecologically responsive management needs to reflect on, such as tackling signs of progress with its performance with cleaner productions' substitutions reducing environmental impacts?
Environmental Impact	(Taşkın, A. and Demir, N., 2020) [57].	Linking the essential steps of sound environmental management with sustainability.	- Industrial and agricultural revolutions have brought about reaching changes in society's economic and social environment. - Provision for better working conditions is likely to help improve sanitation, better control the growing population and infectious diseases, and ensure a healthy lifestyle. - Replacement of toxic and hazardous materials can help to improve the environment.	- How can nature balance with anticipatory measures to prevent control of depletion of the socio-economic environment? - Will the performance of sustainability measures in an economy impact by centralizing or decentralizing towards environmental impacts?
Safety Engineering	(Amin, M. T., Khan, F., Amyotte, and P., 2019) [58].	Linking the practices of deploying safety engineering with taking the responsibilities of tackling risks.	- The discipline that can assure engineering practices provide more excellent knowledge on objectives of making one learn how to contradict innovation risks in any sector of organizations and ensure one can learn the importance of controlling risks with safety margin rehearsals in an ecosystem. - Safety engineering can strongly influence other sectors of similar fields, which can undertake social responsibilities of handling risks that could arise from any unknown sources.	- What are the sorts of main key influences which can crack the safety margin in a workplace? - Can implementing practice of safety engineering theories of unification provide reduced percentiles of avoiding risks in a job environment?
Safety Engineering	(Van Coile R, Hopkin D, Lange D, Jomaas G, and Bisby L., 2019) [59].	Linking the nature of bearing speculative risks with identifying tools of safety engineering to eliminate toxic dangers in an environment.	- An individual who deploys with engineering in any field can sustain the environment by identifying toxic risks surrounding nature by categorizing chemical hazards, for example, impacting human health. - Toxic risk can be identified in a workplace by evaluating if the working atmosphere the individual works in is safer or not concerning the impact of diseases. - The practice of safety engineering can make individuals identify structural safety, process safety, functional safety, causes of failures, and qualitative and quantitative approaches of tackling safety measures against the visible risks.	- How can management ensure that taking positive influences on deploying safety principles enhances categorizing toxic risks? - Is it possible to rely on safety engineering studies that will guarantee the ability to overcome the challenges of multiple cross-functional risks such as calamities?
Optimization	(Sadollah, A., Nasir, M., and Geem, Z. W, 2020) [3].	Linking the study of how an individual can take measures in utilizing the limited use of natural resources.	- Our existence and survival depend upon the conservation of a better environment. - Developing countries face near crises, such as shortages of water, air polluted environment, diseases, and poor health. - Optimizing the misuse of natural resources and taking advantage of green business opportunities can be a preventative approach for eco-friendly, occupational health and pollution prevention.	- How can there be no existing gaps for complying with optimization and sustainability at the international level? - How can cluster analysis of multiple studies in the optimization and sustainability approach identify the role of individual engagements in real-life situations?
Optimization	(Wu, Y., Xu, C., Ke, Y., Tao, Y., and Li, X., 2019) [60].	Linking the deep connection of being liable to construct a carbon-free atmosphere.	Anticipatory measures to prevent control and reduce pollution of air, water, and land, and a forward-looking method to minimize wastes by disarmament information can optimize the sustainability characteristics of developing a carbon-free atmosphere.	- Is it logically provable to estimate that knowledge on how to comply with anticipatory measures can safeguard factual optimization of natural resources? - How can we categorize that it is exclusively the responsibility between the community awareness and legislative measures to construct an effective environment?

Outcomes in the Stream

Mainly, we accumulated six key streams from Scopus on the related topics of sustainability and risk assessment. The primary purpose of using streams was to specify the crucial papers in related literature. Moral responsibility and sustainability development were a significant stream that we selected. The author [3] highlights the importance of sustainability practices, considering it to be an ethical responsibility for employees to engage in community development. The primary outcome is that it teaches us to contribute individual support, apart from businesses solely being responsible for sustainability. In the second stream, “blockchain technology minimizing risk”, we selected this stream to recognize how crucial innovative technology advancements, such as blockchain, can reduce errors and provide security, preventing consequential losses. The third stream, “social sustainability and supply chain management”, from the author [61], related how sustainability practices in a supply chain sector can be influenced using tools of meta-analysis. The fourth stream, “environmental impact”, was also an essential keyword that we selected from Scopus; it relates to sustainability practices. The author stresses the importance of environmentally friendly ecosystems, encouraging the use of green initiatives. The fifth stream was safety engineering; we selected this relevant topic, which is closer to mitigating risks. The stream cited significant highlights on influencing other sectors to undertake safety measures that could help minimize risks from unknown situations. The last stream was optimization, which related to measures every member of a society could manage within the existing resources, such as not wasting water and not polluting the environment.

5. Recommendation for Future Research

We learned how to find keywords with content analysis using the comprehensive research study’s bibliometric software. VOSviewer tool was a great tool where we learned how to export information from Scopus to excel and workbook. We learned how to construct bibliometric figures derived from top-cited journals, authors, and citations from top publications with various functions such as coupling, co-authorships, and bibliographic co-citations. First, we went through top quoted journals on sustainability and risk that showed significant citations. In the second stage, we collected the top 10 influential articles where we put the keywords and found the analysis of citations, country origin, citations of journals, documents, affiliations, and leading universities’ sources. In the third stage, we picked up only relevant samples of journals related to the study. Fourth, we created a context on cluster analysis where we analyzed streams, authors, the purpose of the articles, and main findings on the streams’ themes. We converted the research agenda to research questions. In the table of the cluster, we converted 24 future research question into an agenda for future recommendations. We have suggested a requirement for future academics to study the subject of sustainability practices as we found that the research related to sustainability and risks in an economy were cited with limited analysis. We also would recommend that the academicians structure an improved version of the research agendas that can help management understand the real importance of sustainability and risk assessments in an economy. Unsustainability practices are a challenge that can strike in an economy if not managed resourcefully. In the future, if no practical actions and exceptions of effective strategies are on the horizon, and the assessment of risks also remains a more significant challenge, risks become static rather than speculative.

6. Conclusions

Sustainability is an issue from a global perspective that remains a challenge for corporate, business, or individual points of view. At the same time, the factors of risks remain unavoidable in any circumstances of an economy. It is our social responsibility to make wiser and objective concerns for welfare. We exist to prevent the depletion of natural resources, secure waste management, prevent pollution, and cooperate with the nation’s compliance. Automatically, economic development flow can be improved if we consider taking wiser steps in preventing the economy from degradation. In our recommendations,

we also developed specific, actionable measures on how sustainability leads to positive contributions. This bibliometric report is an effort to summarize the collected works on sustainability and assessment of risks in general. The countries, journals, sources, and organizations were assessed. The results were presented through tables and figures. Each figure represents the nodes and lines of the analysis. Nodes represent the journals, publications, authors, and countries; on the other hand, lines show the collaborative relations among the nodes. We also created a co-citation reference network in sustainability and risk management, which resulted in six clusters, such as the moral responsibilities and sustainability development, blockchain technology and minimization of risks, social sustainability and supply chain, environmental impacts, safety engineering and risk identification, and optimization and sustainability practices.

Our bibliometric analysis limitation was the gaps in conceptions where the top authors did not reference all the most essential citations. It implied that essential citations by the top authors who wrote the articles missed out. In addition to that, we used the Scopus database to obtain different articles and journals, which we evaluated through bibliometrics. There are several important articles that we missed that are available from other databases and that we did not obtain from the Scopus database. In the future, we recommend that the influential authors who publish their journal documents need to include the well-known and most essential references from top journals from the top-cited papers. As for the database, we recommend that future researchers consider other databases to ensure that the important journals will be covered in the future study

Author Contributions: H.N. developed the research idea and research design, helped in data collection and analysis generated from VOSviewer and Scopus, prepared the tables and figures, reviewed the work, and led the project team; F.Y.A.H. formed and designed this research; L.S.A. also contributed to research idea. A.F.A. performed the research and analyzed the data; H.N. contributed analysis tools and editing. F.Y.A.H., F.A.A. and H.A.A. wrote the paper. S.K.A.; S.M.A. helped build the idea further and offered critical editing support. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: Data sharing is not applicable to this article.

Acknowledgments: All the thanks and appreciation from our team to the editor and reviewers.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. Purvis, B.; Mao, Y.; Robinson, D. Three pillars of sustainability: In search of conceptual origins. *Sustain. Sci.* **2019**, *14*, 681–695. [\[CrossRef\]](#)
2. Powers, M.R. Pure vs Speculative Risk: False Choice; Sham Marriage. *J. Risk Financ.* **2006**, *7*, 345–347. [\[CrossRef\]](#)
3. Sadollah, A.; Nasir, M.; Geem, Z.W. Sustainability and Optimization: From Conceptual Fundamentals to Applications. *Sustain. J. Rec.* **2020**, *12*, 2027. [\[CrossRef\]](#)
4. Manab, N.A.; Aziz, N.A.A. Integrating knowledge management in sustainability risk management practices for company survival. *Manag. Sci. Lett.* **2019**, *9*, 585–594. [\[CrossRef\]](#)
5. Zhu, J.; Hua, W. Visualizing the knowledge domain of sustainable development research between 1987 and 2015: A bibliometric analysis. *Scientometrics* **2017**, *110*, 893–914. [\[CrossRef\]](#)
6. Maier, D.; Maier, A.; Aşchilean, I.; Anastasiu, L.; Gavriş, O. The Relationship between Innovation and Sustainability: A Bibliometric Review of the Literature. *Sustainability* **2020**, *12*, 4083. [\[CrossRef\]](#)
7. Bessant, J.; Tidd, J. *Innovation and Entrepreneurship*; John Wiley & Sons: Hoboken, NJ, USA, 2007.
8. Jurisch, M.C.; Rosenberg, Z.; Krcmar, H. Emergent risks in business process change projects. *Bus. Process. Manag. J.* **2016**, *22*, 791–811. [\[CrossRef\]](#)
9. Martinez, M.G.; Zouaghi, F.; Marco, T.G.; Robinson, C. What drives business failure? Exploring the role of internal and external knowledge capabilities during the global financial crisis. *J. Bus. Res.* **2019**, *98*, 441–449. [\[CrossRef\]](#)

10. Galaz, V.; Gars, J.; Moberg, F.; Nykvist, B.; Repinski, C. Why Ecologists Should Care about Financial Markets. *Trends Ecol. Evol.* **2015**, *30*, 571–580. [\[CrossRef\]](#) [\[PubMed\]](#)
11. Garrigos-Simon, F.J.; Botella-Carrubi, M.D.; Gonzalez-Cruz, T.F. Social Capital, Human Capital, and Sustainability: A Bibliometric and Visualization Analysis. *Sustain. J. Rec.* **2018**, *10*, 4751. [\[CrossRef\]](#)
12. González-Torres, T.; Rodríguez-Sánchez, J.-L.; Pelechano-Barahona, E.; García-Muiña, F.E. A Systematic Review of Research on Sustainability in Mergers and Acquisitions. *Sustain. J. Rec.* **2020**, *12*, 513. [\[CrossRef\]](#)
13. Tang, M.; Liao, H.; Wan, Z.; Herrera-Viedma, E.; Rosen, M.A. Ten Years of Sustainability (2009–2018): A Bibliometric Overview. *Sustain. J. Rec.* **2018**, *10*, 1655. [\[CrossRef\]](#)
14. Hallinger, P.; Nguyen, V.-T. Mapping the Landscape and Structure of Research on Education for Sustainable Development: A Bibliometric Review. *Sustain. J. Rec.* **2020**, *12*, 1947. [\[CrossRef\]](#)
15. Nielsen, L.; Faber, M.H. *Data Report for the Bibliometric Analysis of Risk, Sustainability and Resilience Research from 1990–2017*; Technical report No. 248; Aalborg University: Aalborg, Denmark, 2018.
16. Herrera-Franco, G.; Montalván-Burbano, N.; Carrión-Mero, P.; Apolo-Masache, B.; Jaya-Montalvo, M. Research Trends in Geotourism: A Bibliometric Analysis using the Scopus Database. *Geosciences* **2020**, *10*, 379. [\[CrossRef\]](#)
17. Van Eck, N.J.; Waltman, L. Citation-based clustering of publications using CitNetExplorer and VOSviewer. *Scientometrics* **2017**, *111*, 1053–1070. [\[CrossRef\]](#) [\[PubMed\]](#)
18. Muñoz, P.; Janssen, F.; Nicolopoulou, K.; Hockerts, K. Advancing sustainable entrepreneurship through substantive research. *Int. J. Entrep. Behav. Res.* **2018**, *24*, 322–332. [\[CrossRef\]](#)
19. Corsini, F.; Certomà, C.; Dyer, M.; Frey, M. Participatory energy: Research, imaginaries and practices on people contribute to energy systems in the smart city. *Technol. Forecast. Soc. Chang.* **2019**, *142*, 322–332. [\[CrossRef\]](#)
20. Župič, I.; Čater, T. Bibliometric Methods in Management and Organization: A Review. *SSRN Electron. J.* **2013**, *18*, 429–472. [\[CrossRef\]](#)
21. Liao, H.; Tang, M.; Luo, L.; Li, C.; Chiclana, F.; Zeng, X.-J. A Bibliometric Analysis and Visualization of Medical Big Data Research. *Sustainability* **2018**, *10*, 166. [\[CrossRef\]](#)
22. Van Eck, N.J.; Waltman, L. Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics* **2010**, *84*, 523–538. [\[CrossRef\]](#)
23. Kaur, J.; Radicchi, F.; Menczer, F. Universality of scholarly impact metrics. *J. Inf.* **2013**, *7*, 924–932. [\[CrossRef\]](#)
24. Grandjean, P.; Eriksen, M.L.; Ellegaard, O.A.; Wallin, J. The Matthew effect in environmental science publication: A bibliometric analysis of chemical substances in journal articles. *Environ. Health* **2011**, *10*, 96. [\[CrossRef\]](#) [\[PubMed\]](#)
25. Pizzi, S.; Caputo, A.; Corvino, A.; Venturelli, A. Management research and the UN sustainable development goals (SDGs): A bibliometric investigation and systematic review. *J. Clean. Prod.* **2020**, *276*, 124033. [\[CrossRef\]](#)
26. Zhang, Y.; Huang, K.; Yu, Y.; Yang, B. Mapping of water footprint research: A bibliometric analysis during 2006–2015. *J. Clean. Prod.* **2017**, *149*, 70–79. [\[CrossRef\]](#)
27. Jalal, S. Co-Authorship and Co-Occurrences Analysis using Bibliometrixr Package: A Case Study of India and Bangladesh. *Ann. Libr. Inf. Stud.* **2019**, *66*, 57–64.
28. Small, H. Co-citation in the scientific literature: A new measure of the relationship between two documents. *J. Am. Soc. Inf. Sci.* **1973**, *24*, 265–269. [\[CrossRef\]](#)
29. Giraldo, P.; Benavente, E.; Manzano-Agugliaro, F.; Gimenez, E. Worldwide Research Trends on Wheat and Barley: A Bibliometric Comparative Analysis. *Agronomy* **2019**, *9*, 352. [\[CrossRef\]](#)
30. Dong, Y.; Frangopol, D.M. Risk and resilience assessment of bridges under mainshock and aftershocks incorporating uncertainties. *Eng. Struct.* **2015**, *83*, 198–208. [\[CrossRef\]](#)
31. Li, Y.P.; Nie, S.; Huang, C.Z.; McBean, E.A.; Fan, Y.R.; Huang, G.H. An Integrated Risk Analysis Method for Planning Water Resource Systems to Support Sustainable Development of an Arid Region. *J. Environ. Inf.* **2017**, *29*, 1–15. [\[CrossRef\]](#)
32. Mangla, S.K.; Kumar, P.; Barua, M.K. Flexible Decision Approach for Analysing Performance of Sustainable Supply Chains under Risks/Uncertainty. *Glob. J. Flex. Syst. Manag.* **2014**, *15*, 113–130. [\[CrossRef\]](#)
33. Caparros-Midwood, D.; Dawson, R.; Barr, S. Optimization of urban spatial development against flooding and other climate risks, and wider sustainability objectives. In Proceedings of the 3rd European Conference on Flood Risk Management (FLOODrisk 2016), Newcastle upon Tyne, UK, 20 October 2016. [\[CrossRef\]](#)
34. Busse, C.; Kach, A.P.; Bode, C. Sustainability and the False Sense of Legitimacy: How Institutional Distance Augments Risk in Global Supply Chains. *J. Bus. Logist.* **2016**, *37*, 312–328. [\[CrossRef\]](#)
35. Caparros-Midwood, D.; Dawson, R.; Barr, S. Low Carbon, Low Risk, Low Density: Resolving choices about sustainable development in cities. *Cities* **2019**, *89*, 252–267. [\[CrossRef\]](#)
36. Dawson, R. Re-engineering cities: A framework for adaptation to global change. *Philos. Trans. R. Soc. A Math. Phys. Eng. Sci.* **2007**, *365*, 3085–3098. [\[CrossRef\]](#)
37. Rahimi, M.; Ghezavati, V. Sustainable multi-period reverse logistics network design and planning under uncertainty utilizing conditional value at risk (CVaR) for recycling construction and demolition waste. *J. Clean. Prod.* **2018**, *172*, 1567–1581. [\[CrossRef\]](#)
38. Hedelin, B. The Sustainable Procedure Framework for Disaster Risk Management: Illustrated by the Case of the EU Floods Directive in Sweden. *Int. J. Disaster Risk Sci.* **2016**, *7*, 151–162. [\[CrossRef\]](#)

39. Canzaniello, A.; Hartmann, E.; Fifka, M.S. Intra-industry strategic alliances for managing sustainability-related supplier risks. *Int. J. Phys. Distrib. Logist. Manag.* **2017**, *47*, 387–409. [\[CrossRef\]](#)
40. Hofmann, H.; Busse, C.; Bode, C.; Henke, M. Sustainability-Related Supply Chain Risks: Conceptualization and Management. *Bus. Strat. Environ.* **2014**, *23*, 160–172. [\[CrossRef\]](#)
41. Jiang, P.; Fu, X.; Van Fan, Y.; Klemeš, J.J.; Chen, P.; Ma, S.; Zhang, W. Spatial-temporal potential exposure risk analytics and urban sustainability impacts related to COVID-19 mitigation: A perspective from car mobility behaviour. *J. Clean. Prod.* **2021**, *279*, 123673. [\[CrossRef\]](#) [\[PubMed\]](#)
42. Lattimore, B.; Smith, C.T.; Titus, B.; Stupak, I.; Egnell, G. Woodfuel Harvesting: A Review of Environmental Risks, Criteria and Indicators, and Certification Standards for Environmental Sustainability. *J. Sustain. For.* **2013**, *32*, 58–88. [\[CrossRef\]](#)
43. Lattimore, B.; Smith, C.; Titus, B.; Stupak, I.; Egnell, G. Environmental factors in woodfuel production: Opportunities, risks, and criteria and indicators for sustainable practices. *Biomass Bioenergy* **2009**, *33*, 1321–1342. [\[CrossRef\]](#)
44. Kittler, B.; Stupak, I.; Smith, C.T. Assessing the wood sourcing practices of the U.S. industrial wood pellet industry supplying European energy demand. *Energy Sustain. Soc.* **2020**, *10*, 1–17. [\[CrossRef\]](#)
45. Choi, T.-M.; Chiu, C.-H. Mean-downside-risk and mean-variance newsvendor models: Implications for sustainable fashion retailing. *Int. J. Prod. Econ.* **2012**, *135*, 552–560. [\[CrossRef\]](#)
46. Wu, K.-J.; Liao, C.-J.; Tseng, M.-L.; Lim, M.K.; Hu, J.; Tan, K. Toward sustainability: Using big data to explore the decisive attributes of supply chain risks and uncertainties. *J. Clean. Prod.* **2017**, *142*, 663–676. [\[CrossRef\]](#)
47. Beaver, D.D. Reflections on Scientific Collaboration (and its study): Past, Present, and Future. *Scientometrics* **2001**, *52*, 365–377. [\[CrossRef\]](#)
48. Griffith, B.C.; Small, H.G.; Stonehill, J.A.; Dey, S. The Structure of Scientific Literatures II: Toward a Macro- and Microstructure for Science. *Sci. Stud.* **1974**, *4*, 339–365. [\[CrossRef\]](#)
49. Mahapatra, G. *Bibliometric Studies on Indian library and Information Science Literature*; Crest Publishing House: New Delhi, India, 2000.
50. Sendlhofer, T. Decoupling from Moral Responsibility for CSR: Employee's Visionary Procrastination at a SME. *J. Bus. Ethic.* **2020**, *167*, 361–378. [\[CrossRef\]](#)
51. Nicholson, J.; Kurucz, E. Relational Leadership for Sustainability: Building an Ethical Framework from the Moral Theory of 'Ethics of Care'. *J. Bus. Ethic.* **2019**, *156*, 25–43. [\[CrossRef\]](#)
52. Abdel-Basset, M.; Gunasekaran, M.; Mohamed, M.; Chilamkurti, N. Retracted: A framework for risk assessment, management and evaluation: Economic tool for quantifying risks in supply chain. *Futur. Gener. Comput. Syst.* **2019**, *90*, 489–502. [\[CrossRef\]](#)
53. Rana, R.; Zaeem, R.N.; Barber, K.S. An Assessment of Blockchain Identity Solutions: Minimizing Risk and Liability of Authentication. In Proceedings of the IEEE/WIC/ACM International Conference on Web Intelligence; Association for Computing Machinery (ACM), Thessaloniki, Greece, 14–17 October 2019; pp. 26–33.
54. D'Eusania, M.; Zamagni, A.; Petti, L. Social sustainability and supply chain management: Methods and tools. *J. Clean. Prod.* **2019**, *235*, 178–189. [\[CrossRef\]](#)
55. Orji, I.J.; Kusi-Sarpong, S.; Gupta, H. The critical success factors of using social media for supply chain social sustainability in the freight logistics industry. *Int. J. Prod. Res.* **2020**, *58*, 1522–1539. [\[CrossRef\]](#)
56. Elsaid, K.; Kamil, M.; Sayed, E.T.; Abdelkareem, M.A.; Wilberforce, T.; Olabi, A. Environmental impact of desalination technologies: A review. *Sci. Total. Environ.* **2020**, *748*, 141528. [\[CrossRef\]](#) [\[PubMed\]](#)
57. Taşkın, A.; Demir, N. Life cycle environmental and energy impact assessment of sustainable urban municipal solid waste collection and transportation strategies. *Sustain. Cities Soc.* **2020**, *61*, 102339. [\[CrossRef\]](#)
58. Amin, T.; Khan, F.; Amyotte, P. A bibliometric review of process safety and risk analysis. *Process. Saf. Environ. Prot.* **2019**, *126*, 366–381. [\[CrossRef\]](#)
59. Van Coile, R.; Hopkin, D.; Lange, D.; Jomaas, G.; Bisby, L. The Need for Hierarchies of Acceptance Criteria for Probabilistic Risk Assessments in Fire Engineering. *Fire Technol.* **2019**, *55*, 1111–1146. [\[CrossRef\]](#)
60. Wu, Y.; Xu, C.; Ke, Y.; Tao, Y.; Li, X. Portfolio optimization of renewable energy projects under type-2 fuzzy environment with sustainability perspective. *Comput. Ind. Eng.* **2019**, *133*, 69–82. [\[CrossRef\]](#)
61. Chen, X.; Chen, J.; Wu, D.; Xie, Y.; Li, J. Mapping the Research Trends by Co-word Analysis based on Keywords from Funded Project. *Proc. Comput. Sci.* **2016**, *91*, 547–555. [\[CrossRef\]](#)