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THE NEXUS OF SUSTAINABILITY AND FINANCIAL PERFORMANCE: A SYSTEMATIC LITERATURE REVIEW

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Abstract

This study provides a comprehensive analysis of existing literature on sustainability and company performance using Scopus, a research database. The review focuses on articles published between 2005 and 2023. The analysis utilises the PRISMA methodology to examine 60 specifically chosen publications from prestigious academic journals, with a particular emphasis on the Journal of Cleaner Production. The study utilises a bibliometric

methodology, combining mapping visualisations and citation analysis to find patterns and networks within the existing body of literature. The study specifically excludes conference participation and book publications, with a focus solely on research papers in order to retain concentration and emphasis. The survey revealed that sustainable corporate practices were prevalent, occurring 33 times.

Additionally, the study highlighted the United States' significant involvement in collaborative research. The work by Zailani et al. (2015), which has received a minimum of 170 citations, is particularly noteworthy. The Journal of Cleaner Production has made significant contributions with 15 papers and has received 930 citations. This research provides a comprehensive analysis of important publications, authors, and international collaborations in the field of sustainability studies. It identifies areas that need further investigation and proposes potential avenues for future research.

Keywords: Sustainability, Financial Performance, Bibliometric Analysis, Systematic Literature Review, PRISMA Flowchart.

Paper type: Literature review

1. Introduction:

Corporate sustainability is widely defined as "a company's voluntary activities that demonstrate the inclusion of social and environmental concerns in business operations and interactions with stakeholders." A recent study that identified the most important drivers of business conducted sustainability and emphasised the importance of an extensive strategy. Indeed, the path to corporate sustainability entails long-term environmental, social, and economic value creation through sustainability-focused strategies, business models, investments, and management tools. Sustainability knowledge is crucial for applying sustainability management techniques (Atz et al., 2021). Several researchers have proposed that the proper use of performance assessment and management control systems may help businesses perform strategies and drive them towards sustainability goals. This study conducted a literature study on the types of controls used by businesses to enforce sustainable development, concluding that a combination of both formal and informal controls appear to be necessary to reinforce one another and address the many sustainability components ((Baah et al., 2020).

Even in the US, sustainable investment is becoming more and more popular. For instance, total inflows into ESG funds increased from $5 billion in 2018 to over $50 billion in 2020

((Hakan Ayhan Dağıstanlı, 2023). It remains to be seen if this development is the result of an overdue risk-control strategy or a bubble. Climate change, however, poses what may be the biggest existential danger to business and society in history. According to the US Fourth National Climate Assessment, by the end of the century, climate change may destroy up to 10% of the US economy. Practical, long-term company decisions should thus result from appropriate management and investing techniques. Even though some researchers realised decades ago that climate change is fundamental to business, until very recently, studies of this kind in economics and finance were difficult (Harun Sitompul et al., 2024).

The concept of sustainability is complex and has attracted a great deal of interest from a variety of industries, including business because it is essential to both long-term prosperity and the welfare of society. Fundamentally, sustainability is about achieving current goals without compromising the capacity of future generations to achieve their own goals (Kurniawan et al., 2023). In the context of business, sustainability goes beyond simple profitability to include a comprehensive strategy that takes into account social, environmental, and economic factors often referred to as the "triple bottom line." Sustainability is comprised of environmental stewardship, which means that businesses strive to minimise the harm they do to communities and the environment. This includes taking measures to limit waste output, use renewable resources, save energy and water, and lower greenhouse gas emissions. Businesses that incorporate ecologically sustainable practices into their operations may help preserve ecosystems and biodiversity, reduce environmental hazards, and boost resource efficiency.

Second, social sustainability highlights the need to build good relationships with stakeholders and communities. It comprises protecting human rights, supporting workforce inclusion and diversity, ensuring that fair employment rules are followed across the value chain, and making financial contributions to community development projects. Companies that prioritise social responsibility may improve their brand, win stakeholder support, and accelerate societal progress. Third, sustainable economic growth refers to the achievement of social and environmental goals while maintaining profitability and financial viability. Businesses that emphasise sustainability understand that innovation, smart money management, and focused investments are essential for long-term success (Mio et al., 2021).

Integrating sustainability into a company plan may help companies strengthen brand loyalty, grow into new markets, save money, and become more robust to economic shocks and regulatory changes. In a word, business sustainability is striking a balance between financial

gain, environmental protection, and social responsibility. Implementing sustainable practices may help companies become more competitive, minimise risks, stimulate innovation, and create a more resilient and fair society (Sarfraz et al., 2023). Businesses that embrace sustainability will benefit financially in the long run while also providing long-term societal benefits for future generations. Sustainability continues to evolve as a strategic priority.

Financial performance is an important aspect of organisational management since it demonstrates how successfully a company conducts its operations to generate profits and value for its shareholders. It is made up of numerous criteria and indicators that evaluate the company's ability to pay off debt in addition to its overall financial health Shakil et al., 2022). Financial performance is mostly determined by an organisation's profitability, which measures its ability to make a profit relative to its expenses. A company's ability to generate returns for its stakeholders and shareholders may be determined by looking at profitability metrics such as profit margins, return on investment (ROI), and earnings per share (EPS). A company's financial performance determines its long-term viability, growth, and competitiveness. It makes it easier to bring investors, access financial markets, invest in the firm, and pursue important initiatives that foster innovation and value creation. Profitable operations allow businesses to weather economic downturns, strengthen their position in the market, and create value for all stakeholders (Talbot et al., 2020).

- What are the fundamental factors influencing the relationship between organisations' financial success and sustainable practices?
- To what extent do various forms of sustainability practices (such as environmental, social, and governance practices) impact financial performance, and are there any differences depending on the characteristics of a particular industry?

1.1. Research Objectives:

- To perform a thorough analysis and synthesis of the body of research on the connection between sustainable business practices and financial success.
- To assess the analytical techniques applied in earlier research to determine how sustainability and financial success relate to one another.
- To highlight gaps and uncertainties in the literature and suggest directions for additional study to improve knowledge of the connection between sustainability and financial success.

The goal of a systematic literature review on the relationship between financial success and sustainability is to accomplish many important goals by thoroughly examining, combining, and assessing the results of previous studies. The assessment carefully examines several kinds of research from different industries and businesses in an effort to find recurring themes, trends, and factual data on how sustainable policies affect financial performance. This synthesis provides an extensive synopsis of the state of the art about the topic. Furthermore, the study seeks to present information that could assist numerous stakeholders, including companies, financiers, legislators, as well as other relevant entities, in their decision-making process. The evaluation uses relevant data to help stakeholders make educated decisions regarding investment plans, regulatory measures, and sustainable business practices. Evidence-based information is critical for directing decision-making processes that encourage the adoption of sustainable practices in both the public and commercial sectors. To summarise, the systematic literature review conducts a complete and comprehensive investigation of the body of information on sustainability and financial performance. Its key goals are to improve comprehension, enhance decision-making, and guide future research in this critical field of study.

1.2. Triple Bottom Line and Sustainability:

The social, environmental, and economic aspects are all incorporated into the construct. As a result, the Triple Bottom Line structure is uniform when referencing all three techniques, as seen in Figure 1. In contrast to the Triple Bottom Line, the literature analysis revealed that the term "sustainability" was used irregularly. In certain studies, for example, the environmental line was referred to as "sustainability". Some individuals used the word to signify the social line; others used it to describe all three. The Triple Bottom Line gives each line equal weight, resulting in a more logical and balanced structure. Other studies on sustainability found an unequal allocation of significance across the three categories. For example, the impression of its relevance was limited despite multiple studies citing the economic line while discussing sustainability (Bansal et al., 2020).

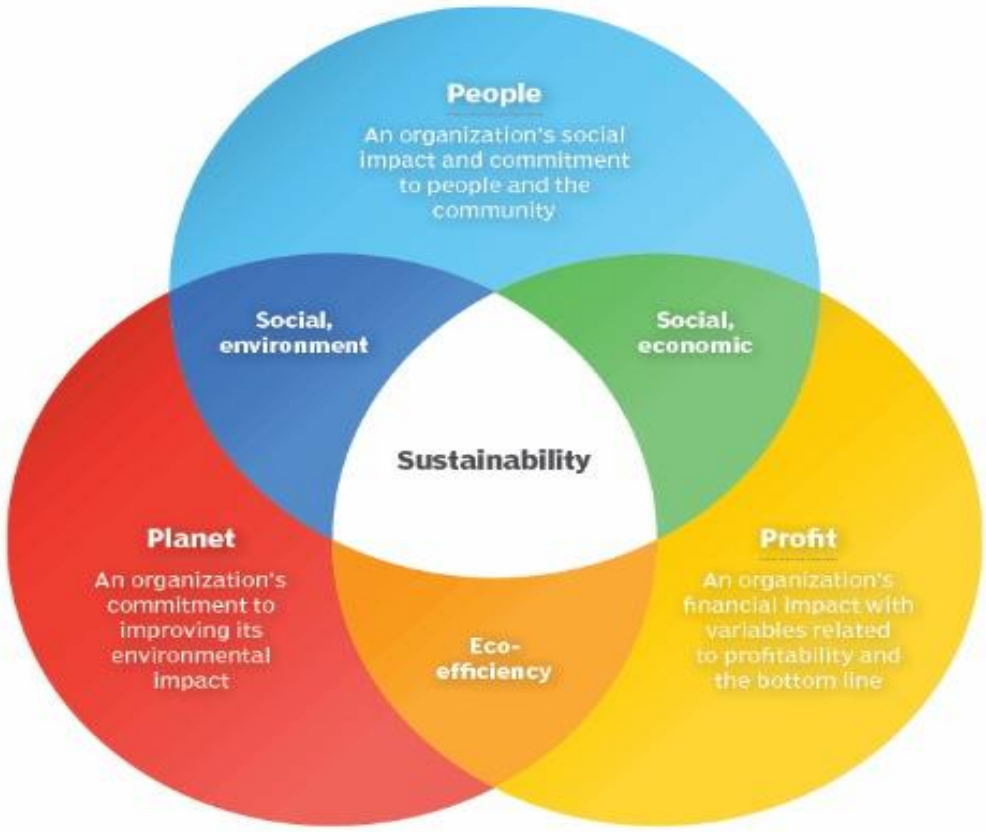

Figure 1: Source: Triple Bottom Line (techtarget.com)

2. Methodology:

The current study largely used Scopus, a widely known electronic database, to locate research papers that investigated the relationship between sustainable development, environmentally aware practices, and financial consequences. Many databases were searched using the terms "sustainable finance," "financial performance," "green," and "sustainability". The search terms "green," "sustainability," and "sustainable development" were used specifically to discover articles that addressed the study's principal and secondary objectives as well as approaches to improve sustainability. The study selection criteria included publications published between 2005 and 2021 that focused on sustainable practices and firm success. Only Scopus-sourced papers were evaluated, with non-English language articles eliminated. Book chapters, theses, papers for conferences, reviews, reports, retracted articles, editorials, notes, brief surveys, and unpublished working papers were all excluded from consideration. Excluded records were also removed from the study's analysis.

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Table 1: Selection and Exclusion Criteria for Papers

Criteria for selected studies	Criteria for excluded studies
Papers published from the year 2005 to 2021 were included. Sustainable practices and company performance were considered when deciding on a title for this study. Only papers from Scopus digital sources were included.	Non-English language article was excluded. Book chapters, master / doctoral theses, conference papers, reviews, reports, Retracted, Editorials, Notes, Short surveys, and unpublished working articles were eliminated. The omitted record documents were also excluded.

The systematic review was completed in the PRISMA diagram, as explained above.

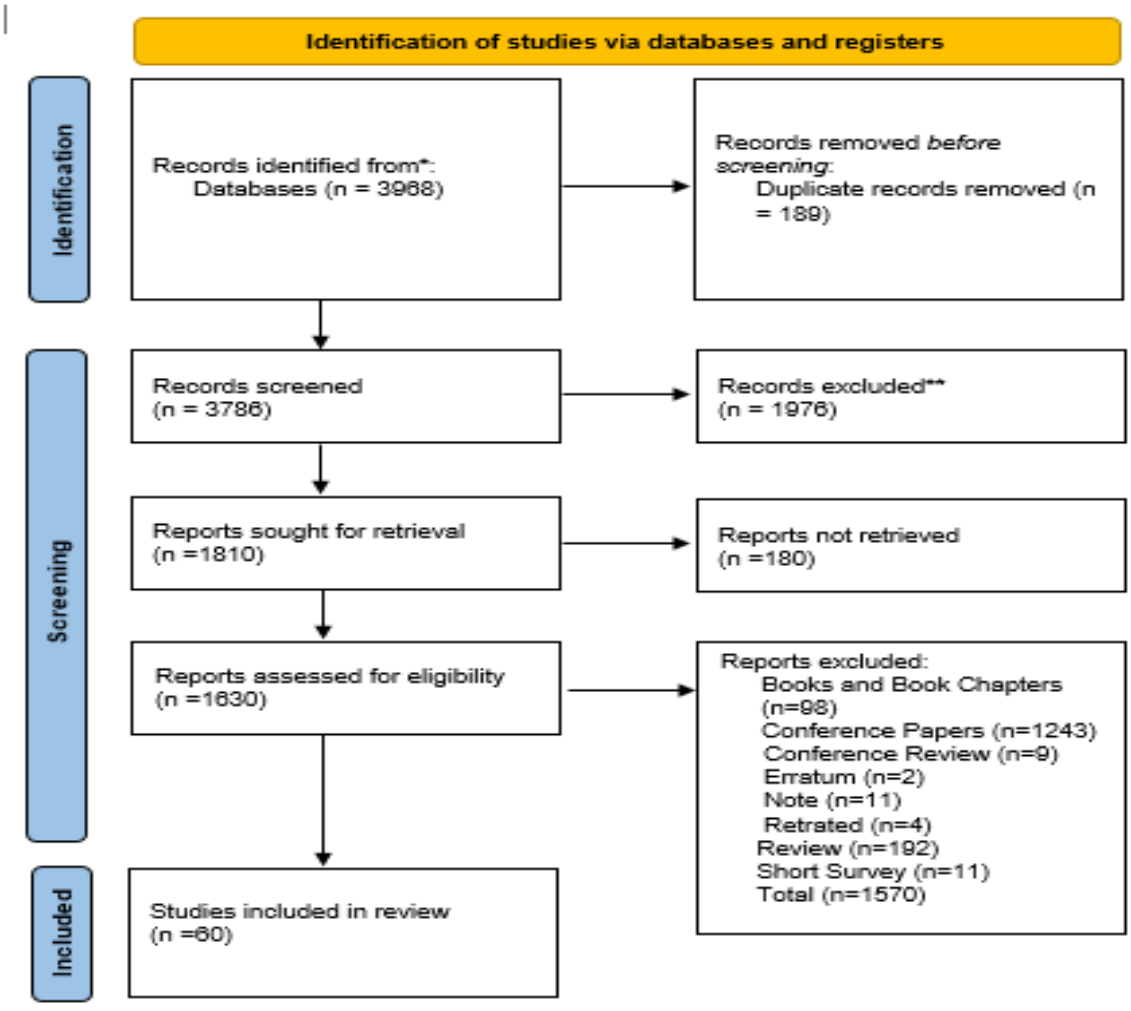

Figure 2: PRISMA Flowchart

To minimise the number of papers obtained, the search was limited to those published between 2009 and 2021. The initial search looked for 3968 papers in the Scopus database; the results of the keyword search above were saved to include the sustainable practice format for all the information related to all the papers that were found, such as the names of the authors, the titles of the articles, the names of the journals, the volume and issue numbers, affiliations, keywords, abstracts, and document types. A few publications appear when using the above keywords to search for papers. Searching Scopus for 3968 peer-reviewed articles was the first step in the data collection process. The review's scope was limited to sustainability, sustainable financing, green practices, and the organisation's financial performance. The second phase selected the short-listed samples from the previous phase by scanning the title, abstract, and particular keywords for sustainable development and financial performance articles. Only accessible articles were examined because this was an exploratory study. After being screened using full-text reviews and open-access papers, 1810 articles were picked in the first phase, and 1630 articles satisfied the inclusion requirements. Out of 1630 articles, 1570 were excluded from the database due to their failure to meet the study's criteria, encompassing books, notes, conference papers, retracted reviews, and short surveys. A total of 60 articles met the criteria for final approval, as indicated in Figure 2. The systematic review followed the PRISMA guidelines, encompassing the steps above.

2.2 Database (Publisher) Research Protocol:

Table 2: Research Protocol by a Publisher

Publisher	**Scope**	**Time Horizon (search period)**	**Total number of articles**	**Total number of selected articles**
Cogent OA	Title/ Abstract/ Keywords	1990-2022	4	2
De Gruyter Open Ltd	Title/ Abstract/ Keywords	1990-2022	3	1
Econjournals	Title/ Abstract/ Keywords	1990-2022	3	1
Elsevier	Title/ Abstract/ Keywords	1990-2022	643	26
Emerald	Title/ Abstract/ Keywords	1990-2022	75	6
John Wiley and Sons Ltd	Title/ Abstract/ Keywords	1990-2022	136	7
MDPI	Title/ Abstract/	1990-2022	259	8

	Keywords			
Springer Netherlands	Title/ Abstract/ Keywords	1990-2022	4	1
Taylor and Francis Ltd.	Title/ Abstract/ Keywords	1990-2022	60	1
Scopus (Journal Not Mentioned)	Title/ Abstract/ Keywords	1990-2022	473	7
Total			1660	60

The table provides an overview of the search results that were gathered from several publications and databases with regard to articles that fit certain requirements, such as being relevant to the given title, abstract, and keywords, and that were published between 1990 and 2022. Out of all the sources, 1,660 articles were found, and 60 of them satisfied the requirements. With 26 publications that satisfied the search criteria, Elsevier stood out as the publisher and database that contributed the most frequently to the chosen articles among those on the list. This implies that there is a significant amount of literature related to the issue at hand that is accessible via Elsevier's platform. With eight publications that satisfied the requirements, MDPI supplied the second-highest number of chosen papers after Elsevier. This suggests that a sizable amount of pertinent research is included in MDPI's collection.

Although to a lesser extent, other publications and databases also made noteworthy contributions. Between six and seven chosen articles were given by John Wiley and Sons Ltd., Emerald, and Scopus (Journal Not Mentioned), each of which represents a varied range of sources, adding to the body of pertinent literature. Only one paper from each publisher De Gruyter Open Ltd., Econjournals, and Springer Netherlands—met the predetermined criteria, meaning that these publishers had fewer selected articles overall.

The dispersion of chosen papers throughout publishers and databases emphasises how crucial it is to use a variety of sources when performing thorough literature assessments. Even if some publications could be more prevalent in particular fields of study, a comprehensive search approach should include a range of sources that provide a comprehensive grasp of the subject. The results also highlight the variety and depth of scholarly literature that is accessible on the topic across several publishers and databases.

3. Results and Analysis:

3.1 Articles published per year:

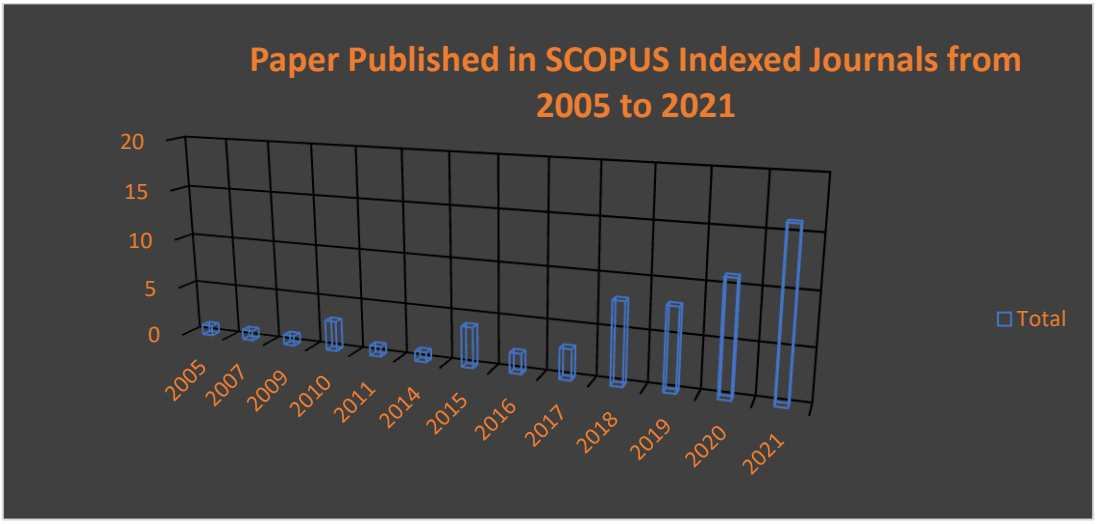

Figure 3: Distribution based on publication year

A notable extension of the study series started in 2018 is seen in Figure 3. Even though the samples for the Financial Performance period from 2005 to 2021 only contained 60 articles, after 2018, there has been a noticeable increase in research activity. There was a notable increase in the number of articles published on the subject between 2018 and 2021, suggesting that there is increased scholarly interest in this area. Notably, around 75% of the publications in the analysis were from the Financial Performance magazine. The decrease in the number of articles in 2016 can be ascribed to data constraints, as the collected data only encompasses the initial quarter of that year. The total number of articles included in the sample for that specific year was probably influenced by this incomplete coverage. Research efforts have grown since Financial Performance was published in 2005, which may indicate that governments and policymakers are becoming more interested in the topic. The government's attention to this issue probably prompted an increase in the number of studies in this sector. Overall, the information shown in Figure 3 emphasises the ever-changing nature of research trends, with a noticeable acceleration in scholarly production in the last several years, especially after 2018, highlighting the issue of financial performance's increasing importance and relevance.

3.2 Articles based on method and methodology:

Table 3: Articles by research methods

Research Methods	Number	Percentage
Empirical	38	63%
Conceptual	3	5%
Survey	19	32%
Total	60	100%

The proportion with which various techniques were used in the papers analysed is shown in Table 3. The type of paper determines whether it is supported by empirical investigation or a survey. There are three categories of articles that have been published. The empirical, survey and conceptual studies are part of financial performance research. Empirical research was the most widely used methodology in the 38 studies (63 percent). On the other hand, 19 articles are survey-based and report 32% of the total. Only three articles, accounting for 5% of the total, deal with conceptual studies, the lowest number.

3.3 Articles distribution based on the journal:

Table 4: Frequency of articles published by journals

Frequency of papers published by Journals		
Journal Name	**Number of Papers**	**Percentage**
Journal of Cleaner Production	15	37%
Sustainability (Switzerland)	8	20%
International Journal of Production Economics	4	8%
Business Strategy and the Environment	3	7.31%
Energy Policy	2	5%
Industrial Management and Data Systems	2	5%
Sustainable Development	2	5%
Corporate Social Responsibility and Environmental Management	2	5%
Cogent Business and Management	2	5%
Others	1	2.43%
Total	41	100%

The frequency with which studies about sustainability and cleaner manufacturing are published in different journals varies. With fifteen papers or thirty-seven percent of all the publications examined, the Journal of Cleaner Production is in the lead. Sustainability from Switzerland comes in second with eight studies, or 20% of the total. A smaller but significant number of papers, between two and four, were given by other journals, including the International Journal of Production Economics, Business Strategy and the Environment, Energy Policy, and Industrial Management and Data Systems. Furthermore, two papers were published in each of the following journals: Cogent Business and Management, Sustainable Development, Corporate Social Responsibility and Environmental Management. The "Others" category had a single paper, accounting for 2.43% of the total. With contributions from several academic publications across a wide range of fields, this distribution emphasises the multidisciplinary aspect of research on cleaner production and sustainability.

3.4 Articles by industry:

Table 5: Articles by industry of sample data

Industry	**Number of Articles**	**Percentage**
Manufacturing Sector	23	38.34%
Service Sector	20	33.33%
Both the Manufacturing and Service Sector	17	28.33%
Total	60	100%

Most selected papers on sustainable practices and profitability (60 publications in Table 5) are on sustainability and its impact on a firm financial performance. This category includes articles examining multiple industries, such as businesses listed on stock exchange indexes. The manufacturing industry has the most publications (23), trailed by the service sector (20), while some have Service and Manufacturing, accounting for 17 of the total publications.

3.5 Articles by economy:

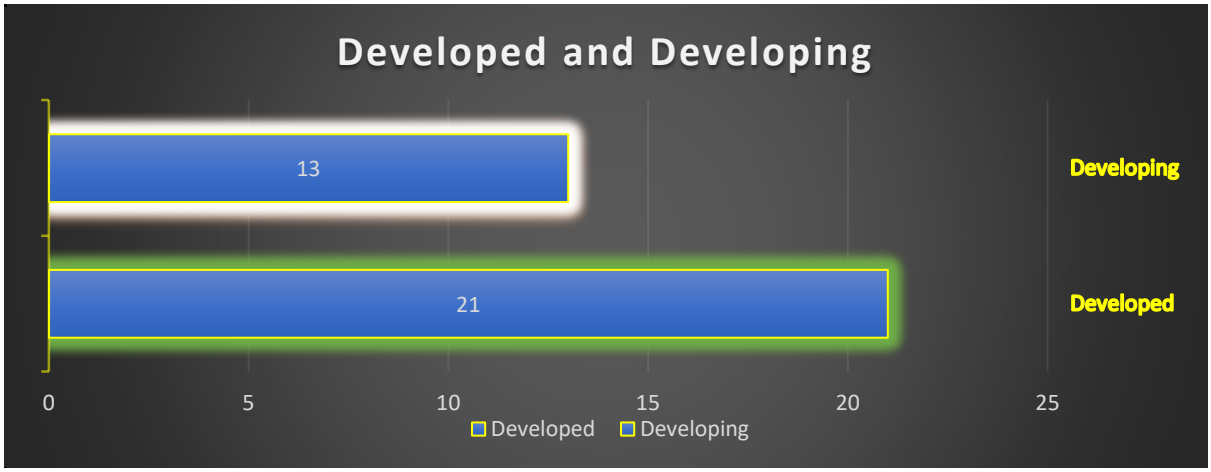

Figure 4: Classification by type of economy.

Most of the data for all nations this study covers originate from developed and developing economies. The findings also show that research on this topic is dominated by developed nations, which comprise 21 of all papers. Developing economies contribute 13 documents of all research and require further investigation in managing sustainability issues in all aspects of financial performance to attain sustainable development.

3.6 Articles by country-wise publications:

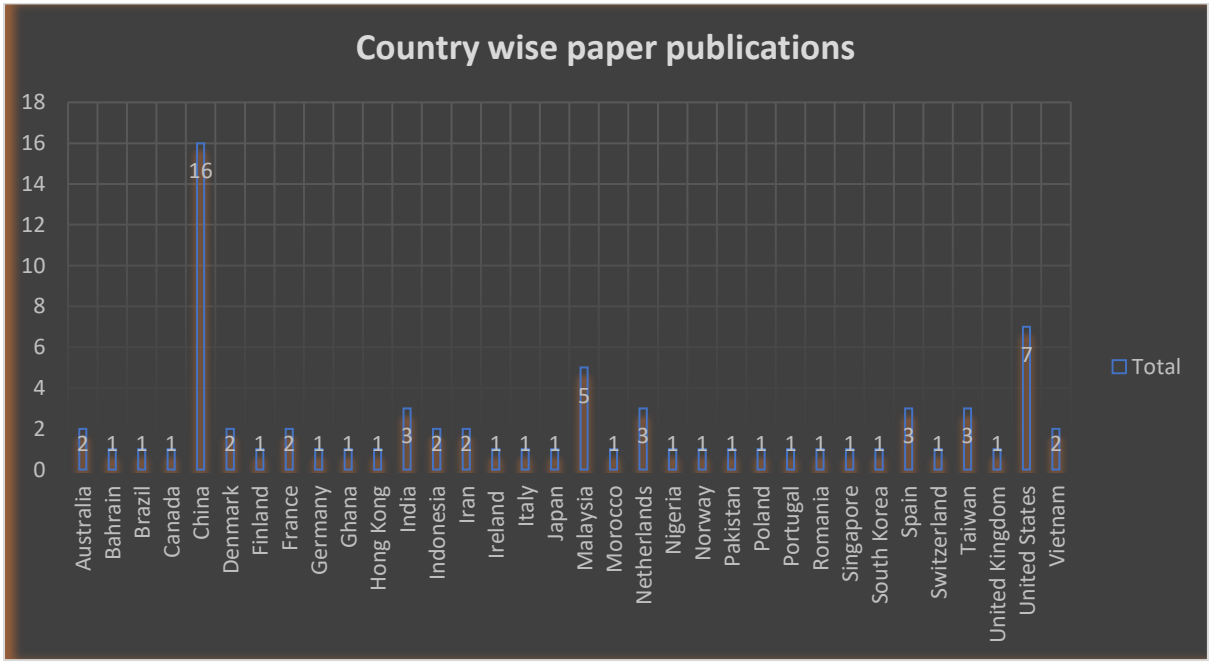

Figure 5: Country-wise paper publication

There has been much interest in sustainable development and its effect on financial performance, and the nations dominated the published publications during the study period. China, the United States, Spain, the Netherlands, India, Malaysia, and Taiwan are the

following countries with three or more published articles. Countries with fewer than two articles published include Australia, Bahrain, Canada, Denmark, Ghana, Hong Kong, Germany, France, Iran, Ireland, Italy, and Japan. Pakistan, South Korea, Poland, Portugal, Norway, Nigeria, Singapore, the United Kingdom, and Vietnam are represented. Aside from the individual countries, the 'Mix' category, which contains studies involving multiple countries, has the most articles in this review, with two. These papers are related to the study's goal: to look at overall findings and implications.

4. Content Analysis based on citations:

Table 6: Analysis of a Journal based on Citations

Analysis of Journal by citations			
Journal Names	**Number of Papers**	**Citations (Total)**	**Citation Rank**
Journal of Cleaner Production	15	930	1
Sustainability (Switzerland)	8	94	5
International Journal of Production Economics	4	175	2
Business Strategy and the Environment	3	13	16
Energy Policy	2	5	21
Industrial Management and Data Systems	2	148	3
Sustainable Development	2	28	9
Corporate Social Responsibility and Environmental Management	2	15	14
Cogent Business and Management	2	1	24
Building and Environment	1	12	18
Computers and Industrial Engineering	1	1	25
Energy reports	1	5	22
EuroMed Journal of Business	1	14	15
International Journal of Energy Economics and Policy	1	1	26
Journal of Asia Business Studies	1	13	17
Journal of Engineering, Project, and Production Management	1	1	27
Journal of Manufacturing Technology Management	1	19	11

Journal of Sustainable Finance and Investment	1	6	20
Management Decision	1	21	10
Management of Environmental Quality: An International Journal	1	19	12
Management Research Review	1	43	6
Measuring Business Excellence	1	17	13
Quality and Quantity	1	35	7
Resources, Conservation, and Recycling	1	107	4
Social Responsibility Journal	1	30	8
Strategic Direction	1	3	23
Structural Change and Economic Dynamics	1	8	19
Technological Forecasting and Social Change	1	0	28
Technovation	1	0	29

Even though various studies may produce different outcomes, utilising the number of studies published in each journal as a criterion for evaluating the journals is not justifiable. As a result, when analysing the findings mentioned above, remember the impact of journal articles on the subsequent investigation. We rely on data from the Scopus database for each journal's citations to address this issue. "For journal evaluation, Scopus had the purest and most reliable information." The most popular technique for evaluating the importance or standing of a publication is citation analysis. The citation analysis tracks how often a journal article is cited in another article. Using only the 60 final papers selected, the most cited journals on sustainability and its effect on financial performance were found. With 930 citations, the Journal of Cleaner Production has the highest citation rank in the citation analysis. However, the top half of Table 6 showed remarkably consistent results from the top-cited journal.

Table 7. List of Citations Sustainability and Financial Performance.

Serial Number	**Articles**	**Number of Citations**
1.	(Zailani et al., 2015)	170
2.	(Ramanathan et al., 2017)	154
3.	(Alter Chen, 2005)	145
4.	(Li et al., 2017)	139
5.	(Moneva et al., 2007)	104

6.	(Lee et al., 2015)	79
7.	(Fang et al., 2018)	66
8.	(Jackson et al., 2016)	57
9.	(Lin, Chen, and Huang, 2014)	44
10.	(Mustapha, Manan and Wan Alwi, 2017)	42
11.	(Zhang, Sun, Yang and Wang, 2020)	40
12.	(Cui et al., 2018)	39
13.	(Liu et al., 2019)	24
14.	(Shubham, Charan, and Murty, 2016)	23

The list presents a wide range of academic publications, each with its unique serial number and the total number of citations it has received. The paper by Zailani et al. (2015) is at the top of the list; it has received an astounding 170 citations, indicating its considerable effect in the field of research. The essay by Ramanathan et al. (2017), which has 154 citations and is a remarkable addition to the scholarly debate, comes in close second. Alter Chen's (2005) work is still relevant even after five years, as shown by the 145 citations it has received. With 139 citations, Li et al. (2017) stand out even more, demonstrating the breadth of the effect of their study. Articles like Moneva et al. (2007), which have 104 citations, advance the list and demonstrate a persistent trend of scholarly interest. Even though they were only published, more recent entries, including Zhang, Sun, Yang, and Wang (2020), have 40 citations and show encouraging momentum. All articles, no matter how many citations they receive, make a distinct contribution to their subject and enhance the body of knowledge in academia.

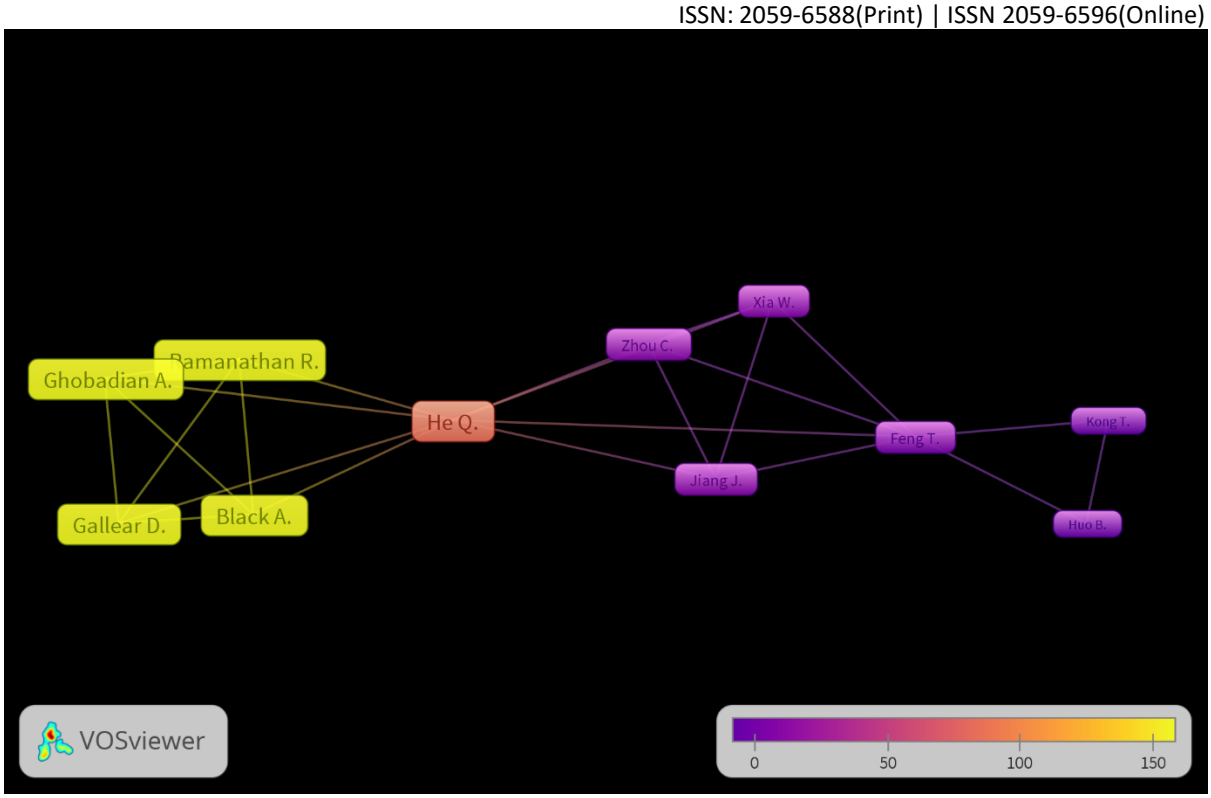

Figure 6: A bibliometric map was created based on citation co-occurrence using the network visualisation of VOSviewer. Minimum occurrences of a keyword are set to two.

A bibliometric network of authors' citations was developed with the help of VOSviewer software to illustrate the cluster, links, citations, and average citations of the studies included. The authors' network results based on the linked terms' citations are shown in Figure 6. Each box in the diagram represents an author's Citation. The more author citations that co-occurred (were used), the closer they were placed on the map. The data revealed three primary clusters, each depicted by a different colour box, representing the number of citations in the 60 papers. The most prominent is a purple box, which shows the maximum number of citations frequently addressed by other authors with eight links. The yellow box cluster with four links and 154 citations positions second.

Table 8. Authors' Citations are based on clusters, links, and citations.

Citations	**Clusters**	**Links**	**Citations**	**Average Citation**
(Zhang, Sun, Yang and Wang, 2020)	1	8	167	83.50
(Ramanathan et al., 2017)	1	4	154	154.00
(Kong et al., 2021)	3	6	14	7.00

5. Bibliometric analysis of selected studies:

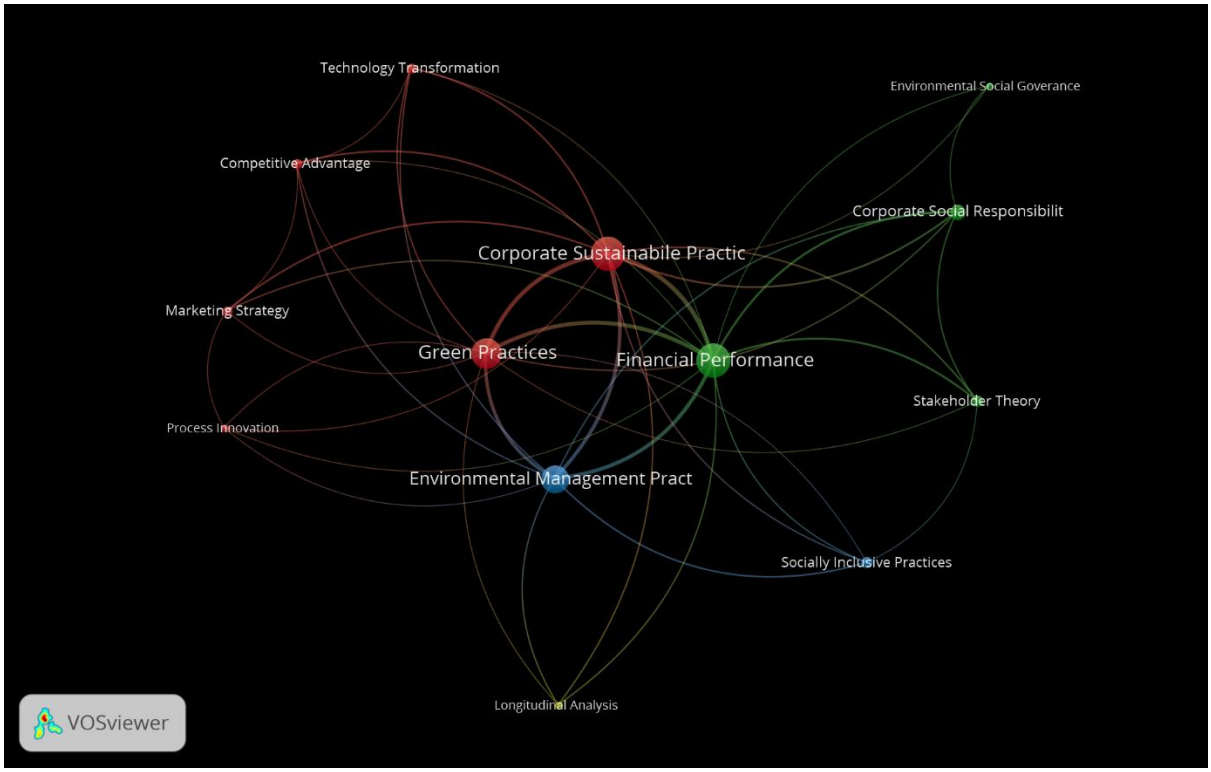

Figure 7: Bibliometric map created based on author keywords co-occurrence using network visualisation(Minimum occurrences of a keyword are set to two)

The bibliometric analysis involved 60 studies and focused on two main criteria. The first is word synthesis, which finds the most often searched terms or keywords that provide a concept for organising the most significant research areas within the field. We used the software VOS-viewer (version 1.6.15) for bibliometric analysis. Eight author keywords were used more than three times out of a total of 158 author keywords that were documented, of which 119 were used only once, 19 twice, and 12 three times. Twenty-four terms met the VOS-viewer mapping criterion of at least two occurrences after terms and closely related phrases were relabeled within the context of their usage. Figure 7 displays the text impact results based on the linked terms' co-occurrence. Each circle in the diagram represents a dataset keyword. Author keywords were positioned closer together on the map the more times they co-occurred or were used. The information showed four main clusters, each represented by a different coloured circle representing a different term used in the sixty papers. The most noticeable feature is a red cluster with 33 occurrences and 12 links to other keywords with a strength of 71, indicating that sustainable corporate practices were frequently discussed. The second-best financial performance (green-labeled) has 12 links

with a strength of 68 and 31 occurrences. The remaining keywords (red and blue) are environmental management practices and green.

Table 9: Author's Keywords occurrences based on clusters, links, and link strength.

Factors	Clusters	Links	Total link strength	Occurrences
Corporate Sustainable Practices	1	12	71	33
Financial Performance	2	12	68	31
Green Practices	1	11	54	25
Environmental Management Practices	3	9	50	22

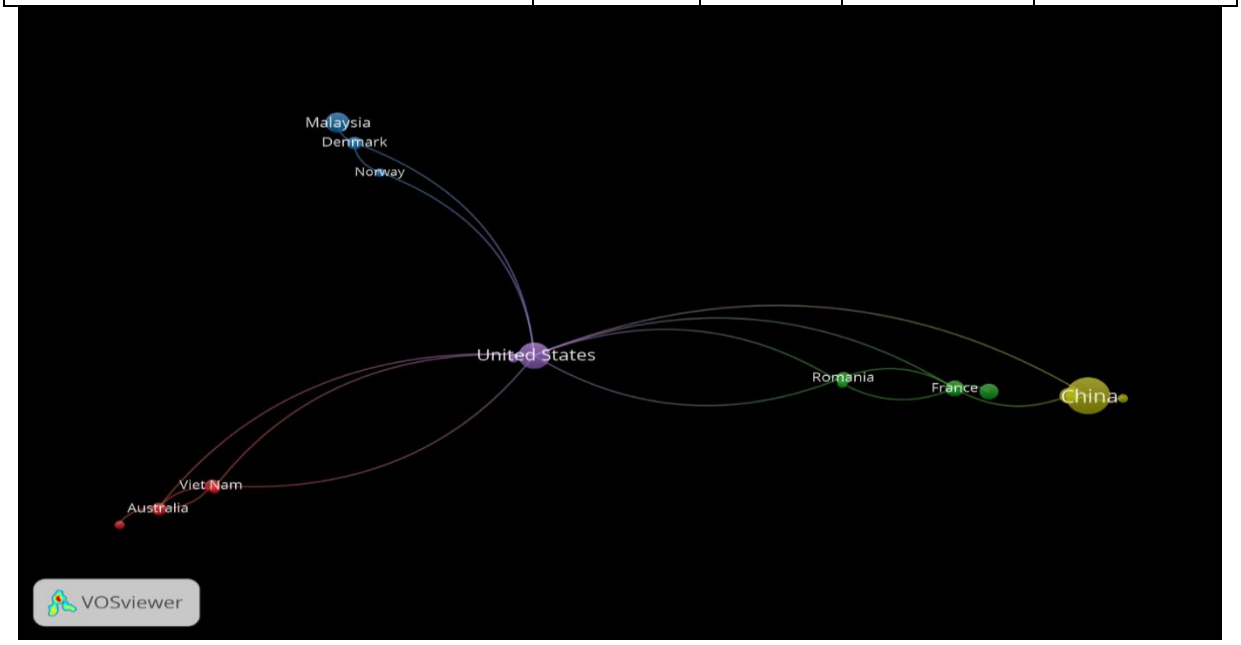

Figure 8: Bibliometric map created based on co-authorships with the network visualisation

The second critical analysis examines the countries' significant analysis to identify solutions to the problems. With links to ten other countries and forming five clusters, Figure 8 demonstrated that the United States was most frequently involved in collaborative research. France (5 links), Australia (4 links), China, Denmark, Romania, Vietnam (3 links), Norway (2 links), and Malaysia (1 link) were the following countries on the list. Additionally, 60 included studies showed that ¾, or 73.3%, of the countries had an international collaboration in publications, with less than ten countries having this distinction. Table 10 displays the clusters and documents for every nation, with the data organised as links.

Table 10: Co-Authorship & Countries links, clusters, and documents

Countries	Clusters	Links	Documents
USA	5	10	8
France	2	5	3
Australia	1	4	2
China	4	3	16
Denmark	3	3	2
Romania	2	3	2
Vietnam	1	2	2
Norway	3	2	1
Malaysia	3	1	5

6. Conclusion:

The data highlights a significant increase in research activity related to financial performance during 2018, suggesting a growing body of academic interest that may have been prompted by increased government focus on the topic. With 63% of the literature under review, empirical investigations were the most common methodological technique. Survey-based research comes in second at 32%, while conceptual inquiries came in at 5%. Research on sustainability and cleaner manufacturing is mostly disseminated through journals like the Journal of Cleaner Production, Sustainability and other prestigious publications like the International Journal of Production Economics, Business Strategy, and the Environment. This expanding corpus of research primarily examines the effects of sustainability measures on the financial performance of businesses in various industries, with a concentration on the manufacturing sector. Although research comes from all around the world, industrialised countries such as the United States, Spain, and the Netherlands dominate the debate, accounting for 21 of all articles.

Nonetheless, rising states with economies like Taiwan, Malaysia, and India have also made significant contributions. Citation analyses further emphasise the significance of individual research, pointing to the Journal of Cleaner Production as a significant academic influence. Furthermore, author and keyword clusters are identified by bibliometric analysis, revealing common subjects such as sustainable business practices and financial performance. Notably, a major share of research focuses on international collaboration, highlighting the worldwide

scope of these academic activities, with the United States firmly entrenched as a vital partner among nations such as France, Australia, and China.

6.1. Implications of the Study:

- The study highlights the significance of corporate social responsibility and environmental stewardship, demonstrating a link between sustainable practices and financial performance. Sustainable business practices may enhance public health, prevent environmental harm, and boost economic stability, all of which benefit society as a whole. As a result, businesses must emphasise sustainability in their decision-making process and consider the larger social ramifications of their operations.
- Policymakers in industrialised countries should emphasise incorporating sustainable practices within financial frameworks since they are the key sources of research on financial performance and sustainability. This might include enacting legislation that incentivises enterprises to run sustainably, such as providing tax benefits to those that do so. Furthermore, governments must consider funding research and development initiatives that encourage sustainability and innovation in industries that have a large influence on income.

6.2. Limitations and Future Directions of the Study:

This study covers a larger variety of nations to guarantee a thorough understanding of the link between economic development and sustainability. Furthermore, the emphasis on citation analyses and bibliometric methodologies may obscure essential qualitative components of the research, such as how environmental factors impact the adoption of sustainable practices. Future studies should use a more complete approach, combining quantitative and qualitative methods to create a more nuanced understanding of the relationship between sustainability and financial performance. Scholars must strive to include a wider range of nations in their research in order to represent the diversity of global opinions on this topic correctly.

To maintain long-term economic growth and social welfare, authorities should prioritise measures that promote sustainability and incentivise firms to utilise environmentally friendly practices.

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