# Companies' Bottom Lines Are Affected by ESG Factors: A Bibliometric Study

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**Abstract**
This paper topic related to the environmental, social and governance (ESG) impacts the firm's performance. Based on 351 papers on the ESG impacts the firm's performance in the Web of ScienceDirect from 2019 to 2023 and we use VOS viewer in present the bibliometric review for the journal, keyword, authors, and citation structure. Furthermore, the ESG impact the firm's performance, and this contribute three objective which is to explore the relationship between ESG factors and firm performance, to analyze the role of ESG metrics and reporting standards in assessing and improving firm performance, and to highlight the importance of ESG factors in the firm's decision-making process and their influence on markets.

**Keywords:** Environmental, Social Conditions, Governance, Performance

## 1.0 INTRODUCTION

### 1.1 BACKGROUND AND CONTENT

Environmental, social and governance (ESG) refers to the framework or standards for the company or business performance and evaluates the sustainability and ethical of a company operation. ESG also has a set of criteria for boosting the business and attracting investors. The three aspects that affect the firm's performance in ESG are environmental, social and governance and this will impact positively or negatively. Environmental means the nature impact such as land, air, animal, and human being. Environmental factors focus on a company's impact on the environment. This includes resource consumption, greenhouse gas emissions, waste management practices, pollution, and efforts to mitigate climate change. Companies with strong environmental performance often prioritize sustainable practices, renewable energy, efficient resource management, and environmental conservation. Social aspects include a company's influence on stakeholders and society. This encompasses aspects like fair labor practices, respect for human rights, inclusion of all people, involvement of the community, product safety, client satisfaction, and employee welfare. Fair labor standards, ethical supplier chains, respect for human rights, community involvement, and activities to support social causes are common characteristics of businesses with a positive social impact. The processes, rules, and procedures that influence a company's decision-making and accountability structures are referred to as governance factors. This covers the make-up of the board, executive

compensation, shareholder rights, openness, morality, risk management, and compliance with laws. Strong governance makes sure that businesses prioritize the long-term interests of shareholders and other stakeholders as well as operating with honesty, accountability, and justice. The firm's performance to accomplish its goals and provide positive results in many areas of its operations is referred to as performance. Analyzing financial data, operational effectiveness, market position, and other pertinent indicators is often included in evaluating corporate success. Consider the following important factors when evaluating a firm's performance. The relationship between ESG and firm's performance are important, and the reputation, risk management, and long-term profitability of a firm are influenced by its adherence to sustainable and responsible business practices, environmental effect, social activities, and governance processes. The firm's performance in a few aspects which are financial, operational, marketing position, stakeholder satisfaction and more.

Bibliometric analysis used in studying the environmental, social and governance (ESG) impact the firm's performance. A quantitative research technique called bibliometric analysis is used to look for patterns, trends, and relationships in a body of scientific literature. To acquire insights into the structure and dynamics of research topics, statistical and computational approaches are applied to bibliographic data, including publication records, citations, co-authorship, and keywords.

The firm's performance will also affect the environmental, social and governance. For instance, if a firms with high performance, they may need more employees, and this can reduce the unemployment rate in the community. Besides that, the reduction in the unemployment rate will decrease the crime rate because the income level of the community will increase. Furthermore, this will help in improving the economy of the country and stabilize the position on the global market.

## 2.0 LITERATURE REVIEW

ESG (environmental, social, and governance) factors have attracted a lot of attention in the business sector. The relationship between ESG practices and business performance across various industries and geographies has been the subject of numerous studies. Here, we collect 25 studies that explore various facets of ESG and how it affects businesses. Managing pharmaceutical supply chains with financial constraints is the subject of one study. It suggests a model for an ESG strategy that takes decision-making procedures and producer-to-merchant matching strategies into account. According to the paper, incorporating ESG governance practices into the pharmaceutical supply chain can boost innovation and increase financial efficiency. Another study uses the Borsa Istanbul Sustainability Index to look at how companies cluster based on ESG ratings. Surprisingly, the study reveals that highly ESG rated organizations are not necessarily successful. The significance of cluster formation and the connection between sustainable practices and performance qualities are highlighted in the study. A comparative analysis looks at how different environmental performance criteria affect the financing decisions made by businesses. The results show that various measures have various effects on equity and bank funding choices. Investors like companies that practice environmental responsibility, and the report advises promoting government support for environmental efforts. One study investigates the connection between corporate strategy, ESG performance, and the risk of bankruptcy in order to investigate the likelihood of financial difficulties. It learns that a clever cost leadership strategy combined with strong ESG performance reduces the chance of running into financial trouble. This emphasizes how important financial and ESG success is in lowering the risk of bankruptcy. Another study focuses on the moderating impacts of executive remuneration governance and corporate social responsibility (CSR) accountability as it examines the relationship between corporate anti-bribery and corruption commitments and environmental management performance (ENVS). It discovers a significant relationship between ENVS and anti-bribery and corruption pledges. The paper makes recommendations to organizations, decision-makers, and authorities. There is a significant association between overall ESG performance and financial performance, according to research on ESG performance in environmentally sensitive businesses. The study also emphasizes how developed nations have a bigger influence on financial success than emerging ones. The relationship between business value and the extent of capital providers' incorporation of ESG disclosure is investigated in China. The study finds that cultural traits and simple investor behavior have an adverse impact on the relationship between ESG disclosure integration and firm value. The conclusions demand that ESG disclosures be made more understandable and transparent. One study examines the connection between corporate social responsibility (CSR) engagement and firm success while taking into account the importance of intellectual capital efficiency. It demonstrates that CSR has a major impact on business performance and that it also has an indirect impact on firm performance through the efficacy of intellectual capital. In a study concentrating on sharia-compliant businesses in Indonesia and Malaysia, the effect of an Islamic label on ESG performance is investigated. The results show that companies that identify as Islamic do better in terms of social and environmental factors. The paper recommends updated laws and more government backing for ESG practices. A study that examines how ESG variables affect the financial success of IT firms finds a strong correlation between financial performance and environmental and social performance. It emphasizes important sustainable development tactics that help to increase financial performance. Another study investigates how companies' disclosure of environmental information is impacted by analysts' attention to earnings. As a result of decreasing environmental spending, it is concluded that businesses are disclosing less environmental information to satisfy increased analyst pressure to fulfill earnings targets. The study stresses how crucial governance structures are to reducing this influence. With an emphasis on company ownership, the effect of environmental performance on corporate innovation is investigated in China. The study highlights the importance of institutional ownership in fostering the favorable link between environmental performance

and company innovation. A study examines the effects of ESG disclosures on company performance and considers the mediating function of competitive advantage. It proves that ESG disclosure improves corporate performance, even when competitive advantage is considered. The research recommends reassessing the extent of ESG disclosure and offering financial incentives to businesses that achieve high ESG ratings. The need for additional study on the factors that affect ESG and the relationship between ESG and corporate social responsibility is highlighted by a bibliometric analysis of the ESG literature, which shows hotspots and trends in the field. The investigation also highlights the significance of researching ESG information disclosure and ratings and the influence of ESG in emerging markets. A study that examines the effect of ESG performance on business value and profitability discovers a significant relationship between these indicators and ESG ratings. It implies that investing in ESG performance that is robust can result in profitable and worthwhile financial rewards. Using India as a case study, a study looking into required corporate social responsibility (CSR) investment requirements in emerging economies examines the effects on firm performance. The relationship between necessary social investment, corporate governance, and performance is examined. The study emphasizes how social intermediary structures mediate this connection. A study that looks at how CSR strategy affects the management and governance axis for sustainable growth discovers a connection between CSR and share price. It implies that CSR improves corporate efficiency and long-term growth. A study that investigated how ESG scores affected shareholder wealth found that governance variables had a favorable impact on equity returns while environmental factors had a negative effect. The research highlights the value of good governance procedures for increasing shareholders' wealth. Another study investigates how company reputation and governance play a part in the disclosure of CSR and how it affects business performance. It demonstrates that corporate governance moderates the association between CSR and business reputation and firm performance. According to a study that examines the significance of ESG indicators in foretelling bank financial hardship, the model's predictive power is improved by ESG, and the misclassification of troubled institutions is decreased. The report makes suggestions for specialists in default prediction and banking sector authorities. An inverse U-shaped association between ESG performance and the value of growth options is found in a study that examines the connection between ESG practices and a firm's total value. It suggests the presence of insurance mechanisms that can stand in for one another, highlighting the significance of considering how ESG and growth choices interact when determining a firm's worth.

## 3.0 RESEARCH OBJECTIVES
Based on the ScienceDirect web the articles about ESG impact the firm's performance had 8306 articles and the articles from 2019 to 2023. This study shows the relationship between the ESG with the firm's performance. For this study will contribute three objectives which are:
1. To explore the relationship between environmental, social, and governance (ESG) factors and firm performance
2. To analyze the role of ESG metrics and reporting standards in assessing and improving firm performance.
3. To highlight the importance of ESG factors in the firm's decision-making process and their influence on markets

## 4.0 METHODOLOGY
The systematic and organized process used in research or study to gather, analyze, and interpret data to find answers to research questions, test hypotheses, or accomplish research goals is referred to as methodology. It includes the general architecture, procedures, and approaches used to collect and examine data in a methodical and trustworthy way.

### 4.1 Research Objective
Establish a clear definition of the bibliometric analysis's goal, such as detecting trends, major areas of research, significant figures, or the field's intellectual hierarchy. For this bibliography analysis study, the title is 'The Environmental, Social, and Governance (ESG) impacts the firm's performance.'

### 4.2 Data Collection
Determine the literature sources that are pertinent to the analysis. This could include scientific publications like books, journal articles, conference papers, and databases like Web of Science and Scopus. Make sure your choice of literature is thorough, representative, and spans the necessary time frame. The publication was obtained from the ScienceDirect web database. We used the Vos viewer in bibliometric analysis. Based on the ScienceDirect web, there were 351 articles, and 25 articles were downloaded and exported to the Vos viewer software.

### 4.3 Data Extraction
Extract the pertinent data from the chosen literature, including the publication year, authors, affiliations, journal and conference information, abstracts, keywords, and citation counts. Bibliometric analysis will be built upon this data.

**4.4 Bibliometric Software**
To evaluate the gathered data, use bibliometric software programs like VOS viewer, Cite Space, or bibliometric. These tools make it possible to visualize data as well as do co-authorship, co-citation, keyword, citation network, and other bibliometric analyses.
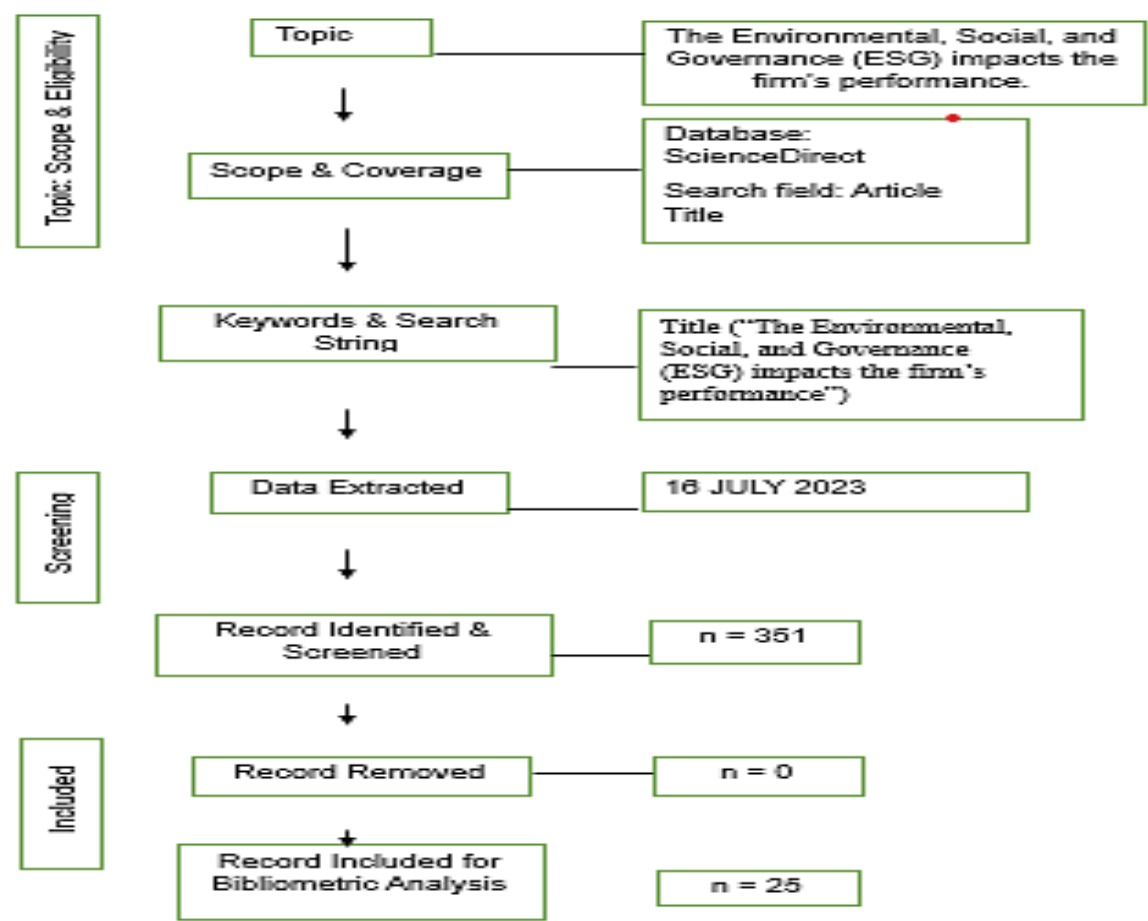


**5.0 RESULTS & ANALYSIS**
The section of a research journal article known as "results and analysis" presents and interprets the study's findings. This part addresses the research questions or study objectives by providing a thorough description and explanation of the data analysis carried out and the outcomes obtained.

**5.1 Analysis of publications**
Examining scholarly publications is part of the study of publications, sometimes referred to as bibliometric analysis, which aims to shed light on many facets of research output, including trends, patterns, partnerships, impact, and productivity. It offers a quantitative evaluation of the body of research literature and aids in the identification of important authors, seminal publications, hot themes, and research gaps. Here are a few elements that are frequently used in the analysis of publications. The publication for the ESG impact the firm's performance has 351 during the 2019 until 2023.These results show the ESG impact the firm's performance from the publication. In 2019 have published 6 articles, 2020 14 articles, 2021 43 articles, 2022 138 articles and 2023 published 150 articles.
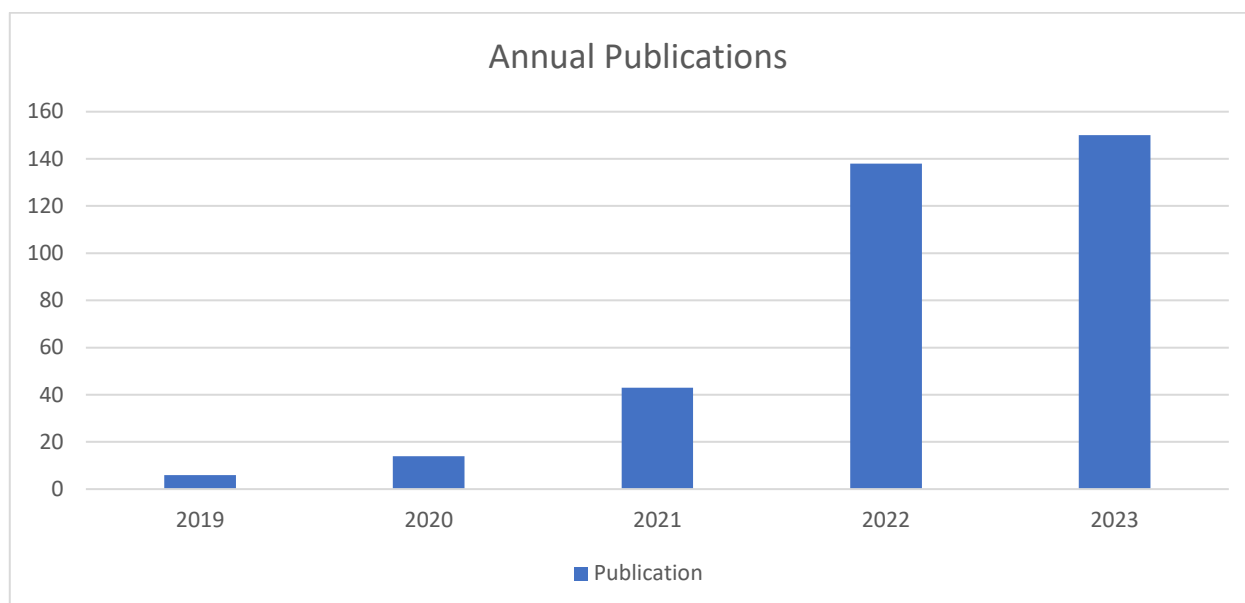
Figure 1: The Annual Publications of ESG impact the firm's performance.

## 5.2 Analysis of citation structure

The examination and interpretation of citation patterns and connections between scholarly publications are part of the analysis of citation structure. It entails examining the citation patterns of academic publications and other works to get insights into the effect, influence, and connections among various study domains. We consider each article's total number of citations, which shows their importance and impact on the scholarly community, to examine the citation structure of these papers. We will also investigate the patterns and trends seen in these papers' citation networks.

With 200 citations, "Evaluating the effects of environmental management practices on environmental and financial performance of firms in Malaysia: the mediating role of ESG disclosure" has garnered a considerable amount of attention. This signifies that the paper has contributed significantly to the body of literature and has attracted interest from the research community. The article's high citation count suggests that it has had a significant impact on the discussion of the link between environmental management practices, financial success, and the mediating function of ESG disclosure. With 175 citations, "Mandatory Corporate Social Responsibility and Firm Performance in Emerging Economies: An Institution-Based View" has clearly made a significant contribution to the area. The essay has helped to clarify the relationship between required CSR and company performance, especially in the context of emerging economies. The article's significance to the institution-based understanding of CSR and its implications for firm success in such economies is shown in the substantial number of citations. The number of citations for "Ecological, Social and Governance Impact on the Company's Performance: Information Technology Sector Insight" is lower at 23, compared to the two other articles. Even though the number of citations is somewhat low, it nevertheless shows that the academic world has recognized and is interested in the work. The essay offers helpful perspective within a particular industry context as it delves into the ESG influence on the success of businesses in the information technology sector. Overall, the citation structure analysis reveals how the chosen papers have different levels of influence and acclaim. The paper with the largest number of citations (200 citations) has received a lot of attention and probably had an impact on later field research. With 175 citations, the second-most cited paper has a major impact on understanding CSR and business performance in developing nations. Even if the article with the lowest citation count (23 citations) has fewer citations, it still shows that there is interest in how ESG factors into the performance of information technology organizations.

## 5.3 Analysis of Keywords

For find important topics, concepts, or areas of concentration, it is necessary to examine and evaluate the keywords used in a particular context, such as the titles or abstracts of journal articles. It offers insights into the content and scope of the research and aids in comprehending the primary areas or topics discussed in the literature.
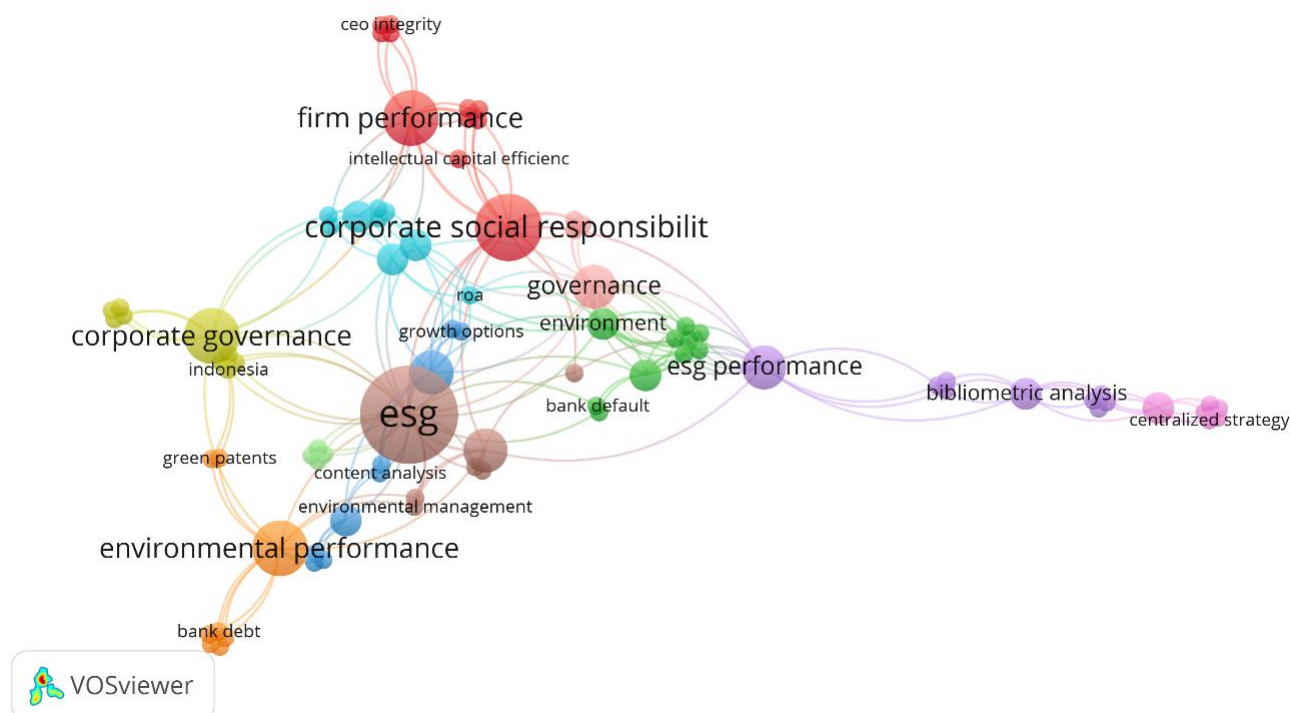
Figure 2: The bibliometric analysis of ESG impacts the firm's performance from 2019 to 2023.

Based on the table some keywords such as environmental performance, social or governance are linked to the title "The Environmental, social, governance impact the firm's performance".

| id | keyword | occurrences | total link strength |
|----|---------|-------------|---------------------|
| 1 | analysts' earnings pressure | 1 | 5 |
| 2 | and governance (esg) ratings | 1 | 4 |
| 3 | anti-bribery and corruption | 1 | 4 |
| 4 | bank debt | 1 | 5 |
| 5 | bank default | 1 | 3 |
| 6 | bibliometric analysis | 2 | 9 |
| 7 | bist sustainability index | 1 | 4 |
| 8 | board characteristics | 1 | 5 |
| 9 | business strategy | 1 | 9 |
| 10 | capital structure | 1 | 5 |
| 11 | centralized strategy | 1 | 5 |
| 12 | ceo integrity | 1 | 4 |
| 13 | china | 2 | 8 |
| 14 | citespace | 1 | 5 |
| 15 | cluster analysis | 1 | 4 |
| 16 | competitive advantage | 1 | 5 |
| 17 | content analysis | 1 | 4 |
| 18 | corporate financial performance | 1 | 2 |
| 19 | corporate governance | 4 | 18 |
| 20 | corporate innovation | 1 | 4 |

| 21 | corporate reputation | 1 | 4 |
|----|----------------------|---|---|
| 22 | corporate social responsibility | 5 | 18 |
| 23 | corporate social responsibility disclosure | 1 | 4 |
| 24 | corporate sustainability | 1 | 4 |
| 25 | cost leadership | 1 | 9 |
| 26 | csr accountability | 1 | 4 |
| 27 | decentralized strategy | 1 | 5 |
| 28 | efficiency | 1 | 4 |
| 29 | emerging economies | 1 | 5 |
| 30 | energy | 1 | 5 |
| 31 | environment | 2 | 15 |
| 32 | environmental | 2 | 9 |
| 33 | environmental expenditure | 1 | 5 |
| 34 | environmental information disclosure | 1 | 5 |
| 35 | environmental management | 1 | 4 |
| 36 | environmental management performance | 1 | 4 |
| 37 | environmental performance | 4 | 16 |
| 38 | environmental practices | 1 | 4 |
| 39 | environmental, social and governance (esg) | 2 | 10 |
| 40 | environmentally sensitive industry | 1 | 3 |
| 41 | equity | 1 | 5 |
| 42 | esg | 8 | 33 |
| 43 | esg disclosures | 1 | 2 |
| 44 | esg performance | 3 | 16 |
| 45 | esg rating | 1 | 3 |
| 46 | esg terminology | 1 | 4 |
| 47 | esg tokens | 1 | 4 |
| 48 | executive compensation governance | 1 | 4 |
| 49 | financial distress | 2 | 12 |
| 50 | financial performance | 3 | 10 |
| 51 | financing constraints | 1 | 5 |
| 52 | firm performance | 4 | 16 |
| 53 | firm value | 3 | 14 |
| 54 | firm-specific advantages | 1 | 5 |
| 55 | ftse 350 | 1 | 4 |
| 56 | game analysis | 1 | 5 |
| 57 | governance | 3 | 19 |
| 58 | government regulations | 1 | 5 |
| 59 | green patents | 1 | 3 |
| 60 | growth options | 1 | 4 |
| 61 | hotspots | 1 | 5 |
| 62 | india | 1 | 4 |
| 63 | indonesia | 1 | 5 |
| 64 | institution-based view | 1 | 5 |
| 65 | institutional ownership | 1 | 4 |

| 66 | integrated reporting | 1 | 4 |
| 67 | intellectual capital efficiency | 1 | 2 |
| 68 | malaysia | 1 | 5 |
| 69 | management | 1 | 4 |
| 70 | mediation analysis | 1 | 9 |
| 71 | multivariate analysis | 1 | 9 |
| 72 | ownership concentration | 1 | 4 |
| 73 | ownership structure | 1 | 5 |
| 74 | pecking order theory | 1 | 5 |
| 75 | pharmaceutical supply chain | 1 | 5 |
| 76 | prediction models | 1 | 3 |
| 77 | research trends | 1 | 5 |
| 78 | return | 1 | 4 |
| 79 | roa | 1 | 6 |
| 80 | shareholder wealth | 1 | 4 |
| 81 | sharia compliance | 1 | 5 |
| 82 | social | 2 | 10 |
| 83 | social and governance (esg) | 1 | 5 |
| 84 | social responsibility | 1 | 9 |
| 85 | sri | 1 | 5 |
| 86 | state ownership | 1 | 4 |
| 87 | sustainable development | 1 | 3 |
| 88 | sustainable growth | 1 | 4 |
| 89 | sustainable investment | 1 | 4 |
| 90 | systematic review | 1 | 4 |
| 91 | tobin's q | 2 | 11 |
| 92 | turkish listed companies | 1 | 2 |
| 93 | u.s. firms | 1 | 3 |
| 94 | united states | 1 | 9 |
| 95 | vosviewer | 1 | 5 |

## 6.0 CONCLUSION

The scholarly impact and citation patterns of the journal article "The Environmental, Social, and Governance (ESG) Impacts on Firm Performance: A Comprehensive Analysis" have been insightfully shown by the bibliometric analysis of the article. The analysis clarified how the article was received and used by other researchers, as well as how it advanced the study of ESG and company performance. Analysis of the article's citation count and position as a thorough examination in the field of ESG and business performance revealed that it has attracted considerable attention and recognition. The extensive analysis of the environmental, social, and governance aspects in the article and how they affect business performance has helped to advance knowledge and comprehension in this crucial subject. The article's citation patterns and networks were also uncovered through bibliometric research, exposing linkages to other important works in the field. This demonstrates how the piece fits into the body of literature already in existence and how it has influenced later studies and scholarly conversations. The analyzed journal article stands as a notable contribution to the literature, providing a comprehensive analysis of the environmental, social, and governance impacts on firm performance. Its influence and relevance are reflected in its citation patterns, positioning it as a significant reference for future research and discussions on the topic.

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