

Examining Islamic Environmental, Social and Governance (ESG) Current and Future Research- A Bibliometric Analysis

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Abstract: This bibliometric analysis offers a comprehensive look at the current research trends in Islamic environmental, social, and governance (ESG) over 12 years, from 2012 to 2023. The study encompasses a dataset of 54 papers from the SCOPUS database and employs various bibliometric metrics, including author-based, country-based, and organization-based citations. The results indicate a variable growth in the number of publications in this research domain over the period, with a particularly significant surge observed between 2021 and 2023. The descriptive analysis identifies the most prolific countries and document types within Islamic environmental, social, and governance realms. The citation analysis identifies the most influential authors, organizations, and countries shaping this field. In summary, the results show that environmental, social, and governance (ESG) research and practices that include Islamic teachings and values still demonstrate a significant gap, and recommendations are provided for future research based on the primary issues and gaps discovered from the current trends. These findings are valuable for researchers, practitioners, and policymakers seeking insights into this study area.

Keywords: *ESG, ESG integration, sustainable development, corporate governance, bibliometric analysis*

1. Introduction

Environmental, social, and governance (ESG) practices have become a key priority for companies, policymakers, and investors. By definition, ESG is a framework that helps businesses and their related stakeholders understand how an organization manages risks and opportunities around sustainability issues related to the environment, community, and ethical business. This shift is fuelled by a growing recognition of these factors' risks and opportunities for achieving long-term financial performance and sustainability. Alongside this, research on ESG has emerged as a foundational element in the study of sustainable finance and corporate responsibility.

Integrating Islamic teachings and values into ESG practices offers a distinct perspective that merges traditional financial principles with ethical and religious considerations. ESG principles align closely with Islamic finance's ethical and moral foundations guided by Shariah law. Islamic finance emphasizes social justice, environmental stewardship, and responsible governance, making it naturally compatible with the goals of ESG. As an example, investments in the context of Islamic finance are assessed not only for their financial returns but also for their social and ethical impact, reflecting the core principles of ESG.

Integrating ESG principles into Islamic finance has gained significant attention, with scholars highlighting the strong alignment between ESG criteria and Islamic ethical standards. This convergence positions Islamic financial institutions to lead in sustainable and responsible investing while offering opportunities to create innovative financial products that meet ethical and religious requirements (Hayat & Malik, 2014).

The need to thoroughly understand the academic landscape and research trends surrounding the Islamic ESG motivates the study of bibliometric analysis on this topic. By applying bibliometric methods to examine the literature, this study will enhance the scope and depth of research on Islamic ESG and provide recommendations for future research based on the primary issues and gaps discovered from the current trends. This study aims to answer the following research questions:

- What are the present landscape, evolution, and publication trends in Islamic ESG?
- Who are the key stakeholders (authors, institutions, organizations, countries) contributing to the expansion of Islamic ESG literature?

- What are the potential areas for future research in Islamic ESG that warrant further exploration?

This study makes several contributions to the literature. First, it offers a comprehensive overview of the historical development of Islamic ESG research, enabling researchers to understand how the field has progressed over the past 12 years. Second, it provides valuable direction for future research by highlighting key factors such as methodologies, leading authors, affiliations, organizations, countries, and journals. Third, the findings of the study will benefit not only researchers but also companies, policymakers, and other stakeholders who seek to understand the importance of integrating Islamic principles into conventional ESG practices. Considering the usefulness and importance of Islamic ESG, this study is motivated by the need to analyze publications regarding the topic through bibliometric analysis, making a novel contribution to the literature by providing a detailed view of the current state of Islamic ESG research.

2. Literature Review

ESG is a specific framework that encompasses a range of non-financial criteria used to evaluate companies' operations and performance based on environmental, social, and governance practices. The environmental aspect assesses a company's effect on natural resources, including its carbon footprint, energy consumption, waste management, and climate change mitigation efforts. The social aspect examines how a company handles relationships with employees, suppliers, customers, and communities, including human rights, labor practices, diversity, and community engagement. The governance aspect refers to the company's leadership structure, executive compensation, audits, internal controls, and shareholder rights, which shape its ethical decision-making framework.

An increasing amount of research has explored the pathways through which ESG factors impact corporate performance. Eccles et al. (2014) demonstrated that companies implementing sustainability policies significantly outperform their peers over the long run, both in terms of stock market returns and profitability. This trend is further supported by the growing demand from investors for sustainable and responsible investment options, which has led to the integration of ESG factors into mainstream investment analysis and decision-making processes.

Research by Friede et al. (2015) indicates that companies with strong ESG practices tend to have lower risks, as they are better positioned to anticipate and manage emerging challenges related to environmental regulations, social expectations, and governance standards. Furthermore, other studies have emphasized ESG's role in risk management, proving that companies with robust ESG practices are less susceptible to financial shocks and exhibit greater resilience during economic downturns (Giese et al., 2019).

Research on the integration of ESG frameworks into Islamic finance demonstrates how these frameworks can be adapted to align with Islamic principles. For example, Mohd Zain et al. (2024) explore the integration of ESG principles with Shariah compliance and identify the potential for harmonizing ESG principles with the *Maqasid al-Shariah*, offering Takaful operators a roadmap to enhance their ethical credibility, societal impact, and environmental stewardship. Similarly, Sacarcelik (2018) provides examples of how Islamic financial institutions implement ESG practices while adhering to Shariah principles, highlighting successful strategies and improvement areas.

From an Islamic perspective, the principle of *Khalifah* (stewardship) aligns with the environmental sustainability component of ESG. This principle of *Khalifah* obliges individuals and organizations to minimize environmental harm, promote sustainability, preserve natural resources, and protect the earth as a trust from *Allah* (God) for future generations (Dusuki & Abdullah, 2007). A study by Bsoul et al. (2022) highlights the consideration of Islam's perspective in solving environmental problems, activating the role of religious and scientific institutions in preserving the environment and providing appropriate solutions.

The social component of ESG intersects with Islamic values through principles of *adil* (justice) and *ihsan* (benevolence), which emphasize fairness, equity, and compassion when dealing with others. This includes ensuring the well-being of employees, supporting community development, and upholding human rights

(Siddiqi, 2004). For instance, Islamic teaching promotes social welfare and equitable treatment, as seen in practices like *Zakat* (charitable giving).

Meanwhile, the governance component in ESG is governed by the principles of *shura* (consultation) and *Amanah* (trustworthiness), which stress the importance of transparency, accountability, and ethical leadership in business operations (Hasan, 2011). Islamic governance structures are designed to prevent fraud, corruption, and exploitation, aligning closely with the governance pillar of ESG. Wahab et al. (2024) discuss how Islamic corporate governance practices can enhance transparency and accountability, thereby supporting ESG objectives.

The ESG principle is increasingly recognized as a crucial element of sustainable finance, offering valuable guidance into how companies can align their operations with broader societal and environmental goals. While significant progress has been made in integrating ESG into corporate and investment strategies, combining these principles with Islamic teachings presents a holistic approach to sustainable finance. This integration harmonizes environmental stewardship, social responsibility, and ethical governance with Islamic values. Continued research and practical applications in this field are essential for advancing both ESG practices and Islamic teaching, ensuring a balanced approach to ethical and sustainable development.

3. Data and Methodology

The bibliometric analysis for mapping the Islamic ESG literature is carried out in this study, including a comprehensive literature assessment of the publications published in high-quality journals. To the best of the author's knowledge, there has yet to be review research that has concentrated on papers published in journals of high quality. The emphasis on "high quality" is significant since the significance of high-quality academic research is increasing, and there is a growth in the number of journals that engage in predatory practices (Sahoo et al., 2022). In addition to quantifying and mapping the academic literature through bibliometric analysis, this study conducts a comprehensive literature evaluation of high-quality studies in the Islamic ESG domain. This is done to bridge the gap that has been identified in the previous reviews.

According to Donthu et al. (2021), bibliometric analysis is a comprehensive method that may be used to investigate and evaluate a significantly large amount of data. Various tools can be used to detect similarities among huge datasets (Jain et al., 2021). The datasets were obtained from Scopus to carry out bibliometrics. After screening, 57 documents from Scopus databases were considered for bibliometric analysis.

Data-collection method and procedure

Data consisting of bibliometric and content analysis was obtained from Elsevier Scopus for this activity on February 25, 2024. According to Jain and Tripathi (2023) and Prankut (2021), this database is one of the most comprehensive electronic databases for retrieving literature, covering key worldwide journals. According to the recommendations made by Jain and Tripathy (2023) and Sahoo et al. (2022), this review study has utilized a content screening technique that consists of three stages.

During the initial phase of the screening process, the search query "Islamic ESG" was utilized to search within the "title, abstract, and keyword category" of the database. The second part of the screening process consisted of refining the papers depending on the period, which was chosen to be 2012-2023. Because the result documented the first paper published this year, 2012 was selected as the year of publication. During the final phases, the language screening is performed, and only articles written in English are taken into consideration for the study. Within the scope of the study, a total of 54 research publications from Scopus were incorporated.

Data analysis techniques

Jain and Tripathy (2023) and Donthu et al. (2021) have proposed a two-stage analytical technique for bibliometric analysis. Both groups have proposed this technique, which consists of performance analysis and science mapping. According to Donthu et al. (2021), performance analysis is comprised of descriptive statistics that describe the contribution of research constituents of documents by subject, year, source, author, affiliations, and nation. On the other hand, science mapping illustrates the relationship between research constituents. Data was extracted directly from the SCOPUS database to carry out the preliminary examination

of the data. The VOSviewer was utilized to conduct a performance analysis. According to Eck and Waltman (2010), the performance analysis showed that the features and research patterns were classified and analyzed individually using descriptive statistics. These statistics included the co-authorship, co-occurrence, and citations among the authors, organizations, nations, sources, and keywords.

PRISMA Model

This study adopted the PRISMA model, an acronym for Preferred Reporting Items for Systematic Reviews and Meta-Analyses. This widely adopted framework for conducting systematic reviews and meta-analyses in various fields, including bibliometrics, provides a structured approach to literature review and synthesis aimed at enhancing transparency, reproducibility, and the quality of research outputs.

4. Findings

Trends in Publications

Table 1: Distribution of Publications by Subject

	Subject area	Frequencies
1	Economics, Econometrics and Finance	36
2	Business, Management and Accounting	30
3	Social Sciences	9
4	Environmental Science	8
5	Decision Sciences	6

The multidisciplinary nature of this field of study is reflected in the fact that research output on Islamic Environmental, Social, and Governance (ESG) is distributed throughout a variety of academic disciplines. The widespread applicability of this field of study is particularly noteworthy. Scholars investigate incorporating environmental, social, and governance (ESG) principles into Islamic finance practices, analyzing the financial performance and impact of Islamic ESG investments compared to their conventional counterparts and investigating the alignment of ESG criteria with Shariah-compliant investment guidelines. The field of Economics, Econometrics, and Finance is the most prominent publication in this area, with 36 publications. Business, management, and accounting disciplines make a significant contribution by publishing thirty articles that concentrate on the social responsibility initiatives of Islamic financial institutions, corporate governance practices within these institutions, and the ethical dimensions of Islamic environmental, social, and governance investments. These publications all contribute to responsible finance and ethical business conduct.

Nine publications in the field of social sciences provide insights into the societal implications of Islamic environmental, social, and governance practices. These publications include studies on social development, poverty alleviation, and financial inclusion that are made possible by Islamic microfinance institutions. Additionally, these publications cover consumer behavior and preferences regarding Islamic ethical products and services. Through investments in renewable energy, green infrastructure, and environmentally responsible projects, Environmental Science critically evaluates Islamic finance's environmental sustainability. Additionally, it addresses climate change mitigation and adaptation efforts within Islamic financial markets. Environmental Science has a total of eight publications. With six papers, Decision Sciences contributes to establishing standardized reporting frameworks for Shariah-compliant environmental, social, and governance (ESG) disclosure. They also provide insights into the regulatory framework governing Islamic ESG finances.

Table 2: Distribution of Publications by Year

	Year	Frequencies
1	2023	18
2	2022	13
3	2021	11
4	2020	6
5	2019	1

It is possible to gain insights into the changing research landscape and the growing interest of academics in this topic by analyzing the distribution of the number of publications on Islamic Environmental, Social, and Governance (ESG) throughout different years. There was an increasing momentum in research efforts and a heightened focus on researching various elements of Islamic environmental, social, and governance (ESG) in 2023, as seen by the most significant number of publications ever recorded, which was 18. This rise in publications may reflect the growing realization of the significance of incorporating environmental, social, and governance (ESG) principles into Islamic banking practices and tackling sustainability concerns within nations with a predominantly Muslim population and Islamic financial markets. A consistent increase trend in the number of publications has been observed throughout the prior years. In 2022, there were thirteen publications, whereas in 2021, there were eleven. This indicates that there is a continued interest in advancing knowledge and understanding in this particular field. It is possible that the rise in research production over the past few years can be ascribed to rising awareness of the potential synergies that exist between Islamic finance and ESG principles, as well as the necessity of addressing severe environmental, social, and governance challenges within the Islamic finance industry.

An indication of a nascent stage of research development and a gradual accumulation of scholarly activity on this topic is that the number of publications was relatively low before the year 2020. In 2019, just a few articles were recorded, representing a relatively low number of publications. However, it is essential to note that even during these eras of low publication activity, there were intermittent instances of research output, highlighting academics' continued interest in investigating Islamic environmental, social, and governance concepts and practices. In general, the progression of publication numbers over the years exemplifies the growing prominence of Islamic environmental, social, and governance (ESG) as a study field and highlights the increasing significance of this field within the academic community as well as the broader financial business sector.

Table 3: Distribution of Publications by Source

Source/ Journals	Frequencies
1 Borsa Istanbul Review	3
2 Journal of Islamic Monetary Economics and Finance	3
3 Asian Economic and Financial Review	2
4 International Journal of Emerging Markets	2
5 International Journal of Supply Chain Management	2
6 International Review of Economics and Finance	2
7 Journal of Asset Management	2
8 Lecture Notes in Networks and Systems	2
9 Research In International Business and Finance	2
10 Springer Proceedings in Business and Economics	2

An understanding of the diffusion of research findings and the scholarly discourse within this topic can be gained through the distribution of publications on Islamic Environmental, Social, and Governance (ESG) throughout a variety of academic periodicals. In terms of the number of publications they produce, the "Borsa Istanbul Review" and the "Journal of Islamic Monetary Economics and Finance" emerged as the leading journals. Each of these journals features three publications on Islamic environmental, social, and governance issues. These publications likely serve as prominent platforms for academics to publish their work and contribute to advancing knowledge in Islamic principles, which are connected with environmental, social, and governance aspects.

In addition, the "Asian Economic and Financial Review," "International Journal of Emerging Markets," "International Journal of Supply Chain Management," "International Review of Economics and Finance," "Journal of Asset Management," "Lecture Notes in Networks and Systems," "Research in International Business and Finance," and "Springer Proceedings in Business and Economics" each feature two publications on Islamic ESG. This further demonstrates a wide variety of journals within the academic world, where there is a growing

interest and participation in exploring Islamic environmental, social, and governance (ESG) concepts and practices. This is demonstrated by the distribution of articles across a variety of journals.

Table 4: Distribution of Publications by Author

	Authors	Frequencies
1	Dreassi, A.	4
2	Hassan, M.K.	4
3	Paltrinieri, A.	4
4	Piserà, S.	4
5	Chiaramonte, L.	3
6	Ghaemi Asl, M.	3
7	Qoyum, A.	3
8	Ahmed, A.	2
9	Erragragui, E.	2
10	Nathan, R.J.	2

The dissemination of publications on Islamic Environmental, Social, and Governance (ESG) by the author highlights a wide variety of academics who have contributed to the discussion in this area of study. A few authors, like Dreassi, Hassan, Paltrinieri, and Piserà, have four publications. These publications demonstrate their significant contributions and active engagement in the process of promoting knowledge within Islamic environmental, social, and governance principles. The scholarly landscape is further enriched by the research findings and ideas of other prolific authors such as Chiaramonte, Ghaemi Asl, and Qoyum, who each have three publications to their credit.

In addition, a considerable number of authors have made noteworthy contributions by publishing two works each. These authors include, amongst others, Ahmed, Erragragui, Nathan, Revelli, Sakti, Setiawan, and Tekin. In this field of study, researchers from various academic backgrounds and geographical locations have come together to investigate the intersection of Islamic principles with environmental, social, and governance considerations. The extensive list of authors highlights the collaborative and multidisciplinary nature of scholarship in this field. In general, the contributions made by these authors collectively contribute to the improvement of knowledge and understanding of Islamic environmental, social, and governance (ESG) issues. They also shape the discourse and inform practice within the academic and broader financial communities.

Table 5: Distribution of Publications by Affiliation

	Affiliations	Frequencies
1	University of New Orleans	5
2	Kharazmi University	4
3	Università degli Studi di Trieste	4
4	Università Cattolica del Sacro Cuore	4
5	Università degli Studi di Udine	4
6	Università degli Studi di Verona	3
7	KEDGE Business School	3
8	Universitas Islam Negeri Sunan Kalijaga, Yogyakarta	3
9	INCEIF University	3
10	Jihočeská Univerzita v Českých Budějovicích	2

The information regarding publications on Islamic environmental, social, and governance (ESG) research organized according to affiliation highlights various academic institutions' intellectual production and engagement on this topic. The University of New Orleans, Kharazmi University, Università degli Studi di Trieste, Università Cattolica del Sacro Cuore, and Università degli Studi di Udine each contributed four publications,

demonstrating their active participation in the academic discourse surrounding Islamic ESG and the contributions they have made to that discourse.

Furthermore, it is worth noting that KEDGE Business School, Universitas Islam Negeri Sunan Kalijaga in Yogyakarta, INCEIF University, and Jihočeská Univerzita v Českých Budějovicích and Jihočeská Univerzita v Českých Budějovicích each have three publications with their affiliations. This is evidence of their substantial scholarly engagement and contributions to the advancement of research in this field. The multidisciplinary and collaborative nature of study on Islamic environmental, social, and governance issues is reflected in these affiliations, representing various academic institutions worldwide. The information presented here highlights the active engagement and scholarly contributions made by a wide range of educational institutions worldwide to the ever-evolving subject of Islamic environmental, social, and governance study.

Table 6: Distribution of Publications by Country

	Countries	Frequencies
1	Malaysia	13
2	Indonesia	9
3	Italy	7
4	United Kingdom	6
5	United States	6
6	France	5
7	Bahrain	4
8	Iran	4
9	Turkey	4
10	India	3

It is possible to gain significant insights into the global distribution of scholarly output and participation within this domain by analyzing the breakdown of publications by nations in the field of Islamic Environmental, Social, and Governance (ESG) study. In the field of Islamic environmental, social, and governance (ESG), Malaysia has emerged as a key contributor, with thirteen publications indicating its considerable role and leadership in expanding research and understanding. Indonesia comes in a close second with nine articles, which demonstrates the country's active participation and significant impact in the academic discourse on Islamic environmental, social, and governance issues. There is a significant amount of scholarly involvement in Italy, the United Kingdom, and the United States, with seven, six, and six publications, respectively. This highlights the tremendous contributions that these countries have made to the ever-evolving area of Islamic environmental, social, and governance study.

Furthermore, France is a prominent example of scholarly activity, as evidenced by its five publications, which demonstrate its involvement and contributions to the advancement of knowledge in this field. Furthermore, Bahrain, Iran, Turkey, and India each have four publications that are attributed to their respective countries. This further highlights the global reach and collaborative efforts of researchers worldwide who are investigating the intersections of Islam, environmental sustainability, social responsibility, and governance. The material presented here highlights countries' diversified and widespread engagement in encouraging research and knowledge transmission in Islamic Environmental, Social, and Governance studies. This engagement reflects the worldwide significance and relevance of this topic.

Trends in Co-authorship

Table 7: Most Cited Co-authorship by Authors

	Author	Documents	Citations	Total Link Strength
1.	Dreassi, Alberto	4	74	13
2.	Paltrinieri, Andrea	4	74	13

3.	Piserà, Stefano	4	74	13
4.	Chiaromonte, Laura	3	28	11
5.	Hassan, M. Kabir	4	21	8
6.	Qoyum, Abdul	3	38	0
7.	Ghaemi Asl, Mahdi	3	6	0

The co-authorship details for Islamic Environmental, Social, and Governance (ESG) research highlight collaborative efforts among authors to produce scholarly output in this field. Among the authors listed, Alberto Dreassi, Andrea Paltrinieri, and Stefano Piserà stand out with four documents each, indicating their active involvement in research collaborations. These prolific authors have also amassed a significant number of citations, with Dreassi and Piserà receiving 74 citations and Paltrinieri garnering 74 citations as well. Notably, Laura Chiaromonte, M. Kabir Hassan, and Abdul Qoyum have contributed to three documents each, demonstrating their engagement in collaborative research endeavors within the realm of Islamic ESG. Overall, the collaborative efforts of these authors underscore the importance of teamwork and knowledge exchange in advancing research and understanding in the field of Islamic ESG, as evidenced by their collective contributions and citation impact.

Table 8: Most Cited Co-authorship by Organization

	Organization	Documents	Citations	Total Link Strength
1	Department Of Business Administration, University of Verona, Verona, Italy	3	28	12
2	Department of Economics and Business Administration, Università Cattolica Del Sacro Cuore, Milan, Italy	3	28	12
3	Department of Economics and Finance, University Of New Orleans, New Orleans, LA, United States	3	28	12
4	Department of Economics and Statistics, University of Udine, Italy	3	28	12
5	Department of Economics, Business, Mathematics and Statistics, University of Trieste, Trieste, Italy	3	28	12
6	Faculty of Economics, Kharazmi University, Tehran, Iran	4	23	0

The co-authorship details for Islamic Environmental, Social, and Governance (ESG) research highlight collaborative efforts among organizations in producing scholarly output within this field. Several organizations, including the Department of Business Administration at the University of Verona, the Department of Economics and Business Administration at Università Cattolica del Sacro Cuore in Milan, the Department of Economics and Finance at the University of New Orleans, the Department of Economics and Statistics at the University of Udine, and the Department of Economics, Business, Mathematics, and Statistics at the University of Trieste, all based in Italy, have collaborated on three documents each. These collaborations have resulted in a total link strength of 12 for each organization, indicating robust connectivity and influence within the network of co-authoring institutions. Additionally, the Faculty of Economics at Kharazmi University in Tehran, Iran, has contributed to four documents, although its total link strength is lower at 0, suggesting limited connectivity or influence within the collaborative network. These collaborative efforts among organizations reflect a global engagement in research on Islamic ESG, with Italian institutions demonstrating significant connectivity and influence within the scholarly community.

Table 9: Most Cited Co-authorship by Country

	Country	Documents	Citations	Total Link Strength
1.	Malaysia	13	119	7
2.	Indonesia	9	61	4
3.	Italy	7	82	4

4.	United Kingdom	6	55	4
5.	France	5	62	1
6.	United States	6	41	4

The co-authorship details for Islamic Environmental, Social, and Governance (ESG) research shed light on collaborative efforts among countries in producing scholarly output within this field. Malaysia emerges as a prominent contributor, with 13 documents demonstrating a robust engagement in collaborative research endeavors related to Islamic ESG. Furthermore, Malaysia has garnered a substantial number of citations (119) and a total link strength of 7, indicating robust connectivity and influence within the network of co-authoring countries. Indonesia follows closely with 9 documents and 61 citations, underscoring its active participation and impact in the scholarly discourse on Islamic ESG.

Italy and the United Kingdom have contributed 7 and 6 documents, respectively, with both countries achieving a total link strength of 4, highlighting their collaborative efforts and influence within the global research community. With 5 documents, France showcases its engagement in collaborative research on Islamic ESG, albeit with a lower total link strength of 1. The United States has also contributed 6 documents, reflecting its involvement in the scholarly discourse on Islamic ESG, with a total link strength of 4. Overall, these co-authorship details illustrate the global collaboration and knowledge exchange among countries in advancing research and understanding in the field of Islamic Environmental, Social, and Governance.

Trends in Co-occurrence

Table 10: Co-occurrence Analysis of Author Keywords

	Keyword	Occurrences	Total Link Strength
1	ESG	17	15
2	Islamic Finance	9	9
3	Islamic Banks	5	7
4	Corporate Governance	4	2
5	Corporate Social Responsibility	4	5
6	Disclosure	3	5
7	Environmental	3	5
8	ESG Disclosure	3	6
9	Governance	3	7
10	Islamic	3	6

The co-occurrence details with author keywords for Islamic Environmental, Social, and Governance (ESG) research provide insights into the thematic associations and connectivity among crucial research topics within this field. The keyword "ESG" emerges as the most prevalent, with 17 occurrences and a total link strength of 15, indicating its central role in the discourse on Islamic ESG research among authors. This underscores the overarching focus on integrating Environmental, Social, and Governance considerations within Islamic finance literature. Keywords related to specific dimensions of ESG, such as "corporate governance," "corporate social responsibility," "disclosure," "environmental," "governance," "sustainability," and "socially responsible investing (SRI)," demonstrate significant co-occurrences, reflecting the multidimensional nature of ESG research within the Islamic finance domain. Additionally, keywords specific to Islamic finance, including "Islamic banks," "Islamic corporate finance," "Islamic finance," and "sharia-compliance," exhibit strong associations, highlighting the integration of Islamic principles with ESG considerations in financial practices. Notably, the keyword "volatility" shows fewer occurrences and limited link strength, indicating a lesser focus within the context of Islamic ESG research among authors. Overall, the co-occurrence details elucidate the interconnectedness of thematic areas and research priorities within Islamic Environmental, Social, and Governance research, offering valuable insights for further exploration and analysis in this evolving field.

Table 11: Co-occurrence Analysis of Indexed Keywords

	Keyword	Occurrences	Total Link Strength
1	Carbon	2	5
2	Investments	2	5
3	ESG	2	4
4	Sustainable Development	2	4
5	Commerce	2	2

The co-occurrence details with indexed keywords for Islamic Environmental, Social, and Governance (ESG) research reveal thematic associations and connectivity among specific indexed keywords within this field. Keywords such as "carbon," "sustainable development," and "investments" demonstrate moderate co-occurrences, each with two occurrences and varying total link strengths, indicating their relevance and interconnectedness within the context of Islamic ESG research. These keywords reflect the growing emphasis on environmental sustainability, responsible investment practices, and the integration of ESG considerations within Islamic finance literature. Additionally, the keyword "ESG" shows two occurrences and a total link strength of 4, underscoring its significance as a central theme in the discourse on Islamic ESG research among indexed keywords. However, the keyword "commerce" exhibits two occurrences but limited link strength, suggesting a lesser focus or connectivity within the context of Islamic ESG research among indexed keywords. Overall, the co-occurrence details provide valuable insights into the thematic associations and research priorities within Islamic Environmental, Social, and Governance research, guiding further exploration and analysis in this evolving field.

Trends in citations

Table 12: Most Cited Documents

	Document	Citations	Total Link Strength
1	Paltrinieri (2020)	46	1
2	Erragraguy (2015)	33	6
3	Peng (2020)	32	1
4	Erragragui (2016)	27	3
5	Qoyum (2022)	26	4
6	Bukhari (2020)	25	0
7	Kabir Hassan (2021)	20	1
8	Yesuf (2020)	19	0
9	Asl (2022)	17	0
10	Buallay (2020)	13	0

The citations with documents for Islamic Environmental, Social, and Governance (ESG) research provide insights into specific publications' impact and scholarly engagement within this field. Among the documented publications, those by Erragragui & Revelli (2016), Bukhari et al. (2020), Yesuf & Aassouli (2020), and Erragraguy & Revelli (2015) stand out with high citation counts of 27, 25, 19, and 33 respectively, indicating their significant influence and recognition within the scholarly community. These publications have also garnered multiple links, suggesting their robust connectivity and relevance within the broader discourse on Islamic ESG research. Additionally, Paltrinieri et al. (2020) and Qoyum et al. (2022) demonstrate substantial citation counts of 46 and 26, respectively, further highlighting their impact and contribution to the field. Notably, publications by authors such as Hassan et al. (2021) have received moderate citation counts, indicating their recognition and influence within specific contexts or subfields of Islamic ESG research. Overall, the citations with documents underscore the varied impact and scholarly engagement of publications in Islamic Environmental, Social, and Governance research, reflecting scholars' diverse contributions and research priorities in advancing knowledge and understanding in this domain.

Table 13: Most Cited Source

	Source	Documents	Citations	Total Link Strength
1	Borsa Istanbul Review	3	46	0
2	Islamic Finance and Sustainable Development: A Sustainable Economic Framework for Muslim And Non-Muslim Countries	3	11	0
3	Journal Of Islamic Monetary Economics and Finance	3	10	0

The citations with sources for Islamic Environmental, Social, and Governance (ESG) research provide insights into the dissemination and impact of specific publications within this field across different academic journals. The "Borsa Istanbul Review" emerges as a significant source, with three documents cited a total of 46 times, indicating its prominence as a platform for scholarly discourse and research dissemination in the realm of Islamic ESG. The "Journal of Islamic Monetary Economics and Finance" and the publication "Islamic Finance and Sustainable Development: A Sustainable Economic Framework for Muslim and Non-Muslim Countries" each feature three documents, with citation counts of 10 and 11, respectively. These sources serve as essential outlets for publishing research findings and contributing to the academic dialogue surrounding Islamic ESG, reflecting their role in advancing knowledge and understanding within this domain. Overall, the citations with sources highlight the diverse channels through which research on Islamic ESG is disseminated and recognized within the academic community, underscoring the multidisciplinary nature and global reach of scholarship in this field.

Table 14: Most Cited Author

	Author	Documents	Citations	Total Link Strength
1	Dreassi, Alberto	4	74	6
2	Paltrinieri, Andrea	4	74	6
3	Piserà, Stefano	4	74	6
4	Hassan, M. Kabir	4	21	6

The citations with authors for Islamic Environmental, Social, and Governance (ESG) research provide insights into specific authors' impact and scholarly engagement within this field. Alberto Dreassi, Andrea Paltrinieri, and Stefano Piserà stand out with four documents each, each garnering significant citation counts of 74, indicating their substantial influence and recognition within the scholarly community. These authors have also amassed multiple links, suggesting robust connectivity and relevance within the broader discourse on Islamic ESG research. Additionally, M. Kabir Hassan demonstrates significant scholarly engagement with four documents but a comparatively lower citation count of 21, indicating recognition and impact within specific contexts or subfields of Islamic ESG research. Overall, the citations with authors highlight researchers' varied impact and scholarly engagement in Islamic Environmental, Social, and Governance research, reflecting scholars' diverse contributions and research priorities in advancing knowledge and understanding in this domain.

Table 15: Most Cited Organization

	Organization	Documents	Citations	Total Link Strength
1	Department Of Business Administration, University of Verona, Verona, Italy	3	28	8
2	Department Of Economics and Business Administration, Università Cattolica Del Sacro Cuore, Milan, Italy	3	28	8
3	Department Of Economics and Finance, University Of New Orleans, New Orleans, LA, United States	3	28	8

4	Department Of Economics and Statistics, University Of Udine, Italy	3	28	8
5	Department Of Economics, Business, Mathematics and Statistics, University of Trieste, Trieste, Italy	3	28	8
6	Faculty Of Economics, Kharazmi University, Tehran, Iran	4	23	0

The citations with organizations for Islamic Environmental, Social, and Governance (ESG) research shed light on specific academic institutions' impact and scholarly engagement within this field. Several organizations, including the Department of Business Administration at the University of Verona, the Department of Economics and Business Administration at Università Cattolica del Sacro Cuore in Milan, the Department of Economics and Finance at the University of New Orleans, the Department of Economics and Statistics at the University of Udine, and the Department of Economics, Business, Mathematics, and Statistics at the University of Trieste, all based in Italy, have contributed to three documents each. These organizations have garnered a considerable number of citations, with a total link strength of 8, indicating their significance and influence within the scholarly community engaged in Islamic ESG research. Additionally, the Faculty of Economics at Kharazmi University in Tehran, Iran, has contributed to four documents, although its total link strength is lower at 0, suggesting limited connectivity or influence within the network of co-authoring organizations. Overall, the citations with organizations underscore the scholarly engagement and impact of academic institutions in advancing research and understanding in the field of Islamic Environmental, Social, and Governance.

Table 16: Most Cited Country

	Country	Documents	Citations	Total Link Strength
1	France	5	62	33
2	Indonesia	9	61	17
3	Malaysia	13	119	13
4	Bahrain	4	39	9
5	India	3	4	7
6	Italy	7	82	6
7	United Kingdom	6	55	5
8	United States	6	41	5
9	Iran	4	23	4
10	United Arab Emirates	3	0	1

The citations with countries for Islamic Environmental, Social, and Governance (ESG) research provide insights into the global impact and scholarly engagement of specific nations within this field. France emerges as a prominent contributor with five documents, garnering a substantial citation count of 62 and a total link strength of 33, indicating its significant influence and recognition within the scholarly community engaged in Islamic ESG research. Indonesia follows closely with nine documents and 61 citations, reflecting its active participation and impact in the discourse on Islamic ESG. Malaysia demonstrates a robust scholarly engagement with 13 documents and the highest citation count of 119, underscoring its prominence and leadership in advancing research and understanding within the field of Islamic ESG. Other countries, such as the United Kingdom and the United States, have also contributed significantly, with six documents each and citation counts of 55 and 41, respectively, highlighting their substantial scholarly engagement and impact in this domain. Overall, the citations with countries underscore nations' diverse global engagement and collaborative efforts in advancing research and knowledge dissemination in Islamic Environmental, Social, and Governance research.

5. Conclusion and Future Research Recommendations

The results from the bibliometric analysis show that environmental, social, and governance (ESG) research and practices that include Islamic teachings and values still demonstrate a significant gap. Thus, it is recommended that the following research on Islamic ESG is conducted.

It is feasible to research the differences between conventional environmental, social, and governance (ESG) and Islamic ESG based on the different frameworks and criteria for investment decision-making. This study may be done. Environmental, social, and governance (ESG) is a conventional approach that focuses on environmental, social, and governance concerns without taking into consideration particular ethical or religious frameworks. On the other hand, Islamic ESG is a method that combines Environmental, Social, and Governance (ESG) issues with Islamic financial principles. This method adheres to Shariah law and forbids investments in activities that are considered to violate Islamic values.

Research on the factors that determine Islamic environmental, social, and governance (ESG) performance and the results of such performance is another important topic of study. Adherence to Shariah principles, compliance with ESG standards, effective governance structures, ethical corporate practices, environmental stewardship, social responsibility, and openness in reporting are some of the elements that are included in this category. Each element contributes to improved performance when considered as a whole. On the other hand, the consequences of Islamic environmental, social, and governance performance manifest themselves in a multitude of ways. These include enhanced financial performance, decreased risk, enhanced reputation, increased trust among stakeholders, and alignment with ethical and religious convictions.

It is possible to focus research on non-financial performance indicators in addition to quantitative measurements. These indicators include environmental impact assessments, social welfare initiatives, ethical business conduct, and governance practices. These indicators are essential to evaluating Islamic environmental, social, and governance practices, as well as financial metrics. Several moderating factors influence Islamic environmental, social, and governance (ESG) performance. These factors include the regulatory environment, market dynamics, industry characteristics, corporate culture, stakeholder expectations, management commitment, technological advancements, and external shocks. These factors can either facilitate or hinder the implementation of Islamic ESG practices, and another aspect that can be investigated is their effectiveness.

Finally, in terms of reporting, there is the possibility of researching Islamic ESG narrative reporting. This type of reporting entails the open and honest communication of a company's adherence to Shariah principles and the incorporation of ESG considerations into its operations, strategies, and performance. It also aims to cultivate trust and credibility among stakeholders by providing disclosures on Shariah compliance, ESG initiatives, social impact, governance practices, and future sustainability goals.

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