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Examining the Connection between Audit, ESG, and the Impact on Investment Efficiency: A Bibliometric Analysis

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Abstract. *This research serves two main purposes: first, to explore the relationship between ESG (Environmental, Social, and Governance) factors and audit quality over time through an extensive literature review, and second, to examine how ESG influences investment efficiency.*

The goal of this study is to conduct a bibliometric analysis of existing literature on the impact of ESG on investments, while also considering investors' perspectives on sustainable investments and how these factors affect the audit process. To achieve this, I will use VOSviewer software to perform a bibliometric analysis, focusing on the concepts of "ESG" and "investments." This analysis follows a quantitative research methodology, based on a sample of 1,474 research documents published between 2007 and 2025. These documents were extracted from the Web of Science database after going through several filtering stages, such as selecting documents from the economic field, written in English, and primarily from the European region. After further filtering by adding the term "audit," only 30 documents contained all three keywords, and 71 documents were identified as highly relevant, well-regarded, and impactful. Recent academic publications highlight four key themes: ESG, impact, corporate social responsibility, and their significant link to audit practices, sustainable investments, and the efficiency of these investments. This paper makes a substantial contribution to the literature on ESG investment efficiency and the critical role that audits play in the decision-making process for such investments.

Keywords: ESG, investment efficiency, audit, sustainable investment.

Introduction

To give researchers fresh perspectives and assist investment firms in making well-informed decisions regarding sustainable investments, the purpose of this research paper is to examine the performance of ESG investments and ascertain whether the audit process contributes to improved or worse performance.

In recent years, public demand for businesses to prioritize ethical, social, and environmental issues has increased significantly. This has driven companies to adopt socially responsible practices, align operations with societal values, and enhance their corporate social responsibility (CSR) image. Firms are increasingly integrating environmental, social, and governance (ESG) considerations into their strategies, responding to both stakeholder expectations and investor demands for transparency in ESG matters. This shift reflects growing pressure from society, regulatory bodies, and market participants for businesses to align their goals with broader social, environmental, and ethical values. Investment opportunities are typically assessed based on their profitability, with firms pursuing projects until the marginal benefits equal the marginal costs. However, market inefficiencies can lead to deviations from optimal investment levels, resulting in either overinvestment—where resources are wasted on unprofitable projects—or underinvestment, where firms forgo profitable opportunities due to financial constraints (Hammami A., Zadeh M., J., 2020).

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Audit quality plays a critical role in ensuring efficient investment decisions and aligning corporate actions with societal expectations. It encompasses the auditor's ability to detect and report errors while considering the firm's financial and operational context. High audit quality provides greater assurance of accurate financial reporting, which is essential for maintaining trust in capital markets. This assurance is particularly relevant as firms face pressure to balance their operational goals with environmental, social, and ethical values. By delivering reliable and transparent financial information, auditors help mitigate risks associated with overinvestment in unprofitable projects or underinvestment in valuable opportunities.

Moreover, larger audit firms, favored for their ability to provide legal and financial recourse, contribute to investor confidence, and support informed decision-making (Kim S., 2023). In this context, starting from the literature, this paper aims to answer the following research questions:

RQ1: What are the research trends regarding the impact of ESG in investment efficiency?

RQ2: Which keywords are most frequently used, which authors are the most cited, and in which journals have they published their work?

RQ3: Does Audit play a role in ESG investments efficiency?

The study employs bibliometric analysis of the literature using VOSviewer software to address these problems. The analysis is based on a sample of 1474 articles that were taken from the Web of Science database between 2007 and 2025. Additionally, 30 papers published between 2015 and 2025 were chosen using an extended filter based on the keyword "audit" in order to narrow down the research topic and concentrate on the most relevant papers in the current economic climate. By finding important study subjects, keywords, relevant authors, and citation networks, the applied quantitative research approach aids in the analysis of current trends and advancements in ESG investments.

Finally, in order to further develop the analysis, the following hypothesis is formulated:

H-1. Are ESG investments efficient or not?

Adapting the academic and professional environment to new trends requires documentation. In terms of co-occurrence and keywords analysis, trends, and future research agenda, the following sections examine ESG investments and auditing.

Literature review

Auditing goes beyond the legal requirement of producing accounts, serving as a critical mechanism for optimizing processes and ensuring the quality and reliability of information. It involves an independent and objective assessment that evaluates the control over a company's operations, offers actionable recommendations for improvement, and enhances value relevance.

This makes auditing a cornerstone of economic life and a key driver of corporate performance. High audit quality plays a pivotal role in reducing information asymmetry and ensuring the relevance and reliability of financial information, which are essential for informed decision-making. It fosters investor confidence by providing assurance that financial statements accurately reflect a company's performance and operations. Moreover, reputable and larger audit firms invest significantly in training and technology to maintain their credibility, enhancing their ability to deliver high-quality audits. As a result, audit quality is considered a vital determinant of the value relevance of accounting information, directly influencing investment efficiency and stock market performance (Hichri A., 2023).

According to a study conducted by Al-Hiyari, A., Ismail I., A., Colsi K., M., and Kehinde H., O., firms with stronger ESG performance exhibit higher investment efficiency. Notably, it finds that board cultural diversity negatively moderates the relationship between ESG performance and investment efficiency in firms prone to overinvestment. This implies that ESG performance is less effective in curbing managerial tendencies toward overinvestment when corporate boards include more foreign directors. However, no similar effect is observed in firms prone to underinvestment. These conclusions remain consistent when alternative measures of investment efficiency are applied and endogeneity concerns are addressed (Al-Hiyari, A., et. al 2022). Shifting our focus to Industry 4.0 (I4.0) technologies, such as IoT, big data, and AI we can see that they play a crucial role in advancing circular economy principles by optimizing resource use, reducing waste, and promoting sustainable production. These technologies not only enhance environmental sustainability but also improve financial performance through cost reduction and more efficient business models. By integrating I4.0 innovations with circular economy strategies, companies can boost productivity, minimize ecological impact, and drive long-term value creation while remaining competitive in global markets (Alkaraan F., et. al 2023) The growth of sustainable investments, such as ESG portfolios, green bonds, and socially responsible products, raises concerns about the transparency and foundations of these investments. Some major players in the sector have faced scrutiny for potential greenwashing, which has fueled investor worries. For instance, Deutsche Bank was investigated in 2022 for misleading stakeholders about its ESG investments. ESG investors' main concern is not financial performance, but whether these investments truly align with their claims. This issue is partly due to the lack of control over the quality and reliability of ESG data, as much of it comes from voluntary corporate disclosures, which are often incomplete or overly positive. Additionally, non-financial rating agencies rely heavily on these disclosures, further raising the risk of greenwashing. The absence of clear regulation in sustainable finance contributes to the field's opacity and exaggeration. To address these concerns, various sustainable finance standards have been introduced since 2019, emphasizing external assurance to validate the credibility of ESG claims and reduce the risk of unreliable information (Boiral O., Brotherton M., C., Talbot D., 2023)

Venture capital investment and innovation diffusion are key drivers of long-term economic growth. However, financing constraints can hinder corporate green investments, especially when firms face uncertainty in returns and higher risks associated with green innovation. Green innovation often requires significant investment, longer return periods, and may negatively impact short-term performance, which can deter managers from pursuing it. Additionally, the difficulty in evaluating green projects creates barriers to external funding, limiting innovation.

To overcome these challenges, firms need both internal and external financing and should optimize corporate governance to support sustainable strategies. Transparency in ESG disclosures can help attract external investment by improving firm reputation and reducing perceived risks. Firms with better ESG performance benefit from lower capital costs, greater investor support, and improved market value, enabling them to invest more in green innovation. Therefore, comprehensive ESG reporting can help alleviate financing constraints for green projects (Zhai Y., et. al 2022)

According to a study conducted by Migliavacca A the explanatory power of traditional accounting numbers has decreased over time, especially in firms with ESG ratings, suggesting that market value is less reliant on accounting measures and more on alternative data. Despite this, ESG ratings showed limited impact on European firms' market values from 2005-2020, with no significant increase in value relevance, even during crises or the Paris Agreement. These suggest that sustainability disclosures, including ESG scores, have not yet substantially influenced investor decisions or replaced accounting metrics in determining market value. (Migliavacca A., 2024) There are other studies that proof the fact that mandatory certification of financial reporting is essential for efficient investment decisions, as it ensures the reliability of financial data and reduces misalignments between firm managers' incentives and investor expectations. Without certification, mandatory disclosure alone may lead to inefficient investment decisions, as managers can strategically manipulate information, affecting investors' interpretations and firm valuations. The certification process, while costly, alleviates market frictions and enhances trust in disclosed data, thus improving investment efficiency and lowering the cost of capital. Mandatory certification, beyond mandatory disclosure, ensures better decision-making, particularly for publicly traded firms under capital market pressures (Jiang X., Xin B., Xiong Y., 2022).

Methodology

In order to investigate the efficiency of ESG investments and if audit procedures can affect these efficiency levels, this study used bibliometric analysis.

Using VOSviewer software, which creates networks to illustrate associations between keywords, concepts, and authors and produces maps that represent similarities with the highest mathematical accuracy, bibliometric analysis was carried out using the quantitative scientific mapping research approach. Co-occurrence networks were constructed within the paper using the terms "investors" and "ESG." Keywords are represented by nodes in these networks, and the size of these nodes shows how frequently they occur.

By using the terms "ESG" and "investors" as filters, the research sample was taken from the Web of Science database on January 21, 2025. This produced 1474 papers published between 2007 and 2025, with 3576 authors, 71 of whom had over 100 citations, demonstrating the significance and applicability of their 2011–2023 articles. (Figure 1)

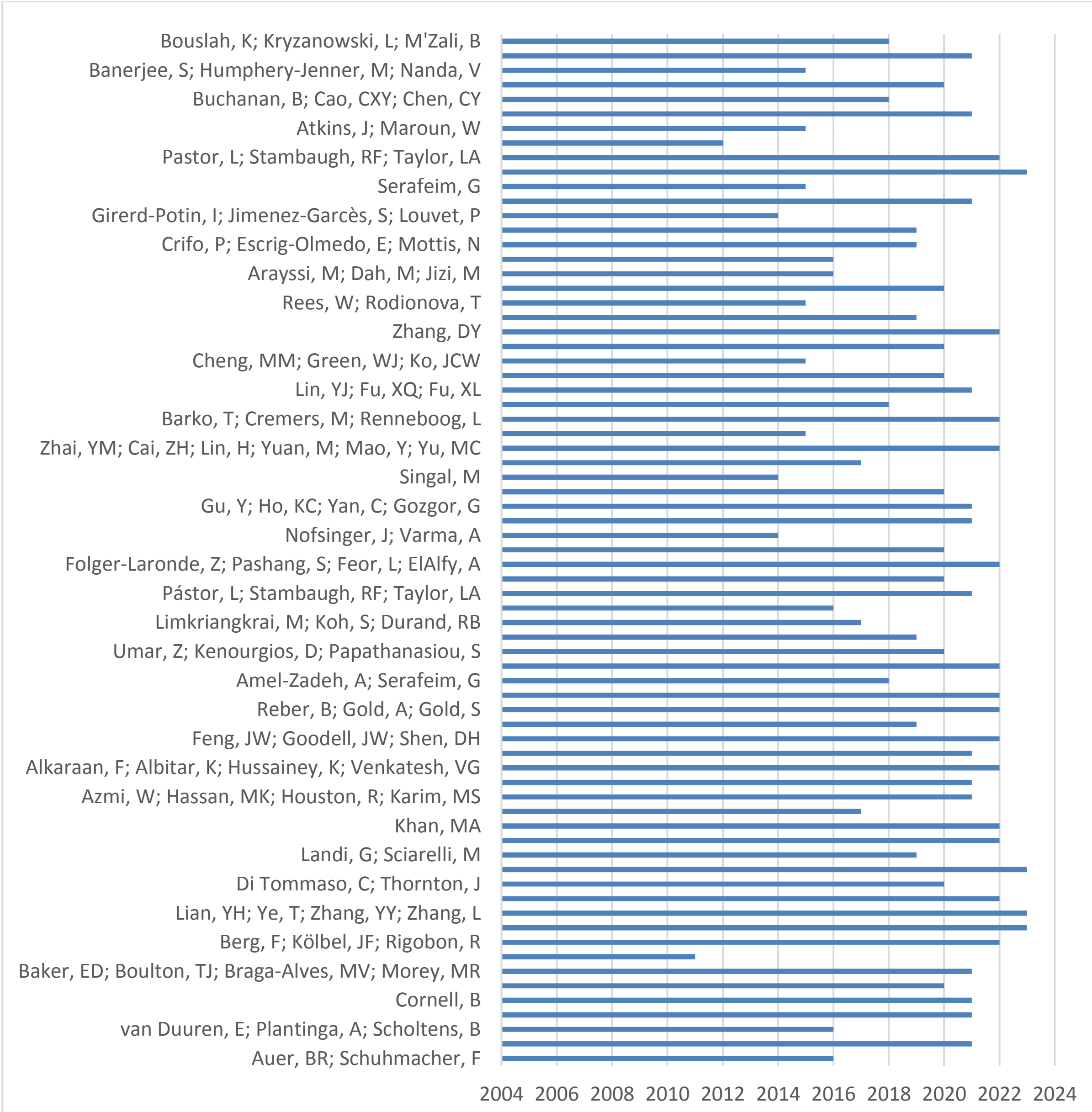

Figure 1. Published articles 2011-2023

Source: Authors' own research.

I then chose and thoroughly examined a collection of thirty relevant papers. To find contemporary trends and methodological changes, these were selected by adding the word "audit" and arranged according to the quantity of citations. Investigating the connection between ESG (Environmental, Social, and Governance) performance, audit quality from an investment perspective, and its influence on financial decision-making was the goal of this investigation. The VOSviewer software was used for the evaluation process, enabling a thorough examination of the correlations and citation networks among the chosen papers.

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Results and discussions

Performance analysis

The performance analysis seeks to evaluate the influence of academic research within the business sector, emphasizing key research trends, as well as the significance and impact of the studies. This analysis involves gathering, examining, and interpreting data such as publication counts, citation numbers, explored topics, contributing authors, and the institutions and countries involved in the research process.

Based on research question RQ1—What are the research trends regarding the impact of ESG on investment efficiency? —a performance analysis was conducted using data from the Web of Science, covering 1,474 articles. Focusing on the 71 articles with over 100 citations, we observe that the year 2021 had the highest number of citations (686), while the year of 2023 had the lowest (100). The lower citation count for 2023 may be due to its recency rather than indicating a downward trend. Overall, the analysis reveals an upward trend, with a significant increase in citations beginning in 2018. Despite notable fluctuations, the general growth pattern persists in recent years (2020–2022), suggesting sustained interest in this research area. (Figure 2).

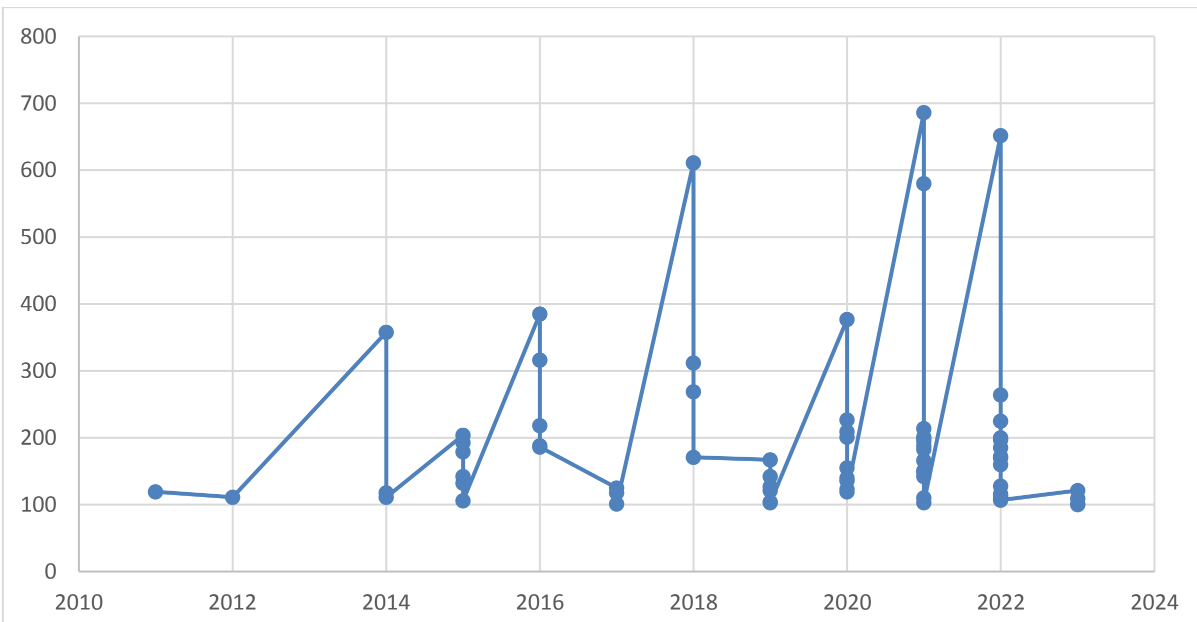

Figure 2. Trends year over year

Source: Authors' own research.

The article with the highest nuber of citaions was "ESG preferences, risk and return" (Broadstock, DC; Chan, KL; Cheng, LTW; Wang, XW 2021) included in the WoS category of Business and finance while the one from 2023 with the less citations was about "How does corporate ESG performance affect bond credit spreads: Empirical evidence from China:, (Lian, YH; Ye, T; Zhang, YY; Zhang, L, 2023), included in the WoS category Business, Finance and Economics. Having a look to the next most popluar ones they addressed topics such as "The Divergence of ESG Ratings" (Berg, F; Kölbel, JF; Rigobon, R 2022), "Why and How Investors Use ESG Information: Evidence from a Global Survey" (Amel-Zadeh, A; Serafeim, G, 2018), "Do socially (ir)responsible investments pay? New evidence from international ESG data" (Nollet, J;

Filis, G; Mitrokostas, E, 2016). Based on the analysis of the most cited articles, it is obvious that academic research in the field of ESG has evolved over time, with varying focuses and emerging trends. The article with the highest number of citations, "ESG Preferences, Risk, and Return" (Broadstock et al., 2021), reflects the growing interest in understanding the relationship between ESG preferences and financial performance, highlighting the integration of ESG factors into investment decisions. This suggests that researchers and investors alike are increasingly concerned with how ESG influences both risk and return in investment portfolios. On the other hand, the article with the fewest citations, "How Does Corporate ESG Performance Affect Bond Credit Spreads: Empirical Evidence from China" (Lian et al., 2023), reflects a more recent and specific inquiry into the impact of ESG performance on bond markets in China. This article, despite being recent, may have not yet gained widespread attention like the others, possibly due to its niche focus or the early stage of research in this area. Other prominent studies, such as "The Divergence of ESG Ratings" (Berg et al., 2022), explore the complexity and inconsistency of ESG ratings, indicating that the field is still grappling with standardization and measurement challenges. The study "Why and How Investors Use ESG Information: Evidence from a Global Survey" (Amel-Zadeh & Serafeim, 2018) suggests a growing demand for clarity on how investors are using ESG data in decision-making processes. Finally, the study "Do Socially (Ir)Responsible Investments Pay? New Evidence from International ESG Data" (Auer, BR; Schuhmacher, F, 2015) raises critical questions about the financial implications of socially responsible versus irresponsible investing, highlighting the ongoing debate regarding the financial returns of ESG investments. All these articles collectively reflect the multifaceted nature of ESG research, from investor behavior and the impact on financial markets to the challenges in rating and evaluating ESG performance. While interest in ESG factors continues to rise, the field is still developing, with certain topics, particularly those involving specific markets or financial instruments, requiring further exploration to achieve a broader understanding and consensus. Narrowing the analysis to the selection of the 30 articles that also refer to the audit role I can observe most of the authors are from England (13) and USA (11) with main interest in Business and Economics fields. (Table 1). This trend highlights the growing academic and professional focus on the audit role in ESG reporting, particularly in tier 1 economies like England and the USA. The dominance of research in the Business and Economics fields suggests a strong connection between sustainability assurance and financial decision-making, emphasizing the importance of transparency and credibility in corporate reporting. Moreover, the efficiency of ESG investments remains a key debate, with studies indicating their potential for long-term value creation, especially when backed by robust audit practices that enhance investor confidence.

Table 1. Authors' research areas by country

Authors	Research Areas	Country
Hammami, A; Zadeh, MH	Business & Economics	ENGLAND
Hichri, A	Business & Economics	ENGLAND
Al-Hiyari, A; Ismail, AI; Kolsi, MC; Kehinde, OH	Business & Economics	ENGLAND
Tang, SL; He, LF; Meng, L; Liu, CC	Business & Economics	USA
Xue, QY; Jin, YF; Zhang, C	Business & Economics	USA
Li, PL; Zhu, JL; Zhou, Y	Business & Economics; Mathematical Methods In Social Sciences	ENGLAND
Luh, PK; Arthur, M; Fiador, V; Kusi, BA	Business & Economics; Women's Studies	ENGLAND
Li, L; Saat, MM; Khatib, SFA; Chu, P; Sulimany, HGH	Business & Economics; Environmental Sciences & Ecology	USA
Boiral, O; Brotherton, MC; Talbot, D	Business & Economics; Social Sciences - Other Topics	USA
Abdul-Baki, Z; Diab, A; Yusuf, A	Business & Economics	ENGLAND
Nuhu, Y; Alam, A	Business & Economics	ENGLAND
Hamed, R	Business & Economics	ENGLAND
Li, C; Wu, MA; Huang, WL	Business & Economics; International Relations	ENGLAND
Brooks, LZ; Gill, S; Wong-On-Wing, B; Yu, MD	Business & Economics	ENGLAND
Yang, ZH; Song, PT; Xu, M; Li, YM	Business & Economics	USA
Alkaraan, F; Elmarzouky, M; Hussainey, K; Venkatesh, VG	Business & Economics; Public Administration	USA
Arayssi, M; Jizi, M; Tabaja, HH	Business & Economics; Science & Technology - Other Topics; Environmental Sciences & Ecology	ENGLAND
Harasheh, M; Provasi, R	Business & Economics; Environmental Sciences & Ecology	USA
Zhai, YM; Cai, ZH; Lin, H; Yuan, M; Mao, Y; Yu, MC	Business & Economics; Environmental Sciences & Ecology	USA
Adeneye, YB; Fasihi, S; Kammoun, I; Albitar, K	Business & Economics	ENGLAND
Jiang, X; Xin, BH; Xiong, Y	Business & Economics	USA
Phan, TT; Yu, HC	Business & Economics	USA
Cheng, MM; Green, WJ; Ko, JCW	Business & Economics	USA
Boiral, O; Talbot, D; Brotherton, MC; Heras-Saizarbitoria, I	Business & Economics	ENGLAND

Source: Authors' own research.

Citation analysis

The analysis of the most-cited articles in the field of ESG and investment efficiency reveals notable contributions from various journals and authors answering to the second part of RQ2 - Which authors are the most cited, and in which journals have they published their work? The highest citation count belongs to Broadstock et al. (2021) in European Financial Management with 686 citations, reflecting recent heightened interest with prestigious citation index covering high-impact journals in the social sciences. Following closely, Berg et al. (2022) amassed 652 citations in the Review of Finance, demonstrating the ongoing relevance of ESG topics.

Significant contributions from earlier years include Amel-Zadeh and Serafeim (2018) with 611 citations in the Financial Analysts Journal, indicating sustained influence over time. Articles published in well-regarded journals like the Journal of Financial Economics and the Quarterly Review of Economics and Finance further underscore the academic and practical importance of this research area. Overall, the data suggests a growing interest and impact of ESG research, particularly from 2018 onward, with peak attention in the early 2020s.(Table 2)

Table 2. Top 10 most cited authors

Author Name	Year	Times Cited	Source Title	Web of Science Index
Broadstock, DC; Chan, KL; Cheng, LTW; Wang, XW	2021	686	European Financial Management	Social Science Citation Index (SSCI)
Berg, F; Kölbel, JF; Rigobon, R	2022	652	Review of Finance	Social Science Citation Index (SSCI)
Amel-Zadeh, A; Serafeim, G	2018	611	Financial Analysts Journal	Social Science Citation Index (SSCI)
Pástor, L; Stambaugh, RF; Taylor, LA	2021	580	Journal of Financial Economics	Social Science Citation Index (SSCI)
Nollet, J; Filis, G; Mitrokostas, E	2016	385	Quarterly Review of Economics and Finance	Emerging Sources Citation Index (ESCI)
Yu, EPY; Van Luu, B; Chen, CH	2020	377	Research in International Business and Finance	Social Science Citation Index (SSCI)
Nofsinger, J; Varma, A	2014	358	Journal of Banking & Finance	Social Science Citation Index (SSCI); Conference Proceedings Citation Index - Social Science & Humanities (CPCI-SSH)
van Duuren, E; Plantinga, A; Scholtens, B	2016	316	Journal of Business Ethics	Social Science Citation Index (SSCI)
Buchanan, B; Cao, CXY; Chen, CY	2018	312	Journal of Corporate Finance	Social Science Citation Index (SSCI)
Hachenberg, B; Schiereck, D	2018	269	Journal of Asset Management	Emerging Sources Citation Index (ESCI)

Source: Authors' own research.

Moving to the second question of my research, RQ3: Does Audit play a role in the ESG investments efficiency? I will resume to the selection and analysis of the 30 articles mentioned before which include audit related topics as well and can help me make an accurate idea regarding the crucial role audit can play. (Figure 2) highlights the 30 selected articles and their evolution in the period 2015-2025. Thus we observe, from the point of view of citations, that out of 30 articles published between 2015-2025, the most impactful was "The Impact of Strategic Relevance and Assurance of Sustainability Indicators on Investors' Decisions" (Cheng, MM; Green, WJ; Ko, JCW 2015), with 204 citations, followed by "The impact of board composition on the level of ESG disclosures in GCC countries", (Arayssi, M; Jizi, M; Tabaja, HH, 2020) 201 citations and "Does better environmental, social, and governance induce better corporate green innovation: The mediating role of financing constraints" (Zhai, YM; Cai, ZH; Lin, H; Yuan, M; Mao, Y; Yu, MC, 2022), 109 citations.

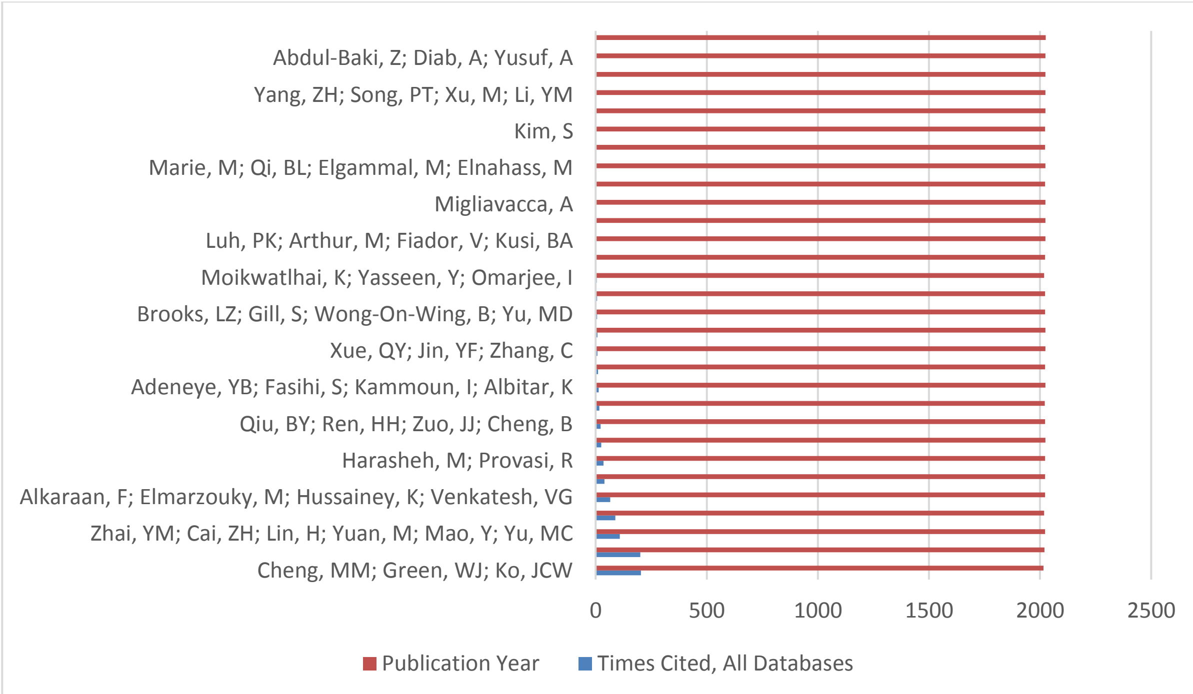

Figure 3. Evolution of 30 Selected Articles (2015–2025

Source: Authors' own research.

Co-occurrence and keywords analysis

Based on the first part of RQ2: Which keywords are most frequently used? Figure 4 shows the keyword network obtained from VOSviewer. It shows five main clusters: the red cluster (ESG, risk, corporate and ESG investing), the blue cluster (sustainability, growth, and sustainable development), the orange cluster (impact, and social responsibility), the green cluster (investment economy and investors), and the purple cluster, which is smaller than the other 4, talking about CSR (corporate social responsibility) and dynamics. The fact that words such as ESG, growth and impact are centered in the middle of the cluster have them have many connections with concepts such as: sustainable investments, stock returns, sustainable development. Distinct clusters indicate interconnected yet separate sub-themes within the broader research landscape. Terms connected by thick links represent highly interrelated areas, highlighting key focal points of current studies. Large nodes signify frequently occurring terms, while thick links denote frequent co-occurrences between them.

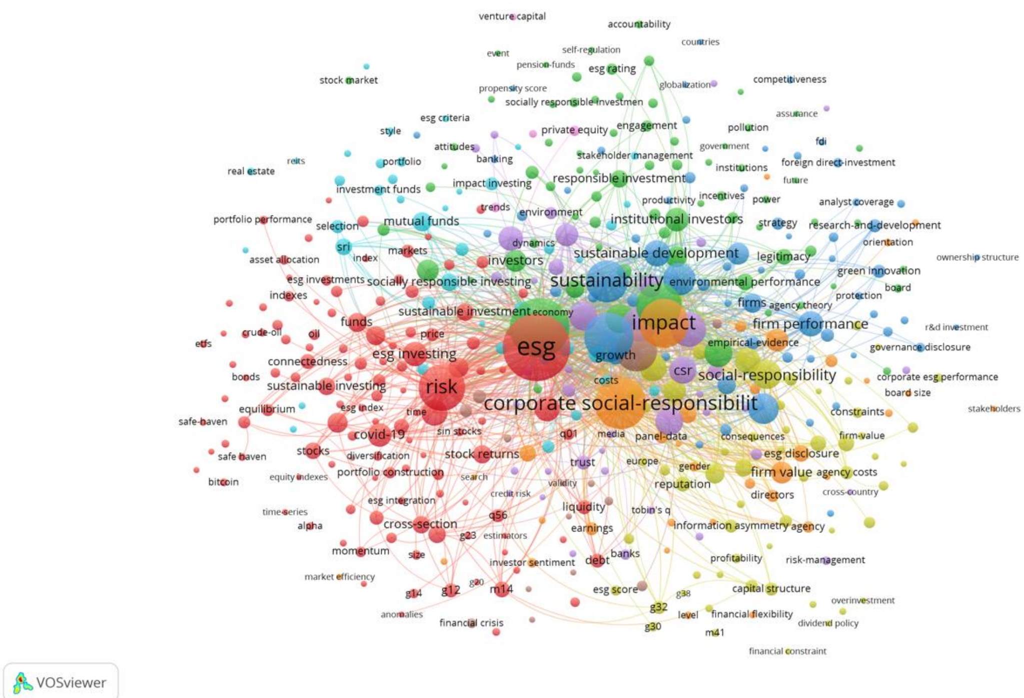

Figure 4. Co-occurrence of keywords in audit and investment studies

Source: Authors' own research.

The red cluster is primarily focused on the term 'ESG' and includes related concepts such as risk, ESG investing, funds, and sustainable investments. This cluster suggests that a significant body of research is centered around the theoretical and methodological aspects of ESG, exploring how these elements are integrated into investment strategies and risk management. The blue cluster, which has 'growth' and 'sustainability' as its central nodes, is strongly associated with research on sustainable development data and firm performance. This indicates a substantial interest in understanding how sustainable investments contribute to long-term growth and the financial outcomes of firms that prioritize sustainability. The orange cluster highlights the broader impact of sustainable investments, featuring terms like 'social responsibility' and 'ESG disclosure.' It also touches upon financial matters, such as earnings and firm value, suggesting a growing focus on how sustainability practices influence financial performance and corporate transparency. The purple cluster is tied to the dynamic changes within the field, as well as corporate social responsibility (CSR) topics. It reflects the evolving nature of sustainability research and how CSR practices are being incorporated into corporate strategies. The green cluster, on the other hand, emphasizes the economic side of sustainability, specifically from the perspective of investors. It addresses themes such as responsible investments and the overall investment economy, highlighting the intersection of financial markets and sustainability considerations. Lastly, the light green cluster, which had not been mentioned previously, focuses on more specific financial elements such as reputation, firm value, capital structure, and profitability. This cluster indicates a research interest in how sustainability impacts a company's financial standing, including its market image and overall financial health. This co-appearance map highlights the increased importance of ESG investment and its impact on firm performances. The network visualization shown in Figure 4 was generated with VoSviewer by clustering based on the concomitant occurrence of keywords, with a minimum occurrence threshold set at five. Of the 4671 keywords initially considered, only 453 met these criteria and were included in the grouped representation.

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Conclusion

The findings of a bibliometric analysis that looks at the relationship between audit, ESG, and their effects on investment efficiency are presented in the paper. 1474 papers from the Web of Science database, published between 2007 and 2025, were included in the analysis using the quantitative technique and VOSviewer software after being carefully filtered.

Analyzing the 1474 articles about sustainable investments, the role played by the audit and the efficiency of these investments, and based on the research questions RQ.1, RQ.2 and RQ.3, a significant increase in interest in this field was observed and also an ascending trend overall. The thorough analysis was shared on 2 sides. Firstly, I reduced it at 71 most relevant articles which were chosen from the most cited ones. So with a number of 686 citations from 2021 until present, the article of (Broadstock et.al 2021) in which they examined the role of ESG performance during market-wide financial crisis, triggered in response to the COVID-19 global pandemic and the unique circumstances create an inimitable opportunity to question if investors interpret ESG performance as a signal of future stock performance and/or risk mitigation was the most popular one. With a total of 13856 citations these 71 published articles highilight the impact of ESG and audit in the investment efficiency as well as the connection between them.

Now continuing with the selection of 30 articles that includes audit related matters, I observed that the most popular one was cited 204 times and it was a study which uses two 2x2 between-subjects experiments to examine how the strategic relevance and assurance of ESG indicators influence nonprofessional investors' perceptions and investment decisions—one manipulating company strategy and the other manipulating strategic alignment (Cheng, MM; Green, WJ; Ko, JCW, 2015). With a total number of 890 citations these 30 articles, overall, answer positive to the hypothesis H-1 Are ESG investements efficient or not? Anaylizing these 30 articles I also remarked a tendency for this subject in Tier 1 countries such as USA and England. A bibliometric analysis was used to address the research questions, and a number of analyses were carried out, including citation, keyword co-occurrence, and discussion through a study of the most cited and current significant research publications. In addition to presenting the most popular subjects and subtopics linked to highly cited works and authors, this study also identifies research directions, objectives, methodology, topics, and findings using content analysis. Sustainable investments, supported by high-quality audits, can significantly enhance investment efficiency, minimize risks, and promote continuous growth in social responsibility. Therefor, through this research paper I provide a scientifically grounded but critical work of the potential of sustainable investments and the importance of nonfinancial reporting. With this I want to help researchers take a deeper look into these subjects in order to clearly delimitate the risks vs benefits of sustainable investments.

A significant limitation of this bibliometric analysis is related on the lack of nonfinancial reporting data and to the database selection. The present research paper is based on articles extracted from "Web of Science" using keywords such as "ESG" and "investments" and late on "audit". In the future the analysis could be expended by including other databases, more selection criteria and can be it can be done by targeting certain industries and tracking the efficiency of investments in these industries.

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