

Greenwashing in ESG Disclosure: A Systematic Literature Review through Theoretical and Bibliometric Analysis

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ABSTRACT

This study aims to examine greenwashing practices in Environmental, Social, and Governance (ESG) disclosure through a Systematic Literature Review (SLR) approach combined with theoretical and bibliometric analysis, utilizing Scopus-indexed journal articles from 2019 to 2025, supported by the Watase Uake Tools platform to ensure the selection and visualization of structured and relevant article keywords. The results of the study show that greenwashing practices tend to emerge when companies face pressure for legitimacy and high stakeholder expectations, while internal capacity and governance are not yet able to support substantive sustainability practices. Manipulation of report narratives, low report readability, and inconsistent ESG reporting standards also contribute to the spread of misinformation. The findings indicate that strengthening regulations, utilizing misinformation detection technologies such as artificial intelligence (AI), and strengthening governance are strategies to mitigate greenwashing. Bibliometric mapping shows that research related to greenwashing in ESG disclosure generally focuses on issues of regulation, transparency, governance, and reporting quality, while SLR methodology and bibliometric analysis are still limited. This study offers novelty by combining SLR analysis with bibliometrics and integrating legitimacy theory and stakeholder theory to provide a more comprehensive understanding of the root causes and future directions of research.

ABSTRAK

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Penelitian ini bertujuan untuk mengkaji praktik *greenwashing* dalam pengungkapan *Environmental, Social, dan Governance (ESG)* melalui pendekatan *Systematic Literature Review (SLR)* yang dipadukan dengan analisis teoretis dan bibliometrik, dengan memanfaatkan artikel jurnal terindeks scopus tahun 2019-2025, didukung oleh *platform Watase Uake Tools* untuk memastikan seleksi dan visualisasi kata kunci artikel terstruktur dan relevan. Hasil kajian menunjukkan bahwa praktik *greenwashing* cenderung muncul ketika perusahaan menghadapi tekanan legitimasi dan ekspektasi pemangku kepentingan yang tinggi, sementara kapasitas internal dan tata kelola belum mampu mendukung praktik keberlanjutan secara substantif. Manipulasi narasi laporan, rendahnya keterbacaan laporan, serta ketidakseragamnya standar pelaporan ESG turut memperluas ruang misinformation. Temuan menunjukkan penguatan regulasi, pemanfaatan teknologi pendeteksi misinformation seperti kecerdasan buatan (AI), serta penguatan tata kelola sebagai strategi memitigasi *greenwashing*. Pemetaan bibliometrik menunjukkan bahwa riset terkait *greenwashing* dalam

Kata Kunci: Analisis Bibliometrik, *Greenwashing* dalam Pengungkapan ESG, Teori Legitimasi, Teori Pemangku Kepentingan, Tinjauan Literatur Sistematis. pengungkapan ESG umumnya berfokus pada isu regulasi, transparansi, tata kelola, dan kualitas pelaporan, sementara metodologi SLR dan analisis bibliometrik masih terbatas. Studi ini menawarkan kebaruan dengan menggabungkan analisis SLR dengan bibliometrik serta mengintegrasikan *legitimacy theory* dan *stakeholder theory* untuk memberikan pemahaman lebih komprehensif mengenai akar persoalan dan arah pengembangan riset di masa mendatang.

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INTRODUCTION

The development of Industry 5.0 has encouraged companies globally to focus not only on financial achievements, but also on long-term sustainability that optimally integrates advanced technology with the role of humans. Environmental, Social, and Governance (ESG) issues are now one of the main instruments in demonstrating a company's commitment to environmental and social responsibility sustainability. However, increasing pressure from regulators, investors, and the public is often not in line with substantial implementation, leading to the potential for greenwashing, which is presenting a green image as symbolic rather than substantial in companies' actual sustainability reporting. This condition indicates that the discrepancy between sustainability narratives and actual performance is an issue that is becoming increasingly prominent in ESG disclosure (Mahjoub, 2024).

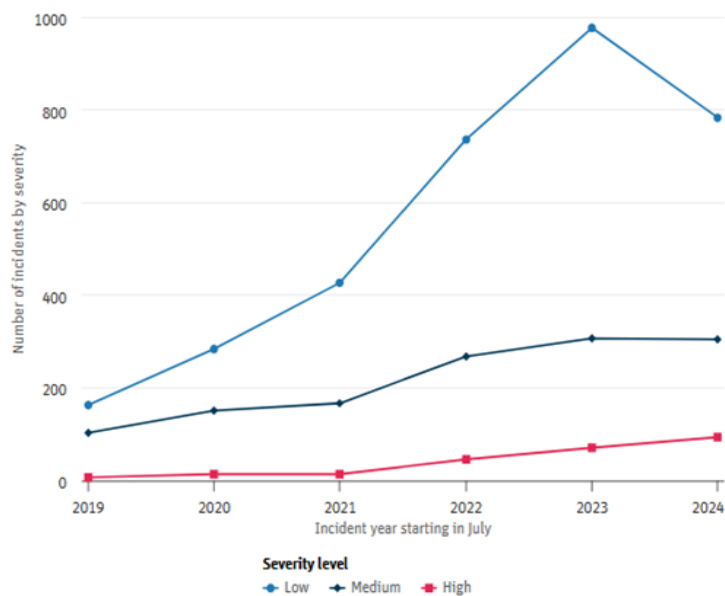


Figure 1. Global Greenwashing Trends 2019-2024
Source: RepRisk, (2024)

Global dynamics show that greenwashing practices are not only increasing in number, but also in complexity. Figure 1 shows RepRisk data on greenwashing cases from 2019 to 2024, where cases with low severity declined for the first time in six years, while cases with high severity increased. This pattern indicates that some companies tend to use ESG reporting as a symbolic tool to build a positive image, rather than as an accurate representation of their actual sustainability performance. This is in line with research (Feghali et al., 2025) explaining that greenwashing practices can obscure the evaluation of a company's performance.

Meanwhile, research (Mahjoub, 2024) also confirms that the shift in focus towards symbolic narratives rather than concrete actions by companies is one of the triggers for the increase in greenwashing in various countries.

Examples of greenwashing practices can be supported by findings at the global level, in the American company Lululemon Athletica Inc, which claims its “Be Planet” sustainability strategy will reduce its environmental impact in the next five to ten years, but investigations show excessive carbon emissions and the use of hazardous materials that are difficult to recycle (Retail Dive, 2024) in (Olivia et al., 2024). Similar findings also emerged at PT Shell, whose sustainability report stated that 12% of capital expenditure was allocated to Renewables and Energy Solutions, but analysis by Global Witness showed that only about 1.5% was actually used for renewable energy development, while most remained directed towards fossil gas trading. This situation reflects that companies are projecting a green image without a substantial commitment to sustainability.

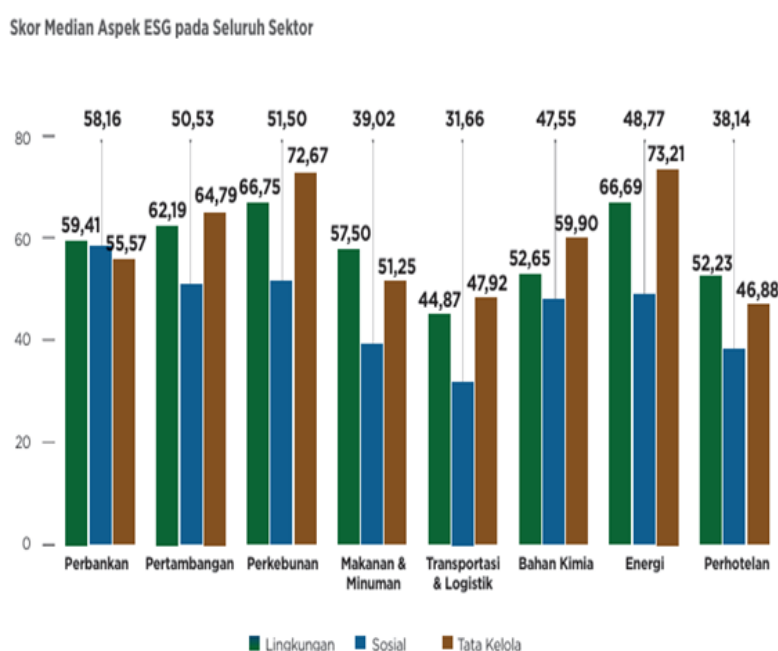


Figure 2. Median ESG Scores for Companies in Indonesia in 2025
 Source: Katadata, (2025)

In Indonesia, attention to the integrity of ESG reporting has grown since the issuance of OJK Regulation No. 51/POJK.03/2017, which requires financial service institutions, issuers, and public companies to report on the implementation of sustainable finance principles (OJK, 2017). However, various studies show that the effectiveness of these practices still faces challenges, resulting in uneven implementation. A study (Arum et al., 2024) explains that some companies still highlight narrative information without adequate support from actual performance. Meanwhile, another study (Olivia et al., 2024) also emphasizes the need for vigilance against greenwashing practices, as they have the potential to damage the credibility of sustainability reporting. Furthermore, research (Aptasari et al., 2024) explains that in retail companies there are indications of greenwashing and greenwishing, which show that some companies are not yet fully capable of implementing sustainability principles consistently.

Based on ESG scores for various industrial sectors in Indonesia, it appears that governance has the highest median score, compared to environmental and social aspects. The energy sector recorded the highest governance score, followed by plantations and mining. Meanwhile, social aspect scores tended to be the lowest, particularly in the transportation &

logistics and hospitality sectors. This imbalance indicates that companies find it easier to meet formal governance requirements than to make substantive changes in environmental and social aspects. In line with this, research (Mu & Lee, 2023) explains that perceptions of greenwashing can reduce employee loyalty and trust in the company. Meanwhile, research (Miao et al., 2023) explains that greenwashing practices can also weaken pro-environmental behavior among employees. These findings show that greenwashing has a broad impact, both externally and internally.

Thus, to obtain a comprehensive picture of how greenwashing in ESG disclosure has developed in academic research, a systematic literature review is needed. Most previous studies have focused on empirical approaches, so studies that utilize Systematic Literature Review (SLR) combined with bibliometric analysis are still relatively limited. This condition creates a research gap, especially regarding the need to identify trends, development patterns, and research directions regarding greenwashing in ESG disclosure. This study has implications for understanding the emergence of greenwashing practices and provides recommendations for companies and stakeholders to strengthen transparency, accountability, and the quality of ESG reporting so that sustainability practices can be implemented more substantially.

THEORETICAL REVIEW

Legitimacy Theory

Legitimacy Theory was first introduced by (Dowling & Pfeffer, 1975) who explained that organizations seek to obtain and maintain social acceptance by ensuring that the company's values, goals, and activities are in line with the norms and values held by society. This concept was later developed by (Suchman, 1995) who viewed social legitimacy as a collective perception of the appropriateness of an organization's actions with the social value system that can be built through substantive efforts such as the implementation of real sustainability or through symbolic approaches such as efforts to present a positive image in sustainability reports. This perspective provides a conceptual basis for analyzing the gap between a company's image and its actual performance, as companies often employ symbolic strategies to maintain public legitimacy and attract the trust of investors, regulators, and the public, even though they do not take substantial action.

Stakeholder Theory

According to (Freeman, 1984), stakeholder theory explains that companies are not only responsible to shareholders, but also to all parties who have an interest in or are affected by the organization's activities, such as investors, employees, customers, the government, and the community. This theory emphasizes that every decision and report made by a company must consider the needs, expectations, and perceived impact of these stakeholders, thereby influencing the quality, authenticity, and integrity of the company's ESG disclosures.

Greenwashing Practices

The term greenwashing first appeared in (Jay Westerveld's essay, 1986) in (Yemima, 2024) criticizing that the "Save The Towel" campaign carried out by the hotel industry was not a form of environmental concern, but rather a strategy for efficient towel use, and that hotels were wasting packaged water and producing emissions. Common forms of greenwashing appear through misleading claims or information, such as the use of terms like "green" or "sustainable" without a clear scientific basis. When greenwashing practices are exposed, the impact can be very damaging to public trust, damaging a company's reputation and financial performance, and enabling pollution and environmental damage. The greenwashing theory perspective provides a conceptual basis for examining the integrity of reports and corporate behavior in maintaining legitimacy and meeting stakeholder expectations.

Environmental, Social, Governance (ESG) Disclosure

The concept of Environmental, Social, and Governance (ESG) was first introduced in a United Nations (UN) report titled “Who Cares Wins”. This report emphasizes the importance of corporate responsibility standards in managing environmental impacts, paying attention to social welfare, and implementing transparent and ethical governance. ESG has become a key indicator in assessing a company's commitment to sustainability, as well as a means of communicating with stakeholders about responsible business practices (The Global Compact, 2004). This theoretical perspective provides the conceptual basis for revealing ESG as the main object of analysis for assessing the integrity of sustainability reports and helps evaluate the extent to which companies build legitimacy and meet stakeholder expectations, as inaccuracies or manipulation in reporting can lead to greenwashing.

METHODS

This study uses a Systematic Literature Review (SLR) approach to identify, evaluate, and synthesize various research findings on greenwashing practices in ESG disclosure. The SLR method was chosen based on its purpose, which is not only to describe the results of previous research findings, but also to compile comprehensive and structured knowledge mapping, thereby producing a synthesis of relevant theories and empirical findings (Syahrudin & Suryani, 2025). Through this method, it is possible to observe trends in the topic, bibliometric mapping, and identify research gaps that still need to be further explored.

To clarify the scope of the literature search and selection, this study applied the SPIDER framework (Sample, Phenomenon of Interest, Design, Evaluation, and Research Type). This framework can help researchers systematically develop inclusion and exclusion criteria, as well as ensure that all selected articles are relevant to the main focus, namely greenwashing in ESG disclosure (Cooke et al., 2012). The SPIDER model design used in this study is presented in table 1.

Table 1. SPIDER Framework

Component	Description
Sample (S)	Reputable Q1-Q4 international journal articles discussing the topic of greenwashing in ESG disclosure.
Phenomenon of Interest (PI)	The phenomenon of greenwashing in ESG disclosure, such as claims that do not fully reflect actual performance in order to build a legitimate image and meet stakeholder expectations.
Design (D)	The SLR approach using the PRISMA flow (identification, screening, retrieval, eligibility) through Watase Uake Tools to identify keywords and relevant article sources.
Evaluation (E)	The evaluation was conducted based on the relevance of the topic, research methodology, theoretical contribution, and findings related to trends and determinants of greenwashing practices in ESG disclosure.
Research type (R)	Empirical, theoretical, and mixed-methods research discussing greenwashing in ESG disclosure.

Source: Data processed by the author, (2025)

In this study, the SLR process used Watase Uake Tools, which was carried out in the initial stage to trace keyword identification and search limitations by ensuring the suitability of the topic with the research focus. In the literature identification stage, the researcher used the keyword “greenwashing in ESG disclosure” and obtained 159 relevant articles based on the search results that appeared in the abstract section. The restriction process was carried out using the criteria of publications from 2019 to 2025 and reputable Q1–Q4 international journals. This stage produced a list of main keywords and their restrictions, as presented in figure 3.

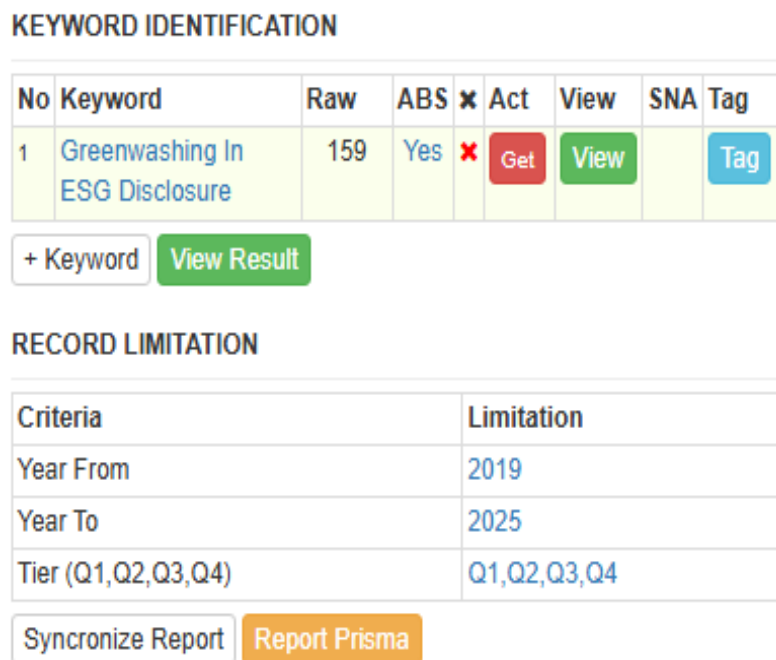


Figure 3. Keyword Identification
 Source: Output Results Watase, (2025)

The results of the keyword identification process above produced 159 articles that will be further processed through several stages using the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) report, such as identification, screening, retrieval, and eligibility. In SLR research, a research question is asked to prioritize the research review. The research questions in this study are presented in table 2.

Table 2. Research Question

Code RQ	Research Question
RQ1	Based on current literature, what are the trends in greenwashing research in ESG disclosure?
RQ2	What factors contribute to greenwashing in ESG disclosure?
RQ3	What strategies are recommended in the literature to mitigate greenwashing practices in ESG disclosure?

Source: Data processed by the author, (2025)

With the formulation of three research questions in table 2, the review process in this study became more focused and targeted. Each research question (RQ) served as the basis for grouping literature findings, so that the analysis in the results and discussion sections could be presented systematically in accordance with the research questions.

RESULT AND DISCUSSION

The literature selection process resulted in 9 final articles, from a total of 159 initial articles obtained through the SLR process. The selection procedure followed the PRISMA report flow using Watase Uake Tools, as presented in figure 4.

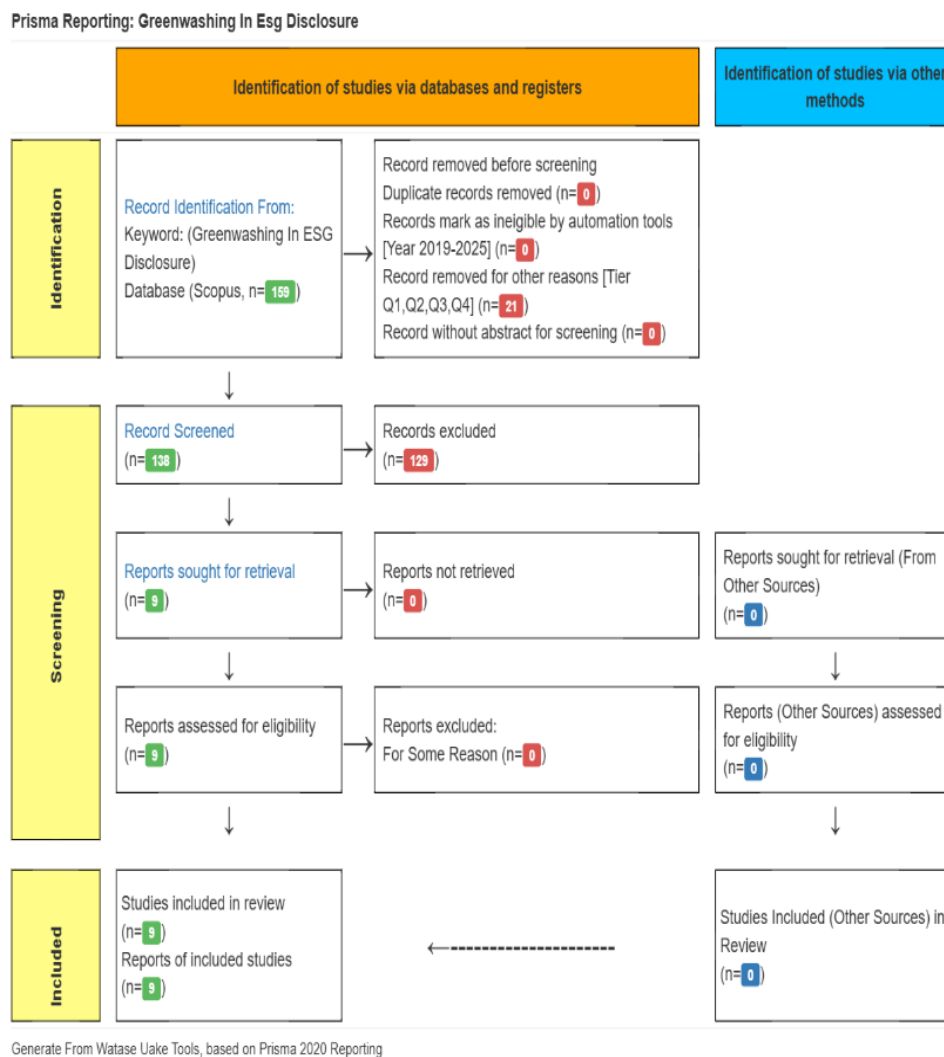


Figure 4. PRISMA Report
 Source: Output Results Watase, (2025)

At the identification stage, researchers successfully identified 159 articles obtained from the Scopus database through a search using the keywords “greenwashing in ESG disclosure.” The identified articles covered various studies and publication periods. Of these, 21 articles were eliminated because they did not meet the inclusion criteria, specifically because they were not published in reputable Q1–Q4 international journals. Thus, 138 articles remained to be considered for the screening stage.

At the screening stage, an initial review of the titles, abstracts, and keywords was conducted to assess the suitability of the articles to the focus and objectives of the study. The screening results showed that 129 articles were excluded because they were irrelevant, among other reasons, because they did not specifically discuss the issue of greenwashing in the context of ESG disclosure, had a different methodological focus, or did not support the conceptual framework of the study. Therefore, only 9 articles were deemed to meet the relevance criteria and proceeded to the retrieval stage.

Furthermore, at the eligibility stage, all 9 articles that were successfully obtained in full-text form were assessed for eligibility in depth. This assessment covered the suitability of the research objectives, theoretical framework, methodology, and contribution to the topic of greenwashing in ESG disclosure. Based on the results of this evaluation, all articles were

declared to meet the eligibility criteria and were retained as the final articles used in the research analysis and discussion. The articles obtained from the nine studies are presented in table 3.

Table 3. Relevant Journal Articles

No.	Author	Title	Source	Methods
1	Agne Sneideriene (2025)	Greenwashing prevention in environmental, social, and governance (ESG) disclosures: A bibliometric analysis	Research in International Business and Finance	Systematic Literature Review, Bibliometric analysis
2	Bofu Deng (2024)	Top management team stability and ESG greenwashing: Evidence from China	Business Strategy and the Environment	Empirical study Chinese listed firms (2009–2022), OLS Model
3	Giuseppe Maria (2025)	Does Sustainable Performance Matter for Nonfinancial Disclosure Readability? A Fog Index Analysis on Italian- Listed Companies	Business Strategy and the Environment	Panel regression, Sample Italian listed firms (2017–2022), Readability measured using Gunning Fog Index
4	Jittima Wichianrak (2023)	Critical Perspectives of NGOs on Voluntary Corporate Environmental Reporting: Thai Public Listed Companies	Sustainability (MDPI)	Semi-structured interview (19 wawancara pada LSM)
5	Peng Hu (2024)	Peeking into Corporate Greenwashing through the Readability of ESG Disclosures	Sustainability (MDPI)	Quantitative, Modified Fog Index, greenwashing score third-party databases, empirical regression analysis
6	Rendani Mavis Matakanye (2021)	Do Companies in Different Industries Respond Differently to Stakeholders Pressures When Prioritising Environmental, Social and Governance Sustainability Performance?	Sustainability (MDPI)	Quantitative, Data CSR Hub, ANOVA, pairwise test, Tukey HSD
7	Valentina Lagasio (2023)	ESG-washing detection in corporate sustainability reports	International Review of Financial Analysis	Quantitative, NLP, sentiment analysis, frequency analysis index ESGSI
8	Xinyu Hao (2025)	Unmasking greenwashing in ESG disclosure: insights from evolutionary game analysis	Annals of Operations Research (SPRINGER)	Evolutionary game analysis
9	Xueying Tian (2025)	Facilitating or Inhibiting: A Study on the Impact of Artificial Intelligence on Corporate Greenwashing	Sustainability (MDPI)	Theoretical dan simulation AI, Stata 15.0 software

Source: Data processed by the author, (2025)

DISCUSSION

Development of Greenwashing Research in ESG Disclosure

After a systematic literature selection process in Figure 4 using the PRISMA report, nine relevant articles were obtained for further analysis. The bibliometric analysis in this study used VOSviewer software, as shown in Figure 5. It can be seen that the keyword “greenwashing” occupies a central position in the global research network related to greenwashing in ESG disclosure during 2019-2025. This analysis was conducted to identify the direction of relationships between concepts, map research trends, and assess global literature developments over time, thereby providing an overview of the main themes of this research regarding the focus and direction of research related to greenwashing in ESG disclosure.

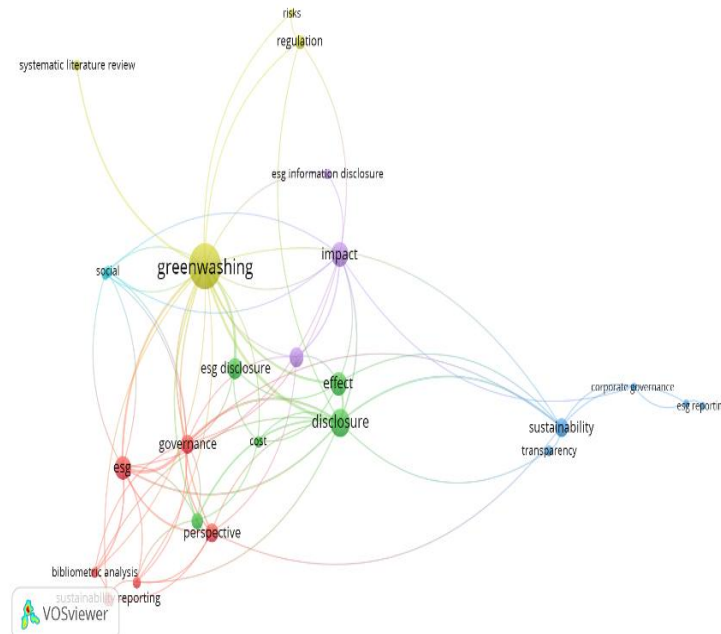


Figure 5. Bibliometric Analysis Mapping
Source: VOSviewer Processing Results, (2025)

The results of the bibliometric mapping in Figure 5 show that the keyword “greenwashing” is in the yellow cluster and appears as the most dominant node, confirming its position as the center of discussion in the literature related to ESG disclosure. This yellow cluster also contains the terms systematic literature review, regulation, and risks, indicating that the focus on greenwashing is largely associated with the aspects of reporting risks and the need for regulatory strengthening. Around the center of the network, the green cluster contains the terms ESG disclosure, disclosure, effect, and cost, indicating that the quality and manner in which companies disclose ESG information are the issues most closely related to the potential for greenwashing. Meanwhile, the red cluster includes the terms ESG, governance, perspective, sustainability reporting, and bibliometric analysis, indicating that governance and reporting perspectives are the main conceptual frameworks for understanding the mechanisms of greenwashing. The blue cluster includes the terms sustainability, transparency, ESG reporting, and corporate governance, indicating that reporting transparency and strong governance practices are considered important elements in preventing narrative distortions related to sustainability performance. The purple cluster contains ESG information disclosure and impact, which describes the assessment of the impact of ESG disclosure on stakeholders.

Bibliometric mapping analysis shows that although greenwashing is central or the main focus, reviewing topics such as regulation, risks, effect, impact, systematic literature review, and bibliometric analysis indicates a research gap and reinforces the urgency of this research. This condition fills the gap between different focuses, as they are relatively far apart in different clusters, thus providing a more comprehensive understanding. This indicates the need for a research approach that integrates these various aspects, thereby not only enriching the academic literature but also providing a broader understanding for companies and stakeholders in designing transparent, accountable, and effective ESG disclosure strategies to prevent or minimize greenwashing practices.

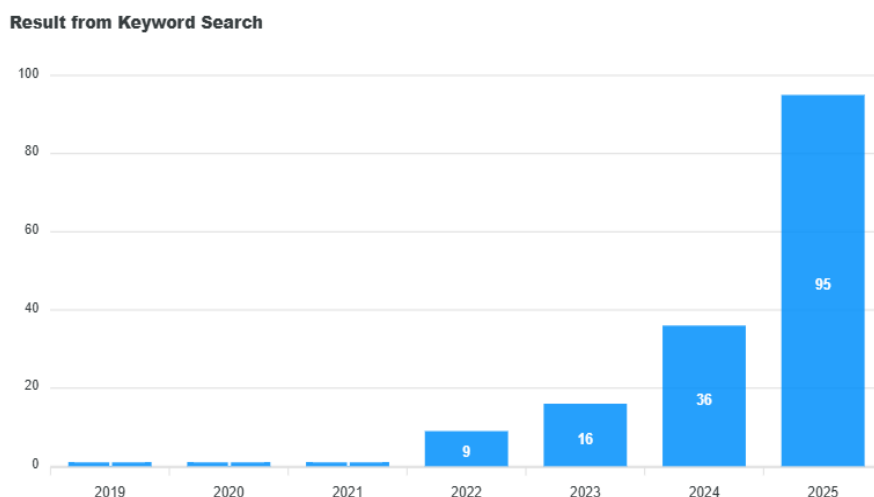


Figure 6. Keyword Search Results
Source: Output Results Watase, (2025)

Figure 6 shows the upward trend in research publications from 2019 to 2025. At the beginning of the period in 2019, research on greenwashing practices in ESG disclosure at the global level had not yet been studied, whereas in recent years the topic has developed and become very significant in 2025. This increase indicates that the phenomenon of greenwashing is increasingly seen as a critical issue in the main challenges of implementing sustainability reporting principles and organizational accountability. Thus, this growth pattern in publications reinforces the urgency and relevance of research related to greenwashing in the context of ESG disclosure, while opening up opportunities for further global research exploration in line with technological and regulatory developments.

Factors Contributing to Greenwashing Practices in ESG Disclosure

Based on the results of the SLR of nine articles that met the criteria and were relevant, greenwashing practices in ESG disclosure arise from the interaction between legitimacy pressures, stakeholder demands, and weaknesses in governance and reporting systems. These findings are consistent with legitimacy theory and stakeholder theory, which suggest that companies tend to use sustainability reporting as a strategic tool to maintain social acceptance and meet stakeholder expectations.

From the perspective of legitimacy theory, greenwashing practices generally occur when companies face a gap between external pressures and their internal capacity to substantially meet those demands. Through an evolutionary game approach, research (Hao et al., 2025) emphasizes that companies will tend to choose greenwashing practices as a rational choice if the costs of implementing real sustainability practices are higher than the reputational risks of misinformation. This reinforces that greenwashing practices are not merely manipulative actions, but symbolic strategies to maintain public legitimacy.

Pressure from stakeholders is also a significant factor. Research (Matakanye et al., 2021) explains that industrial sectors with high environmental impact sensitivity, such as energy, mining, and manufacturing, face greater expectations from investors, the public, and regulators. Under these conditions, companies are more likely to present a positive narrative of sustainability symbolically in order to respond quickly to external pressure, especially when their environmental performance has not yet reached the expected standards. This is in line with stakeholder theory, which reinforces that the intensity of external pressure from stakeholders can affect the quality and honesty of ESG disclosures.

In addition to legitimacy pressure and stakeholder expectations, internal company factors also trigger indications of greenwashing practices. Research (Deng et al., 2024) explains that the stability of the top management team (TMT) is closely related to the tendency to manipulate ESG disclosures. An unstable top management tends to face pressure to demonstrate performance success, so ESG reporting can be used as a tool to create a positive image, even if it is not supported by concrete actions. Conversely, a stable management team is more likely to encourage substantive and consistent sustainability implementation rather than symbolic reporting.

Another aspect that triggers indications of greenwashing practices is the manipulation of text structure and report readability. Research (Hu et al., 2024) reveals that sustainability reports are often deliberately made difficult to understand in order to conceal information that could potentially harm the company. In line with this, research (Bifulco et al., 2025) explains that companies with low sustainability performance tend to compile complex, lengthy, and rhetorical non-financial reports, making it difficult for stakeholders to assess actual sustainability performance.

From a regulatory perspective, the literature shows that inconsistent ESG reporting standards also encourage greenwashing. Research (Wichianrak, 2023) shows that voluntary sustainability reports allow companies to choose narratives that are beneficial to them (selective disclosure), without the obligation to disclose negative data. This condition is reinforced by research (Sneideriene & Legenzova, 2025) stating that differences in standards and unclear ESG assessment mechanisms in various jurisdictions are the main loopholes for misinformation in reporting, allowing greenwashing practices to occur.

Overall, the SLR results show that greenwashing practices in ESG disclosure are influenced by five main factors, namely (1) legitimacy pressure to maintain image and social acceptance, (2) intense stakeholder expectations and pressure, (3) instability and weak internal governance, (4) manipulation of report readability and narrative structure, (5) regulatory weaknesses regarding the inconsistency of ESG reporting standards.

Mitigation Strategies for Greenwashing Practices in ESG Disclosure

The results of the literature analyzed in the SLR indicate that inconsistencies between narrative and actual practices in ESG disclosure can have a direct impact on declining corporate credibility, reduced stakeholder trust, and impeded sustainability regulation effectiveness. Therefore, mitigation strategies are needed to strengthen the transparency and accountability of reporting, suppress symbolic strategies, and encourage more substantive sustainability practices.

One of the most consistently recommended key strategies is the strengthening of ESG reporting regulations and standardization. Research (Sneideriene and Legenzova 2025) confirms that uniform and mandatory reporting standards will close the loophole for information manipulation. Stricter regulations not only encourage companies to disclose information honestly and comprehensively, but also improve consistency between reports, thereby enhancing the quality of public assessment. These findings are in line with the bibliometric mapping of the node “regulation” and “transparency” which shows the important role of regulation in mitigating greenwashing.

In addition to regulatory aspects, the use of artificial intelligence (AI) technology is one of the modern recommendations widely discussed in the literature. The study (Tian and Shi 2025) explains that AI can serve as an automatic verification tool to detect linguistic patterns of greenwashing, such as the use of hyperbolic terms, sustainability jargon, and claims without valid data support. The study (Lagasio 2024) explains that AI-based text analysis can identify anomalies in sustainability reports with a high degree of accuracy, thereby helping regulators, investors, and the public to detect misinformation efficiently. In the context of legitimacy

theory, the use of this technology can minimize the space for symbolic strategies and increase public oversight.

From an internal governance perspective, management stability and capacity are equally important mitigation factors. Research (Deng et al. 2024) explains that stability and top management capacity are important mitigation factors. The implementation of sustainability committees, sustainability audits, and strong governance policies can ensure that information disclosure is in line with actual operational practices. These conditions emphasize that strengthening governance is not only necessary to maintain corporate legitimacy, but also to minimize the opportunity for misleading symbolic reporting.

In addition, stakeholder engagement plays a role in reducing the opportunity for greenwashing practices. Research (Wichianrak 2023) explains that monitoring by non-governmental organizations (NGOs), the media, and local communities can increase corporate accountability, as any information provided has the potential to be publicly scrutinized. When stakeholders have greater access to information, the opportunity for companies to engage in greenwashing practices becomes smaller. These findings are in line with stakeholder theory, which reinforces the promotion of transparency and accountability in reporting integrity.

Furthermore, the importance of improving the quality of sustainability indicators and metrics is also an important aspect raised in the literature. Research (Bifulco et al. 2025) explains that the use of measurable quantitative indicators, independent data verification, and the role of external audits on sustainability can reduce the risk of narrative manipulation and improve disclosure consistency.

Overall, the greenwashing mitigation strategies found in the SLR cover five main aspects, namely (1) strengthening ESG reporting regulations and standardization, (2) utilizing AI technology to detect greenwashing linguistic patterns, (3) strengthening internal governance and management stability, (4) increasing external oversight by stakeholders, and (5) refining indicators, metrics, and independent sustainability audits. These strategies emphasize that preventing greenwashing practices requires a combination of structural, technological, governance, and institutional approaches, as well as public participation.

CONCLUSION AND RECOMMENDATIONS

Conclusion

The results of a Systematic Literature Review (SLR) explain that greenwashing practices in ESG disclosure arise due to legitimacy pressures, stakeholder expectations, weaknesses in internal governance, manipulation of report narratives, and inconsistencies in reporting standards. These findings confirm that companies tend to engage in greenwashing practices when there is a gap between external demands and internal capacity to deliver on sustainability practices, especially when the costs of substantive implementation are considered higher than the reputational risks of providing misleading information. This condition shows that the gap between sustainability narratives and operational actions remains a major issue in ESG reporting. Conceptual analysis through legitimacy theory and stakeholder theory has proven capable of explaining these dynamics, as both provide a basis for understanding how companies maintain social acceptance while responding to pressure from various stakeholders.

Recommendations

Improving the integrity of ESG disclosure requires stronger regulations and uniform reporting standards to minimize the scope for greenwashing. The use of technologies such as artificial intelligence (AI) is important for identifying indications of misinformation, and more stable and accountable internal governance is needed to ensure that reporting reflects actual sustainability practices. Oversight by stakeholders, the media, and independent organizations also needs to be expanded to ensure public accountability. In practical terms, companies need

to move from a symbolic approach to measurable and verifiable sustainability practices, while regulators must accelerate the harmonization of reporting guidelines. These efforts encourage the prevention of greenwashing practices and ensure that ESG disclosures truly reflect real sustainability commitments.

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