

Corporate Greenwashing and Sustainability Communication: A Review of Literature and Emerging Research Directions

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Abstract

This paper reviews the growing phenomenon of corporate greenwashing and its relationship with sustainability communication, with a particular focus on entrepreneurship and the Asian context. As sustainability becomes a strategic priority, organizations increasingly use communication tools such as CSR reports, ESG disclosures, and green marketing to signal environmental responsibility. However, the literature reveals a persistent gap between symbolic communication and substantive environmental performance, leading to misleading practices commonly referred to as greenwashing. This review synthesizes existing research to examine the conceptual foundations, drivers, and consequences of greenwashing, along with the role of sustainability communication in shaping stakeholder perceptions. The study adopts a narrative literature review approach, drawing on recent academic work across disciplines to identify key themes, trends, and research gaps. Findings indicate that greenwashing is driven by competitive pressures, weak regulatory environments, and the pursuit of legitimacy, while stakeholder awareness and digital media are increasing scrutiny of corporate claims. The review also highlights the unique challenges faced by SMEs and entrepreneurial ventures, particularly in emerging Asian economies, where resource constraints and institutional variations influence sustainability practices. Emerging trends such as digital communication, ESG standardization, and technological tools for detection are reshaping the field. The paper concludes by emphasizing the need for greater transparency, ethical alignment, and stronger governance frameworks to ensure credible sustainability communication and support genuine sustainable development.

Keywords: Greenwashing; Sustainability Communication; Corporate Social Responsibility (CSR); Sustainable Entrepreneurship; ESG Reporting

1. Introduction

The term sustainability has emerged as one of the priorities of any business in the world due to the rising worries about global climate change, environmental decline and growing social disparities. It is not just the financial performance of the organization but also the impact of the organization in terms of the environment and social impacts. Corporate communication in this dynamic environment has assumed a strategic position whereby firms are able to pass their sustainability pledges to their stakeholders including consumers, investors, regulators as well as the society at large. Sustainability reporting, environmental branding, and corporate social responsibility (CSR) disclosures are nowadays a typical set of tools with the help of which organizations are trying to prove their accountability and create legitimacy (Vollero and Siano, 2024; Cinceoglu et al., 2025). In such a fashion, especially within a competitive market, effective communication of the sustainability initiatives can benefit the brand image, customer loyalty and consumer decision-making (Kumar and Ghodeswar, 2015). This has led to a shift in sustainability communication being a marginal activity to a core part of corporate strategy. But with the increasing significance of sustainability communication, a similar and problematic phenomenon was also born called greenwashing. The concept of greenwashing describes the

situation when companies inflate, distort, or otherwise falsely assert the environmental positive impact of their goods, services, or the overall functioning (de Freitas Netto et al., 2020; Koch and Denner, 2025). Rather than making any substantial changes that lead to sustainability, other organizations are concentrating on empty gestures meant to give a false impression of environmental friendliness (Lyon & Montgomery, 2015; Seele and Gatti, 2017). This can be in the form of ambiguous statements, selective release of good news or eco-friendly images with no real support. These practices not only mislead stakeholders, but also affect the integrity of a real sustainability practice in the industries. In the long term, frequent cases of greenwashing may result in the loss of consumer trust, lessen the advantages of sustainability efforts, and develop a doubt toward corporate environmental claims (Leonisou and Skarmas, 2017; Fella and Bausa, 2024). The greenwashing problem is especially complicated regarding the situation in Asia, where the speed of economic development and industrialization, as well as globalization, have changed the business environment to a considerable extent. The Asian economies are particularly diverse; they feature both developed and emerging markets with different regulatory frameworks, institutional capabilities and cultural norms. In most instances, regulatory monitoring of environmental disclosures

and sustainability reporting is not even, which gives companies an opportunity to practice misleading communications with minimal repercussions (Janik and Ryszko, 2025; Badhwar et al., 2024). Meanwhile, the cultural and institutional processes may affect the approaches of businesses to ethical behavior and stakeholder relationships, as well as the process of sustainability communication and greenwashing. In this wider sense, small and medium-sized enterprises (SMEs), start-ups and family-owned business are very important in determining the outcomes of sustainable development. SMEs make up a good share of the business environment in the majority of Asian economies, and are important sources of employment, innovation, and economic development. More and more, such businesses are working with the ideas of green entrepreneurship and sustainable innovation. Nevertheless, SMEs tend to work with limited resources, and they can lack standardized sustainability reporting systems, or they can have no experience in strategic communication, unlike large corporations. This is capable of influencing the quality and transparency of their disclosure of sustainability and in some cases, inadvertent greenwashing or exaggerated claims (Pizzetti et al., 2021; Berrone et al., 2017).

Simultaneously, the entrepreneurial character of SMEs and start-ups provides special chances of genuine sustainability practices. These companies can be more adaptable and creative and hence incorporate sustainability in their business models. Such initiatives can create a high level of stakeholder trust when backed by clear and believable communication and can make significant contributions to the sustainable development. Nonetheless, in very competitive markets, the need to seem environmentally responsible can also stimulate companies to resort to greenwashing as a way of accruing reputation benefits (Nyilasy et al., 2014; Li et al., 2025).

Although the literature on greenwashing and sustainability communication is growing, much of the existing literature has been focused in Western settings, with the comparatively little focus being given to Asian economies and entrepreneurial ecosystems. This leaves a big gap in knowledge especially considering the institutional, cultural, and economic peculiarities of the region. Moreover, the recent developments like digital communication, the impact of social media, and the development of data analytics are changing the way sustainability

messages are developed, distributed, and measured (Calamai et al., 2025). These changes demonstrate the necessity of new and context-driven studies that reflect the dynamic character of greenwashing and sustainability communication.

Against this background, the present paper aims to critically review the body of literature on corporate greenwashing and sustainability communication, focusing especially on the Asian and entrepreneurial setting. In particular, the research will discuss the definition and conceptualization of greenwashing in previous studies, delve into the main contributors and effects of this phenomenon, and determine the importance of sustainability communication in developing stakeholder perceptions. The paper also determines research gaps that are important and suggests new research directions to SMEs, start-ups and emerging economies. Through this, it helps to fill the overall discussion on sustainable entrepreneurship, ethical business conduct and strategic management towards sustainable development, providing useful insights to both academics and practitioners as well as policymakers.

2. Conceptual Foundations

2.1 Greenwashing

Greenwashing has been widely interpreted to mean a false or exaggerated posing of a picture of the environmental responsiveness of a firm. It is a result of organizations portraying favorable environmental qualities at the expense of concealing or minimizing negative effects. Instead of actual changes in operations, companies might resort to the display of symbolic behavior like marketing campaigns, eco-labels or selective disclosures to seem green. Greenwashing may be of various kinds, such as general assertions, reporting only positive information, lack of transparency, and mislabeling. The reasons behind these practices are competitive pressures, the growing consumer demand of green products, and the willingness to improve corporate reputation without having to make any concrete sustainability efforts (Forliano et al., 2025; Li et al., 2025). Moreover, greenwashing may also interfere with the process of sustainable marketing because it can cause confusion and mistrust toward consumers and eventually undermine brand-consumer relationships (Daou et al., 2025). Greenwashing occurs in different ways in industries. The main types and features that have been identified in the literature have been summarized in Table 1.

Table 1. Types and Forms of Greenwashing

Type of Greenwashing	Description	Example	Key References
Vague Claims	Unclear or ambiguous environmental statements	"Eco-friendly product"	(de Freitas Netto et al., 2020; Seele & Gatti, 2017)
Selective Disclosure	Highlighting only positive environmental data	Reporting only emission reductions	(Lyon & Montgomery, 2015; Berrone et al., 2017)
Misleading Labels	Use of false or irrelevant	Fake eco-labels	(Nyilasy et al., 2014; Fella &

	certifications		Bausa, 2024)
Irrelevant Claims	True but insignificant claims	“CFC-free” products	(Leonidou & Skarmeeas, 2017)
Hidden Trade-offs	Ignoring full lifecycle impacts	Sustainable packaging but harmful production	(Badhwar et al., 2024; Daou et al., 2025)

2.2 Sustainability Communication

Sustainability communication is defined as the process by which organizations report their environmental, social and governance (ESG) practices to the stakeholders. This involves both formal sources of sustainability (reports), CSR disclosure, and integrated reporting, and informal sources such as advertising, branding and social media involvement. Sustainability communication should be transparent, accurate and consistent, which allows stakeholders to assess the sustainability performance of a firm. It is crucial in establishing trust, improving corporate image, and facilitating value creation in the long term. Nevertheless, the growing popularity of digital platforms has also enhanced the disastrous risk of false communication, where companies can commit digital greenwashing to affect consumer perception without taking any meaningful action in relation to the environment (Eze, 2025).

2.3 Relationship Between Greenwashing and Sustainability Communication

There is complex relationship between sustainability communication and greenwashing. Although communication is necessary when it comes to enhancing transparency and accountability, it may also be employed, tactfully, to shape the way stakeholders think. Sustainability communication can also be employed by organizations to report real performance, as well as to construct favorable narratives to them. This twofold position opens chances of greenwashing, especially when there exist a discrepancy between what is being said and what is being done. In other instances, the companies can even use a greenhushing strategy, where they intentionally under-report their sustainability initiatives to escape criticism or being accused of greenwashing, which makes the situation of communication even more complex (Font et al., 2017).

2.4 Theoretical Perspectives

2.4.1 Legitimacy Theory

The legitimacy theory proposes that companies aim to ensure that their operations are in line with societal expectations in order to be accepted and have their social license to operate. In cases where companies are under pressure to be environmentally responsible, sustainability communication can be adopted to keep the firms legitimate despite their inadequate practices. Greenwashing in these situations also serves to fill

the divide between the expectations and the reality (Forliano et al., 2025).

2.4.2 Stakeholder Theory

The stakeholder theory focuses on impact of different stakeholder groups on the corporate behavior including customers, investors, regulators and communities. Organizations have to answer to various and even conflicting demands. Firms can also adopt selective disclosure or exaggerated claims when the sustainability demands are high to meet the expectations of the stakeholders particularly when the firm is unable to meet the demands completely (Torelli et al., 2020).

2.4.3 Institutional Theory

The institutional theory emphasizes the importance of external forces, such as regulations, cultural norms and industry standards in influencing organizational behavior. Companies can also find it easier to indulge in greenwashing in a world where regulatory frameworks are loose or there is insufficient enforcement of regulatory frameworks. On the other hand, effective institutional pressures may help to facilitate true sustainability practices by enhancing accountability and transparency (Li et al., 2025).

2.4.4 Signaling Theory

Signaling theory is a theory used to explain the communication of information by organizations in order to minimize uncertainty and information asymmetry. The disclosures on sustainability, certification and environmental claims serve as indicators of the interest of a firm in sustainability. Nevertheless, these signals may be misleading to the stakeholders when they are not backed by the real performance leading to greenwashing. This is especially prominent in the case of sustainability marketing, in which the false signals may cause consumer distrust and retaliation (Daou et al., 2025; Eze, 2025).

2.5 Symbolic vs. Substantive Actions

One of the major differences in greenwashing comprehension is the symbolic versus substantive actions. Substantive actions entail actual, quantifiable business changes, like cutting emissions, enhancing resource use, or embracing sustainable technologies. Conversely, symbolic actions are more communication-based in nature and oriented towards the consequences of perception, as opposed to providing practical environmental results. Greenwashing mostly

becomes a reality when companies are overly dependent on symbolic activity, and equally important, lack substantive activity that leads to a discrepancy between the message and the reality. Also, the larger set of sustainability practices, including the idea of the circular economy and material efficiency enhancements, emphasize the

necessity of communication-environmental performance alignment (Hahladakis and Iacovidou, 2018). One essential difference in the literature is the distinction between the symbolic and substantive sustainability actions, as outlined in Table 2.

Table 2. Comparison – Symbolic vs Substantive Sustainability

Aspect	Symbolic Actions	Substantive Actions	Key References
Nature	Communication-driven	Action-driven	(Lyon & Montgomery, 2015)
Focus	Image & perception	Real environmental impact	(Seele & Gatti, 2017)
Investment	Low	High	(Berrone et al., 2017)
Transparency	Limited	High	(Torelli et al., 2020)
Outcome	Greenwashing risk	Genuine sustainability	(Hahladakis & Iacovidou, 2018; Forliano et al., 2025)

2.6 Summary of Conceptual Insights

The theoretical underpinnings indicate that greenwashing and sustainability communication are intertwined with each other. Although sustainability communication can help to increase transparency and accountability, it can be used improperly to make false impressions. The theoretical approaches can offer a good understanding of the reasons why companies do such activities and ways in which they can be remedied. These concepts are critical to understanding the corporate behavior and ensuring a more genuine and responsible approach to sustainability practices. Figure 1 represents a conceptual relationship between the drivers, mechanisms and outcomes of greenwashing, emphasizing the disjuncture between symbolic and substantive actions.

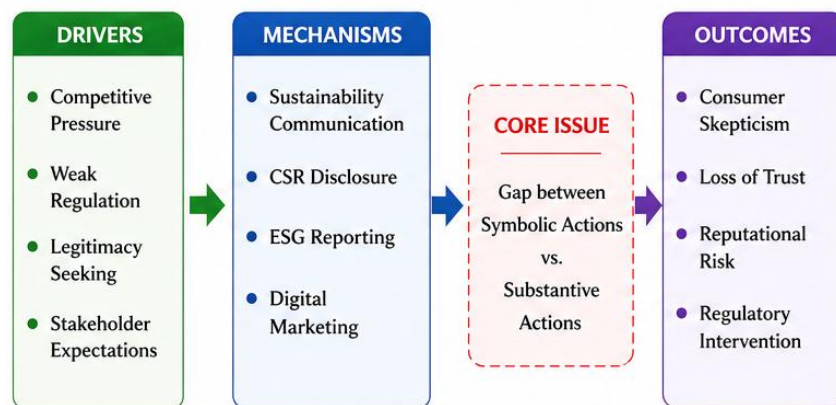


Figure 1. Conceptual Framework of Greenwashing

3. Greenwashing in the Context of Asia

Greenwashing phenomenon acquires peculiar features in the Asian context because of the economic diverse structures, institutional and cultural processes peculiar to the region. Asia consists of highly developed economies as well as fast growing markets with different degrees of regulatory maturity, enforcement systems as well as corporate governance. The heterogeneity has a great impact on how organizations integrate sustainability and communicate their environmental activities. Since the concept of sustainability is being highly emphasized throughout the region, companies are more than ever being pressured to show environmental

responsibility, but the ability to provide transparency and accountability is disproportionate (Hermawan et al., 2025; Abdul Rahman and Alsayegh, 2021).

The inconsistency in regulatory frameworks and enforcement is one of the most important things that influence greenwashing in Asia. Even though in some countries there exist overall environmental policies and sustainability reporting frameworks, in other countries there are still loopholes in regulation and control. In these settings, companies might take advantage of uncertainties or laxity to paint an overly favourable picture of their environmental performance. The lack of standardized reporting practices also complicates

the matter, as it is hard to compare and check sustainability claims by the stakeholders. The analysis of sustainability reporting and greenwashing patterns indicates that the uneven regulatory frameworks in developed and emerging markets are some of the factors that further promote the occurrence of deceptive disclosures (Sundarasan et al., 2024).

Corporate governance is another important factor, which contributes to the greenwashing practices in the Asian environment. Companies that have better systems of governance and accountability tend to be in a better position to achieve the credibility of sustainability disclosures. Nevertheless, ineffective governance frameworks or insufficient supervision may enhance the chances of greenwashing, especially when companies focus on short-term monetary rewards at the expense of long-term sustainability obligations (Pratama et al., 2025; Islahuddin et al., 2026). This brings out the need to improve the governance system in order to increase transparency and curb opportunism.

Asia is further influenced by cultural and institutional factors in practising sustainability communication. Institutional theory implies that the firms are affected by national regulatory frameworks, industry standards and expectations of the society. As an example, in the countries with more advanced institutionalization, companies are more inclined to follow more organized ESG practices and open reporting systems. Conversely, companies that act in less regulated settings have the opportunity to pursue symbolic sustainability to ensure that they stay legitimate without real changes (Kim et al., 2024). Through these dynamics, the institutional pressures are seen to reduce or increase the greenwashing behavior.

The Asian business environment is especially characterized by small and medium-sized enterprises (SMEs), family-owned businesses and start-ups. SMEs contribute a huge proportion of economic activity and employment in the region and so their contribution in sustainable development is essential. Nevertheless, these businesses tend to experience a lack of resources, intense access to experience, and a decreased regulatory oversight than big companies. These restrictions may have an impact on their capacity to adopt wholesome sustainability practices and share them. This can lead to unintended greenwashing by the SMEs, or overstated sustainability practices to stay afloat in the market (Hermawan et al., 2025).

The next dimension is the role of the industry dynamics, especially in industries like manufacturing, which are major in most of the Asian economies. Companies operating in these industries are sometimes under pressure by the governments and other stakeholders to implement environmentally friendly processes. Nevertheless, in cases where the regulatory demands are high and

the enforcement is not consistent, companies might take up strategic responses that involve both real and symbolic measures. Empirical studies based on evolutionary models indicate that companies can use greenwashing as a sign of their strategic adaptation to the dynamic governmental regulations, the price of compliance versus the reward of reputation (Zeng et al., 2025).

This is also true of the human and organizational consequences of greenwashing, which are gaining popularity in the Asian picture. Greenwashing not only impacts on external stakeholders but also can impact internal organizational behavior. Indicatively, false sustainability practices can cause confusion among workers, which can influence their involvement in responsible behavior towards the environment. Meanwhile, plausible sustainability programs may encourage workers to be more environmentally friendly, which suggests a dual or a two-sided effect of greenwashing in companies (Wang et al., 2025).

Generally, greenwashing in Asia is influenced by an intricate interaction of regulatory, institutional, governance, and cultural issues. Although the region has many prospects of enhancing sustainable development, challenges exist in terms of ensuring credibility and effectiveness of sustainability communication. The solution to these issues should involve concerted actions by policymakers, companies, and stakeholders to enhance regulatory frameworks, corporate governance, and sustainability reporting transparency. These contextual dynamics are key to understanding how best strategies can be developed to combat greenwashing and promote genuine sustainability practices within the Asian economies.

4. Sustainable Entrepreneurship and Innovation

Sustainable entrepreneurship and innovation has come forth as important drivers of economic growth especially in countering environmental and social issues. In comparison to the traditional business models that are mostly oriented toward profit maximization, sustainable entrepreneurship incorporates economic, environmental, and social goals into the strategies of business. This strategy focuses on the long-term value creation by responsible use of resources, green innovations, and inclusive growth (Belz and Binder, 2017; Johnson and Schaltegger, 2020). Sustainable entrepreneurship is essential in the Asian context, where fast industrialization and urbanization have exacerbated environmental stresses and enabled green transformation and sustainable development. Entrepreneurs are becoming more and more accepted as change agents who can bridge the sustainability objective and operationalization. They use innovation to create new products, services and business models, which minimise impacts on the environment and satisfy market needs. Particularly,

environmental entrepreneurship emphasizes the influence of venture objectives, identity, and stakeholder incentives on the sustainable results (York et al., 2016). The concept of sustainable innovation is not limited to technological innovations but also new organizational practices and business models are also sustainable (Muñoz and Cohen, 2018).

One of the key areas of sustainable entrepreneurship is the creation of new business models. The archetypes of sustainable business models are based on generating value and reducing environmental harm as well as maximizing social benefits (Bocken et al., 2014). Resource efficiency, waste reduction, and circularity are some of the principles that are frequently included in these models. This approach is also supported by the idea of the circular economy that promotes closed-loop cycles where resources are reused, recycled, and regenerated, which means that there is less reliance on finite resources (Geissdoerfer et al., 2017). Not only do such innovations help in ensuring environmental sustainability, but they also provide firms with competitive edges in markets where sustainability is becoming a major concern.

Nevertheless, the increased prevalence of sustainability as a competitive distinction is also a challenge that is emerging especially the threat of greenwashing. With the desire of companies to declare themselves as being environmentally responsible, there is a propensity of focusing on sustainability stories without any substantive measures. This applies particularly to start-ups and new businesses that are very dependent on branding and perceptions of investors. When this happens, the sustainability communication can no longer be associated with the transparency tool but instead with the impression management tool and this can further amplify the risk of making misleading claims.

This presents special challenges and opportunities to small and medium-sized enterprises (SMEs). On the one hand, SMEs usually have limited financial, technical, and managerial resources that can limit their possibility to invest in sustainable technologies or adopt holistic sustainability approaches. Conversely, they have the ability to test out new and context-specific solutions because they are flexible and adaptable. According to the research, sustainable entrepreneurship is a dynamic process, which is developed due to constant contact between the market opportunities and the demands of the stakeholders and environmental issues (Belz & Binder, 2017).

Sustainable entrepreneurship is also promoted by family-owned businesses, which are common in most of the Asian economies. These companies tend to be more oriented towards long-term orientation, reputation, and generation of intergenerational values, which may stimulate responsible environmental practices. Nevertheless, a challenge is striking a balance between sustainability commitments and competitive pressures, especially when the firms are forced to consider one of the limited resources on various priorities.

The future in sustainability-based innovation belongs to start-ups and green ventures. Numerous emerging businesses are established with clear environmental or social missions, and sustainability is incorporated into their value propositions. Such projects are usually based on new technologies and innovative methods to solve the complicated environmental problems. Simultaneously, the growing accessibility of sustainable financing and impact investing has provided new opportunities to entrepreneurs to scale sustainable solutions. However, the need to show fast growth and attract investment may at times bloat sustainability claims, and it is necessary to match innovation and plausible communication practices.

Ecosystems of innovation also are instrumental in ensuring sustainable entrepreneurship. The activities of governments, businesses, academic and financial organizations encourage sharing of knowledge, technological advancement and resource availability. Sustainability business models focus on embedding environmental and social factors in value creation activities, which will allow companies to attain goals of both economies and sustainability (Schaltegger et al., 2016). The ecosystems are especially vital in emerging economies where the success of sustainable ventures can be greatly affected by institutional support.

With these opportunities, there are still a number of obstacles that are impeding sustainable entrepreneurship. These are, inadequate access to green financing, uncertainty in regulations, absence of awareness and skills as well as difficulty in quantifying sustainability performance. To overcome these barriers, it involves concerted efforts to advance policy frameworks, capacity building and transparency in sustainability communication. Figure 2 illustrates the connection between sustainable entrepreneurship and innovation and the risk of greenwashing.

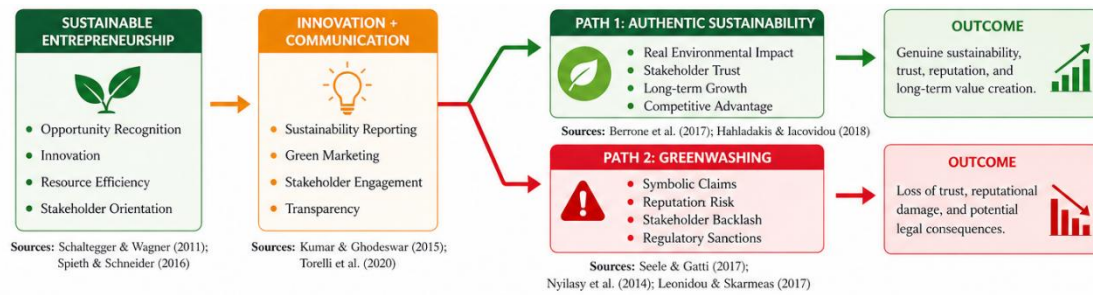


Figure 2. Sustainable Entrepreneurship vs. Greenwashing Model

To summarize, sustainable entrepreneurship and innovation have a lot of potential in dealing with environmental and social issues and spearhead economic growth. Entrepreneurs, SMEs and start ups are central to advancing sustainability via novel business models and practices. Nonetheless, the rising popularity of sustainability also poses threats of greenwashing, especially when the message is outpacing the action. Innovation should be linked to transparency, accountability and credible sustainability practices to achieve meaningful impact and through this, businesses can go beyond symbolic practices to attain real and long-term sustainability results.

5. Corporate Social Responsibility (CSR) and Ethics

Corporate Social Responsibility (CSR) is an initiative of a company to incorporate the social, environmental, and ethical issues into its business as well as relationships with stakeholders. It is a major framework of fostering sustainability besides increasing organizational legitimacy and trust of stakeholders. The CSR activities also help in employee engagement and meaning in the workplace because people are more and more demanding that organizational values should be aligned with societal impact (Aguinis and Glavas, 2019). Moreover, CSR affects the way consumers see and make decisions, which makes it that much more important as both a strategic and ethical business approach (Fatma et al., 2016).

Nevertheless, the correlation CSR and greenwashing brings up an essential dilemma. Although CSR is supposed to guarantee accountability and responsible behavior, companies can play it on the lip without engaging in any serious measures to change anything. This forms a misunderstanding between what is practiced internally and what is communicated externally, also commonly known as the CSR gap (Hawn and Ioannou, 2016). Under these circumstances, CSR is used as a means of creating an impression instead of actual sustainability, which raises the chances of misleading the stakeholders. Even though certain studies have indicated that outright CSR-washing might be not as prevalent as perceived, the lack of consistency in communication can still discredit it (Pope and Waeraas, 2016).

Ethics is a key element in dealing with these issues. The transparency, honesty, and accountabilities are some of the principles that are necessary to make sure that the CSR practices are based on the actual performance. Good CSR communication should be consistent with the expectations of stakeholders and give understandable, credible, and consistent information (Kim & Ferguson, 2018). The more companies are able to incorporate ethical principles in their strategies, the more sustainable results they may expect and retaliate in the long term.

Another factor that affects CSR effectiveness is governance and stakeholder engagement. Effective governance systems and accountable leadership can curb opportunistic behaviors and the provision of proper sustainability disclosures. CSR is also a matter of strategic implication since responsible companies can enjoy competitive benefits, which can include better access to opportunities, such as government contracts (Flammer, 2018). In addition, SMEs find communication of CSR especially complicated as the issue of transparency and resource limitation can pose problems with the essentiality of a proper presentation of sustainability initiatives (Morsing and Spence, 2019).

To sum up, both CSR and ethics are essential in avoiding greenwashing and other credible sustainability communication. The ethical principles and business strategy must be aligned, which can be achieved through robust governance and stakeholder involvement and is the key to building trust and ensuring long-term sustainability.

6. Methodology of Literature Review

6.1 Research Design

The paper will take a narrative and integrative literature review methodology to analyze the available literature on the topic of corporate greenwashing and sustainability communication. Compared to a rigid systematic literature review, this methodology permits a more flexible and interpretive analysis of a variety of sources, allowing the incorporation of ideas, theories and results across several fields. Narrative reviews are especially helpful when it comes to synthesizing scattered literature and building conceptual knowledge (Snyder, 2019). Furthermore, a set of

systematic review frameworks, like SPAR-4-SLR, offers directions on how to uphold rigor and provide flexibility in analysis (Paul et al., 2021).

6.2 Data Sources and Search Strategy

To cover all possible information, the literature used to review was searched in some of the key academic databases, such as Scopus, Web of Science, Google Scholar, ScienceDirect, and SpringerLink. Key-word search strategy was applied with the use of the following terms greenwashing, sustainability communication, corporate social responsibility, ESG disclosure and sustainable entrepreneurship. Systematic search methods can make the identification of the literature more transparent and consistent (Okoli, 2015; Booth et al., 2021).

6.3 Selection Criteria

The review will concentrate on journal articles published within the past five years (2016-2025) since new trends in the area have been observed in recent times. Basic research was also incorporated where essential to back up theoretical knowledge. Articles were also picked upon relevance, quality and contribution to the theme of greenwashing, sustainability communication, CSR and entrepreneurship. To guarantee the credibility and validity of literature reviews, it is crucial to set specific selection criteria (Veginadu et al., 2022).

6.4 Literature Review Process

The review method comprised the identification of the related studies, screening of titles and abstracts, and an in-depth examination of chosen articles. The process was iterative, which is why the themes could be continuously refined and more sources of interest included. Though not adhering to systematic review guidelines, the procedure is consistent with the best practices related to structured literature review and provides an analytical depth (Snyder, 2019). The best practices of accepted review guidelines, including PRISMA, were taken into account to make the selection process more transparent and understandable (Page et al., 2021).

6.5 Analytical Approach

Synthesis of the literature was performed with the help of a thematic analysis that revealed main patterns and themes. This method allows arranging the results in significant categories and contributes to the creation of conceptual understanding. The systematic and structured review frameworks also influenced the analytical process, which guarantees methodological rigor and coherence (Paul et al., 2021; Mannarath, 2025). Furthermore, Cochrane Handbook methodological guidance helps to ensure consistency and reliability in the review and interpretation of evidence (Chandler et al., 2019).

6.6 Limitations

Although this study has been done to achieve rigor, it has some limitations. The search is restricted to publications written in English and a set of academic databases, which might not cover pertinent research. The review has a narrative nature as well with some subjective interpretation in the selection and synthesis of literature. It is crucial to recognize such limitations to ensure the transparency and credibility of review-based research (Randles and Finnegan, 2023).

Altogether, this methodology offers a systematic but open-ended procedure of screening the literature on the topic of greenwashing and sustainability communication. The synthesis of available studies is thorough and insightful as it integrates the principles of narrative review with the application of thematic analysis and methodological principles.

7. Key Findings from Literature

7.1 Overview of Trends

Literature surrounding greenwashing and sustainability communication has grown at an impressive rate as it is no longer conceptualized and is now dominated by empirical and interdisciplinary studies. Recent reports highlight the importance of ESG reporting, stakeholder relations, and online communication as the focus areas.

7.2 Greenwashing Practices

One of the main insights is the disconnect between symbolic and real practices, where companies emphasize the positive messages and hide the negative effects. This is motivated by the competitive pressures, ineffective regulations and reputation management. Greenwashing can also be done involuntarily, particularly in SMEs that have fewer resources.

7.3 Stakeholder Response

Trust is possible when credible but misleading claims are made in sustainability communication as this causes a lack of trust and reputational harm. Stakeholders are becoming more critical and knowledgeable and transparency becomes a requirement.

7.4 CSR and Ethics

Ethical practices and CSR play a vital role in minimising greenwashing. Companies considering ethics and transparency in their strategy also have more chances to be credible, whereas the symbolic CSR makes the probability of misleading communication higher.

7.5 SMEs and Entrepreneurship

In the literature, SMEs are under-explored. They have limited resources and expertise, but also provide flexibility and innovation towards genuine sustainability practices.

7.6 Asia Context

The various regulatory environments, culture and the high rate of economic growth in Asia drive greenwashing. Lack of strong enforcement enhances risks, and institutional pressures direct sustainability practices.

7.7 Emerging Trends and Gaps

There are such emerging trends as digital greenwashing, ESG reporting, and AI-based detection. The main gaps include research on SMEs, measurement frameworks which are standardized and research on emerging economies. Figure 3 shows the two-fold nature of sustainability communication as a means of transparency and a possible source of greenwashing.

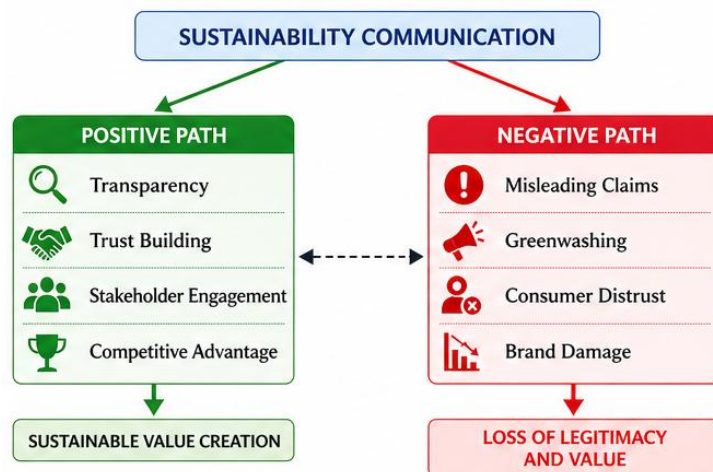


Figure 3. Dual Role of Sustainability Communication

All in all, misalignment between action and communication is the motivation behind greenwashing. To enhance true sustainability, it is necessary to strengthen ethics, governance and transparency.

8. Emerging Research Directions

The current changes in the technological, regulatory and business practices are transforming the future of greenwashing and sustainability communication research. Among them is the field of digital communication and social media, where companies are becoming more and more influential in developing sustainability discourses. The impact of online platforms in the propagation and recognition of greenwashing can be studied. The other significant direction is the establishment of standardized frameworks of ESG reporting. The lack of consistency in reporting leads to challenges in evaluating the claims of corporate sustainability,

particularly in the emerging economies. Research may be aimed at enhancing transparency and comparability of disclosures. Artificial intelligence and big data are the advanced technologies that can be used to detect and analyze greenwashing. These are the tools that can improve the monitoring and increase the credibility of sustainability communication.

More studies on SMEs, start-ups and entrepreneurial ecosystem are also required especially in Asia. These companies have their own challenges as well as are innovative with respect to sustainable practices. Also behavioral perspectives are to be considered to learn how stakeholders view and react on sustainability claims. Research with policy implications is also essential to assess how regulations and governance can help decrease the occurrence of greenwashing. Table 3 provides a summary of the key research gaps and future directions that are identified in the literature.

Table 3. Research Gaps and Future Directions

Area	Current Gap	Future Research Direction	Key References
SMEs	Limited empirical research	SME-focused sustainability models	(Pizzetti et al., 2021; Hermawan et al., 2025)
Asia Context	Underexplored institutional diversity	Country-specific studies	(Abdul Rahman & Alsayegh, 2021; Kim et al., 2024)
Digital Media	Limited evidence on impact	Social media greenwashing analysis	(Eze, 2025; Li et al., 2025)
Measurement	Lack of standardized tools	Develop greenwashing indices	(Janik & Ryszko, 2025; Koch & Denner, 2025)
Technology	Emerging field	AI-based detection models	(Calamai et al., 2025)

In general, future studies ought to take an interdisciplinary approach and concentrate on technology, policy, and various business backgrounds to enhance sustainability communication and reduce greenwashing.

9. Implications

9.1 For Entrepreneurs and SMEs

Entrepreneurs and SMEs are advised to concentrate on the real sustainability practices instead of making symbolic claims. Open communication and incorporation of sustainability in the fundamental operations may establish trust and minimize cases of greenwashing.

9.2 For Policymakers

Policymakers should enhance policies and ESG reporting to enhance transparency. It is necessary to support SMEs with the help of incentives and check false claims.

9.3 For Academics

More context-specific and interdisciplinary studies, particularly of SMEs and Asian economies, and more effective measuring and detection tools of greenwashing are needed.

9.4 For Managers

Sustainability communication should be consistent with real activities and must be backed up by ethical leadership and good governance to ensure the sustainability of the process. In general, to decrease greenwashing, transparency, accountability, and correspondence between actions and communication are needed.

10. Conclusion

This study provides a comprehensive review of corporate greenwashing and sustainability communication, highlighting their increasing relevance in modern business practices. The findings reveal that while sustainability communication is essential for enhancing transparency, building stakeholder trust, and supporting long-term value creation, it is often misused through greenwashing, creating a disconnect between communicated claims and actual environmental performance. The review identifies key drivers of greenwashing, including competitive pressures, the pursuit of legitimacy, weak regulatory frameworks, and inconsistencies in ESG reporting standards. It also emphasizes the critical role of corporate social responsibility, ethical practices, and governance mechanisms in ensuring the credibility of sustainability initiatives. In particular, small and medium-sized enterprises (SMEs), start-ups, and businesses in Asian economies face unique challenges due to resource constraints, limited regulatory oversight, and

evolving institutional environments, but they also present opportunities for innovation-driven sustainable practices. The study further highlights emerging trends such as digital sustainability communication, increasing reliance on ESG disclosures, and the growing use of advanced technologies for detecting misleading claims. Despite the expansion of research in this field, significant gaps remain, especially concerning SMEs, emerging markets, and standardized measurement frameworks for greenwashing. Overall, the paper underscores the importance of aligning sustainability communication with actual business practices to avoid reputational risks and stakeholder scepticism. Strengthening transparency, ethical responsibility, and regulatory support is essential to minimize greenwashing and promoting genuine sustainability, ensuring that corporate efforts contribute meaningfully to broader environmental and social development goals.

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