Submitted: 08/04/2026 - Accepted: 04/05/2026 - Published: 28/06/2026

Green Marketing and Market Efficiency: Consumer Behaviour and the Risks of Greenwashing

Maria Carolina Semedo Martins[1], Petra Torres Pinho[1], Luís Miguel Antunes Costa[1], Valentina Chkoniya[1,2]*

[1]Polytechnic University of Coimbra, ISCAC, Coimbra, Portugal
[3]GOVCOPP, University of Aveiro, Portugal

DOI: 10.26417/7k63sb16

Abstract

This study examines how sustainability-oriented marketing practices influence consumer-related outcomes, with particular attention to trust formation, purchasing decisions, and long-term market functioning. Based on a critical review of recent academic literature, the article analyses the role of credibility and transparency in sustainability communication and their implications for economic efficiency. The findings indicate that authentic and verifiable sustainability claims strengthen consumer confidence by reducing information asymmetry and improving the reliability of market signals. In contrast, misleading environmental communication undermines credibility, distorts competitive conditions, and weakens incentives for genuine sustainable innovation. By integrating perspectives from marketing theory and economic analysis, the study highlights trust as a key mechanism linking sustainability communication to consumer decision-making and efficient resource allocation. The article contributes to the literature by framing deceptive sustainability practices not only as an ethical concern but also as a structural threat to well-functioning markets, with implications for managers and policymakers seeking to promote credible and resilient sustainability-driven economic systems.

Keywords: Sustainability communication; Brand trust; Information asymmetry; Ethical marketing; Circular economy; Consumer decision-making

1. Introduction

Green Marketing has been gaining increasing relevance in business strategies, in response to growing environmental awareness and greater consumer demands for organisations' social and environmental responsibility. Concerns about climate change, the scarcity of natural resources, and the impacts of consumption have led companies to rethink their marketing practices, integrating sustainability as a central element in value creation.

According to Philip Kotler, this evolution reflects the transition of marketing from a purely transactional logic to an approach oriented towards social and human value, in which companies begin to consider, in addition to profit, the impacts of their decisions on society and the environment (Kotler et al., 2026). In this context, Green Marketing emerges as a strategic response to new consumer expectations that demand greater coherence among business practices, communication, and brand positioning.

The literature indicates that Green Marketing strategies can positively influence consumer behaviour, particularly purchase intention, trust, and brand loyalty, provided they are perceived as credible and consistent (Agarwal et al., 2025). However, the increasing use of environmental arguments in corporate discourse has given rise to the phenomenon of greenwashing, increasing consumer scepticism, and posing additional challenges to organisations in a context of greater scrutiny and regulatory demands (Vangeli et al., 2023).

In addition to its marketing relevance, green marketing has important economic implications. As sustainability attributes increasingly influence consumer choice, environmental claims function as signals in the market, shaping perceptions of product quality and corporate responsibility. When these signals are credible, they contribute to efficient market outcomes by guiding consumer preferences toward environmentally responsible firms. Conversely, misleading or unverifiable claims distort decision-making processes, reinforcing information asymmetry and weakening markets' role in promoting sustainable production and consumption.

1.2 Objectives of the article and methodology adopted

The main objective of this article is to analyse the impacts of Green Marketing on consumer behaviour, with particular attention to purchase intention, trust, and brand loyalty. Additionally, it seeks to discuss the risks associated with greenwashing, a practice that can compromise corporate credibility and negatively affect consumer perceptions and market functioning (Koch & Denner, 2025; Vangeli et al., 2023).

Methodologically, the study is based on a critical literature review that integrates classic contributions from marketing theory with recent peer-reviewed research on sustainability, consumer behaviour, credibility, and the economic implications of environmental communication. The literature review identifies convergent findings, theoretical divergences, and research gaps, providing a consistent conceptual basis for the discussion. To strengthen analytical breadth, the study synthesises evidence from interdisciplinary research, ranging from controlled experiments on perceived deception and credibility erosion (Koch & Denner, 2025) to quantitative, data-driven approaches, including classification algorithms used to predict sustainable purchasing choices (Boozary et al., 2026). This multifaceted perspective also considers the role of green innovation and environmental labelling as mechanisms that reduce information asymmetry and support long-term strategic effectiveness (Huang et al., 2024).

The literature review followed a structured approach, prioritising peer-reviewed studies published within the last five to seven years to ensure relevance to contemporary academic and managerial debates. Attention was given to interdisciplinary work that connects marketing theory with economic perspectives on sustainability, credibility, signalling, and market functioning. Studies addressing information asymmetry, environmental labelling, and the strategic risks of greenwashing were particularly relevant for explaining consumer decision-making and market efficiency dynamics (Chkoniya, 2025; Fainshtein et al., 2024). Grammarly (2024) is used to improve the readability and language of the work

2. Green Marketing: Concept and Evolution

The concept of Green Marketing transcends mere promotion of ecological attributes and, in Philip Kotler's view, constitutes a fundamental pillar of societal marketing. Modern marketing must ethically balance corporate profit, deep consumer satisfaction, and long-term public well-being. This approach has evolved drastically from its initial phases, where companies often maintained a stance of resistance or merely rhetorical adoption (known as the symbolic phase), to a substantive integration into business strategy, especially in the B2B context, where regulatory scrutiny and environmental activism are increasingly rigorous (Kurnicki, 2025).

As shown in Figure 1, this strategic evolution is currently reflected in the transition to the Circular Economy. In this model, marketing no longer focuses solely on the isolated transaction and linear consumption but rather manages value systemically throughout the entire product lifecycle.

Figure 1 - Marketing model in the circular economy (adapted from Agarwal et al., 2025).

The figure above illustrates how green marketing operationalises circularity by focusing on resource regeneration, waste reduction, and product lifespan extension, as discussed by (Agarwal et al., 2025). This model transforms sustainability from a promotional tactic into an essential requirement for operational efficiency and brand survival.

In this contemporary phase, environmental labelling (eco-labelling) emerges as the most critical evolutionary tool. It serves as an educational and transparency mechanism that allows consumers to verify the efficiency of the company's green innovation. According to Huang et al. (2024), environmental labels are essential for reducing information asymmetry, enabling consumers to assess the real impact of their choices, from carbon footprint to material circularity. Thus, modern green marketing, by aligning itself with Kotler's precepts and the demands of the circular economy, ceases to be a niche option and becomes the standard of integrity and competitiveness in global economies (Agarwal et al., 2025; C. Huang et al., 2022).

3. Theoretical Framework

3.1 Green Marketing and Consumer Behaviour

The theoretical framework of sustainable marketing is based on the premise that organisations must evolve from a purely transactional orientation to a societal approach. According to Philip Kotler, this evolution is marked by the transition to Marketing 3.0, in which consumers are seen as whole human beings whose purchasing decisions reflect their ethical values and concerns for global well-being (Kotler, 2011; Kotler et al., 2024). In the current context, this vision is enhanced by Marketing 6.0, which places technology and innovation at the service of environmental regeneration and sustainability (Agarwal et al., 2025).

Recent literature indicates that "green" consumer behaviour is not linear and is influenced by a triad of factors: environmental awareness, brand trust, and perceived product effectiveness. As demonstrated by (Boozary et al., 2026), machine learning models indicate that variables such as demographics, eco-design, and sustainable promotional activities are robust predictors of consumer choices. However, the crucial element that converts a positive attitude into actual purchasing behaviour is the reduction of information asymmetry.

In this sense, Environmental Labelling (Eco-labelling) plays a fundamental theoretical and practical role (Wojnarowska et al., 2021). According to Huang et al. (2024), labels function as cognitive shortcuts that validate brand integrity. When a consumer identifies a credible label, their trust increases, reducing uncertainty and strengthening brand loyalty, since the label serves as tangible proof of the company's commitment to the circular economy and to reducing its carbon footprint (Geldres-Weiss et al., 2024).

However, consumer behaviour theory also warns of the "gap between intention and action." This gap is often exacerbated when credibility is called into question. According to the Expectation Violation Theory, consumers establish a high level of trust when a brand adopts Green Marketing strategies. If the company fails to deliver on this promise through greenwashing practices, the reaction is disproportionately negative. Koch and Denner (2025) emphasise that even small discrepancies between discourse and practice can destroy the corporate image, generating scepticism that compromises not only immediate sales but also the brand's long-term sustainability.

Thus, the theoretical framework reveals that the success of Green Marketing depends on a symbiosis between substantive green innovation and transparent communication, in which credibility serves as the main strategic asset in the relationship between the brand and the conscious consumer.

3.2 Credibility, trust and sustainable communication

Credibility plays a central role in the effectiveness of Green Marketing strategies, as it directly influences how consumers interpret, evaluate, and respond to companies' environmental messages. In a context marked by the increasing use of sustainability arguments in marketing communication, consumers have become more attentive and critical, demonstrating greater sensitivity to the consistency between brands' discourse and their actual practices(Boozary et al., 2026; Kumar et al., 2023).

According to Philip Kotler's perspective, marketing communication should be geared towards building lasting trust relationships with consumers, based on the clarity, consistency, and truthfulness of the messages conveyed. Within the context of Green Marketing, this requirement becomes particularly relevant, as environmental claims entail higher ethical expectations and greater public scrutiny (Kotler & Keller, 2021).

Literature shows that clear, specific environmental messages supported by verifiable information tend to reinforce brand credibility and consumer confidence. Huang et al. (2024) emphasise that sustainable communication is more effective when accompanied by mechanisms that reduce information asymmetry, such as environmental certifications and credible labelling, facilitating consumer evaluation of business practices. In contrast, vague, generic, or excessively promotional communications increase scepticism and reduce the effectiveness of sustainable marketing strategies.

Trust thus emerges as an essential mediating element between sustainable communication and consumer behaviour. Agarwal et al. (2025) argue that trust results from consistency between communication and organisational practices and is crucial for the acceptance of sustainable value propositions. When consumers perceive inconsistency or a lack of transparency, the message's credibility is compromised, regardless of the company's stated intentions.

Additionally, the literature underscores that the proliferation of poorly substantiated environmental claims contributes to a culture of widespread distrust. Vangeli et al. (2023) state that sustainable communication loses effectiveness when consumers have difficulty distinguishing between genuine practices and merely symbolic strategies, reinforcing the importance of credibility as a prerequisite for Green Marketing.

In this context, sustainable communication should be understood as an integral part of the business strategy, rather than merely a promotional tool. The literature converges on the idea that the effectiveness of Green Marketing depends on companies' ability to align discourse, practices, and strategic positioning, with this coherence being a determining factor in building consumer trust and the legitimacy of environmental messages.

This theoretical framework allows us to understand greenwashing as a strategic risk, which is developed in the following section. The breakdown of credibility directly compromises consumer confidence and the effectiveness of Green Marketing strategies.

3.3 Greenwashing as a strategic risk

Greenwashing is one of the main strategic risks associated with the inappropriate use of Green Marketing. This phenomenon occurs when there is a discrepancy between the environmental claims a company communicates and its actual environmental performance, leading consumers to perceive these messages as misleading, exaggerated, or lacking credibility.

The literature identifies several forms of greenwashing, including the use of vague or ambiguous language, selective disclosure of positive information, omission of negative environmental impacts, and unclear or unvalidated environmental certifications (Bothello et al., 2023; Vangeli et al., 2023). These practices hinder the objective assessment of companies' environmental commitment, increasing information asymmetry and consumer scepticism.

From a strategic point of view, greenwashing represents more than a simple communication error. Koch and Denner (2025) argue that the inconsistency between discourse and practice compromises corporate credibility, one of the most relevant intangible assets for organisational competitiveness. In a context of increasing environmental awareness, consumers have become more attentive and critical of sustainable messages, reducing their tolerance for inconsistencies, even when these are perceived as minor.

Additionally, the literature suggests that greenwashing can generate systemic effects, affecting not only the company that resorts to these practices but also the credibility of Green Marketing as a strategic instrument. Vangeli et al. (2023) report that the proliferation of poorly substantiated environmental claims contributes to a widespread climate of distrust, making it difficult to differentiate between genuinely sustainable companies and those that use sustainability only as a symbolic marketing argument.

In this sense, greenwashing should be considered a significant strategic risk that can compromise consumer trust, brand reputation, and the effectiveness of sustainable marketing strategies. Its existence reinforces the importance of consistency between communication and business practices, as well as the adoption of transparency and validation mechanisms that support the environmental claims organisations disseminate.

Beyond its reputational consequences, greenwashing represents a strategic risk with long-term economic implications, particularly in markets where sustainability functions as a competitive signal. When firms rely on misleading environmental claims rather than substantive green innovation, they weaken the credibility of sustainability as a differentiation mechanism, thereby reducing the informational value of environmental communication for consumers (EU Environment: Green Claims, 2024; OECD, 2024). Over time, this behaviour diminishes the signalling function of green marketing, making it increasingly difficult for consumers to distinguish between firms based on actual environmental performance.

This dynamic reinforces market inefficiencies by discouraging investment in genuine sustainability. According to the OECD (2022), deceptive environmental claims distort competitive conditions by allowing firms that do not bear the costs of sustainable innovation to obtain reputational benefits comparable to those of genuinely responsible companies. As a result, greenwashing may lead to a misallocation of resources, diverting capital and consumer demand away from firms that effectively contribute to environmental improvement and undermining incentives for long-term sustainable innovation (EU Environment: Green Claims, 2024).

Furthermore, the strategic risk of greenwashing extends to regulatory exposure and legal accountability. Regulatory authorities increasingly emphasise stricter enforcement against misleading environmental claims, exposing firms to sanctions, litigation, and reputational repair costs (EU Environment: Green Claims, 2024; ISO, 2021). These risks amplify the long-term costs of greenwashing, turning what may appear to be a short-term marketing advantage into a significant strategic liability.

Consequently, greenwashing should not be viewed merely as a communication failure but as a structural threat to both corporate competitiveness and the integrity of sustainable markets. This reinforces the importance of aligning marketing discourse with operational practices and adopting transparency and verification mechanisms that safeguard credibility and support efficient market functioning (OECD, 2022).

4. Results of the Literature Review and Discussion

4.1 Impacts of Green Marketing on Purchase Intention

The literature shows that Green Marketing exerts a significant influence on consumer purchase intention, though this impact is neither automatic nor uniform. Purchase intention results from a complex interaction among individual consumer factors, product characteristics, and, above all, the credibility of companies' communicated sustainable practices. Thus, Green Marketing tends to produce more robust effects when environmental messages are specific, verifiable, and consistent with the brand's overall positioning.

Boozary et al. (2025) demonstrate that the decision to purchase sustainable products is not motivated exclusively by environmental concerns or altruism but is also influenced by functional and personal benefits associated with the products, such as perceptions of higher quality, safety, or a positive impact on health. The authors highlight that Green Marketing is most effective when it links environmental benefits with direct advantages for the consumer, reinforcing the perception of value and, consequently, the predisposition to purchase.

Trust in the information communicated emerges as a determining factor in converting intention into effective behaviour. Huang et al. (2024) show that certified environmental labelling (eco-labelling) plays a central role in reducing information asymmetry, increasing consumer confidence, and increasing their willingness to pay a premium for sustainable products. The presence of recognised certifications acts as an external validation mechanism, legitimising environmental claims and reducing the perceived risk associated with the purchase decision.

Despite this, the literature indicates the persistence of the attitude-behaviour gap, suggesting that a declared predisposition to purchase "green" products may not automatically translate into an actual purchase. This discrepancy is often explained by factors such as price sensitivity, convenience, product availability, and doubts about the credibility of the claims. Environmental factors, which reinforce the importance of clear, evidence-supported sustainable communication strategies (Huang et al., 2024; Boozary et al., 2025).

However, purchase intent associated with Green Marketing is particularly sensitive to perceptions of inconsistency. Agarwal et al. (2025) emphasise that, in the context of the circular economy, the effectiveness of sustainable marketing strategies depends on the consistent integration of sustainability into the business model. When consumers perceive a lack of clarity or inconsistency between discourse and practice, their predisposition to purchase tends to decrease, even when they have a favourable attitude towards sustainability.

This negative effect is reinforced by Koch and Denner's (2025) findings, which demonstrate that any perception of greenwashing significantly compromises purchase intention. The authors show that small discrepancies between environmental claims and the company's actual performance are sufficient to reduce brand credibility and weaken future consumption intentions, regardless of the company's previously established reputation.

Although most of the studies analysed focus on end-user consumption, the literature suggests that this credibility logic is also relevant in B2B contexts, where purchase decisions involve greater rationality, documentary requirements, and reputational risk. Vangeli et al. (2023) indicate that, in B2B markets, sustainable practices and transparency in environmental claims can influence purchase intention by serving as criteria for selecting and retaining suppliers, especially in supply chains subject to regulatory scrutiny and stakeholder pressure.

In general, the studies analysed indicate that Green Marketing can positively influence purchase intention when perceived as credible, transparent, and consistent with business practices. Purchase intention thus emerges as a variable highly dependent on trust, functioning as a sensitive indicator of the quality and authenticity of sustainable marketing strategies.

4.2 Effects of Green Marketing on Consumer Trust and Loyalty

A review of the literature shows that trust plays a crucial role in the relationship between Green Marketing and consumer loyalty, acting as a mediating element between the sustainable practices communicated by companies and repurchase and recommendation behaviours. In a context of increasing scrutiny of environmental claims, trust emerges as a fundamental strategic asset for building long-term relationships.

According to Philip Kotler's perspective, value creation in marketing depends on the credibility and consistency between the promises companies make and the practices they adopt. Within the context of Green Marketing, this consistency becomes particularly relevant, as environmental claims entail higher ethical expectations and greater consumer demand.

The studies analysed indicate that Green Marketing strategies perceived as authentic strengthen trust and improve brand reputation. Agarwal et al. (2025) demonstrate that the consistent integration of sustainability into the business model favours the development of a "sustainable brand," thereby promoting higher loyalty and lower price sensitivity. Similarly, Boozary et al. (2025) show that trust in the company's environmental practices positively influences consumers' predisposition to maintain ongoing relationships.

However, the literature shows that the trust associated with Green Marketing is particularly fragile. Koch and Denner (2025) conclude that any perception of inconsistency between discourse and practice significantly compromises brand credibility, negatively affecting consumer trust and loyalty, even when the company benefits from a previously positive reputation.

In this context, external validation of environmental claims is important. Huang et al. (2024) demonstrate that certified environmental labelling strengthens consumer confidence, reduces scepticism, and facilitates the conversion of trust into repurchase behaviour. In the B2B market, Vangeli et al. (2023) also observe that trust based on verifiable data and transparency is essential for maintaining long-lasting business relationships.

The relationship between green marketing, trust, and loyalty can also be viewed through a long-term value-creation lens. Trust accumulated through consistent, credible, sustainable practices enhances customer lifetime value by reducing switching behaviour and increasing tolerance for price variations. In this sense, trust functions not only as a psychological construct but also as an economic asset that strengthens competitive positioning.

However, this asset is highly fragile. Unlike traditional brand attributes, trust derived from environmental responsibility is subject to heightened scrutiny and moral expectations. Once compromised, it is difficult and costly to restore. The literature suggests that attempts to rebuild trust after perceived greenwashing often require extensive corrective communication, operational changes, and external verification, increasing both financial and reputational costs.

Therefore, loyalty generated through green marketing should be understood as conditional and continuously evaluated by consumers. Firms must maintain consistency over time, as loyalty based on sustainability is sustained not by isolated initiatives but by ongoing alignment between values, actions, and communication.

4.3 Consequences of greenwashing on consumer image and behaviour

At the level of corporate image, the literature shows that the effects of greenwashing are significant, directly affecting credibility and trust, central elements of branding. This impact can be theoretically framed within the Expectation Violation Theory, which holds that consumers form expectations based on the promises of social and environmental responsibility communicated by companies. When actual performance falls short of expectations, a negative reassessment of the organisation occurs (Koch & Denner, 2025).

Recent empirical research refutes the idea that only major environmental scandals compromise corporate reputation. Koch and Denner (2025) demonstrate that both overt greenwashing practices and minor communication inconsistencies are associated with a statistically significant decrease in perceived image and credibility. These results suggest that consumers have a reduced tolerance for environmental inauthenticity. Additionally, the authors conclude that a positive corporate reputation built over time does not function as an effective protective mechanism, since consumers tend to penalise greenwashing even in previously well-regarded brands.

The erosion of trust is directly reflected in adverse behavioural consequences. The systematic review by Vangeli et al. (2023) shows that perceptions of greenwashing are associated with a reduction in the intention to purchase sustainable products. Beyond the impact on the offending company, greenwashing contributes to a climate of widespread scepticism and consumer confusion (green consumer confusion), making it difficult to distinguish between credible and misleading environmental claims and undermining trust in the sustainable products market.

Finally, the literature indicates that greenwashing can trigger negative consumer reactions. Perceptions of inconsistency or corporate hypocrisy are associated with increased negative word of mouth, brand avoidance, and a decreased willingness to pay a premium for eco-friendly products. These effects compromise not only the effectiveness of sustainable differentiation strategies but also the economic viability of Green Marketing when not supported by consistent business practices.

4.4 Green Marketing, Information Asymmetry and Market Efficiency

From an economic perspective, green marketing plays a relevant role in shaping market efficiency by influencing how sustainability-related information is transmitted and interpreted by consumers. In markets characterised by credence attributes, such as environmental performance, consumers are often unable to independently verify the true sustainability of products and firms, relying instead on environmental claims communicated through marketing channels (Huang et al., 2024).

When green marketing communication is credible and supported by verifiable practices, it helps reduce information asymmetry between firms and consumers. This reduction allows consumer preferences for sustainability to be more accurately translated into market demand, improving allocative efficiency and rewarding firms that invest in genuine environmental innovation (Agarwal et al., 2025; Huang et al., 2024). In this context, green marketing functions as a signalling mechanism that aligns consumer behaviour with broader sustainability objectives.

However, greenwashing undermines this mechanism. Misleading or exaggerated environmental claims distort market signals, preventing consumers from distinguishing between authentic and symbolic sustainability practices. This distortion leads to inefficient market outcomes, including adverse selection, where genuinely sustainable firms are disadvantaged by competitors that benefit from deceptive signalling at lower cost (Vangeli et al., 2023).

Over time, this dynamic discourages investment in sustainable innovation and weakens the economic incentives for responsible corporate behaviour. Koch and Denner (2025) demonstrate that even minor inconsistencies between environmental discourse and actual performance significantly erode credibility, amplifying consumer scepticism and reducing the effectiveness of sustainability-based differentiation strategies.

Moreover, persistent greenwashing generates negative spillover effects by eroding trust in sustainability-related communication. As consumer confidence declines, the effectiveness of green marketing diminishes across industries, including for firms that adhere to high environmental standards (Vangeli et al., 2023; Agarwal et al., 2025). Consequently, ensuring transparency, external validation, and regulatory oversight is essential not only for ethical marketing practices but also for the efficient functioning of markets increasingly shaped by sustainability considerations.

5. Implications for Commercial Management

Integrating Green Marketing strategies into sales management requires a profound overhaul of traditional practices, with authenticity prevailing over superficial promotion. The literature reviewed suggests that commercial success intrinsically depends on the consistency between corporate discourse and operational practice.

One of the most critical implications for managers is consumer sensitivity to any discrepancy between what is promised and what is delivered. Koch and Denner (2025) demonstrate, through experimental studies, that greenwashing is not binary, but exists in "different shades." Their results indicate that even small discrepancies, such as promising 90% recycled material and using only 86%, cause significant damage to the company's credibility and corporate image. Even more alarming for management is the conclusion that a good prior reputation does not serve as a "buffer"; that is, consumers do not forgive these "little lies," even if the company is a popular employer (Koch & Denner, 2025). Thus, commercial management should veto any communication that is not factually accurate, avoiding rounding off or exaggerations that could be exposed.

In the Business-to-Business (B2B) context, the management implications differ slightly from the consumer market. Vangeli et al. (2023) warn that companies in this sector face "vigilant environmental activism" and an increasingly restrictive regulatory environment. Commercial management in B2B must transition from a defensive to a proactive approach, with transparency at its core (Chkoniya, 2021). According to the authors, the risk of greenwashing in B2B can lead to severe scrutiny from partners and regulators, requiring marketing strategies to be fully supported by verifiable operational practices to avoid litigation and contract losses (Vangeli et al., 2023).

Modern business management must rely on robust data to align green innovation with consumer expectations. Boozary et al. (2026) highlight the importance of using advanced analytical tools, such as regression models and classification algorithms, to predict sustainable consumer behaviour. Management should use this data to understand how demographic variables and specific product characteristics (health, safety, environmental impact) influence purchasing decisions. Additionally, Huang et al. (2024) reinforce that the effectiveness of marketing strategies depends on tangible green innovation. Managers should focus not only on advertising but also on the actual development of eco-friendly products and packaging, using eco-labelling as an external validation tool to increase consumer confidence (Boozary et al., 2026; L. Huang et al., 2024).

Finally, management must view sustainability as a central pillar, not a tactical add-on. Agarwal et al. (2025) argue that, especially in emerging economies, it is necessary to "redefine marketing strategies" to promote consumer confidence in the circular economy. This implies that business managers must design campaigns that educate consumers about the product lifecycle and ensure that the brand is perceived as a genuine agent of change. Building a strong "sustainable brand" requires long-term consistency, where customer loyalty is earned through transparent and ethical practices that mitigate the widespread scepticism caused by greenwashing (Agarwal et al., 2025).

5.1 Implications for Policymakers and Market Regulation

Beyond managerial implications, this literature review's findings highlight important consequences for policymakers and regulatory authorities. From a market perspective, greenwashing represents a structural risk that undermines consumer protection and distorts competition, particularly in markets where sustainability attributes are increasingly used as differentiating signals.

The prevalence of misleading environmental claims weakens the informational foundations of sustainable markets. When consumers are systematically exposed to vague or unverifiable green claims, their ability to make informed decisions is compromised, reducing confidence not only in individual firms but also in sustainability labels and certifications more broadly. This situation exacerbates information asymmetry and limits the effectiveness of market-based mechanisms designed to promote responsible consumption.

Regulatory intervention plays a crucial role in mitigating these risks. The literature emphasises the importance of standardised environmental disclosure requirements, clear definitions of permissible environmental claims, and consistent enforcement mechanisms. By establishing common reporting frameworks and minimum evidentiary standards, regulators can reduce ambiguity and prevent firms from exploiting information gaps for reputational gain.

Moreover, effective regulation helps restore fair competition by protecting firms that invest in genuine sustainable practices from being undercut by competitors that engage in symbolic or deceptive marketing strategies. In this sense, regulation does not hinder innovation but rather supports market efficiency by ensuring that environmental performance is accurately reflected in market signals.

Finally, the growing integration of sustainability objectives into public policy suggests that green marketing should be viewed not only as a business practice but also as an instrument aligned with broader economic and environmental goals. Transparent and enforceable regulatory frameworks can enhance consumer trust, strengthen sustainable markets, and support the transition to more resilient, environmentally responsible economic systems.

6. Conclusion

This study examined the impact of green marketing on consumer behaviour and analysed the risks associated with greenwashing through a critical review of the literature. The findings demonstrate that green marketing strategies can positively influence purchase intention, trust, brand reputation, and loyalty when perceived as credible, transparent, and supported by consistent business practices. Trust emerges as a central mechanism linking sustainable communication to consumer behaviour. When environmental claims are clear, verifiable, and aligned with a brand's actual corporate practices, consumers are more likely to build long-term relationships with the brand and reward sustainable innovation through their purchasing decisions. In this sense, green marketing can contribute not only to firm-level competitiveness but also to the broader functioning of sustainable markets. However, the analysis also highlights greenwashing as a significant threat to both marketing effectiveness and market efficiency. Misleading environmental communication intensifies information asymmetry, distorts price signals, and undermines consumer confidence. These effects extend beyond individual firms, generating negative spillovers that weaken trust in sustainable markets as a whole and reduce incentives for genuine environmental innovation. From a managerial perspective, the findings reinforce the need for authenticity, transparency, and external validation in sustainable marketing strategies. Sustainability should be embedded in the core business model rather than treated as a promotional add-on. From a policy perspective, the results emphasise the importance of regulatory oversight, standardised disclosure, and credible certification systems to protect consumers and ensure fair competition.

Given the theoretical nature of this study, future research should adopt empirical methods to test the identified relationships across sectors and cultural contexts. Quantitative studies and experimental designs could further explore how consumers interpret environmental claims and how regulatory interventions influence market outcomes. Such research would contribute to a deeper understanding of green marketing as both a strategic and economic phenomenon.

In broader economic terms, the relevance of green marketing extends beyond individual firms and consumer choices, influencing the overall credibility and functioning of sustainable markets. When environmental claims are credible and verifiable, they strengthen market transparency and allow consumer preferences to be effectively translated into demand for sustainable products. These dynamics support innovation, reward responsible firms, and contribute to more efficient resource allocation. Conversely, persistent greenwashing undermines these mechanisms by eroding trust and weakening the role of sustainability as a meaningful market signal. As a result, both managerial discipline and regulatory oversight are essential to ensure that green marketing fulfils its potential as a driver of ethical consumption and long-term economic value creation.

References

[1] Agarwal, S., Kweh, Q. L., Goh, K. W., & Wider, W. (2025). Redefining marketing strategies through sustainability: Influencing consumer behavior in the circular economy: A systematic review and future research roadmap. Cleaner and Responsible Consumption, 18(15), 100298. https://doi.org/10.1016/j.clrc.2025.100298

[2] Boozary, P., GhorbanTanhaei, H., Sheykhan, S., & Kazemkhanlou, H. (2026). Exploring sustainable marketing dynamics: Understanding consumer behavior in an environmentally conscious era. Journal of Engineering Research, 14(1), 882–895. https://doi.org/10.1016/j.jer.2025.09.005

[3] Bothello, J., Ioannou, I., Porumb, V. A., & Zengin-Karaibrahimoglu, Y. (2023). CSR decoupling within business groups and the risk of perceived greenwashing. Strategic Management Journal, 44(13), 3217–3251. https://doi.org/10.1002/smj.3532

[4] Chkoniya, V. (2021). Handbook of research on applied data science and artificial intelligence in business and industry. Handbook of Research on Applied Data Science and Artificial Intelligence in Business and Industry, 1–cxlii. https://doi.org/10.4018/9781799869856

[5] Chkoniya, V. (2025). The Social Dynamics of Trust in the Digital Economy: A Quantitative Analysis of Personalization and Transparency in European E-Commerce. European Journal of Social Science Education and Research, 12(3), 81–96. https://doi.org/10.26417/w73zrh06

[6] Fainshtein, E., Chkoniya, V., Fiore, M., & Serova, E. (2024). An innovation potential and organizational performance: an integrative role of company's dynamic capabilities. Agricultural and Food Economics, 12(1). https://doi.org/10.1186/s40100-024-00334-6

[7] Geldres-Weiss, V. V., Nicolas, C., & Massa, N. P. (2024). Toward a sustainable research agenda on food eco-labelling in the business and management research domain. European Journal of Management and Business Economics, 33(4), 429–444. https://doi.org/10.1108/EJMBE-08-2023-0246

[8] Green claims - Environment - European Commission. (2020). Retrieved March 16, 2026, from https://environment.ec.europa.eu/topics/circular-economy-topics/green-claims_en

[9] Huang, C., Zhuang, S., Li, Z., & Gao, J. (2022). Creating a Sincere Sustainable Brand: The Application of Aristotle's Rhetorical Theory to Green Brand Storytelling. Frontiers in Psychology, 13. https://doi.org/10.3389/fpsyg.2022.897281

[10] Huang, L., Solangi, Y. A., Magazzino, C., & Solangi, S. A. (2024). Evaluating the efficiency of green innovation and marketing strategies for long-term sustainability in the context of Environmental labeling. Journal of Cleaner Production, 450(19), 141870. https://doi.org/10.1016/j.jclepro.2024.141870

[11] ISO. (2021). ISO 14021: Environmental labels and declarations — Self-declared environmental claims. International Organization for Standardization

[12] Koch, T., & Denner, N. (2025). Different shades of green deception. Greenwashing's adverse effects on corporate image and credibility. Public Relations Review, 51(1), 102521. https://doi.org/10.1016/j.pubrev.2024.102521

[13] Kotler, P. (2011). Reinventing marketing to manage the environmental imperative. Journal of Marketing, 75(4), 132–135. https://doi.org/10.1509/jmkg.75.4.132

[14] Kotler, P., Kartajaya, H., & Setiawan, I. (2024). Philip Kotler, Hermawan Kartajaya, Iwan Setiawan - Marketing 6.0_ The Future Is Immersive-Wiley (2023). John Wiley & Sons, Inc, 1–203.

[15] Kotler, P., & Keller, K. L. (2021). Marketing Management 16th Global Edition. Pearson Kotler, P., & Keller, K. L. (2021). Marketing Management 16th Global Edition. Pearson Education Limited, 1–832.

[16] Kotler, P., Kartajaya, H., & Setiawan, I. (2026). Marketing 7.0 : unlocking the human mind. John Wiley & Sons, Inc

[17] Kumar, R., Kaushal, S. K., & Kumar, K. (2023). Does source credibility matter in promoting sustainable consumption? Developing an integrated model. Social Responsibility Journal, 19(7), 1320–1347. https://doi.org/10.1108/SRJ-07-2021-0257

[18] Kurnicki, L. (2025). Regulating Global Business: The Economic Governance Potential of Corporate Codes of Conduct. European Journal of Marketing and Economics, 8(1), 112–124. https://doi.org/10.26417/28E9R937

[19] OECD. (2022). OECD Environmental Performance Reviews: United Kingdom 2022. OECD Environmental Performance Reviews, OECD Environmental Performance Reviews. https://doi.org/10.1787/b6a2be87-en

[20] Vangeli, A., Małecka, A., Mitręga, M., & Pfajfar, G. (2023). From greenwashing to green B2B marketing: A systematic literature review. Industrial Marketing Management, 115, 281–299. https://doi.org/10.1016/j.indmarman.2023.10.002

[21] Wojnarowska, M., Sołtysik, M., & Prusak, A. (2021). Impact of eco-labelling on the implementation of sustainable production and consumption. Environmental Impact Assessment Review, 86, 106505. https://doi.org/10.1016/j.eiar.2020.106505