

Consumer Trust and Sustainable Product Marketing: Exploring the Impact of Greenwashing in Achieving Sustainable Development Goal – 12

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Abstract

The present study examines the impact of greenwashing practices on consumer trust toward environmentally friendly brands. The research also explores the level of consumer awareness regarding greenwashing and identifies the factors that influence consumer perception of sustainability claims. A descriptive research design was adopted for the study, and both primary and secondary data were used. Primary data were collected through a structured questionnaire distributed among respondents. Statistical tools such as reliability analysis, factor analysis, cluster analysis, correlation analysis, and regression analysis were used to analyse the collected data. The findings of the study indicate that consumers are becoming increasingly aware of greenwashing practices and tend to evaluate sustainability claims more critically. The results show a moderate relationship between greenwashing perception and consumer trust, suggesting that misleading environmental marketing practices can influence the level of trust consumers place in environmentally friendly brands. The study highlights the importance of transparency, ethical marketing, and effective regulatory policies in reducing greenwashing practices and promoting genuine sustainability efforts.

Keywords: Greenwashing, Consumer Trust, Sustainable Marketing, Environmental Claims, Consumer Perception

Introduction

Environmental sustainability has emerged as one of the most critical global concerns affecting economic systems in all aspects of society. Major environmental issues are the results of Industrial advancement, rise in population, urban expansion, and excessive consumption of natural resources, raising widespread awareness among governments, organizations, and consumers regarding the need to adopt environmentally friendly practices to ensure long-term

ecological balance and sustainable development. This awareness has led people to recognise and practice sustainable habits to protect the environment, as the same sustainability has become an integral part of contemporary business strategies. Organizations long-term success is not solely measured by financial performance but also by its environmental and social responsibility. Businesses are under constant pressure from stakeholders to operate responsibly and exhibit commitment towards the environment. This shift has significantly influenced practicing sustainability in all aspects of business initializing from the stage of production to the end stage of consumption. One among them is their marketing practices, coined as a very crucial function of promotion. Companies are essentially implementing and highlighting green marketing strategies, but not all such claims and strategies are genuine at all times. This is where “Greenwashing” comes into existence. Greenwashing is sometimes seen in marketing initiatives that employ ambiguous phrases such as "eco-friendly" or "natural" without providing concrete evidence. Although these tactics might draw in eco-aware clients, they damage genuine sustainable initiatives and weaken consumer trust. This study aims to explore to what extent consumer are aware of this authentic eco-friendly marketing and eco-friendly products used by business firms in manufacturing goods, and how it regulates their trust and consumption.

Objectives

- To examine consumers’ awareness and understanding of greenwashing practices in sustainable product marketing
- To analyse the effect of greenwashing on consumer trust towards environmentally friendly brands
- To suggest measures to consumers, policy makers, and businesses

Limitations

- The study is limited to Chennai city consumers
- The study is focused only on Indian Markets
- Investigates the perception and trust of consumers towards greenwashing marketing strategies, excluding the authenticity of the environmental claims

Review of Literature

Daou, Sayegh et al. (2025), “Greenwashing as a Barrier to Sustainable Marketing The deceptive nature of green marketing techniques, such as false product claims (MPCs), unclear

eco-labels (AELs), and greenwashing in marketing campaigns (GMCs), is highlighted in this study, which examines the impact of greenwashing on pro-environmental behaviour. The results show that environmentally friendly actions are considerably reduced by MPCs and AELs, with deceptive assertions having the greatest negative impact. In order to prevent greenwashing, the report emphasizes the critical need for clearer regulations, efficient consumer education, and open business practices. Stricter rules, third-party certifications, and consumer awareness campaigns are among the recommendations. This study advances our knowledge of consumer behaviour in relation to sustainability and guides the creation of more potent communication tactics that encourage true environmental stewardship.

Pattnayak (2025), “Green Confusion: Impact of Greenwashing on Consumer Attitudes and Decision-Making”. The purpose of this study is to determine how common greenwashing how it affects consumers' behaviour and psychology when making purchases. It looks on how greenwashing affects customer misunderstanding as opposed to consumer trust. The study looks at a number of factors, including customer attitudes, confusion, trust, awareness of environmental issues, and the existence of third-party certifications and authentications. This study employs a mixed-methods approach; 124 replies to a structured questionnaire were used to gather primary data. It is coupled with gathering secondary data from published works, environmental reports, and sustainability claims made by businesses. The results indicated that consumers' psychology and behaviour are adversely affected by greenwashing. Developing workable strategies to refute fraudulent sustainability claims is a critical responsibility of authorities and policymakers.

Ngan Bich Nguyen et al. (2025) This study examines how customers' intentions to boycott a firm are influenced by greenwashing, which is the practice of businesses misrepresenting their actions or products as environmentally beneficial. Specifically, it looks at the role of customer confusion (green confusion). The study examines how false environmental promises impact customer behaviour using Highlands Coffee's "Green Arm" promotion in Vietnam as an example. The study employs a quantitative method to examine the connections between greenwashing, green confusion, and customer boycott intents using the Stimulus-Organism-Response technique. The findings clearly indicate that consumers get perplexed and unsure when companies make false environmental claims. Business managers and regulatory agencies seeking to better comprehend and control consumer views of corporate environmental responsibility can benefit from the findings.

Jui-Che Tu et al. (2024) Through in-depth interviews and surveys, this study investigates how consumer perceptions of greenwashing and green brand image are affected by brands' green marketing techniques. Initially, 40 experts and industry stakeholders were interviewed to determine the four main aspects of brand green marketing: commitment and values, relationships and engagement, communication, and products and services. Factor analysis and structural equation modelling were then used to evaluate the hypotheses after data from 325 valid survey responses were gathered online. The findings show that dedication, values, relationships, and communication all successfully lower the perception of greenwashing and, by this mediation, affect the image of green brands. This research emphasizes how crucial it is for companies to stay clear of deceptive advertising in green marketing and guarantee the truthfulness of their environmental information in order to maintain and enhance their brand image.

Abdulalem Mohammed et al. (2025) The current study evaluated the paths within the suggested model using partial least squares-structural equation modelling and a survey dataset of 512 Saudi Arabian consumers. According to the study's findings, brands may suffer from consumer perceptions of greenwashing. In particular, it enhances brand recognition. Additionally, negative word-of-mouth is directly and indirectly impacted by greenwashing through green perceived risk. In order to increase consumer trust and decrease unfavourable behaviours like brand awareness and negative word-of-mouth, the study emphasizes the significance of avoiding deceptive green marketing. It offers practitioners practical insights. In markets that prioritize sustainability, brands can increase credibility, reduce risks, and retain consumer loyalty by implementing transparent processes and utilizing third-party environmental certifications.

Research Methodology

The study adopts a quantitative research approach to examine the impact of greenwashing on consumer trust. A descriptive research design is used to understand the relationship between greenwashing practices and consumer trust. Primary data is collected through a structured questionnaire distributed among consumers who wish to prefer purchasing environmentally labelled or sustainable products. The sampling technique used is convenience sampling, collecting data from 103 respondents to ensure adequate findings. The self-structured questionnaire comprises various sections containing statements related to awareness level, and

how these claims affect their trust in brands and their products, using a five-point Likert scale ranging from strongly disagree to strongly agree. Secondary data is obtained from research articles, journals, reports, etc., to support the theoretical framework of the research. The collected data is analysed using statistical tools such as percentage analysis, correlation analysis, and regression analysis to identify the relationship between greenwashing and consumer trust. Reliability of the questionnaire is tested using Cronbach's Alpha, while descriptive statistics are used to interpret consumer perceptions.

Data Analysis and Interpretation

Examine Consumers' Awareness and Understanding of Greenwashing Practices

Cluster	Number of Respondents
Cluster 1	41
Cluster 2	27
Cluster 3	35
Total	103

Cluster 1, consisting of 41 respondents, represents consumers with moderate awareness of greenwashing practices. These respondents are somewhat cautious about environmental claims made by brands but may still trust sustainability messages to some extent.

Cluster 2, consisting of 27 respondents, represents consumers who are highly sceptical toward sustainability claims. This group demonstrates a stronger understanding of greenwashing practices and tends to critically evaluate environmental marketing messages.

Cluster 3, consisting of 35 respondents, represents consumers who exhibit relatively positive perceptions toward environmentally friendly brands. These respondents tend to believe sustainability claims more readily and may not always question the authenticity of green marketing strategies.

Thus, from the above table, it is inferred that the majority of the consumers (41%) are aware of the greenwashing claims and greenwashing marketing practices employed by the brands and companies in their promotion and advertisements

Relationship between Greenwashing Practices and Consumer Trust toward the Environmentally

H0: Greenwashing practices **have no significant** negative impact on consumer trust toward environmentally friendly brands.

H1: Greenwashing practices **have a significant** negative impact on consumer trust toward environmentally friendly brands.

Variables	Correlation (r)
Perception of greenwashing & consumer trust	0.466

To test the hypothesis correlation coefficient test was applied the value obtained is 0.466, indicating a moderate relationship between perception of greenwashing and consumer trust.

Since the analysis indicates a significant relationship between the variables, the null hypothesis (H0) is rejected and the alternative hypothesis (H1) is accepted. Therefore, it can be concluded that greenwashing practices have a significant negative impact on consumer trust toward environmentally friendly brands.

Suggestions

Based on the findings of the study, several suggestions are proposed for organizations, consumers, and government or policymakers to reduce the impact of greenwashing and promote responsible sustainability practices.

Suggestions for Organizations

1. **Enhance Transparency in Sustainability Communication:** Companies should provide clear, accurate, and verifiable information regarding their environmental initiatives. Transparency in sustainability reporting helps consumers better understand the actual environmental impact of the brand.
2. **Implement Genuine Sustainable Practices:** Organizations should focus on real environmental improvements such as reducing carbon emissions, using eco-friendly materials, and adopting sustainable production methods instead of exaggerating environmental claims for marketing purposes.

3. **Adopt Third-Party Certifications:** Obtaining certifications from recognized environmental organizations can improve credibility and reassure consumers that the company's sustainability claims are genuine.
4. **Develop Ethical Marketing Strategies:** Companies should avoid misleading advertising and instead adopt ethical marketing practices that highlight authentic sustainability initiatives.
5. **Strengthen Corporate Social Responsibility (CSR) Programs:** Organizations can invest in CSR activities related to environmental protection, such as waste reduction programs, renewable energy adoption, and community environmental initiatives.
6. **Improve Sustainability Reporting:** Businesses should publish detailed sustainability reports that clearly explain their environmental goals, achievements, and future commitments.

Suggestions for Consumers

1. **Increase Awareness about Greenwashing:** Consumers should educate themselves about common greenwashing tactics used by companies. Awareness enables consumers to distinguish between genuine sustainability efforts and misleading marketing claims.
2. **Verify Environmental Claims:** Before purchasing environmentally friendly products, consumers should check for certifications, labels, and credible environmental standards to ensure the authenticity of the claims.
3. **Support Responsible Brands:** Consumers should prioritize brands that demonstrate transparent environmental practices and genuine sustainability initiatives.
4. **Encourage Ethical Business Practices:** By supporting companies that practice genuine sustainability, consumers can influence the market and encourage businesses to adopt more responsible environmental strategies.
5. **Promote Sustainable Consumption:** Consumers should adopt environmentally responsible purchasing behavior, such as reducing waste, choosing eco-friendly products, and supporting companies that prioritize sustainability.

Suggestions for Government and Policy Makers

1. **Establish Clear Regulations on Environmental Claims:** Governments should introduce strict guidelines and regulations that prevent companies from making misleading environmental claims in advertisements and product labelling.

2. Implement Monitoring and Enforcement Mechanisms: Regulatory bodies should regularly monitor environmental marketing practices and act against companies that engage in greenwashing.
3. Promote Standardized Eco-Labeling Systems: Governments can develop standardized environmental labelling systems that help consumers easily identify authentic sustainable products.
4. Encourage Corporate Sustainability Reporting: Policy makers can require companies to publish transparent sustainability reports, ensuring that environmental claims are supported by measurable data.
5. Support Consumer Awareness Campaigns: Public awareness programs and educational campaigns can help consumers better understand sustainability issues and recognize greenwashing practices.
6. Incentivize Sustainable Business Practices: Governments can provide tax incentives, subsidies, or recognition programs for companies that genuinely adopt environmentally responsible practices.

Findings of the Study

- It is inferred that the majority of the consumers are aware of the greenwashing technique and strategies being used in the promotion of the product
- It is evidenced that the greenwashing marketing technique creates a negative impact on consumer trust, perception, and loyalty towards the brand and products

Conclusion

This research examined how consumers' beliefs about eco-friendly brands are affected by greenwashing techniques. As many consumers now deliberately seek products that claim to be eco-friendly, sustainable, and socially responsible, sustainability has emerged as a significant factor in consumer purchasing decisions. As a result, several businesses have begun emphasizing environmental responsibility in their marketing plans to attract eco-aware customers. Greenwashing has become more common as sustainable marketing has grown. The use of deceptive or inflated environmental claims by businesses to give the false impression that their products are ecologically beneficial is known as "greenwashing." Customers become perplexed by such activities and find it challenging to figure out between truly sustainable companies and those that merely use environmental claims as a marketing tactic.

Consumer impressions of greenwashing were revealed by the statistical analyses employed in this study, such as regression analysis, reliability analysis, and cluster analysis. The results revealed that consumer perception of greenwashing significantly influences their level of trust toward environmentally friendly brands. The regression and correlation analyses showed a moderate association between customer trust and perceived greenwashing, indicating that consumer attitudes toward sustainable products are significantly influenced by awareness of misleading environmental marketing. Before making a purchase, consumers who are more conscious of greenwashing techniques are more likely to assess sustainability promises critically and to doubt their veracity.

Consumers with greater knowledge about sustainability issues are better able to identify misleading claims and are therefore less likely to be influenced by greenwashing strategies. The findings highlight the importance of transparency, accountability, and authenticity in environmental marketing. While exaggerated environmental claims may offer short-term marketing benefits, they can damage a company's reputation and weaken consumer trust in the long run.

Businesses are more likely to establish enduring customer relationships if they implement sustainable practices and openly disclose their environmental activities. Sincere sustainability initiatives backed by reliable data can boost consumer confidence and brand credibility. The study also emphasizes the role of consumer awareness in evaluating marketing claims, as informed consumers are better able to make responsible purchasing decisions. Additionally, by creating norms and criteria for sustainability communication, government agencies and regulatory entities play a significant role. Reducing false environmental claims can be aided by stricter rules and uniform certifications. To enhance openness, lessen greenwashing, and build a reliable and sustainable marketplace, organizations, consumers, and legislators must work together.

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