

A Study on The Impact of Greenwashing on Consumer Trust and Purchasing Behaviour

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Abstract—This research investigates the effects of greenwashing upon both consumer confidence and buying behaviour concerning ecologically-oriented products. Consumers have become more aware of deceptive environmental representations brought about by an increase in the amount of sustainable marketing available to them; therefore, this study explores how both greenwashing acts upon the level of consumer trust as well as consumer scepticism when making their buying decisions. The primary research data were gathered using a structured survey instrument and then processed using various statistical analysis techniques (e.g., mean analysis, correlation analysis and p-value analysis). The results of the study indicate that greenwashing adversely affects consumer confidence and greatly impacts consumer buying behaviour. The study concludes that there is a strong need for companies to establish trust and credibility among their consumers by demonstrating their commitment to sustainability through transparency, accountability, and legitimate sustainability practices.

Index Terms—Greenwashing, Consumer Trust, Purchasing Behaviour, Sustainability, Green Marketing, Consumer Awareness.

I. INTRODUCTION

As consumers continue to grow in their awareness of climate change, businesses that are environmentally conscious will likely start to seek out suppliers that offer eco-friendly alternatives to their existing suppliers. As a result of this increasing demand for environmentally friendly products by environmentally conscious consumers, many businesses are trying to communicate their commitment to using sustainable practices through various modes of promoting themselves.

In light of the increasing interest in sustainable marketing, greenwashing – which refers to deceptive or inflated claims made by corporations regarding their

dedication to sustainability has been on the rise. With this increase in greenwashing, consumers have an even greater level of distrust when it comes to those types of claims made by businesses.

Consumer trust plays an important role in influencing purchasing decisions in markets where product's effect on the environment and ethical considerations are major factors in the consumer's choice of what to buy. Consumer perception of a brand's greenwashing can negatively affect that brand's desire to be trusted, credible and purchased. Furthermore, as consumers become increasingly aware of environmental issues, they have become more sceptical of green marketing and sustainability claims.

The purpose of this study is to investigate the effects of having false information about environmental friendliness (also known as greenwashing) on consumer trust and shopping behaviour.

II. LITERATURE REVIEW

1. Green Marketing and Consumer Behaviour

- Green Consumerism and Sustainability Trends:

As the number of environmentally conscious customers has increased, suppliers want to use "green marketing" to attract these environmentally-conscious consumers. This could involve using environmentally-friendly marketing strategies that will help improve a supplier's image as an "environmentally-friendly" supplier and therefore appeal to their environmentally conscious customers.

- Greenwashing and Consumer Scepticism:

With an increase in green marketing, there has been an increase in instances of companies "greenwashing," or overstating or falsely representing the environmental benefits of their products. Research has indicated that

greenwashing creates consumer doubt and erodes trust between consumers and brands and their sustainability claims.

- **Consumer Trust and Purchase Intention:**

Consumer trust is an important factor influencing purchasing behavior. Genuine sustainability practices and transparent communication improve consumer loyalty, while misleading environmental claims reduce brand credibility and purchase intention.

2. Identified Research Gaps

Despite the fact that there have been a number of studies focusing on green marketing and consumer behavior there remain many areas that are under researched:

- The majority of the previous work has been conducted in developed countries with little or no research being undertaken within the Indian market.
- Limited work has been conducted on the combined effects of greenwashing, consumer trust and purchasing behavior.
- There is also a lack of research examining how consumer awareness and skepticism can influence consumer reactions to greenwashing.
- The effects of demographic factors on how consumers perceive greenwashing are still largely unknown.

The purpose of this study is to fill some of these gaps by assessing how greenwashing impacts consumers' purchasing behavior and level of trust in the brand that they are buying from.

III. RESEARCH DESIGN

Problem Statement

In light of the rise in green marketing, various companies present themselves as environmentally friendly by using sustainability claims or green advertising. On the other side, "greenwashing" refers to companies who make false or exaggerated green claims in order to gain an advantage over consumers. In turn, consumers can become confused by these misleading claims and therefore, may lose faith in brands or make uninformed purchasing choices. The purpose of this research is to explore how greenwashing has an effect on a consumer's perception of trust and ultimately, their decision to

purchase a product labelled as being environmentally friendly.

IV. OBJECTIVE OF THE STUDY

- To examine the impact of greenwashing on consumer trust in a brand.
- To investigate how consumer awareness of greenwashing influences their purchasing behaviour towards green-labelled products.

Scope & Limitations

Scope:

This objective looks to determine what amount of knowledge exists about greenwashing among consumers, and how much this affects how much trust consumers have when purchasing products marketed as environmentally friendly.

Limitations:

The information displayed relies only on participant responses that were obtained as part of this initiative. Although this study does have a strong reliance on self-reported data, it does contain an element of subjective bias.

Statistical Tools Used

- Mean Analysis
- Correlation Analysis
- P-value Analysis

These tools were used to examine the relationship between greenwashing awareness, consumer trust, and purchasing behaviour.

V. METHODOLOGY

- **Sampling and Design:** The sampling method used for collecting consumer responses was convenience sampling.
- **Data Collection:** Demographic characteristics, awareness of greenwashing and consumers' feelings of trust toward brands of green products as well as questions about respondents' purchasing behaviours.
- **Statistical Analysis:** To examine the relationship between consumers' awareness of greenwashing, their trust in companies, and their purchasing behaviours.

5.1. Testing of Questionnaire / Pilot Study

In advance of the final survey a small number of respondents were used to conduct a pilot study in order to assess the reliability and clarity of the questionnaire. The feedback received from the pilot study has helped to clarify certain sustainability-related terms to allow for easier understanding by respondents.

5.2. Hypothesis Testing

The study includes the following hypotheses:

Hypothesis 1

H0: Greenwashing does not have a significant impact on consumer trust

H1: Greenwashing has a significant impact on consumer trust

Hypothesis 2

H0: Greenwashing does not influence purchasing behaviour

H1: Greenwashing influences purchasing behaviour

The hypotheses were tested using correlation analysis to determine the relationship between variables.

5.3. Data Analysis

Q1. What is your age group?

Age
110 responses



- Analysis Tool: Percentage Analysis.
- Visual Representation: Pie Chart.
- Data Table: 18–25 years (35.5%), 26–35 years (31.8%), 36–45 years (19.1%), and 46 & above (13.6%).
- Interpretation: Most of the respondents in our sample are within the ages of 18-25 and 26-35, which indicates younger consumers are generally more engaged with green marketing and sustainable practices. Older consumers also participated in the sample, thereby giving us a wider view on consumers' attitudes toward greenwashing and purchasing behaviour.

Q2. What is your gender?

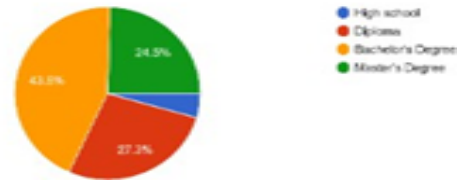
Gender
110 responses



- Analysis Tool: Percentage Analysis.
- Visual Representation: Pie Chart.
- Data Table: Male (52.7%) and Female (47.3%).
- Interpretation: Participants exhibit a fairly even mix in terms of gender; there are slightly more men than women as well, but both genders participated equally enough to provide insight into the different ways people view trust in the marketplace.

Q3 What is your education level?

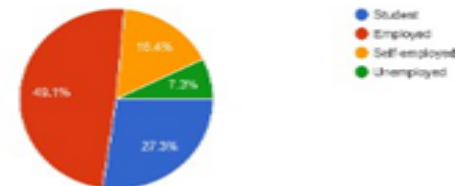
Highest level of education
110 responses



- Analysis Tool: Percentage Analysis.
- Visual Representation: Pie Chart.
- Data Table: High School (8.2%), Diploma (27.3%), Bachelor's Degree (40.9%), and Master's Degree (23.6%).
- Interpretation: The majority of participants possess a Bachelor's degree, while there are fewer who possess a Master's degree. Therefore, the majority of survey participants have a relatively high level of education and knowledge about sustainability and the concept of greenwashing.

Q4 What is your employment status?

Employment status
110 responses



- Analysis Tool: Percentage Analysis.
- Visual Representation: Pie Chart.
- Data Table: Student (27.3%), Employed (49.1%),

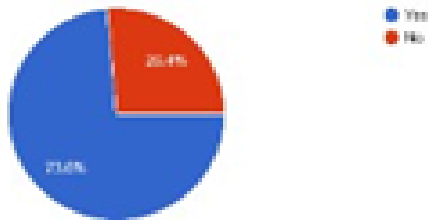
Self-employed (16.4%), and Unemployed (7.3%).

- Interpretation: There were primarily employed individuals in the responses we received, the next highest number was people who identified themselves as being students this tells us that all of these individuals are part of typically active into making purchasing decisions.

Q5, have you heard of the term Greenwashing?

Have you ever heard of the term "greenwashing"?

n 110 responses

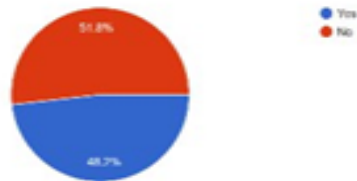


- Analysis Tool: Percentage Analysis.
- Visual Representation: Pie Chart.
- Data Table: Yes (26.4%) and No (73.6%).
- Interpretation: The great amount of people who answered this question, who did not know what the term greenwashing meant shows us that not many people are aware of what the term greenwashing refers.

Q6 Have you ever noticed a brand making exaggerated or false greenwashing claims?

Have you ever noticed a brand making exaggerated or false greenwashing claims?

n 110 responses

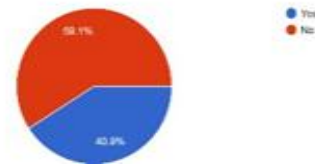


- Analysis Tool: Percentage Analysis.
- Visual Representation: Pie Chart.
- Data Table: Yes (48.2%) and No (51.8%).
- Interpretation: Half of survey respondents report that they have not observed any overstated or deceiving environmental marketing messages from brands; however, many others still clearly recognize the same types of communication. This indicates an increasing degree of awareness and doubt among consumers concerning green marketing techniques.

Q7 Have you ever researched whether a brand's greenwashing claims are true before purchasing?

Have you ever researched whether a brand's greenwashing claims are true before purchasing?

n 110 responses



- Analysis Tool: Percentage Analysis.
- Visual Representation: Pie Chart.
- Data Table: Yes (40.9%) and No (59.1%).
- Interpretation: While most consumers do not take the time to research whether or not the company has any green standards, there are still a large number of consumers that do check and verify green claims showing increased caution and awareness by consumers regarding greenwashing.

Q8, I trust brands that promote themselves as greenwashing friendly.

I trust brands that promote themselves as greenwashing friendly.

n 110 responses

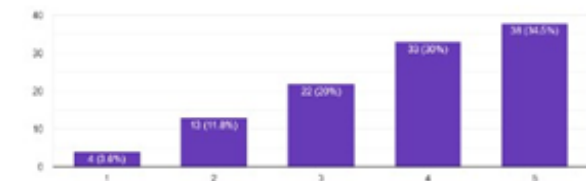


- Analysis Tool: Correlation and p-value test.
- Visual Representation: Bar Chart.
- Data Table: Strongly Disagree (13.6%), Disagree (22.7%), Neutral (24.5%), Agree (27.3%), and Strongly Agree (11.8%).
- Interpretation: Distributions of responses are moderate, with slightly more responses toward Agree than towards Disagree. Thus, consumers exhibit a moderate amount of trust towards brands which advertise themselves as being green, though some respondents maintain a level of scepticism regarding their green claims.

Q9 When I discover that a brand has made false greenwashing claims, my trust in that brand decreases.

When I discover that a brand has made false greenwashing claims, my trust in that brand decreases.

n 110 responses

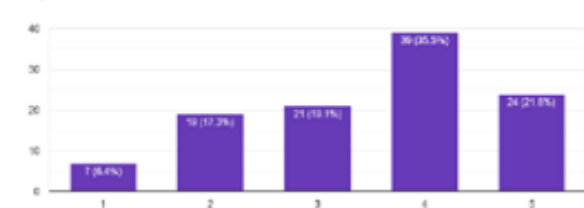


- Analysis Tool: Correlation and p-value test.

- Visual Representation: Bar Chart.
- Data Table: Strongly Disagree (3.6%), Disagree (11.8%), Neutral (20%), Agree (30%), and Strongly Agree (34.5%).
- Interpretation: The majority of respondents selected Agree and Strongly Agree, stating that discovering false environmental claims will reduce consumer trust toward brands.

Q10 Greenwashing by companies makes me generally less trusting of green claims made by any brand.

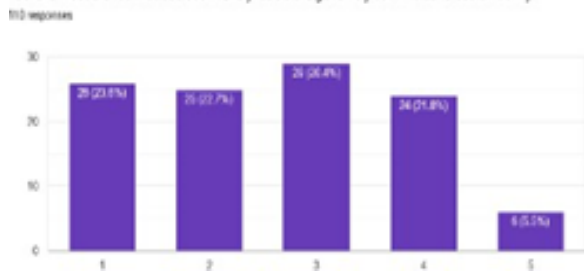
Greenwashing by companies makes me generally less trusting of green claims made by any brand.



- Analysis Tool: Correlation and p-value test.
- Visual Representation: Bar Chart.
- Data Table: Strongly Disagree (6.4%), Disagree (17.3%), Neutral (19.1%), Agree (35.5%), and Strongly Agree (21.8%).
- Interpretation: Most respondents agreed that greenwashing reduces their trust in brands, showing increased consumer scepticism toward green marketing practices.

Q11, I believe most brands that use eco-friendly labels are genuinely committed to sustainability.

I believe most brands that use eco-friendly labels are genuinely committed to sustainability.



- Analysis Tool: Correlation and p-value test.
- Visual Representation: Bar Chart.
- Data Table: Strongly Disagree (23.6%), Disagree (22.7%), Neutral (26.4%), Agree (21.8%), and Strongly Agree (5.5%).
- Interpretation: The responses are mixed, with many respondents remaining neutral or doubtful regarding the realness of eco-friendly labels and sustainability claims made by brands.

Q12 Finding out a brand practices greenwashing would cause me to stop purchasing from that brand

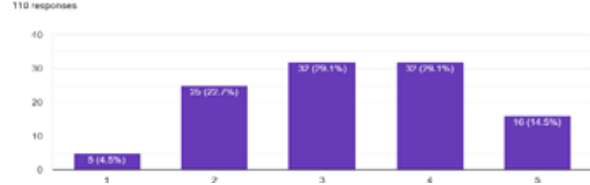
Finding out a brand practices greenwashing would cause me to stop purchasing from that brand.



- Analysis Tool: Correlation and p-value test.
- Visual Representation: Bar Chart.
- Data Table: Strongly Disagree (7.3%), Disagree (12.7%), Neutral (20%), Agree (32.7%), and Strongly Agree (27.3%).
- Interpretation: A majority of respondents agreed that they would stop purchasing from brands that do greenwashing, stating that misleading environmental claims can affect consumer loyalty and purchasing behaviour.

Q13, I consider a brand's greenwashing claims when making a purchase decision

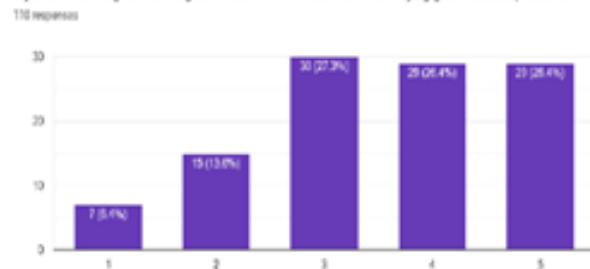
I consider a brand's greenwashing claims when making a purchase decision.



- Analysis Tool: Correlation and p-value test.
- Visual Representation: Bar Chart.
- Data Table: Strongly Disagree (4.5%), Disagree (22.7%), Neutral (29.1%), Agree (29.1%), and Strongly Agree (14.5%).
- Interpretation: The responses show average agreement, that environmental claims and greenwashing awareness play an important role in influencing consumer purchase decisions.

Q14 My awareness of greenwashing has made me more cautious when buying green-labelled products.

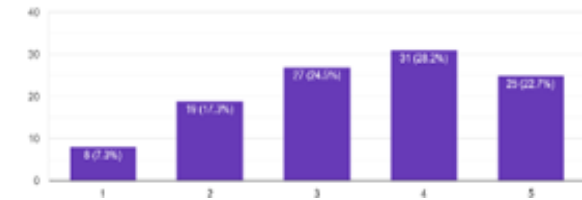
My awareness of greenwashing has made me more cautious when buying green-labelled products.



- Analysis Tool: Correlation and p-value test.
- Visual Representation: Bar Chart.
- Data Table: Strongly Disagree (6.4%), Disagree (13.6%), Neutral (27.3%), Agree (26.4%), and Strongly Agree (26.4%).
- Interpretation: Most respondents agreed that awareness of greenwashing has made them more cautious when purchasing green-labelled products, increased consumer awareness and careful decision-making.

Q15 I am willing to pay more for products that are genuinely environmentally friendly.

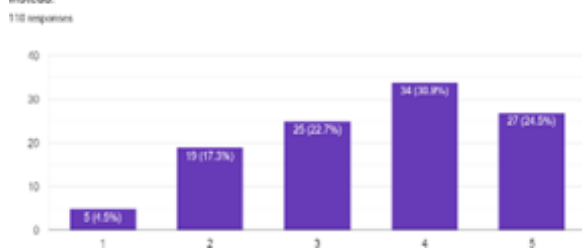
I am willing to pay more for products that are genuinely environmentally friendly.
110 responses



- Analysis Tool: Correlation and p-value test.
- Visual Representation: Bar Chart.
- Data Table: Strongly Disagree (7.3%), Disagree (17.3%), Neutral (24.5%), Agree (28.2%), and Strongly Agree (22.7%).
- Interpretation: The responses state that many consumers are willing to pay a premium price for genuinely sustainable products, growing importance of environmental practices.

Q16 Knowing that a brand practices greenwashing influences me to choose a competitor's product instead.

Knowing that a brand practices greenwashing influences me to choose a competitor's product instead.
110 responses

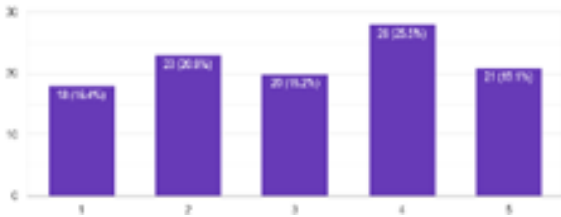


- Analysis Tool: Correlation and p-value test.
- Visual Representation: Bar Chart.
- Data Table: Strongly Disagree (4.5%), Disagree (17.3%), Neutral (22.7%), Agree (30.9%), and Strongly Agree (24.5%).
- Interpretation: The majority of respondents agreed that greenwashing can influence them to switch to

competitor brands, that wrong sustainability claims may lead to loss of customers.

Q17 I actively look for certifications or proof before trusting a product's greenwashing claims.

I actively look for certifications or proof before trusting a product's greenwashing claims.
110 responses



- Analysis Tool: Correlation and p-value test.
- Visual Representation: Bar Chart.
- Data Table: Strongly Disagree (16.4%), Disagree (20.9%), Neutral (18.2%), Agree (25.5%), and Strongly Agree (19.1%).
- Interpretation: The responses are slightly distributed, showing that while some consumers actively verify environmental claims through certifications or proof, others still rely on brand communication alone.

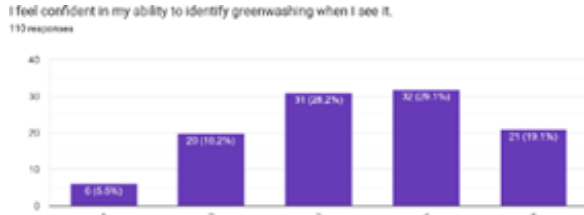
Q18 Companies should be held accountable for making misleading greenwashing claims.

Companies should be held accountable for making misleading greenwashing claims.
110 responses



- Analysis Tool: Correlation and p-value test.
- Visual Representation: Bar Chart.
- Data Table: Strongly Disagree (2.7%), Disagree (5.5%), Neutral (24.5%), Agree (24.5%), and Strongly Agree (42.7%).
- Interpretation: A large majority of respondents agreed that companies should be held accountable for misleading environmental claims, stating strong consumer demand for transparency and ethical marketing practices.

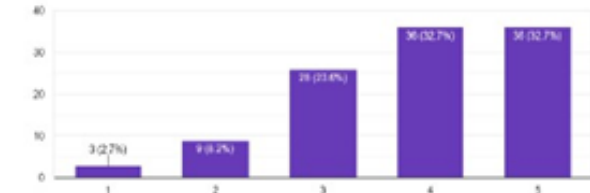
Q19, I feel confident in my ability to identify greenwashing when I see it.



- Analysis Tool: Correlation and p-value test.
- Visual Representation: Bar Chart.
- Data Table: Strongly Disagree (5.5%), Disagree (18.2%), Neutral (28.2%), Agree (29.1%), and Strongly Agree (19.1%).
- Interpretation: Most respondents expressed slight confidence in identifying greenwashing practices, indicating growing awareness of misleading environmental advertising among consumers.

Q20 Greater transparency from brands about their greenwashing practices would increase my trust in

them.
Greater transparency from brands about their greenwashing practices would increase my trust in them.
110 responses



- Analysis Tool: Correlation and p-value test.
- Visual Representation: Bar Chart.
- Data Table: Strongly Disagree (2.7%), Disagree (8.2%), Neutral (23.6%), Agree (32.7%), and Strongly Agree (32.7%).
- Interpretation: The majority of respondents agreed that greater transparency regarding environmental practices would improve consumer trust.

5.4. Correlation Analysis

Table 1: Correlation Analysis

Variables	Correlation@	Sample Size (n)	p-value	Level of Significance	Decision
Consumer Trust & Purchasing Behaviour	0.667	110	0.000	Significant (p<0.05)	Reject H0, Accept H1

Summary of Data Processing

By applying statistical tools to the collected data, the following findings were identified:

1. Greenwashing has a significant negative impact on consumer trust, as consumers tend to lose confidence in brands making misleading environmental claims.
2. Consumer awareness of greenwashing significantly influences purchasing behaviour.
3. Greater transparency and authentic sustainability practices positively influence consumer trust and brand perception.

Key Findings of the Study

- Consumer Trust Declines Due to Greenwashing: According to the survey, most of the people that took part said they would lose trust in a brand if it was proven that they were making false claims about being environmentally friendly. The correlation analysis also showed that there was a significant relationship between awareness of greenwashing and consumer trust (r = 0.667; p < 0.05).

- Greenwashing Increases Consumer Skepticism: Many respondents said that greenwashing practices make them less trusting of environmental claims made by brands, indicating growing skepticism toward green marketing practices.

- Awareness Influences Purchasing Behaviour: When consumers are aware of greenwashing, they become more cautious when it comes to making purchases of green-labeled products which affects their decision about whether to buy a product or not. (r = .667, p <.05).

- Consumers Value Transparency and Accountability: Most respondents agreed that companies should be held accountable for misleading environmental claims and believed that greater transparency regarding environmental practices would increase consumer trust.

VI. CONCLUSION

The current research examines how consumers are

affected by misleading claims of being environmentally friendly. Consumers can often purchase products that have been marketed as being green, thus leading to a decline in the consumer's level of trust in the brand and creating a negative impact on the number of green products purchased by consumers. As a result, consumers are growing increasingly cautious of marketing claims related to sustainability practices.

In addition to the above findings, this study identified that consumers typically evaluate environmental claims and, if they perceive that a competitor's brand is not participating in greenwashing practices, they would change brands for that competing brand. Ultimately, there is evidence to conclude that the transparency and accountability with which corporations conduct their corporate social responsibility practices create high levels of trust in consumers.

The analysis of the statistical data supports the relationship between greenwashing, consumer trust, and purchasing behaviour. The findings of this study highlight the need for corporations to communicate honestly and transparently with consumers via branding of genuine green or sustainable products to build trust with the consumer and enhance the perception of the corporation's brand in the marketplace.

ANNEXURES

Questionnaire

Section 1 of 6

A Study on the Impact of Greenwashing on Consumer Trust and Purchasing Behavior

My name is Parinitha and I am a final year BBA student conducting this survey as part of my academic research. This questionnaire is designed to understand how greenwashing impact consumer trust and purchasing behaviour. All responses are completely confidential and will be used for academic purposes only. There are no right or wrong answers, so please answer honestly based on your personal experience.

This survey will only take 5-6 minutes of your time.

Thank you so much for your participation!

Section A: Demographic Information

This section collects basic background information about the respondents to understand the general profile of participants in this study.

Name Short answer

Short-answer text

Age *

18-25

26-35

36-45

46 and above

Gender *

Male

Female

Prefer not to say

Highest level of education *

High school

Diploma

Bachelor's Degree

Master's Degree

Other: _____

Employment status *

Student

Employed

Self-employed

Unemployed

Section B: Consumer Awareness of Greenwashing

This section assesses the level of awareness respondents have regarding greenwashing and misleading claims made by brands.

Have you ever heard of the term 'greenwashing'? *

Yes

No

Have you ever noticed a brand making exaggerated or false greenwashing claims? *

Yes

No

Have you ever researched whether a brand's greenwashing claims are true before purchasing? *

Yes

No

Section C: Impact of Greenwashing on Consumer Trust

This section measures the extent to which greenwashing affect consumer trust and loyalty towards a brand. (1 = Strongly Disagree, 5 = Strongly Agree)

I trust brands that promote themselves as greenwashing friendly. *

1 2 3 4 5

Strongly Disagree Strongly Agree

When I discover that a brand has made false greenwashing claims, my trust in that brand decreases. *

1 2 3 4 5

Strongly Disagree Strongly Agree

Greenwashing by companies makes me generally less trusting of green claims made by any brand. *

1 2 3 4 5
Strongly Disagree Strongly Agree

Greater transparency from brands about their greenwashing practices would increase my trust * in them.

1 2 3 4 5
Strongly Disagree Strongly Agree

I believe most brands that use eco-friendly labels are genuinely committed to sustainability. *

1 2 3 4 5
Strongly Disagree Strongly Agree

Finding out a brand practices greenwashing would cause me to stop purchasing from that brand. *

1 2 3 4 5
Strongly Disagree Strongly Agree

Section D: Greenwashing and Purchasing Behavior

This section explores how consumer awareness of greenwashing influences their purchasing decisions towards green-labelled products. (1 = Strongly Disagree, 5 = Strongly Agree)

I consider a brand's greenwashing claims when making a purchase decision. *

1 2 3 4 5
Strongly Disagree Strongly Agree

My awareness of greenwashing has made me more cautious when buying green-labelled products. *

1 2 3 4 5
Strongly Disagree Strongly Agree

I am willing to pay more for products that are genuinely environmentally friendly. *

1 2 3 4 5
Strongly Disagree Strongly Agree

Knowing that a brand practices greenwashing influences me to choose a competitor's product * instead.

1 2 3 4 5
Strongly Disagree Strongly Agree

I actively look for certifications or proof before trusting a product's greenwashing claims. *

1 2 3 4 5
Strongly Disagree Strongly Agree

Section E: Overall Perception

This section captures respondents' general attitudes towards greenwashing, brand transparency, and corporate accountability. (1 = Strongly Disagree, 5 = Strongly Agree)

Companies should be held accountable for making misleading greenwashing claims. *

1 2 3 4 5
Strongly Disagree Strongly Agree

I feel confident in my ability to identify greenwashing when I see it. *

1 2 3 4 5
Strongly Disagree Strongly Agree